Journal of Regional Research
Investigaciones Regionales

ISSN: 1695-7253 e-ISSN: 2340-2717
investig.regionales@aecr.org
AECR - Asociación Española de Ciencia Regional
www.aecr.org
España – Spain

# Regional authority and business dynamics across european regions

**Marc Garcia-Ruiz**

**Regional authority and business dynamics across european regions**
Investigaciones Regionales - Journal of Regional Research, 66, 2026/3
Asociación Española de Ciencia Regional, España

**Available on the website:** https://investigacionesregionales.org/numeros-y-articulos/consulta-de-articulos

**Additional information:**

**To cite this article:** Garcia-Ruiz, M. (2026). Regional authority and business dynamics across european regions. *Investigaciones Regionales – Journal of Regional Research, 2026/3*(66), 165-186. https://doi.org/10.38191/iirr-jorr.26.002

Investigaciones Regionales – Journal of Regional Research 66: 165-186
https://doi.org/10.38191/iirr-jorr.26.002

Articles

# Regional authority and business dynamics across european regions

*Marc Garcia-Ruiz**

Received: 17 June 2025
Accepted: 11 November 2025

**Abstract:**

Since the mid-20th century, a significant number of countries have transferred powers to subnational governments, which has had a considerable impact on the economic and institutional landscape. In this context, local governments have become essential in the implementation of policies that directly affect the firm's demography. Consequently, we analyze the impact of regional authority on a set of outcomes previously unexplored in the literature: the level of entrepreneurship and firm survival. Results suggest that greater autonomy can stimulate regional business dynamics, increasing enterprise creation but lowering survival rates. Moreover, these effects appear to be conditioned by institutional quality, where a stronger institutional framework enhances the effect of regional authority on business entry and mitigates its impact on survival.

**Keywords:** Regional authority; decentralization; business demography
**JEL Classification:** L26; O43; O52; R11.

## Autoridad regional y dinámica empresarial entre regiones europeas

**Resumen:**

Desde mediados del siglo XX, un número significativo de países ha transferido competencias a los gobiernos subnacionales, lo que ha tenido un impacto considerable en el panorama económico e institucional. En este contexto, los gobiernos locales se han vuelto esenciales en la implementación de políticas que afectan directamente la demografía empresarial. En consecuencia, analizamos el impacto de un mayor nivel de autoridad regional sobre un conjunto de resultados previamente inexplorados en la literatura: el nivel de emprendimiento y la supervivencia empresarial. Los resultados sugieren que una mayor autonomía puede estimular la dinámica empresarial regional, aumentando la creación de empresas, pero reduciendo sus tasas de supervivencia. Además, estos efectos parecen estar condicionados por la calidad institucional, donde un marco más sólido amplifica el efecto de la autoridad regional sobre la entrada de nuevas empresas y mitiga su impacto en la supervivencia.

**Palabras Clave:** Autoridad regional; descentralización; demografía empresarial.
**Clasificación JEL:** L26; O43; O52; R11.

## 1. Introduction

In recent decades, the world has witnessed an increase in the number of countries whose central governments have transferred powers and authority to subnational tiers. This process, known as decentralization, has been largely driven by the demands for greater autonomy from territories with distinctive

* Grupo de Investigación AQR. Facultad de Economía y Empresa (UB). Universidad de Barcelona. España. marc.garcia@ub.edu
**Corresponding author:** marc.garcia@ub.edu

economic, cultural, and social characteristics, and is closely linked to broader trends such as the globalization and democratization processes around the world (Marks et al., 2008; Rodríguez-Pose, 2024).

In Europe, this tendency has been particularly pronounced (Hooghe et al., 2016). Although the global context and national characteristics have undeniably influenced this phenomenon, it has been profoundly shaped by the continent's integration process, where regionalization is cornerstone in the economic agenda and the management of key funds of the European Union's Cohesion Policy, such as the European Regional Development Fund (ERDF).

Building on foundational theories (Tiebout, 1956; Oates, 1972), scholars have debated whether decentralization enhances resource allocation and policy effectiveness. However, much of this literature has focused on national-level or fiscal aspects, overlooking the broader political and administrative dimensions of regional autonomy.

This study does not address decentralization in its entirety but instead focuses on regional authority, which encompasses the capacity of regional governments to make decisions and implement policies. In this paper, we examine how the level of authority shapes the business demography, specifically the firm creation and survival rate. We hypothesize that greater regional authority can stimulate both entrepreneurship and firm survival by enabling the crafting of policies tailored to local needs. In addition, we posit that these effects are conditional on the quality of the regional institutions.

To test these hypotheses, we employ a balanced panel dataset covering 134 NUTS2 regions across 14 EU countries from 2014 to 2019.

Our findings reveal that while regional authority is associated with higher levels of firm creation, it tends to reduce firm survival rates, particularly in regions with weaker institutional frameworks. This divergence underscores the crucial role of institutional quality in mediating the effects of regional authority. Greater autonomy may encourage entrepreneurship by lowering entry barriers or enabling more localized policy support, but it does not necessarily ensure the long-term success of new firms.

## 2. Literature Review

### 2.1. Decentralization and regional authority

Decentralization has long occupied a central place in policy and scholarly debates, rooted in the fiscal federalism tradition. Tiebout (1956) argued that redistributing powers to subnational authorities enhances efficiency, as these governments are better positioned to respond to heterogeneous local preferences. Building on this insight, Oates (1972) formulated the Decentralization Theorem, positing that devolving powers leads to more efficient resource allocation by allowing policies to reflect local conditions. Subnational governments, by tailoring interventions to their specific economic and social contexts, can outperform centralized provisions, which tend to be uniform and less responsive to regional heterogeneity. These foundational theories suggest that decentralization promotes accountability and citizen participation, thereby improving public service delivery (Faguet, 2021). Brennan & Buchanan (1980) further contend that decentralization constrains government expansion through interjurisdictional fiscal competition. Similarly, Rodríguez-Pose & Ezcurra (2010) highlight its potential to reallocate underutilized resources, while Martinez-Vazquez & McNab (2003) emphasize its role in stimulating policy innovation.

Nevertheless, the desirability of decentralization remains contested. Alesina et al. (2000) argue that its benefits accrue primarily to large and diverse countries, whereas smaller or more homogeneous nations experience limited gains. Excessive fiscal competition may erode tax bases and reduce efficiency (Oates, 1999), and Prud'homme (1995) warns of potential diseconomies of scale and increased regional inequality stemming from uneven fiscal capacities. Decentralized governance may also hinder national coordination or encourage duplication of efforts (Bolton & Farrell, 1990), while closer proximity between officials and local interest groups can heighten corruption risks (Prud'homme, 1995; Treisman, 2002). In this vein, Kyriacou & Roca-Sagalés (2019) stress that decentralization is not a panacea, suggesting that its outcomes reflect a delicate trade-off between potential gains and costs.

Empirical research on decentralization has traditionally focused on national-level effects and the fiscal dimension, often overlooking the political and administrative aspects of the process and frequently yielding inconclusive findings (e.g. Rodríguez-Pose & Ezcurra, 2011; Martinez-Vazquez et al., 2017). Recent studies have shifted attention from country-level aggregates to the subnational distribution of powers, emphasizing the need to capture regional heterogeneity. Central to this new approach is the concept of regional authority, understood as the extent to which regional governments exercise political, fiscal, and administrative competences within a multilevel governance system. This multidimensional notion is measured by the Regional Authority Index (RAI) (Hooghe et al., 2016; Shair-Rosenfield et al., 2021), a detailed, time-sensitive indicator of regional autonomy. Although still evolving, this literature offers promising evidence: Muringani et al. (2019) and Rodríguez-Pose & Mustra (2022) show that higher regional authority fosters development, particularly where institutions are strong. Further studies indicate that regional decentralization shapes key outcomes such as public service delivery (Rodríguez-Pose & Tselios, 2019) and income inequality (Tselios, 2023), with institutional quality mediating both the magnitude and direction of these effects. Likewise, Tselios & Rodríguez-Pose (2022) find that regional autonomy can reduce poverty even in regions with weaker institutional frameworks.

## 2.2. Decentralization and business dynamics

The role of decentralization in shaping business dynamics remains comparatively understudied. Following Malesky (2019), three main mechanisms link decentralization to the firm environment. The first mechanism, policy tailoring and efficiency, builds on Oates's (1972) decentralization theorem, which posits that subnational governments, being closer to firms, can design more responsive policies that reduce transaction costs and stimulate entrepreneurship. In line with this argument, Ortega-Argilés (2022) contends that decentralized, place-based strategies strengthen regional entrepreneurial ecosystems by aligning policies with local capabilities and needs. Supporting this view, studies show that fiscal decentralization can enhance the ease of doing business by streamlining registration procedures and reducing administrative burdens (Escaleras & Chiang, 2017). The second mechanism, interjurisdictional competition, suggests that devolved powers foster business dynamism through rivalry among subnational governments. By competing to attract firms and investment, regions improve infrastructure, lower entry barriers, and stabilize policy environments. This mechanism finds strong institutional grounding in Weingast's (1995) argument that, in market-preserving federal systems, subnational autonomy is disciplined by market constraints that reward efficiency, an interpretation consistent with evidence showing that U.S. states with greater fiscal decentralization achieve superior business-climate outcomes (Sobel et al., 2014). The third mechanism, accountability and monitoring, links decentralization to governance quality. Proximity between policymakers and firms can enhance transparency, responsiveness, and the flow of information, thereby improving public service delivery and business conditions. However, these benefits depend on effective oversight. Bardhan & Mookherjee (2006) argue that decentralization improves accountability only when citizens can effectively monitor local officials, whereas weak oversight can lead to elite capture and corruption. Evidence from regional analyses shows that governments with higher levels of impartiality exhibit stronger and more evenly distributed entrepreneurial activity (Nistotskaya et al., 2015).

## 2.3. The moderating role of institutional quality

The effects of decentralization on business dynamics, however, are not linear but contingent on the institutional context in which they unfold. As Malesky (2019) emphasizes, decentralization enhances efficiency, innovation, and responsiveness only when local institutions ensure clear rules, accountability, and credible enforcement. Where these institutional foundations are weak, greater autonomy may instead encourage rent-seeking, self-interested policymaking, and bureaucratic inefficiency. This perspective aligns with growing research showing that the outcomes of decentralization depend heavily on governance quality (Muringani et al., 2019; Rodríguez-Pose & Mustra, 2022). In well-institutionalized settings, decentralization tends to promote productive competition and policy innovation, whereas in weaker institutional environments it often results in rent-seeking and inefficiency (Ezcurra & Rodríguez-Pose, 2014; Kyriacou et al., 2015).

In this context, institutions have long been recognized as fundamental determinants of regional economic trajectories (Rodríguez-Pose & Ketterer, 2018). The recent "institutional turn" in regional and entrepreneurship studies underscores that economic performance cannot be understood independently of the institutional frameworks that shape incentives, coordination, and enforcement (Audretsch, 2023; Welter, 2011; Welter et al., 2019). Following North's (1990) conception of institutions as the "rules of the game," they provide the predictability and security necessary for investment and innovation by influencing entry conditions, contract enforcement, and the overall quality of the business environment. High-quality institutions underpin entrepreneurial ecosystems characterized by secure property rights, effective regulation, and reduced uncertainty (Levie & Autio, 2011; Urbano & Álvarez, 2014; Bjørnskov & Foss, 2016).

Within the framework of decentralization, institutional quality defines the conditions under which autonomy translates into economic outcomes. As Audretsch (2023) emphasizes, entrepreneurship depends on the alignment between regional initiative and the surrounding institutional context. Whether regional authority stimulates productive entrepreneurship or inefficiency, thus hinges on the integrity, coherence, and enforcement capacity of local institutions. Taken together, this literature suggests that institutional quality acts as an essential moderating mechanism linking decentralization to business dynamics: strong institutions amplify the benefits of autonomy, whereas weak institutions may constrain or even reverse them.

### 2.4. Contributions and Hypotheses

Building on this prior research, the present paper makes two main contributions. First, it provides new evidence on the impact of regional decentralization and its interaction with institutional quality on a set of regional outcomes previously unexplored (firm creation and firm survival). By focusing on the business demography, the study expands the scope of decentralization research beyond traditional macroeconomic indicators, offering novel insights into how autonomy shapes entrepreneurial dynamics at the regional level. Second, the study employs the Regional Authority Index at the regional level, enabling a detailed assessment of how variations in subnational authority across territories affect local economic outcomes. This regional approach allows us to capture within-country differences in political, administrative, and fiscal competences, providing a more nuanced picture of how regional governance structures affect local business performance.

Accordingly, the study advances the following hypotheses:

- H1: Regional authority has a direct and positive impact on regional business dynamics.
- H2: The relationship between regional authority and business dynamics is conditioned by the quality of the regional institutions.

## 3. Empirical strategy

### 3.1. Specification

To capture the impact of regional authority on business demography, we propose the following specification:

$$\begin{aligned} Business\ Demography_{it} \\ &= \beta_0 + \beta_1 RegionalAuthority_{i,t-1} + \beta_2 InstitutionalQuality_{\ i,t-1} \\ &+ \beta_3 RegionalAuthority_{i,t-1} \cdot InstitutionalQuality_{i,t-1} + \gamma X_{i,t} \\ &+ u_i + \lambda_t + \varepsilon_{i,t} \end{aligned} \tag{1}$$

where *Business Demography* represents the different outcome variables in region *i* during period *t,* which includes: net firm birth rate, firm survival rate, firm birth rate and the firm death. The variable *Regional*

*Authority* corresponds to the Regional Authority Index in region $i$ for period $t-1$. The variable *Institutional Quality* corresponds to the regional institutional quality in region $i$ and period $t-1$. Additionally, we interact both terms to consider potential heterogeneous effects. The vector $X_{i,t}$ encompasses a set of control variables at both the regional and national levels. Furthermore, the specification includes regional fixed effects ($u_i$) to capture unobservable time-invariant regional heterogeneity, and time fixed effects ($\lambda_t$) to account for unobservable factors that are common across regions but vary over time. Lastly, $\varepsilon_{i,t}$ denotes the idiosyncratic error term.

In our case of study, we directly assess the influence of regional authority conditioned on the level of institutional quality. Consequently, the effect of interest is given by the following equation:

$$\frac{\partial Business\ Demography}{\partial Regional\ Authority} = \beta_1 + \beta_3 Institutional\ Quality \tag{2}$$

In all the estimations we show the Average Marginal Effect (AME) of the regional authority as well as the marginal effects at different percentiles of the distribution of institutional quality.

As in most empirical studies, one of the main threats to the credibility of our estimation is potential endogeneity, which could bias the estimate of the effect of interest. Below, we detail the different ways in which this could be a problem and how we attempt to address it.

First, our relationship of interest could be affected by the omission of relevant variables. Consequently, we introduce a comprehensive set of control variables identified in prior literature as key determinants of business demography. Additionally, we include regional fixed effects and time fixed effects, allowing us to control unobservable characteristics. While we believe that our set of controls and fixed effects account for most of the determinants and provide a strong basis for confidence in our estimated parameters, there may still be some relevant omitted variable potentially affecting our estimation. However, most of the determinants of regional authority are likely to be time-invariant or long-term structural megatrends (Shair-Rosenfield et al., 2021; Rodríguez-Pose, 2024), reducing the risk of having an omitted variable that simultaneously affects the business demography. Additionally, given the short period under analysis, we do not expect to find relevant macroeconomic changes that could affect significantly our estimation.

Second, we could face a problem of reverse causality if regions with higher business dynamism demand greater autonomy. However, we consider this case to be of limited relevance in our study. While it is reasonable that more dynamic regions might demand more power, the level of regional authority is likely determined by national or historical causes rather than the economic dynamics of a particular region at a given time. Furthermore, if the evolution of the business environment influenced the degree of local autonomy, this would likely be reflected in the long run rather than in the short term. In addition, we observe that regional authority is far more stable over time than business demography indicators, which suggests that the effect of business dynamics on regional authority is limited. Nevertheless, as in previous studies (Rodríguez-Pose & Muštra, 2022) we conduct the estimation considering one lag of the main explanatory variables, partially getting rid of potential contemporaneous effects.

Lastly, our variable of interest aims to capture a concept that is inherently difficult to define and, consequently, challenging to measure, potentially leading to a measurement error problem. However, this would imply an attenuation bias, meaning that the effect of the regional authority would be a lower bound of its true value, underestimating the variable's impact on business dynamics.

## 3.2. Data

To conduct this study, we utilized various publicly accessible databases. Our final dataset comprises a total of 134 NUTS2 regions across 14 European Union countries on a yearly basis over the period 2014–2019, which represents a short panel but has the advantage of being balanced and covering a wide variety of regions.

### 3.2.1. Business Demography

The business demography data in this article comes from Eurostat Business Demography Statistics. Due to missing data for some countries (e.g., Germany, Greece, Belgium) and breaks in time series, the sample includes 14 representative countries across Western, Central, Eastern, Mediterranean, and Nordic Europe. The study analyzes two main indicators of regional business dynamics. First, the net birth rate measures entrepreneurial capacity. Second, the three-year survival rate indicates mid-term business health, essential for long-term economic growth. We also employ the birth rate and the death rate of firms to perform additional analyses regarding the impact on the net birth rate.

**Table 1.**
**Description of the dependent variables**

| Variable | Description | Source |
|---|---|---|
| Net Birth Rate | Difference between birth rate in t and death rate in t | Eurostat |
| Survival Rate | Number of births in t-3 having survived until time t over the number of firms born in t-3 | Eurostat |
| Birth Rate | Number of births in t over the number of firms active in t | Eurostat |
| Death Rate | Number of deaths in t over the number of firms active in t | Eurostat |

### 3.2.2. Regional Authority Index

To conduct this study, we used the Regional Authority Index developed by Hooghe et al. (2016) and Shair-Rosenfield et al. (2021) as a measure of the level of regional authority. This index is published annually and covers the period from 1950 to 2018 for 96 countries. The indicator encompasses two main elements of regional authority: self-rule and shared-rule. The first component, self-rule, represents the authority exercised by regional governments over the population within their respective regions. The second component, shared rule, evaluates the authority exercised by regional governments or their representatives at the national level.

One of the main challenges in using this index is the varying levels of subnational government across countries (also known as multilevel governance). For instance, Spain's territorial organization is based on two main tiers: Comunidades Autónomas (tier 1) and Provincias (tier 2), with the former exercising greater authority. Conversely, in Portugal, tier 1 (Comissões de Cooperação e Desenvolvimento Regional) holds a lower level of authority compared to tier 2 (Comunidades Intermunicipais). To address this complexity, we follow the approach of Muringani et al. (2019), assigning the tier with the highest level of regional authority to the NUTS2 regions.

Additionally, in the case of Spain, we had to aggregate certain competencies from lower tiers to the most authoritative level for two reasons. First, regions such as the Basque Country have a special autonomous condition derived from the "Régimen Foral". This status grants a series of competencies related to fiscal autonomy at the provincial level. Consequently, the region initially appeared as one with the least authority. After aggregating these competencies to the highest tier, the Basque region had the same authority level as Navarra. Secondly, we had to adjust for regions comprising more than one province. The reason is that the index accounts for the representation of territories in the national parliament, specifically the Senate in Spain. Thus, single-province regions were counted with this representation, while multi-province regions were not, as their representation was accounted for in a lower tier.

### 3.2.3. Institutional Quality

Regional institutional quality is assessed using the European Quality of Government Index (EQI), developed by the Quality of Government Institute at the University of Gothenburg. The EQI evaluates regional experiences and perceptions in three areas: corruption, impartiality, and quality of public services (Charron et al., 2015; 2019). To extend its temporal and spatial coverage, we complement it with national-

level indicators from the World Bank's World Governance Indicators (WGI). This composite approach, widely used in the literature (Rodríguez-Pose & Di Cataldo, 2015; Rodríguez-Pose & Ganau, 2022), adjusts the EQI regionally by accounting for national-level changes captured by the WGI. It thus produces a comprehensive measure of institutional quality that balances regional perceptions with national governance dynamics. For its combination, we employ the following equation:

$$IQ_{c,i,t} = WGI_{c,t} + (EQI_i - \overline{EQI_c}) \quad (3)$$

where $IQ_{c,i,t}$ represents the institutional quality of region *i* in country *c* on period *t.* The *WGI* corresponds to the national indicator on country *c* in period *t*. $EQI_i$ refers to the value of the region obtained in the regional survey and $\overline{EQI_c}$ represents the population-weighted average value of the regional survey in country *c*. This procedure allows us to obtain an institutional quality indicator that accounts for national time variation and regional variability, as well as provides us with the possibility to extend the time series over the period under analysis. As can be seen, all regions within a country share the $WGI_{c,t}$ value, but those with a regional quality above the national average will have a higher IQ compared to those below the national average.

### 3.2.4. Controls

On one hand, we control for a series of regional-level indicators: population density (as a proxy for the degree of regional urbanization and potential economic agglomeration effects), median age of the population (younger population could be a determinant of the region's entrepreneurial capacity), share of population with higher education, human resources dedicated to the scientific and technological sector (these two aiming to capture the effect of human capital and the efforts in R&D), average firm size (as a measure of the degree of market concentration), GDP per capita in PPP, and the unemployment rate (the latter two lagged by one period since we consider they could be partially determined by the business dynamics and as proxies of the regional economic context). On the other hand, we control for a series of national-level factors that could influence the entrepreneurial dynamics of the regions: public expenditure of the country (as a proxy for the level of state intervention in the economy), stability (aiming to capture the degree of political stability), long-term interest rates, and venture capital intensity per capita (the latter two as proxies for the ease of obtaining financing).

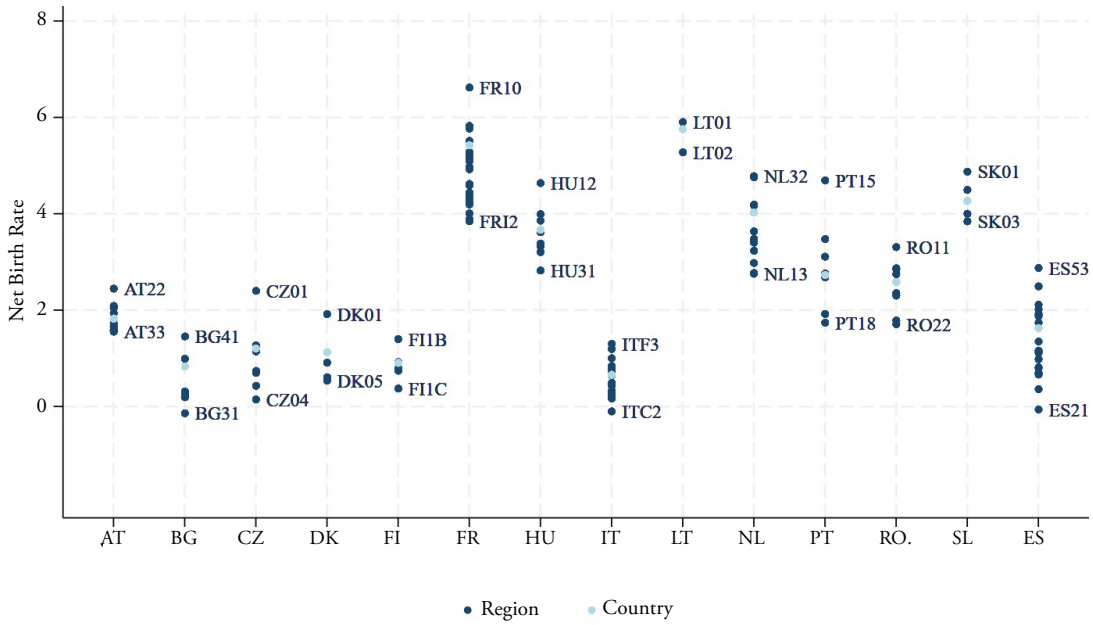
## 3.3. Descriptive Analysis

*Figures 1* and *2* and *Maps 1* and *2* collectively highlight the considerable heterogeneity in business dynamics and institutional conditions across European regions. *Figure 1* shows marked variation in net firm birth rates both across and within countries. While countries like Bulgaria, Czechia, and Italy report low national averages (around 1%), regions such as Île de France (FR10) exceed 6%, with capital regions consistently outperforming others in terms of business creation. *Figure 2*, in contrast, reveals that firm survival rates vary less sharply. The Netherlands demonstrates the highest average survival (70%), whereas Lithuania ranks lowest. Unlike firm births, capital regions do not consistently lead in survival outcomes. *Map 1* illustrates the geographic distribution of regional authority, showing greater variation across countries than within them; autonomy remains lower in Eastern Europe, reflecting centralized historical legacies. *Map 2* presents the distribution of institutional quality, showing stark within-country disparities, including a clear north-south divide in Italy and weaker institutions concentrated in Eastern regions.

TABLE 2.
Main descriptive statistics

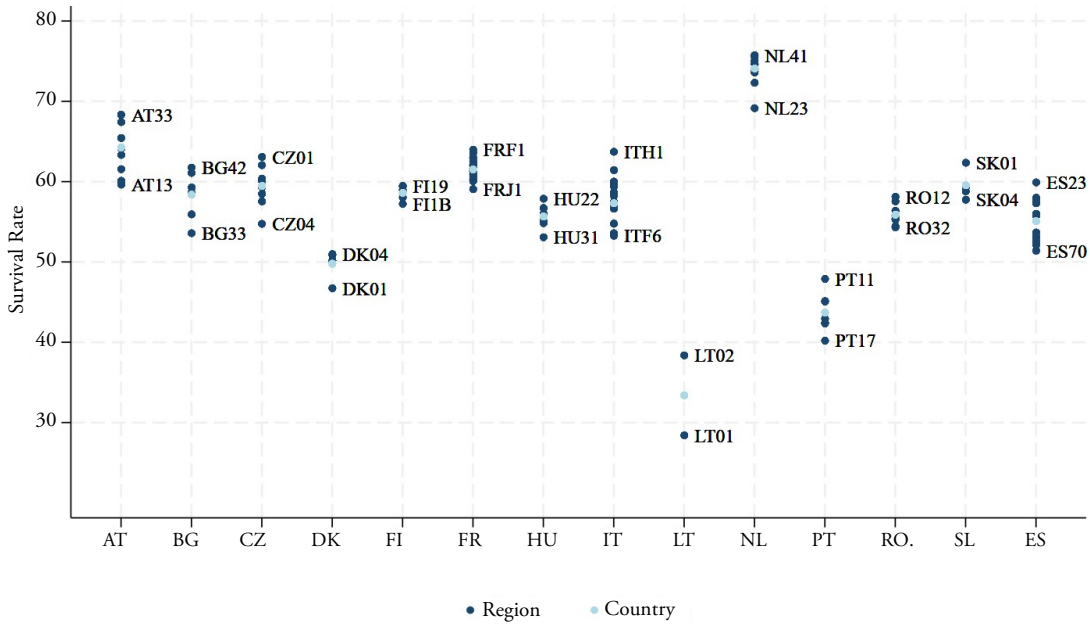
| Variables | Mean | Std. Deviation | Minimum | Maximum |
|---|---|---|---|---|
| **Dependent Variables** | | | | |
| Net Birth Rate | 0.024 | 0.021 | -0.024 | 0.150 |
| Survival Rate | 0.585 | 0.084 | 0.157 | 0.790 |
| Birth Rate | 0.099 | 0.028 | 0.051 | 0.294 |
| Death Rate | 0.075 | 0.025 | 0.032 | 0.224 |
| **Main Explanatory Variables** | | | | |
| Regional Authority | 13.770 | 6.844 | 2 | 25.5 |
| Institutional Quality | 0 | 1 | -2.434 | 2.670 |
| **Controls** | | | | |
| Density | 261.790 | 562.713 | 6.30 | 4808.90 |
| Firm's Size | 4.265 | 1.318 | 2.309 | 13.545 |
| Median Age | 43.322 | 2.596 | 36.400 | 50.800 |
| SciTech Workers | 29.317 | 7.646 | 12.700 | 52.200 |
| Education | 28.074 | 9.744 | 11.400 | 55.900 |
| GDP per capita | 26021 | 9469 | 7400 | 64600 |
| Unemployment | 9.795 | 5.803 | 1.300 | 36.200 |
| Political Stability | 0.549 | 0.362 | -0.106 | 1.282 |
| Venture Capital | 356.155 | 492.640 | 0.027 | 2164.944 |
| Public Expenditure | 47.035 | 6.714 | 33.200 | 58.500 |
| Interest Rate | 1.568 | 1.162 | -0.180 | 4.810 |

FIGURE 1.
Average Net Birth Rate across and within countries over 2014-2019



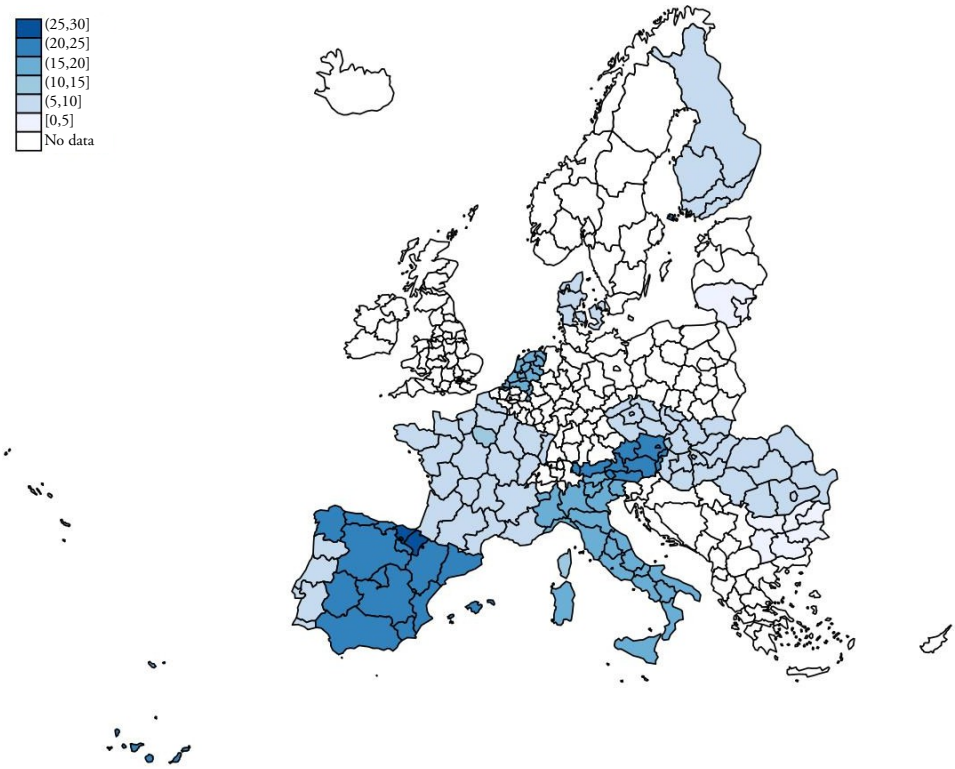

**Source:** Own elaboration with data from Eurostat.

**FIGURE 2.**
**Average Survival Rate across and within countries over 2014-2019**



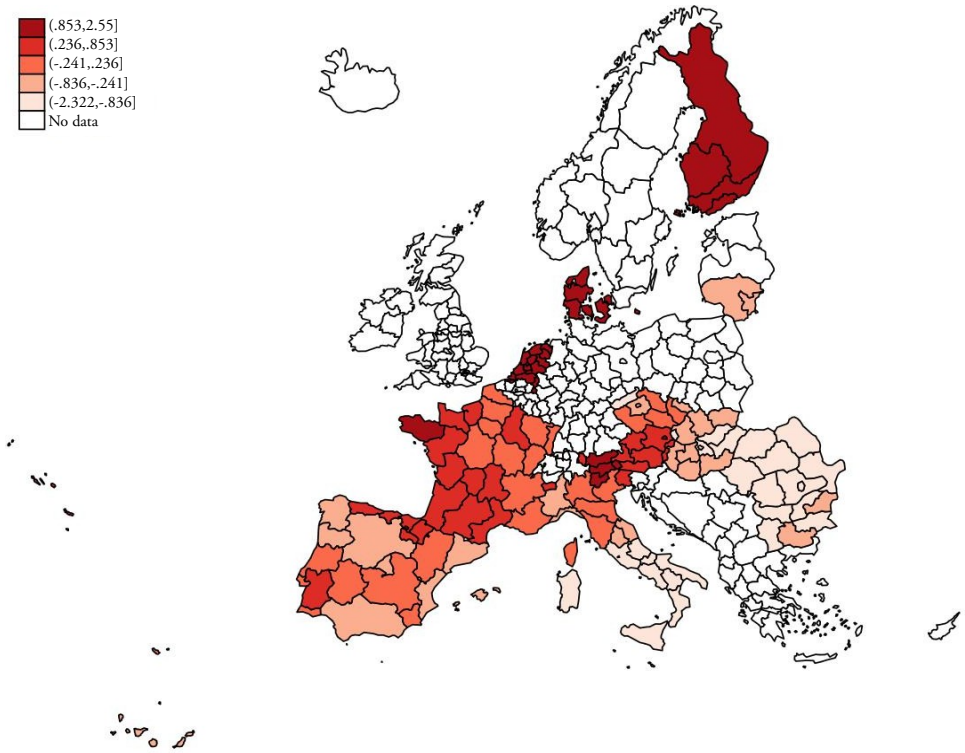

**Source:** Own elaboration with data from Eurostat.

**MAP 1.**
**Average Regional Authority across regions over the 2014-2019 period**




**Source:** Own elaboration with data from the Regional Authority Index.

**Map 2.**
**Average Institutional Quality across regions over the 2014-2019 period**




**Source:** Own elaboration with data from the European Quality of Government Index.

## 4. Results

In this section, we present the results of our estimation on the impact of regional authority on various business demography indicators and the results of different robustness checks.

### 4.1. Main findings

The estimation results for the impact of Regional Authority on business demography indicators are summarized in *Table 3*. We focus on two key outcomes: net birth rate and survival rate. The first three columns of the table correspond to the first one, while the last three pertain to the second. In all specifications, we consider the effect of the regional authority alongside the variable institutional quality and the interaction between both, always incorporating time fixed effects.

We begin by analyzing the first outcome. Column (1) presents the baseline specification excluding controls and regional fixed effects. Column (2) introduces regional fixed effects, while column (3) reports the most demanding estimation, employing a Two-Way Fixed Effects (TWFE) model with an extensive set of regional and national controls. The fixed-effects specification is both theoretically and statistically justified, as unobserved regional characteristics (e.g., institutional legacies or persistent economic structures) are likely correlated with the main regressors, while the Hausman test (see Table 3 note) further supports this choice. To interpret the magnitude of the coefficients, the lower panel of the table reports the Average Marginal Effects (AME). Following Rodríguez-Pose & Zhang (2019), we also present marginal effects at different percentiles of institutional quality.

Regarding the first outcome, we observe that the AME is significant and positive, indicating that a one-unit increase in the RAI is associated with a 1.9-percentage-point increase in the net firm birth rate in a region with average institutional quality. Considering different percentiles of institutional quality, we

observe that the effect of regional authority on entrepreneurship increases as the institutional context improves. For example, the effect in a region located in the 75th percentile of institutional quality is approximately 32% larger than in a region in the 25th percentile. Notably, the effect in regions with the highest institutional quality (90th percentile) is twice that observed in regions with the weakest institutions (10th percentile).

**Table 3.**
**Baseline Results**

| Variables | Net Birth Rate | Net Birth Rate | Net Birth Rate | Survival Rate | Survival Rate | Survival Rate |
|---|---|---|---|---|---|---|
| Regional Authority | -0.001*** | 0.019** | 0.020** | 0.002* | -0.015** | -0.030*** |
| | (0.000) | (0.008) | (0.009) | (0.001) | (0.006) | (0.009) |
| Institutional Quality | -0.001 | -0.065*** | -0.072*** | -0.040*** | -0.219*** | -0.185*** |
| | (0.004) | (0.012) | (0.014) | (0.012) | (0.063) | (0.061) |
| Regional Authority x Institutional Quality | 0.000 | 0.005** | 0.004*** | 0.005** | 0.017*** | 0.014** |
| | (0.000) | (0.001) | (0.001) | (0.001) | (0.005) | (0.005) |
| Constant | 0.031*** | -0.255** | -0.086 | 0.534*** | 0.727*** | -1.654 |
| | (0.004) | (0.117) | (0.611) | (0.017) | (0.085) | (1.698) |
| Marginal effects at different percentiles of Institutional Quality | | | | | | |
| AME | | | 0.019** | | | -0.031*** |
| | | | (0.009) | | | (0.009) |
| 10% | | | 0.013 | | | -0.050*** |
| | | | (0.009) | | | (0.008) |
| 25% | | | 0.0174** | | | -0.039*** |
| | | | (0.009) | | | (0.008) |
| 50% | | | 0.020** | | | -0.029*** |
| | | | (0.009) | | | (0.009) |
| 75% | | | 0.023*** | | | -0.020* |
| | | | (0.009) | | | (0.011) |
| 90% | | | 0.026*** | | | -0.012 |
| | | | (0.009) | | | (0.013) |
| Time Fixed Effects | x | x | x | x | x | x |
| Region Fixed Effects | | x | x | | x | x |
| Controls | | | x | | | x |
| Observations | 804 | 804 | 804 | 804 | 804 | 804 |
| R-squared | 0.109 | 0.145 | 0.250 | 0.235 | 0.338 | 0.421 |

**Note:** Cluster robust standard errors in parentheses. *** p<0.01, ** p<0.05, * p<0.1. The main explanatory variables are lagged for one period. The R-squared presented corresponds to the Within R-squared in the columns (2)-(3) and (5)-(6). Hausman test for model selection: Estimation 3 — Chi-squared(17) = 159.85, p = 0.000; Estimation 6 — Chi-squared(18) = 207.74, p = 0.000. The null hypothesis of no systematic difference in coefficients is rejected in both cases, supporting the use of the fixed effects model.

Regarding the second outcome, the AME shows a negative and significant effect, suggesting that a one-unit increase in the RAI is associated with a 3.1-percentage-point decrease in the firm survival rate in a region with average institutional quality. Institutional quality, however, mediates this relationship

substantially. In regions with the poorest institutional framework (10th percentile), the negative effect of regional authority is more than four times than in regions with the most favorable institutional environment (90th percentile). In addition, the effect remains significant only for regions below the median of the institutional quality distribution.

Overall, the findings highlight a positive effect of regional authority on regional entrepreneurial capacity, mediated by institutional quality, while the impact on firm survival remains less clear. Although the net effect is negative, it is significant only in regions with weaker institutions.

**FIGURE 3.**
**Marginal Effects of Regional Authority at different levels of Institutional Quality on the Net Birth Rate**

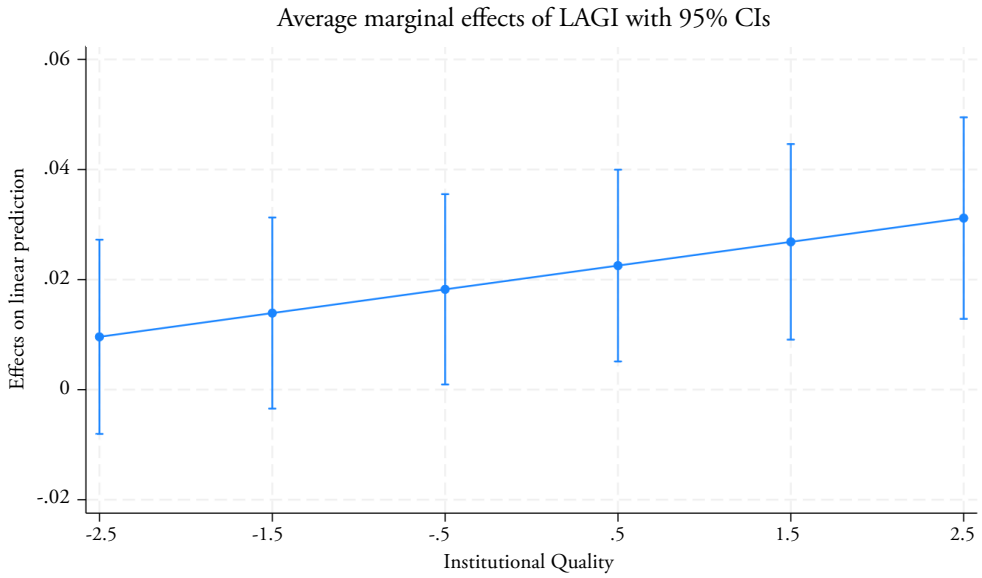
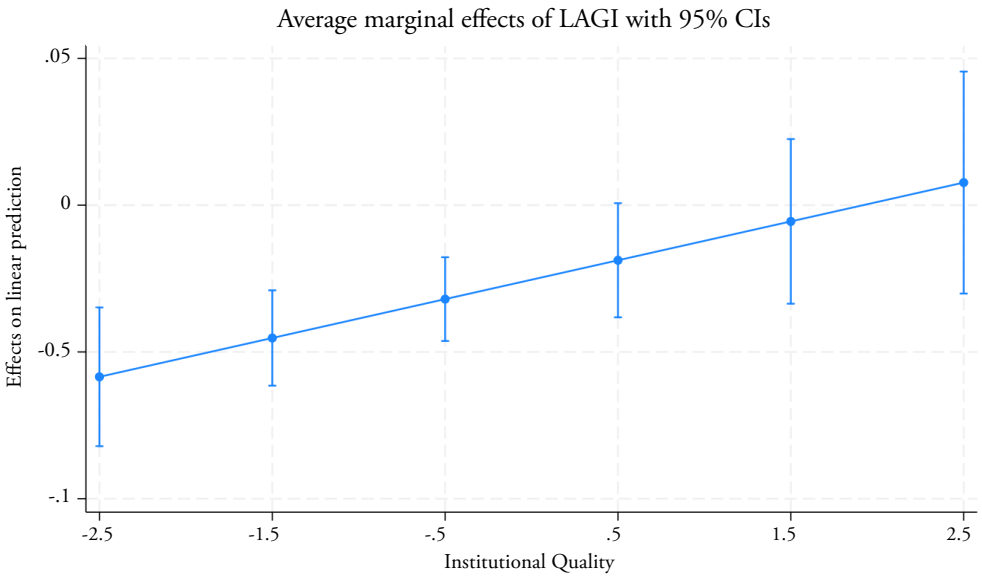



**FIGURE 4.**
**Marginal Effects of Regional Authority at different levels of Institutional Quality on the Survival Rate**



## 4.1. Disaggregated results

To explore the previously obtained results in greater depth, we conducted various estimations considering the different components that constitute the net birth rate. We analyzed whether the effect on net business creation is attributable to impacts on the creation of businesses and/or business closures. Accordingly, the results for these estimations are displayed in the two columns of *Table 4*.

**Table 4.**
**Estimation results with disaggregated components**

| Variables | Birth Rate | Death Rate |
|---|---|---|
| Regional Authority | 0.021** | 0.001 |
| | (0.008) | (0.002) |
| Institutional Quality | -0.065*** | 0.007 |
| | (0.011) | (0.008) |
| Regional Authority x Institutional Quality | 0.002** | -0.002*** |
| | (0.001) | (0.000) |
| Constant | -0.647 | -0.561 |
| Marginal effects at different percentiles of Institutional Quality | (0.495) | (0.435) |
| AME | 0.021*** | 0.0001 |
| | (0.008) | (0.002) |
| 10% | 0.0183** | 0.004* |
| | (0.008) | (0.002) |
| 25% | 0.0198** | 0.002 |
| | (0.008) | (0.002) |
| 50% | 0.021*** | 0.000 |
| | (0.008) | (0.002) |
| 75% | 0.022*** | - 0.000 |
| | (0.008) | (0.002) |
| 90% | 0.024*** | -0.002 |
| | (0.008) | 0.003 |
| Time Fixed Effects | x | x |
| Region Fixed Effects | x | x |
| Controls | x | x |
| Observations | 804 | 804 |
| R-squared (Within) | 0.428 | 0.385 |

**Note:** Cluster robust standard errors in parentheses. *** p<0.01, ** p<0.05, * p<0.1. The main explanatory variables are lagged for one period

The first column shows that the impact of regional authority on the firm birth rate is positive and statistically significant, indicating that a one-unit increase in the RAI is associated with a 2.1-percentage-point increase in the firm birth rate in a region with average institutional quality. This result is consistent with the findings obtained for the net firm birth rate. In this case, the mediating effect of institutional quality on the relationship of interest is smaller than in the previous estimation, although the impact on the birth rate is approximately 31% larger at the 90th percentile than at the 10th percentile. The second column shows that the AME for the firm death rate is not statistically significant; however, at the 10th percentile, we find a positive and marginally significant effect.

Overall, the disaggregated results underscore that the effect of Regional Authority is channeled through a positive impact on business creation, without having a clear effect on business closures. Likewise, institutional quality stands out as a clear conditioning factor in both cases.

**FIGURE 5.**
**Marginal Effects of Regional Authority at different levels of Institutional Quality on the Birth Rate**

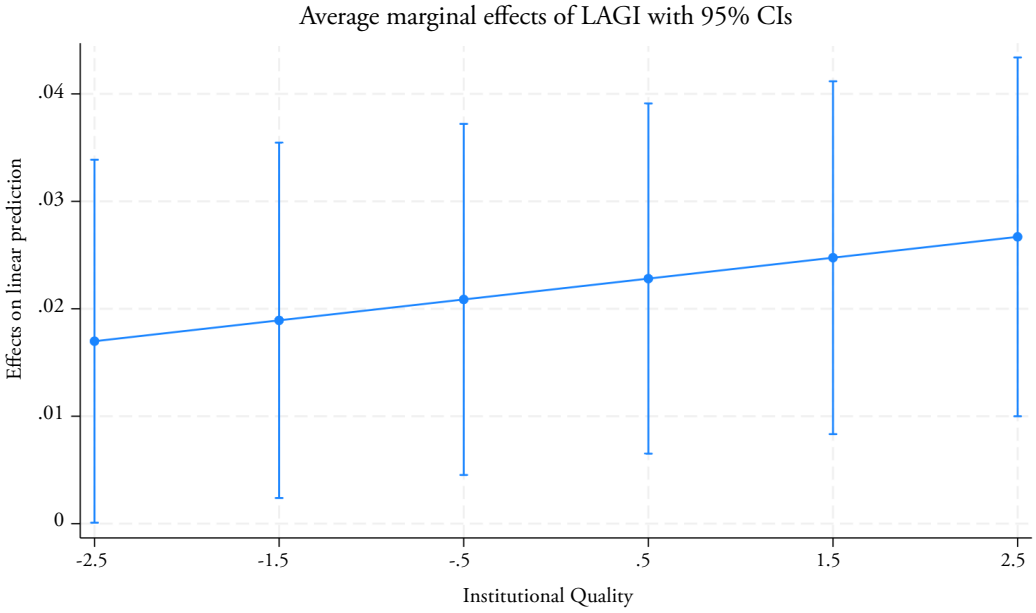
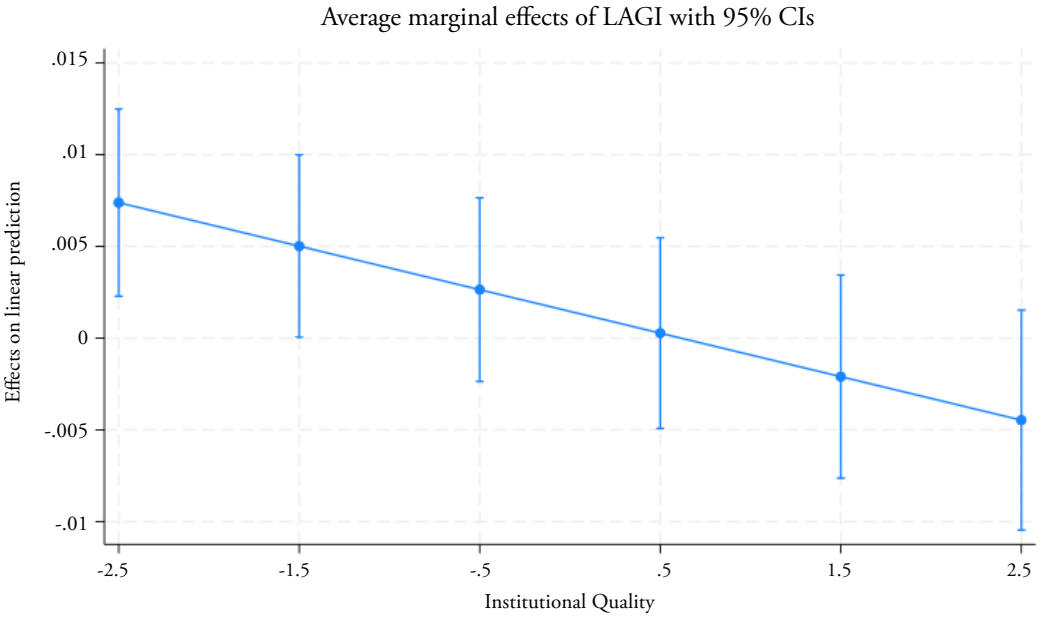



**FIGURE 6.**
**Marginal Effects of Regional Authority at different levels of Institutional Quality on the Death Rate**



## 4.2. Robustness Checks

So far, we have used linear panel data models for all estimations. However, since several dependent variables (except net birth rate) are bound between 0 and 1, linear models may produce unrealistic predictions outside this range. They also do not address heteroscedasticity common in fractional data, resulting in biased and inefficient estimates. Following Papke and Wooldridge (2008), we employ fractional response models to ensure predicted values stay within [0, 1] and properly handle error variance structure. We also use the Mundlak-Chamberlain device to control unobserved regional heterogeneity. This more robust approach allows us to capture potential nonlinear relationships, improving the reliability and efficiency of our estimates.

In addition, one of the core assumptions of linear models is that the standard errors exhibit homoscedasticity. Although we have applied cluster-robust standard errors at the regional level to control for potential heteroscedasticity and panel autocorrelation, this does not guarantee that the assumption of homoscedasticity holds true. Consequently, the presence of heteroscedasticity would result in inefficient estimators and unreliable standard errors. Furthermore, the parameters under heteroskedastic errors would be inconsistent. Therefore, based on the work of Silva & Tenreyro (2006) and Correia et al. (2019), we conducted our main estimation using Poisson pseudo-maximum likelihood (PPML). This method allows us to perform estimations on variables that range between 0 and 1 and is robust to heteroscedasticity as it does not require the assumption of constant error variance. Additionally, we implemented this estimation with cluster-robust standard errors at the regional level and introduced regional and time fixed effects.

*Table 5* and *Table 6* show that the results obtained are consistent with previous estimations[1], suggesting that the findings of our main specification are robust to different methods that account for the specific characteristics of the data used.

**Table 5.**
**Results with Fractional Response model**

| Variables | Birth Rate | Death Rate | Survival Rate |
|---|---|---|---|
| Regional Authority | 0.0809** | 0.0188 | -0.118*** |
| | (0.0357) | (0.0132) | (0.0192) |
| Institutional Quality | -0.418*** | -0.162*** | -0.252* |
| | (0.0634) | (0.0530) | (0.130) |
| Regional Authority x Institutional Quality | 0.00379 | 2.29e-05 | 0.00690* |
| | (0.00232) | (0.00279) | (0.00356) |
| Constant | 0.903 | -2.760*** | 4.082*** |
| | (1.002) | (0.995) | (1.353) |
| Time Fixed Effects | x | x | x |
| Mundlak Device | x | x | x |
| Controls | x | x | x |
| Observations | 804 | 804 | 804 |

**Note:** Cluster robust standard errors in parentheses. *** p<0.01, ** p<0.05, * p<0.1. The main explanatory variables are lagged for one period.

[1] Notice that the results from these estimations cannot be directly compared with those obtained with linear models.

**Table 6.**
**Results with Pseudo Poisson Maximum Likelihood model**

| Variables | Birth Rate | Death Rate | Survival Rate |
|---|---|---|---|
| Regional Authority | 0.104* | 0.053** | -0.105*** |
| | (0.054) | (0.024) | (0.018) |
| Institutional Quality | -0.895*** | 0.228** | -0.604*** |
| | (0.158) | (0.106) | (0.193) |
| Regional Authority x Institutional Quality | 0.027** | -0.052*** | 0.044*** |
| | (0.014) | (0.008) | (-0.016) |
| Constant | -4.212 | -11.76** | -4.733 |
| | (4.193) | (4.914) | (3.115) |
| Time Fixed Effect | x | x | x |
| Region Fixed Effects | x | x | x |
| Controls | x | x | x |
| Observations | 804 | 804 | 804 |

**Note:** Cluster robust standard errors in parentheses. *** p<0.01, ** p<0.05, * p<0.1. The main explanatory variables are lagged for one period.

## 5. Discussion

The empirical results reveal a robust yet nuanced relationship between regional decentralization and business dynamics. Regional autonomy is associated with a net increase in firm creation, suggesting that decentralized governance can foster a more vibrant and innovative entrepreneurial environment. In line with the findings of Escaleras & Chiang (2017) and the insights of Ortega-Argilés (2022) and Malesky (2019), these results reinforce the idea that decentralization enhances the capacity of subnational governments to design policies tailored to local business conditions and opportunities. Consistent with the *Decentralization Theorem* (Oates, 1972), devolving competences to governments closer to citizens seems to yield more efficient and spatially sensitive outcomes, strengthening the microeconomic foundations upon which entrepreneurship develops.

At the same time, the analysis uncovers a negative effect of decentralization on firm survival. While autonomy stimulates entry, it may also lead to intensified competitive pressures, reducing the likelihood that new firms will consolidate in the medium term. Decentralization thus acts as a double-edged sword: it encourages entrepreneurial dynamism but exposes firms to stronger market selection forces. Consistent with the functional asymmetries highlighted by Kyriacou & Roca-Sagalés (2019) in the domain of public service provision, our findings caution against viewing decentralization as an inherently welfare-enhancing process. Rather than a universally beneficial reform, decentralization operates as a conditional institutional arrangement whose capacity to foster economic dynamism depends fundamentally on the quality of local governance.

In this context, institutional quality plays a critical role in shaping these relationships. As highlighted by Muringani et al. (2019), Rodríguez-Pose & Muštra (2022), and Kyriacou & Roca-Sagalés (2015), the economic benefits of decentralization depend fundamentally on the quality of local institutions. Our findings are consistent with this view: in regions with robust, transparent, and efficient institutions, decentralization translates into higher net firm creation rates, as regional governments can implement coherent and predictable policies. At the same time, strong institutions also mitigate the negative effect of decentralization on firm survival. Conversely, in weaker institutional environments, greater autonomy tends to foster a more volatile and destructive entrepreneurial expansion, characterized by high entry but also low survival rates. These results align closely with the institutional view in entrepreneurship research. As argued by Audretsch (2023) and Malesky (2019), the institutional environment constitutes the foundation upon which entrepreneurial ecosystems are built. Institutions shape the incentives, trust, and

governance structures that allow local autonomy to translate into opportunity rather than uncertainty. From this perspective, our findings bridge the literatures on decentralization and entrepreneurship by showing that enhanced autonomy alone is not sufficient to stimulate sustainable firm dynamism. Rather, decentralization must rest on a solid institutional basis that supports entrepreneurial initiative, facilitates resource coordination, and ensures accountability in the design and implementation of business-related policies.

The disaggregated analysis further clarifies these mechanisms. The positive effect of decentralization on net firm creation derives mainly from higher birth rates, while its influence on exits exposes a more complex institutional dynamic. In regions with weaker governance, decentralization is linked to higher firm closures, reflecting a dual process. On one hand, local governments may lack the capacity to cushion the adverse effects of intensified competition. On the other hand, building on Malesky (2019), decentralization can create institutional distortions when autonomy expands faster than accountability or institutional capability. Under such conditions, local capture, regulatory inconsistency, and policy uncertainty may amplify business vulnerability.

Taken together, regional decentralization stimulates entrepreneurship and revitalizes local economies, but its benefits hinge on institutional quality. Strong institutions transform political autonomy into sustainable economic outcomes, reinforcing firm creation while mitigating competitive risks. Thus, only when grounded in robust governance can decentralization truly drive regional entrepreneurship and lasting economic renewal.

## 6. Conclusion

The aim of this study was to explore the relationship between regional authority and the creation and survival rates of firms, providing a comprehensive view of its impact on regional business dynamics. This work contributes to the literature on decentralization and its effects on various economic outcomes, while also highlighting the critical role of institutional quality in shaping these impacts. Moreover, it expands on recent developments in entrepreneurship research by introducing regional authority as an often overlooked yet essential dimension. While strong institutions are fundamental to fostering entrepreneurship, our findings suggest that the ability to implement and adapt policies to local needs is equally crucial in creating a dynamic and supportive entrepreneurial ecosystem.

Our analysis shows that higher levels of regional authority positively influence entrepreneurial capacity. However, it also reveals that greater autonomy may have a negative impact on firm survival rates. In this context, institutions play a key role, as they not only enhance the positive effects of regional autonomy on entrepreneurship but also mitigate its negative effects on firm survival. We argue that institutional quality serves as a moderating and essential factor. When supported by robust institutions, increased autonomy can promote long-term business growth and contribute to sustained regional economic development.

There are some limitations to this study. The lack of comprehensive regional-level data on firm demographics in Europe limits the ability to conduct long-term, multi-country analyses beyond 2014-2019. Nevertheless, we consider our sample of countries to be sufficiently representative of the European context. Additionally, while this research provides valuable insights, further causal analysis is needed to address potential endogeneity concerns.

These findings carry significant policy implications. Policymakers should approach decentralization with caution, recognizing that its success depends fundamentally on the quality of local institutions. As countries advance toward greater devolution of powers, it becomes crucial to design balanced decentralization strategies that align the scope of regional authority with the integrity of the local institutional frameworks. Institutional strengthening should therefore precede or accompany any transfer of competences to ensure that autonomy translates into stable and productive business environments. In addition, policymakers should consider the local context when designing policies that affect the entrepreneurial ecosystem, creating place-based strategies tailored to the heterogeneous needs of entrepreneurs across geography.

Future studies could validate the robustness of these findings by focusing on different settings, such as developing countries or distinct entrepreneurial ecosystems. Additionally, examining sector-specific impacts, differences across firm sizes, and ownership structures would enrich the understanding of these dynamics. Exploring further aspects of the institutional environment would also provide valuable insights.

## Acknowledgements

I am grateful to Enrique López-Bazo for his insightful guidance and support throughout the development of this work.

## References

Alesina, A., Spolaore, E., & Wacziarg, R. (2000). Economic integration and political disintegration. *American Economic Review*, *90*(5), 1276-1296. https://doi.org/10.1257/aer.90.5.1276

Audretsch, D. B. (2023). Institutions and entrepreneurship. *Eurasian Business Review*, *13*(3), 495-505. https://doi.org/10.1007/s40821-023-00244-5

Bardhan, P., & Mookherjee, D. (2006). Decentralization, corruption and government accountability. In *International handbook on the economics of corruption*. Edward Elgar Publishing. https://doi.org/10.4337/9781847203106.00013

Bjørnskov, C., & Foss, N. J. (2016). Institutions, entrepreneurship, and economic growth: what do we know and what do we still need to know?. *Academy of Management Perspectives*, *30*(3), 292-315.

Bolton, P., & Farrell, J. (1990). Decentralization, duplication, and delay. *Journal of Political Economy*, *98*(4), 803-826.

Charron, N., Dijkstra, L., & Lapuente, V. (2015). Mapping the regional divide in Europe: A measure for assessing quality of government in 206 European regions. *Social Indicators Research*, *122*(2), 315-346. https://doi.org/10.1007/s11205-014-0702-y

Charron, N., Lapuente, V., & Annoni, P. (2019). Measuring Quality of Government in EU Regions Across Space and Time. *Papers in Regional Science*. https://doi.org/10.1111/pirs.12437

Correia, S., Guimarães, P., & Zylkin, T. (2019). Verifying the existence of maximum likelihood estimates for generalized linear models. arXiv preprint arXiv:1903.01633. https://doi.org/10.48550/arXiv.1903.01633

Escaleras, M., & Chiang, E. P. (2017). Fiscal decentralization and institutional quality on the business environment. *Economics Letters*, *159*, 161-163. https://doi.org/10.1016/j.econlet.2017.07.019

Eurostat, & OECD. (2007). Eurostat - OECD Manual on Business Demography Statistics. https://doi.org/10.1787/9789264041882-en

Ezcurra, R., & Rodríguez-Pose, A. (2014). Government quality and spatial inequality: A cross-country analysis. *Environment and Planning A*, *46*(7), 1732-1753.https://doi.org/10.1068/a130046p

Faguet, J. (2021). Understanding decentralization theory, evidence and method, with a focus on least-developed countries, Working Paper Series, No. 21-203, London School of Economics and Political Science (LSE), Department of International Development.

Glennerster, H., Brennan, G., & Buchanan, J.M. (1980). The Power to Tax: analytical foundations of a fiscal constitution, Cambridge University Press. *Journal of Social Policy*. https://doi.org/10.1017/S0047279400011971

Hooghe, L., Marks, G., Schakel, A. H., Osterkatz, S. C., Niedzwiecki, S., & Shair-Rosenfield, S. (2016). *Measuring regional authority: A postfunctionalist theory of governance, Volume I*. Oxford University Press. https://doi.org/10.1093/acprof:oso/9780198728870.001.0001

Ketterer, T. D., & Rodríguez-Pose, A. (2018). Institutions vs. 'first-nature'geography: What drives economic growth in Europe's regions?. *Papers in Regional Science*, *97*, S25-S62. https://doi.org/10.1111/pirs.12237

Kyriacou, A. P., & Roca-Sagalés, O. (2019). Local decentralization and the quality of public services in Europe. *Social Indicators Research*, *145*(2), 755-776. https://doi.org/10.1007/s11205-019-02113-z

Kyriacou, A. P., Muinelo-Gallo, L., & Roca-Sagalés, O. (2015). Fiscal decentralization and regional disparities: The importance of good governance. *Papers in Regional Science*, *94*(1), 89-108. https://doi.org/10.1111/pirs.12061

Levie, J., & Autio, E. (2011). Regulatory burden, rule of law, and entry of strategic entrepreneurs: An international panel study. *Journal of Management Studies*, *48*(6), 1392-1419. https://doi.org/10.1111/j.1467-6486.2010.01006.x

Malesky, E. J. (2019). Decentralization and business performance. In J. A. Rodden & E. Wibbels (Eds.), *Decentralized governance and accountability: Academic research and the future of donor programming* (pp. 144-177). Cambridge University Press. https://doi.org/10.1017/9781108615594.007

Marks, G., Hooghe, L., & Schakel, A. H. (2008). Measuring regional authority. *Regional and Federal Studies*, *18*(2-3), 111-121. https://doi.org/10.1080/13597560801979464

Marks, G., Hooghe, L., and Schakel, A.H. (2008). 'Patterns of Regional Authority'. *Regional & Federal Studies*, *18*(2), 167-181 https://doi.org/10.1080/13597560801979506

Martinez-Vazquez, J., & McNab, R. M. (2003). Fiscal decentralization and economic growth. *World Development*, *31*(9), 1597-1616.

Martinez-Vazquez, J., Lago-Peñas, S., & Sacchi, A. (2017). The impact of fiscal decentralization: A survey. *Journal of Economic Surveys*, *31*(4), 1095-1129. https://doi.org/10.1111/joes.12182

Muringani, J., Dahl Fitjar, R., & Rodríguez-Pose, A. (2019). Decentralisation, quality of government and economic growth in the regions of the EU. *Revista de Economía Mundial*, *51*, 25-50. https://doi.org/10.33776/rem.v0i51.3903

Nistotskaya, M., Charron, N., & Lapuente, V. (2015). The wealth of regions: quality of government and SMEs in 172 European regions. *Environment and Planning C: Government and Policy*, *33*(5), 1125-1155. https://doi.org/10.1177/0263774X15610058

North, D. C. (1990). *Institutions, institutional change, and economic performance*. Cambridge University Press. https://doi.org/10.1017/CBO9780511808678

Oates, W. E. (1972). *Fiscal federalism*. Harcourt Brace Jovanovich.

Oates, W. E. (1999). An essay on fiscal federalism. *Journal of Economic Literature*, *37*(3), 1120-1149. https://doi.org/10.1257/jel.37.3.1120

Ortega-Argilés, R. (2022). The evolution of regional entrepreneurship policies:"no one size fits all". *The Annals of Regional Science*, *69*(3), 585-610. https://doi.org/10.1007/s00168-022-01128-8

Papke, L. E., & Wooldridge, J. M. (2008). Panel data methods for fractional response variables with an application to test pass rates. *Journal of Econometrics*, *145*(1-2), 121-133. https://doi.org/10.1016/j.jeconom.2008.05.009

Prud'Homme, R. (1995). The dangers of decentralization. *The World Bank Research Observer*, *10*(2), 201-220. https://doi.org/10.1093/wbro/10.2.201

Rodríguez-Pose, A. (2024). The centrifugal state: In search of an explanation of why countries decentralise. *Quaestiones Geographicae*, *43*(4), 35-48. https://doi.org/10.14746/quageo-2024-0041

Rodríguez-Pose, A., & Di Cataldo, M. (2015). Quality of government and innovative performance in the regions of Europe. *Journal of Economic Geography*, *15*(4), 673-706. https://doi.org/10.1093/jeg/lbu023

Rodríguez-Pose, A., & Ezcurra, R. (2010). Does decentralization matter for regional disparities? A cross-country analysis. *Journal of Economic Geography*, *10*(5), 619-644. https://doi.org/10.1093/jeg/lbp049

Rodríguez-Pose, A., & Ezcurra, R. (2011). Is fiscal decentralization harmful for economic growth? Evidence from the OECD countries. *Journal of Economic Geography*, *11*(4), 619-643. https://doi.org/10.1093/jeg/lbq025

Rodríguez-Pose, A., & Ganau, R. (2022). Institutions and the productivity challenge for European regions. *Journal of Economic Geography*, *22*(1), 1-25. https://doi.org/10.1093/jeg/lbab003

Rodríguez-Pose, A., & Muštra, V. (2022). The economic returns of decentralisation: Government quality and the role of space. *Environment and Planning A: Economy and Space*, *54*(8), 1604-1622. https://doi.org/10.1177/0308518X221118913

Rodríguez-Pose, A., & Tselios, V. (2019). Well-being, political decentralisation and governance quality in Europe. *Journal of Human Development and Capabilities*, *20*(1), 69-93. https://doi.org/10.1080/19452829.2018.1563773

Rodríguez-Pose, A., & Zhang, M. (2019). Government institutions and the dynamics of urban growth in China. *Journal of Regional Science*, *59*(4), 633-668. https://doi.org/10.1111/jors.12435

Shair-Rosenfield, S., Schakel, A. H., Niedzwiecki, S., Marks, G., Hooghe, L., & Chapman-Osterkatz, S. (2021). Language difference and regional authority. *Regional & Federal Studies*, *31*(1), 73-97. https://doi.org/10.1080/13597566.2020.1831476

Silva, J. S., & Tenreyro, S. (2006). The log of gravity. *The Review of Economics and Statistics*, *88*(4), 641-658. https://doi.org/10.1162/rest.88.4.641

Sobel, R. S., Dutta, N., & Roy, S. (2014). Does fiscal decentralization result in a better business climate?. In *Entrepreneurial Action, Public Policy, and Economic Outcomes* (pp. 151-176). Edward Elgar Publishing. https://doi.org/10.4337/9781781005798.00018

Tiebout, C. M. (1956). A pure theory of local expenditures. *Journal of Political Economy*, *64*(5), 416- 424. https://doi.org/10.1086/257839

Treisman, D. (2002). *Decentralization and the Quality of Government*. Department of Political Science, UCLA.

Tselios, V. (2023). Does political decentralization affect income inequality? The role of governance quality. *Regional Studies*, *57*(5), 829-843. https://doi.org/10.1080/00343404.2022.2101634

Tselios, V., & Rodríguez-Pose, A. (2022). Can decentralization help address poverty and social exclusion in Europe? *Territory, Politics, Governance*, 1-24. https://doi.org/10.1080/21622671.2022.2098174

Urbano, D., & Alvarez, C. (2014). Institutional dimensions and entrepreneurial activity: an international study. *Small Business Economics*, *42*(4), 703-716. https://doi.org/10.1007/s11187-013-9523-7

Weingast, B. R. (1995). The economic role of political institutions: Market-preserving federalism and economic development. *The Journal of Law, Economics, and Organization*, *11*(1), 1-31. https://doi.org/10.1093/oxfordjournals.jleo.a036861

Welter, F. (2011). Contextualizing entrepreneurship-conceptual challenges and ways forward. *Entrepreneurship Theory and Practice*, *35*(1), 165-184. https://doi.org/10.1111/j.1540-6520.2010.00427.x

Welter, F., Baker, T., & Wirsching, K. (2019). Three waves and counting: The rising tide of contextualization in entrepreneurship research. *Small Business Economics*, *52*(2), 319-330. https://doi.org/10.1007/s11187-018-0094-5

## ORCID

*Marc Garcia-Ruiz* https://orcid.org/0009-0002-6043-0312

## Appendix

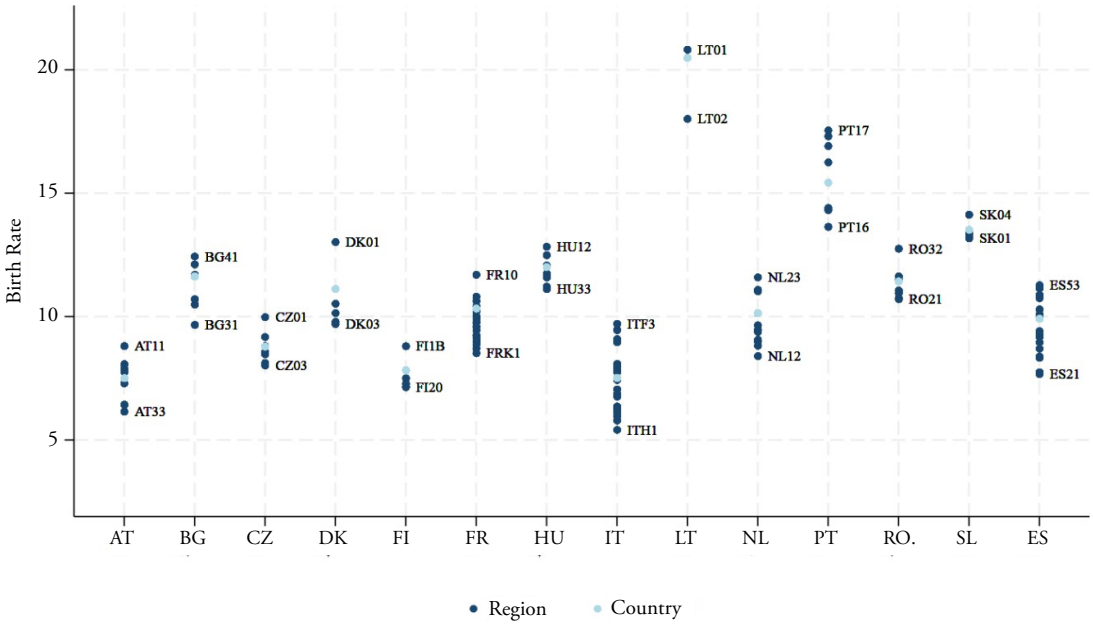
**Table A1.**
**Description of control variables**

| Variable | Description | Source |
|---|---|---|
| **Regional variables** | | |
| Density | Population per square kilometer | Eurostat |
| GDP | Gross Domestic product per capita measured in PPP | Eurostat |
| Unemployment | Share of unemployed population | Eurostat |
| Education | Share of population with at least tertiary education | Eurostat |
| Scitech workers | Share of skilled workers devoted to science and technology sectors | Eurostat |
| Age | Median age of the regional population | Eurostat |
| Firm size | Number of employees over the active population of firms | Eurostat |
| **Country variables** | | |
| Expenditure | Share of public expenditure in the whole economy | Eurostat |
| Interest Rate | Long term interest rate following European convergence criterion | Eurostat |
| Venture | Share of venture capitals per inhabitant | OECD |
| Stability | Political stability dimension of the World Governance Indicators | World Bank |

**Table A2.**
**Regional sample for the Regional Authority Index**

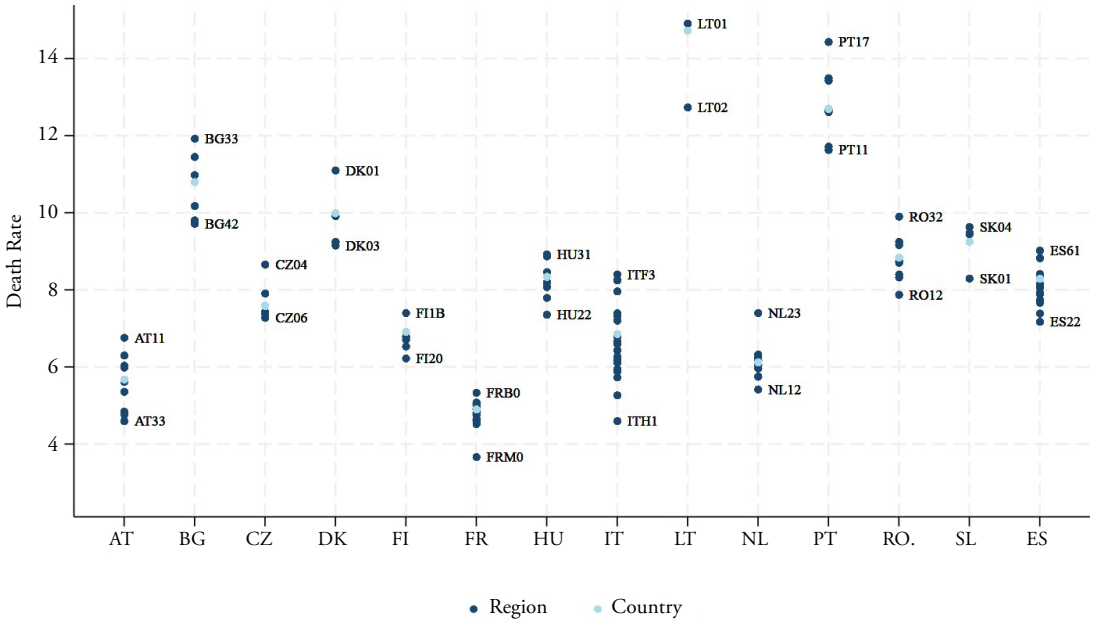
| Country | Region | NUTS level |
|---|---|---|
| Austria | Länder | 2 |
| Bulgaria | Oblasti | 2 |
| Czechia | Kraje | 3 |
| Denmark | Regioner | 2 |
| Finland | Maakunnat | 3 |
| Netherlands | Provincies | 2 |
| Hungary | Megyék | 3 |
| Italy | Regioni | 2 |
| Lithuania | Regionų | 2 |
| Portugal | Comunidades Intermunicipais | 3 |
| Romania | Judete | 3 |
| Slovakia | Samosprávné kraje | 2 |
| Spain | Comunidades Autónomas | 2 |

FIGURE *A1*.
Average firm Birth Rate across regions over the 2014-2019 period




**Source:** Own elaboration with data from Eurostat.

FIGURE A2.
Average firm Death Rate across regions over the 2014-2019 period




**Source:** Own elaboration with data from Eurostat.

© 2026 by the authors. Licensee: Investigaciones Regionales – Journal of Regional Research - The Journal of AECR, Asociación Española de Ciencia Regional, Spain. This article is distributed under the terms and conditions of the Creative Commons Attribution, Non-Commercial (CC BY NC) license (http://creativecommons.org/licenses/by-nc/4.0/).