

Designing Autonomy: Federalism, Conflict, and the Lessons of Fragility

Cheick CAMARA^{a *},

^aUniversité Clermont Auvergne, CNRS, IRD, CERDI, F-63000 Clermont-Ferrand, France.

August 28, 2025

Abstract

This paper investigates how fiscal federalism shapes conflict dynamics in India and situates the findings within broader discussions on fragility and conflict-sensitive governance. Using a disaggregated approach, the study distinguishes between secessionist violence, demands for new states, and resource-related disputes across Indian states from 1991 to 2020. Employing instrumental variable regressions and spatial econometric models, it shows that revenue autonomy dampens secessionist and resource conflicts but increases pressures for internal partition in heterogeneous regions, while spending autonomy has mixed but significant spillover effects across neighboring states. These results underscore that decentralization is not a uniform remedy: its stabilizing potential depends on the type of conflict, and the spatial configuration of federal arrangements. The findings echo recent guidance on fragile and conflict-affected states, which stresses the need for conflict-sensitive diagnostics and recognition of cross-border dynamics. By linking subnational evidence from India to global fragility frameworks, the paper highlights how federal design can both mitigate and redirect political contestation, offering insights into the conditions under which fiscal autonomy enhances stability in diverse societies.

Keywords: Regional Government, Regional Policy, Public Economics, Public Finance.

JEL Codes: H1; H7; J16; R5.

Conflict of interest: No conflict of interest.

Funding: No funding.

*Corresponding author.

List of Figures

.1	Correlation between tax autonomy and duration	32
.2	Relation between tax autonomy and duration	32
A.1	Results for autonomy	33
A.2	Results for decentralization	33
1	Comparison of conflict intensities by type in 2019	36
2	Residuals from SEM	37

List of Tables

1	Summary statistics	15
2	IV Regression Results for revenue federalism	18
3	IV Regression Results for spending federalism	19
B.1	Results for autonomy effects on occurences	34
B.2	Results for autonomy effects on occurences	34
3	Placebo test results for spending	35
4	Placebo test results for autonomy	35
5	Summary of Spatial Error Model Results with autonomy	36
6	Summary of Spatial Error Model Results with spending	37
7	Summary of Spatial Autoregressive Model Results	38

Contents

1	Introduction	4
2	Indian ethnofederalism	6
3	Theoretical framework	8
3.1	Contextual framework	8
3.2	Theoretical Framework	9
4	Empirical methodology	12
4.1	Data	12
4.2	Identification Strategy	15
5	Results	17
6	Robustness	19
6.1	alternative indicator of intensity	19
6.2	Placebo test	21
6.3	Instrument diagnostic	21
7	Spatial analysis	22
8	Conclusion	26
	Appendices	32
A	2SLS Results	33
B	Occurences results	34
C	Placebo Test	35
D	Spatial analysis	36

1 Introduction

Federalism, broadly understood as the transfer of authority and resources from the central government to subnational entities such as states or regions, is often promoted to improve public service delivery and manage ethnic diversity more effectively (Brancati (2006); Bakke and Wibbels (2006)). By allowing local governments to tailor policies to the specific needs of their populations, federal arrangements are assumed to increase the responsiveness and legitimacy of institutions. In deeply divided societies, federalism is also seen as a potential tool to reduce tensions and prevent conflict by granting ethnic or regional groups a degree of political autonomy. However, the actual effectiveness of federalism in mitigating conflict remains contested (Peluso (2007); Arellano-Yanguas (2011)). While some studies highlight its stabilizing effects, others point to cases where decentralization has exacerbated divisions or fueled secessionist claims. The existing empirical evidence is therefore mixed, and further research is needed to understand under which conditions federalism can promote peace and improve governance.

Most existing studies adopt a cross-country approach, making it difficult to identify the causal impact of federalism within a specific institutional, social, and historical context. This comparative perspective, while useful for broad patterns, tends to overlook the heterogeneity of local dynamics and the distinct mechanisms through which decentralization may influence conflict. Moreover, much of the literature relies on a single methodological framework, typically ignoring potential spatial spillovers or interdependencies between neighboring regions—factors that may significantly shape both governance outcomes and conflict diffusion (Mainali et al. (2022)). Another key limitation is the treatment of conflict as a homogeneous phenomenon. Few studies disaggregate between different types of conflict, such as secessionist violence, statehood demands, or contestation over natural resources, despite the fact that each may respond differently to institutional arrangements like federalism. Finally, widely used conflict indicators often lack granularity, making it difficult to capture variation in conflict intensity or escalation over time and space. This paper wants to address these gaps by adopting a subnational approach within a single country, distinguishing conflict types, incorporating spatial dynamics, and developing refined measures of conflict intensity. To do it, instead of relying on cross-country comparisons, which often obscure context-dependent mechanisms, the study concentrates on a single country—India—where significant variation in federal arrangements and conflict dynamics exists across states and over time. This choice allows for a more precise identification of causal relationships. The paper addresses two interrelated research questions. First, does the impact of federalism—measured through both revenue and expenditure autonomy—vary depending on the type of conflict? Rather than treating

conflict as a uniform phenomenon, the study disaggregates between secessionist violence, demands for state creation, and disputes over natural resources, each of which may respond differently to federalism. Second, do spatial spillovers matter? That is, does greater autonomy in neighboring states influence the likelihood or intensity of conflict in a given region?

These questions emerge from a clear mismatch between what the literature has so far assumed—namely, a homogeneous and linear relationship between federalism and conflict—and the complex, multi-dimensional reality on the ground.

This paper makes three main contributions to address the shortcomings identified in the literature. First, it differentiates the effects of federalism based on the nature of the conflict. By disaggregating between secessionist violence, state creation demands, and natural resource-related disputes, the analysis captures the heterogeneity of conflict dynamics and moves beyond the simplistic assumption of a uniform federalism-conflict relationship. Second, the paper introduces a spatial dimension to the analysis by accounting for regional interdependencies. It explores whether the level of autonomy in neighboring states influences conflict patterns, thereby incorporating spillover effects that are sometime ignored in existing work. Third, it develops a harmonized measure of conflict intensity that allows for consistent comparisons across states and over time. This refined measurement addresses previous limitations in the operationalization of conflict variables and enhances the robustness of the empirical results. Together, these contributions offer a more nuanced understanding of how different forms of autonomy affect distinct types of conflict within a single-country framework, while providing a replicable methodology for other decentralized contexts.

The analysis builds on a combination of theoretical and empirical approaches. First, a formal empirical model is developed to clarify the mechanisms through which federalism may affect different types of conflict and to derive testable hypotheses. Second, the empirical strategy relies on a two-stage least squares (2SLS) approach using instrumental variables, to address potential endogeneity between federal autonomy and conflict outcomes. Third, spatial econometric models are employed to capture the influence of neighboring states, explicitly accounting for spatial spillovers and interdependencies in conflict dynamics across Indian states. This multi-layered methodology allows for both internal and external sources of variation to be rigorously analyzed.

The findings reveal a nuanced relationship between federalism and conflict, which varies depending on the type of dispute and the broader regional context. While some forms of autonomy appear to reduce tensions, others may generate new political demands, highlighting the complex effects of decentralization in a heterogeneous federation like India. The results also suggest that the institutional configuration of one state can influence conflict dynamics in neighboring regions, underscoring the importance of spatial interdependencies.

The rest of the paper proceeds as follows. Section 2 presents the theoretical model, which formalizes the strategic interactions between central and subnational actors and generates the hypotheses to be tested. Section 3 describes the empirical approach, based on two-stage least squares (2SLS) estimation using instrumental variables to address endogeneity. Section 4 incorporates spatial econometric models to capture cross-state interdependencies and the diffusion of conflict. Section 5 conducts a series of robustness checks to test the stability of the results under alternative specifications and measurements. Section 6 concludes by drawing policy implications for institutional design in ethnically diverse and politically decentralized settings.

2 Indian ethnofederalism

India became independent from the British in 1947, the first constitution was enacted in 1950 and, as of 2019, there have been 102 amendments. Indian elites have struggled to balance internal diversity with a cosmopolitan identity and centralization with decentralization. Overall, they have leaned to the side of centralization ([Swenden \(2015\)](#) and [Jennings \(1953\)](#)). Unusual for a federation, the constitution is very detailed in prescribing the internal organization of each constituent unit. Also, the national parliament can unilaterally change State boundaries as well as the conditions governing State representation in the Senate. And, except for the State of Jammu and Kashmir, which (until 2019) had its own Constitution, the rest of the States have no separate constitutions of their own. From 1957, each State had a directly elected parliament, named the legislative council, and a centrally appointed governor. The governor holds executive power. He in turn appoints a council of ministers, with the chief minister at the head. The chief minister is the head of the local majority at the State parliament. The governor, on the advice of the chief minister, appoints members of the council of ministers—the cabinet that advises the chief minister. Despite the power vested in the chief minister, which includes advising the governor and chairing the legislature and the council of ministers, the governor is more than a figurehead. They have considerable authority, including the right to dismiss State governments’ discretion over a state’s contingency fund, the ability to enter into and execute contracts, the ability to grant pardons and suspend, remit, or commute sentences of convicted persons, and in some cases, can appoint a small subset of State legislators. States have exclusive authority over local police, education, welfare (pensions, unemployment, and disability), the economy (trade and commerce within the state, money-lending, and lenders), and culture (theatres, sports, religious societies, libraries, museums, and other similar institutions controlled or financed by the State; ancient and historical monuments and records).

In terms of population, India is the world's largest multinational federation. It contains many sizeable religious, linguistic, caste, and tribal groups, plus many regional divisions. It is not unique in its diversity. However, it was one of the few decolonizing states that purposively incorporated that diversity into its constitution through territorial recognition and territorial redesign. Through the process of linguistic reorganization, India became what is known in the political science literature as an ethnofederation ([Adeney \(2018\)](#)), where at least one unit of the federation is associated purposively with an "ethnic" category. To ensure the unity of the nation Indian constitution introduce the article 365 or "president rule". It allows the President of India to take over the governance of a state if it fails to comply with or give effect to the directives issued by the Union Government. In such cases, the President can declare that the state government is not functioning in accordance with the provisions of the Constitution. This often happens when there is a constitutional breakdown, such as a failure of law and order or a situation where no political party can form a stable government. It is also often triggered by conflicts within a state, highlighting a complex relationship between governance and social stability. When a state's political situation deteriorates—due to violent unrest, severe law and order issues, or significant political fragmentation—such conflicts can lead to a failure of governance. In these scenarios, the central government may determine that the state is unable to maintain constitutional order or fulfill its obligations, prompting the invocation of President's Rule. When President's Rule is imposed, the executive authority of the state is transferred to the central government, and the state's legislative assembly may be suspended or dissolved

Even if [McGarry and O'Leary \(2009\)](#) considers that ethnofederation are unworkable, some authors like [Adeney \(2018\)](#) found the contrary. The latter considers that Indian ethnofederalism is one of accommodation rather than an increase in secessionist pressures. The literature ([Roeder \(2013\)](#) and [Cornell \(2002\)](#)) considers that ethnofederalism affect the interests of local elites to increase the sense of separateness. They do so by choosing the language(s) in which the unit operates and educates its children and university students, changing the curriculum to promote "their" group's heroes and version of history (thus influencing the next generation), as well as using the local media to depict "their" version of contemporary events (e.g. the Cauvery water dispute between Tamil Nadu and Karnataka in South India). Such control can solidify the boundaries of the group. By encouraging this sense of separateness, increasing the distinction between "us" and "them" (whether the "them" is a neighboring unit or is the center) ethnofederal institutions also increase the "group's cohesion and willingness to act.". This willingness to act can be fuel by the fact that ethnofederalism provides territorially concentrated groups with increased institutional resources. These include a democratically elected legislature and chief minister, allowing them

to lobby for more resources and/or reject central legislation (Grigoryan (2012)). Nagaland for example has been embroiled in territorial disputes stemming from colonial-era borders, with an insurgency seeking to alter them while navigating pressures from the Indian government. Agrawal and Kumar (2017) argues that these conflicts are driven by political-economic interests and cannot be resolved technically, as they are deeply tied to the unresolved issue of Naga identity and Nagaland’s position within India.

However, there is no necessary relationship between increasing institutional resources or ethnofederalism and a desire for secession. Not only is secession never the easy option (Dion (1996) and Madiès et al. (2018)), but a rallying cry for secession will only be successful if the group feels its identity and interests are not protected within the ethnonational unit. If the instrumentalist position that identities are situational and subject to mobilization by elites (Brass (2024)) is accepted, then ethnofederal institutions create the conditions where it is not in elite interests to pursue secession. Elites need a motivation to pursue secessionism (and of course, the population needs to be motivated to respond to them). This motivation is more likely to arise if they do not have the opportunities to have their interests protected: whether these interests are defined in terms of the patronage that state power allows them to capture or in terms of cultural promotion.

3 Theoretical framework

3.1 Contextual framework

India offers a particularly rich empirical setting to study the relationship between federalism and conflict. As the world’s largest multinational federation, it combines deep social diversity with a unique institutional design that blends centralized authority with formal decentralization. Indian political elites have had to constantly navigate the tension between preserving national unity and accommodating immense internal diversity—linguistic, religious, caste-based, tribal, and regional. While the constitutional framework leans toward centralization, it also provides significant political space for subnational governance.

Unlike most federations, India’s Constitution allows the central government to unilaterally redraw state boundaries and define state representation in the upper house. States do not have separate constitutions (with the former exception of Jammu and Kashmir), and governors—appointed by the central government—retain significant powers, including the authority to dismiss elected state governments. Despite this, states exercise control over key domains such as education, local economic regulation, police, and cultural affairs.

India’s federal structure has been shaped by a deliberate attempt to accommodate ethnic

and linguistic diversity, making it an archetype of what is termed *ethnofederalism*. Through the linguistic reorganization of states and the territorial recognition of cultural groups, India has institutionalized diversity within its federal design. According to [Adeney \(2018\)](#), this model functions more as a system of accommodation than of fragmentation, challenging the common critique that ethnofederations necessarily fuel secessionism ([McGarry and O’Leary \(2009\)](#)).

The Indian case is also notable for the way in which subnational elites can use federal resources to strengthen group identity. Ethnofederal institutions provide tools such as regional languages, tailored education curricula, and local media narratives, which can reinforce a group’s distinctiveness ([Roeder \(2013\)](#); [Cornell \(2002\)](#)). This can simultaneously increase group cohesion and the ability to mobilize. However, whether such institutional empowerment leads to greater secessionist demands is not deterministic. As [Brass \(2024\)](#) and [Grigoryan \(2012\)](#) argue, the decision to mobilize for conflict against central government depends on elite incentives, which are shaped by whether their political and cultural interests can be satisfied within the current institutional framework.

This context makes India an ideal case to investigate how federalism affects various forms of conflict—including secessionist movements, demands for statehood, and disputes over natural resources—while accounting for the role of spatial interdependencies and local elite strategies. The institutional complexity, historical evolution, and ongoing political tensions provide fertile ground for both theoretical modeling and empirical testing of conflict dynamics under federal structures.

3.2 Theoretical Framework

In this subsection, we propose a simple theoretical framework to analyze how fiscal autonomy influences different types of conflicts within a regional unit. This model builds on the works of [Alesina and Spolaore \(1997\)](#) and [Tranchant \(2010\)](#).

We distinguish three types of conflicts: *secession*, *natural resource conflicts*, and *internal partition conflicts*. The goal is to demonstrate that autonomy tends to reduce the first two types of conflicts but may increase the risk of partition in highly heterogeneous regions. This distinction followed the work of [Sharma \(2024\)](#).

Consider a region \mathcal{R} composed of N identity groups $G = \{1, \dots, N\}$, with demographic weights $\alpha_i \in (0, 1)$ for each group i , such that:

$$\sum_{i=1}^N \alpha_i = 1.$$

We define a measure of *effective heterogeneity* as:

$$H = 1 - \max_{i \in G} \alpha_i.$$

A *homogeneous state* has $H \approx 0$, while a *highly fragmented state* has $H \approx 1$.

The region has a degree of autonomy represented by a total fiscal rent $R > 0$, decomposed into two components:

$$R = R_T + R_R,$$

where R_T denotes transfers or non-natural tax revenues (e.g., subsidies, tax shares), and R_R refers to revenues from local control over natural resources. In the Indian context, states receive a portion of royalties from natural resources, making R_R a central component for stabilization. An increase in R driven mainly by R_T may cause frustration if some groups feel excluded from R_R , which they perceive as confiscated wealth. However, the ability of states to use royalties as a budgetary resource helps ease such tensions.

The regional government is formed by a coalition $S \subseteq G$ such that:

$$\sum_{i \in S} \alpha_i \geq \theta, \quad \text{with } \theta \in (0.5, 1]$$

. The rent R is then shared among the coalition members in proportion to their demographic weight:

$$u_i^S = \frac{\alpha_i}{\sum_{j \in S} \alpha_j} R.$$

A group i may consider forming a new autonomous entity with a coalition $T \subseteq G$, $i \in T$, such that $\sum_{j \in T} \alpha_j \geq \theta$. This new entity receives a rent $R' = \gamma R$, where $\gamma \in (0, 1]$ reflects a potential loss in efficiency or endowment. We define:

$$\beta_i^T = \frac{\alpha_i}{\sum_{j \in T} \alpha_j}, \quad \text{thus} \quad u_i^T = \beta_i^T \cdot \gamma R - c_i^T.$$

The incentive condition for partition becomes:

$$u_i^T > u_i^S \Leftrightarrow \left(\frac{\gamma}{\sum_{j \in T} \alpha_j} - \frac{1}{\sum_{j \in S} \alpha_j} \right) \alpha_i R > c_i^T.$$

This condition is more likely to be satisfied when:

- Group i has a relatively greater weight in T than in S ,
- γ is close to 1 (indicating minimal loss from partition),
- $\alpha_i R$ is large enough that group i could expect to govern independently in the new entity,

though not already dominant in the original setting. Partition is attractive only if it improves group i 's standing compared to a previous situation where it could not govern alone. Too small a group makes partition unviable; a dominant group has no incentive to exit a favorable setup.

Such a scenario arises in highly heterogeneous contexts, where multiple alternative coalitions can meet the θ threshold. Autonomy then increases incentives for partition.

For secessionist conflicts, the same logic applies, but the conditions are stricter. The value of γ is typically lower, since secession entails major institutional, military, diplomatic, and fiscal costs. Added to this is the uncertainty of international recognition. Group i must be sufficiently powerful at the national level and show strong cohesion. Coordination becomes harder as the group size increases. Often, enhanced autonomy within the Indian Union is perceived as a more viable solution.

Type of Conflict	Effect of R	Effect of R_R	Role of H
Secession	Reducing	Weak	Weak
Natural Resources	Reducing	Reducing	Weak
Internal Partition	Amplifying	Indirect	Strong

Thus, we show that local autonomy can have ambivalent effects. When it includes actual transfer of powers, especially in natural resource management, it tends to stabilize center-region relations and reduce secession risks. Conversely, in regions marked by significant political or identity heterogeneity, it can intensify internal competition for control over local rents and revive partition dynamics. The effect of autonomy thus heavily depends on the internal population structure, the composition of rents, and the prevailing rules (state creation, royalties, etc.), as illustrated by [Baron and Ferejohn \(1989\)](#).

Application to the Indian Context

The theoretical framework aligns well with the Indian federal structure, where fiscal decentralization coexists with significant vertical and horizontal imbalances. In India, state governments derive revenues from two main sources: non-natural resource revenues (R_T) and natural resource-based revenues (R_R).

The component R_T could represent all forms of revenue excluding natural resources. This includes states' own tax collections (such as state GST, VAT on petroleum products, and excise duties), non-tax revenues (like interest receipts, user charges).

On the other hand, R_R captures revenues derived from the state’s direct control over natural resources, including royalties from minerals, coal, oil, and forest products. States like Odisha, Chhattisgarh, and Jharkhand depend heavily on these, making R_R a politically sensitive and economically crucial component.

In practice, when R (total fiscal rent) is high and well-distributed among groups, the likelihood of natural resource-based and secessionist conflicts diminishes. For example, mining royalties (a component of R_R) allocated fairly to tribal areas in Chhattisgarh have sometimes helped ease local grievances. However, inequitable access or perceptions of exclusion from R_R , especially by marginalized groups or tribal populations, can escalate into contestation or calls for greater autonomy.

The model’s predictions about internal partition are consistent with India’s state reorganization history. States like Telangana, Jharkhand, and Uttarakhand were formed amid perceptions that local groups were inadequately benefiting from R or lacked political dominance in the existing state coalition S . Here, the condition $u_i^T > u_i^S$ was met—groups believed they would fare better, even after accounting for administrative inefficiencies (i.e., low c_i^T and high γ).

Meanwhile, secessionist conflicts in regions like Kashmir and parts of the Northeast reflect high costs of secession (low γ) and geopolitical constraints, making full independence less feasible than autonomy within the Indian Union. In such cases, fiscal and administrative autonomy is often negotiated as a compromise.

Finally, the effective heterogeneity measure H has strong explanatory power in Indian politics. States with high H , like Assam or Manipur, have witnessed persistent demands for autonomous councils or new districts, reflecting the internal pressure for partition within heterogeneous regions.

This framework thus captures how the interplay of fiscal autonomy, demographic structure, and rent distribution shapes political stability and conflict in federal India.

4 Empirical methodology

4.1 Data

This study relies on an original combination of high-quality datasets that provide detailed and complementary information essential for understanding the links between fiscal federalism and conflict dynamics in India. The core economic and fiscal data are sourced from the Reserve Bank of India (RBI), which offers a uniquely detailed and reliable account of the fiscal position and economic performance of each Indian State and Union Territory. The

RBI’s disaggregated statistics on revenues and expenditures allow for precise measurement of both revenue autonomy and expenditure autonomy, which are central to this analysis of fiscal federalism. Political variables are drawn from official electoral data provided by the Election Commission of India, ensuring accurate and consistent information on the political context at the state level. These data are crucial to control political factors that may influence both fiscal choices and conflict outcomes. Conflict data comes from the Armed Conflict Location and Event Dataset (ACLED), a widely used and reputable source for detailed geo-referenced information on conflict events worldwide. ACLED’s granular event-level records, including the number of fatalities and identities of actors, make it possible to capture not only the scale but also the nature of violent incidents. This richness of detail allows for classifying conflicts according to the underlying motivations of actors (e.g., secession, state creation, natural resource management), which is vital for disentangling the mechanisms through which fiscal autonomy may affect specific types of violence. To construct the outcome variable, conflict intensity, the number of fatalities reported by ACLED is aggregated by state and year. A standardization procedure is then applied to these totals to account for national trends and structural differences across states. By standardizing fatalities relative to the national mean and standard deviation each year and for each conflict type, we remove the influence of structural differences between states, such as population size, historical conflict prevalence, or geographic factors that make some areas more prone to violence than others. Without this adjustment, states with larger populations or historically high conflict levels would always appear more intense, even if recent violence is not unusually high for them. Standardization makes the measure dimensionless and comparable because it expresses how much each state-year observation deviates from what is typical for that year in the whole country. This way, an increase in fatalities in a normally peaceful state can be meaningfully compared to the same increase in a historically violent state, because both are interpreted in relation to their distance from the national pattern. This approach adjusts for heterogeneous baseline levels of violence, allowing for meaningful comparisons and highlighting deviations from the national norm.

Formally, the standardized conflict intensity is calculated as:

$$Intensity_{ijt} = \frac{(fatalities_{ijt} - fatalities_{mean_{jt}})}{standard_{deviation_{jt}}} \quad (1)$$

Where $Intensity_{ijt}$ denotes the standardized intensity of conflict type j in state i at time t . This method aligns with the view that perceptions and impacts of conflict depend on context-specific baselines (Weingart et al. (2015)).

The main explanatory variables capture both dimensions of fiscal federalism. Revenue

autonomy is measured as the ratio of own-source revenues to total revenues for each state-year. Expenditure autonomy is calculated as the share of local public expenditure net of Centrally Sponsored Schemes (CSS), which are transfers determined and earmarked by the central government but spent locally. Excluding CSS ensures that the measure reflects the discretionary spending power of local governments, which is a key aspect of their capacity to respond to local needs and potentially manage tensions (Tranchant (2010)).

Several relevant control variables are included to account for socioeconomic factors known to affect conflict dynamics. The urbanization rate captures demographic pressures and urban crowding, which have been linked to higher unrest (Gizelis et al. (2021)). Indeed, urban population growth is associated with increased unrest specifically in peri-urban areas. This suggests that rapid urban expansion at the edges of cities can create social and economic pressures that elevate the risk of conflict, independently of environmental factors like droughts. GDP per capita is included to control for income effects, as higher living standards generally reduce incentives for rebellion (Goodhand (2003) and Premand and Rohner (2024)). Population size is added to reflect the scale of potential contestation and resource competition (Raleigh and Hegre (2009)). Finally, a dummy variable for the presence of a fiscal rule captures whether budgetary constraints might limit local governments' spending flexibility, which could either mitigate or exacerbate conflict risks depending on how effectively these constraints ensure equitable service delivery. To further capture environmental stressors that may influence conflict dynamics, we include a measure of precipitation shocks. Sudden or extreme deviations in rainfall can disrupt livelihoods, especially in regions heavily dependent on agriculture, leading to economic hardship, resource competition, and heightened social tensions (Eastin (2018) and Maertens (2021)). Droughts and excessive rainfall can both strain local governance and increase the risk of disputes over scarce or damaged resources. By accounting for annual precipitation variability at the state level, we control for the role of climate shocks as an additional factor that may interact with fiscal capacity and demographic pressures to shape patterns of unrest. This variable has been constructed by the author using high-frequency (daily) satellite data. This information has been used to compute the annual standard deviation of daily precipitation to capture the variability of rainfall in each year and for each state during the period 1991–2020.

Table 1: Summary statistics

Variable	Mean	Std. Dev.	Min.	Max.	N
state autonomy	48.938	25.713	5.466	100	887
log(GDP per capita)	10.287	1.061	7.886	12.832	849
Urbanization (%)	33.568	19.098	7.98	99.900	734
trend	16.815	9.352	1	33	887
fiscal rule	0.381	0.486	0	1	887
log(population size)	20.847	0.125	20.608	21.025	798
precipitation std. dev.	11.093	5.302	1.565	35.285	1080
creation	0.067	0.859	-0.255	5.570	887
secession	0.021	0.741	-0.586	5.562	887
natural	0.049	0.752	-0.247	5.570	887

4.2 Identification Strategy

To empirically assess the effects of states’ autonomy on conflict intensity, we use a Two-Stage Least Squares (2SLS) model, as applied by [Sanogo \(2019\)](#), [Bartolini et al. \(2019\)](#), and [Tselios \(2023\)](#) for example. The 2SLS approach is particularly suitable in this context because it addresses endogeneity concerns that would otherwise bias the estimates.

Endogeneity arises mainly through two channels: reverse causality and omitted variable bias. On one hand, fiscal autonomy may impact conflict by affecting local governments’ capacity to manage grievances, allocate resources, and provide services. On the other hand, conflict intensity may influence the degree of autonomy granted to or demanded by a state. For example, persistent violence might push states to seek greater self-rule or justify stronger central intervention. Moreover, unobserved factors such as entrenched ethnic cleavages, historical governance legacies, or local institutional capacity could simultaneously affect both fiscal autonomy and conflict outcomes, resulting in biased estimates if not properly addressed.

To overcome this, we apply a 2SLS estimation strategy that uses instrumental variables (IVs) correlated with states’ fiscal autonomy but plausibly exogenous to conflict intensity. In the first stage, these instruments predict the level of autonomy, removing endogenous variation. In the second stage, the predicted values are used to estimate the causal effect of fiscal autonomy on conflict intensity, isolating the exogenous component and yielding consistent results.

The first instrumental variable is the duration since a state’s official creation. Over time, older states tend to develop stronger administrative institutions, deeper fiscal capacity, and more stable governance frameworks ([Broschek \(2010\)](#)). This accumulated institutional

maturity increases their ability to raise and manage revenues independently, supporting greater fiscal autonomy. At the same time, the timing of a state’s creation is historically determined and unlikely to be directly linked to short-term changes in conflict intensity, satisfying both the relevance condition and the exclusion restriction for a valid instrument. Figure .1 (in appendix) shows the positive relationship between the time since a state’s creation and its tax autonomy level. This relationship is consistent with the findings of Vu (2021), who show that accumulated statehood experience strengthens fiscal and legal capacity, supporting more equitable economic development.

The second instrumental variable exploits exogenous fiscal changes resulting from the Finance Commission’s periodic recommendations. The Finance Commission is a constitutional body established under Article 280 of the Indian Constitution and reconstituted every five years to determine how net tax revenues are distributed between the central and state governments, and to establish principles for grants and fiscal transfers. Its members are appointed by the President of India and typically include independent economists, jurists, or senior administrators rather than active politicians, which insulates the body from direct political bargaining. The Commission’s mandate is highly formalized: it applies macroeconomic and structural criteria—such as population, per capita income, fiscal discipline, tax effort, and geographic considerations—to design allocation formulas. These nationally applied rules generate predictable adjustments in states’ fiscal space that are plausibly exogenous to contemporaneous state-level political or conflict dynamics. The instrument satisfies the relevance condition because Finance Commission recommendations directly alter the volume and composition of transfers received by states, thereby expanding or constraining their fiscal capacity and, by extension, their effective autonomy. A state awarded a higher share of centrally collected taxes or grants gains exogenous fiscal space, which increases its ability to finance expenditures and address local grievances, while a lower share reduces its autonomy. This systematic, formula-driven reallocation produces the kind of external variation in fiscal resources that is essential for identification. The exclusion restriction is also plausible: the criteria employed by the Commission are determined at the national level and updated only once every five years, making them insensitive to short-term conflict shocks in any individual state. Moreover, the weights applied to these criteria reflect equity and efficiency objectives rather than state-specific political pressures. This design ensures that the fiscal adjustments triggered by the Commission are orthogonal to unobserved local drivers of violence. A possible concern, however, is that some of the criteria used by the Finance Commission (most notably population and per capita income) are also included in the empirical models as controls. Since these factors are both part of the Finance Commission formula and potential determinants of conflict, one could worry that the instrument partially transmits their effect on conflict

outside of the controlled regression pathway, thereby weakening the exclusion restriction. This risk is mitigated by explicitly including GDP per capita and population as control variables in the regressions, so that their direct effects are absorbed within the model. The identifying variation in FC transfers therefore comes from the residual component of the formula (such as fiscal effort, discipline, and equity adjustments) that is not mechanically correlated with unobserved conflict dynamics. Nevertheless, some residual risk remains if Finance Commission recommendations systematically favored poorer or more populous states beyond what the controls capture, and if such characteristics also shaped conflict trajectories through unobserved channels. This possibility is addressed through robustness checks. Taken together, the institutional features of the Finance Commission and the empirical safeguards provide strong justification for treating its recommendations as a valid instrument for fiscal autonomy.

Formally, the empirical model starts with the following structural equation, which includes state (i) and time (t) fixed effects:

$$Y_{it} = \beta_0 + \beta_1 FD_{it} + \gamma_1 X_{it} + \mu_i + \lambda_t + \epsilon_{it}, \quad (2)$$

where Y_{it} is the conflict intensity, FD_{it} is fiscal autonomy, X_{it} is a vector of control variables, μ_i represents state fixed effects, λ_t represents time fixed effects, and ϵ_{it} is the error term.

Because FD_{it} is endogenous, we instrument it in the first stage using Z_{it} (state duration and Finance Commission dummy):

$$FD_{it} = \pi_0 + \pi_1 Z_{it} + \mu_i + \lambda_t + u_{it}. \quad (3)$$

The fitted values \hat{FD}_{it} from this first stage are then substituted back into the structural equation:

$$Y_{it} = \beta_0 + \beta_1 \hat{FD}_{it} + \gamma_1 X_{it} + \mu_i + \lambda_t + \epsilon_{it}. \quad (4)$$

Including state and year fixed effects controls for unobserved time-invariant heterogeneity and national-level shocks that could simultaneously influence fiscal autonomy and conflict.

5 Results

The results seem to suggest a negative effect of taxes autonomy on conflict intensity. Federalism measured as share of own local revenues seems to dampen the intensity of conflict which has as objectives the creation of a new state or secession from the Union. Indeed, federalism

in terms of revenue in India can dampen the intensity of conflict by promoting equitable resource distribution and empowering local governments. When states have greater control over their revenue sources, they can tailor fiscal policies to meet the specific needs of their populations, addressing disparities within their borders and grievances. By providing states with a stake in the economic well-being of their constituents, revenue-based federalism can mitigate tensions and promote stability, ultimately reducing the likelihood of violent conflict. These results are like those of [Brancati \(2006\)](#) who found that decentralization decreases ethnic conflict and secessionism directly by giving groups control over their own political, social and economic affairs.

	Secession	Creation	Natural
	(1)	(2)	(3)
<i>Autonomy</i>	−0.006***	0.003	−0.010***
	(0.002)	(0.003)	(0.003)
Observations	508	508	508
R^2	0.097	0.166	0.012
Adjusted R^2	0.084	0.154	0.002
Residual Std. Error (df = 500)	0.797	1.011	0.888

Table 2: IV Regression Results for revenue federalism

Note: *p<0.1; **p<0.05; ***p<0.01

Results are also similar for spending side of federalism. Indeed, when expenditure powers are devolved, states can design social services, infrastructure, and welfare programs that are responsive to local needs, addressing specific regional grievances that might otherwise fuel conflict. For example, when healthcare, education, and employment are provided at a regional level, there’s less likelihood that marginalized groups will seek autonomy as a solution to their problems. Expenditure federalism also allows regions to express their unique cultural identities through local policies without resorting to secessionist measures. States can allocate funds toward programs that honor and preserve local languages, traditions, and cultural practices, reducing cultural tensions by reinforcing a sense of belonging within the larger federal framework. In addition, by directing federal funds to regions that are conflict-prone, expenditure federalism can address socio-economic issues underlying secessionist tensions. When federal spending targets fragile regions for development, job creation, and security, it can weaken the appeal of secession by creating more stability and prosperity ([Eaton \(2006\)](#)).

	Secession	Creation	Natural
	(1)	(2)	(3)
<i>Decentralization</i>	−0.155*** (0.046)	0.122** (0.053)	−0.247*** (0.057)
Observations	508	508	508
R ²	0.461	0.186	0.236
Adjusted R ²	0.403	0.106	0.190
Residual Std. Error (df = 501)	1.003	1.163	1.259

Table 3: IV Regression Results for spending federalism

Note: *p<0.1; **p<0.05; ***p<0.01

The combined structure of tax and spending federalism means that regional disparities in both fiscal capacity and spending autonomy can be addressed through central redistribution, but with enough independence to respect regional autonomy. Such a balance ensures that no region feels marginalized to the extent of secession. When states are more financially autonomous, but still benefit from federal support, they have a stake in maintaining the current system for economic security. This reduces incentives to pursue statehood or secession, as states realize they benefit more within the union than outside of it. Federalism creates a platform for accommodating political demands through institutional channels rather than conflict. By enabling power-sharing and collaboration between central and regional governments, federalism can offer a political outlet for grievances that might otherwise manifest as violent movements. This responsive political structure reduces the intensity of such conflicts by presenting alternatives to secession or new statehood. While federalism alone cannot eliminate conflicts, it provides a framework to address economic and cultural grievances, and if used effectively, it can substantially reduce the intensity of conflicts by meeting local demands through peaceful, integrative mechanisms. The results go in the same way than those of [Siegle and O’Mahony \(2006a\)](#) who found that decentralization initiatives that support increased levels of local government expenditures, employment, and elected leaders have been less likely to succumb to ethnic conflicts.

6 Robustness

6.1 alternative indicator of intensity

To ensure the robustness of our results we investigate further the analysis to check potential effects on occurrences of conflicts instead of intensity. The computation is similar to the

intensity one.

$$Occurrences_{ijt} = \frac{(number_{ijt} - mean_{jt})}{standard_deviation_{jt}} \quad (5)$$

Examining how federalism—through taxation and spending—affects both the intensity of individual conflicts and the yearly number of events provides valuable insight into conflict dynamics. While intensity measures the severity of each event, occurrences, defined as the annual number of events, capture the persistence and spread of conflict. Decentralized tax and spending powers within a federal system can enable local governments to address region-specific grievances, potentially reducing both the frequency of conflicts and their intensity. For instance, effective public spending on social services or infrastructure could alleviate economic disparities that might otherwise fuel recurrent unrest. By analyzing both dimensions, we can better understand how fiscal federalism may contribute to regional stability, whether by reducing the triggers of conflict or limiting the severity of violence when conflicts occur, leading to more informed policy recommendations.

The results are available in the appendix section (tables [B.1](#) and [B.2](#)). These results paint a compelling narrative about the contrasting roles of autonomy and decentralization in shaping conflict dynamics. Autonomy, reflecting the revenue federalism dimension, appears to have a stabilizing influence, particularly on secessionist and natural-resource-related conflicts. The negative and significant coefficients suggest that when states have more control over their revenue generation, the pressures that often lead to these conflicts are alleviated. This might be because states with financial autonomy are better equipped to address local grievances and fund tailored policies, reducing the incentives for groups to push for secession or clash over natural resources.

In contrast, decentralization, which captures spending federalism, tells a more nuanced story. The results indicate that decentralization is associated with higher secessionist pressures and reduced stability, especially in resource-related contexts. While spending power can empower states to address local needs, the lack of matching revenue control might create inefficiencies or feelings of dependence on the central government, fueling dissatisfaction. Moreover, decentralization may inadvertently empower local elites or actors whose agendas conflict with broader national stability, or generate an interest to have a control on the use of money at local level ([Tranchant \(2010\)](#), [Fisman and Gatti \(2002\)](#)). These findings highlight a tension between empowering states financially and giving them the spending autonomy to act on those resources. It underscores the need for a careful balance: revenue autonomy appears to mitigate conflict, but spending federalism, without complementary mechanisms, may exacerbate it, especially in regions already prone to unrest.

6.2 Placebo test

I now examine whether there are confounding factors that could affect the results, which have remained stable so far (especially for conflicts' intensity). The empirical literature shows that the adoption of an economic policy or implementation of fiscal reforms is generally associated with parallel reforms, making the variation of conflicts' intensity a non-random factor. One could therefore imagine that unobservable variables correlated with outcome and potentially with the outcome variable could affect the baseline results. While we are aware that the empirical — method used in this study aims to address these types of concerns, we still — strengthen the results by conducting a placebo test on conflict intensity. To do this, we randomly attributed some values for intensity conflict by keeping some characteristics of the original distribution (mean, maximum and minimum). The main idea behind this test is that if the results are biased by unobservable variables, the placebo — test might also show significant effects. Random treatments within the sample do not affect my conflicts' intensities measures (Tables 4 and 3, in Appendix). Therefore, we can rule out the possibility of confounding — factors influencing our results.

6.3 Instrument diagnostic

The `ivdiag` function from the `AER` package in R is an essential tool for diagnosing Instrumental Variables (IV) models, particularly when dealing with potential endogeneity issues. This function comes from [Lal et al. \(2024\)](#) and is partly inspired by [Rueda \(2017\)](#). Endogeneity arises when some explanatory variables are correlated with the error term, which can lead to biased estimates in ordinary least squares (OLS) regression. The `ivdiag` function conducts a series of diagnostic checks on IV models to evaluate the validity and relevance of the instruments used. These diagnostics include tests for weak instruments, which occur when the instruments have a weak correlation with the endogenous regressor, and over-identification tests, which assess whether the number of instruments exceeds the number of endogenous variables, thereby ensuring that the instruments do not introduce bias into the model ([Olea and Pflueger \(2013\)](#) and [Chernozhukov and Hansen \(2008\)](#)). Additionally, `ivdiag` tests for instrument exogeneity, confirming that the instruments are uncorrelated with the error term in the structural equation ([Lee et al. \(2022\)](#)).

In the context of this research on federalism and conflict dynamics, the use of IV methods is crucial for addressing endogeneity concerns in the relationship between fiscal autonomy and conflict. Many of the factors influencing conflict intensity, such as fiscal policies or decentralization measures, may be endogenous, complicating causal inference. By utilizing appropriate instruments, such as political fragmentation for example, these endogeneity

concerns can be mitigated. The `ivdiag` function helps to validate the strength and relevance of these instruments, ensuring that the results are not compromised by weak or invalid instruments. This diagnostic process is vital for ensuring the credibility of the analysis and drawing robust conclusions regarding the impact of federal structures and fiscal policies on conflict dynamics in Indian states.

The results of the `ivdiag` test confirm the validity of my instrument. The graph ?? available in the Appendix sections summarizes the fact that the adjusted results are close to those obtained previously with our instruments. This confirms the robustness and validity of our results.

7 Spatial analysis

Spatial modeling approach

To ensure that our results are robust, we must consider the fact that conflicts and their determinants, such as armed groups' activities, often exhibit spatial interdependence across regions. An increase in state autonomy in State i could influence the intensity of conflict in neighboring states, either directly through spillover mechanisms or indirectly by altering the strategic calculations of armed groups. For example, greater autonomy in one state may encourage armed groups in contiguous areas to reduce their demands or redistribute their efforts, leading to a spatial reallocation of conflict intensity. Considering spatial effects is therefore indispensable when analyzing the relationship between federalism and conflicts ([Mainali et al. \(2022\)](#)). Conflict dynamics are rarely confined within administrative boundaries, and neighboring regions often share economic, political, and cultural linkages that amplify interdependencies. These connections can manifest as shared grievances, cross-border recruitment, or the spillover of violence. Additionally, policy measures implemented by one state to address conflict may inadvertently affect neighboring states, either by diffusing violence or by altering incentives for armed groups in the region. Ignoring these spatial dependencies could bias the analysis, underestimating the broader effects of federalism and state-level policies on regional stability. The graphs [1a](#) and [1b](#) in the appendix section show a significant concentration of conflict intensity in specific states, and more generally in the eastern states. This observation raises concerns about the potential spatial effects of these conflicts (in 2019). To address these concerns, we combine two complementary spatial econometric approaches: the Spatial Error Model (SEM) and the Spatial Autoregressive Model (SAR). The SEM explicitly incorporates spatial autocorrelation in the error terms, which is especially useful when unobserved factors—such as regional governance quality or historical

grievances—affect conflict intensity and are spatially correlated. The SEM framework corrects for these hidden influences, isolating the effect of observed variables such as autonomy and decentralization. The SAR model, in contrast, assumes that conflict intensity itself is spatially autocorrelated—that is, that outcomes in one region directly influence outcomes in neighboring ones. This is appropriate when behaviors, institutions, or shocks diffuse across borders through imitation, contagion, or coordination. By employing both models, we capture distinct but complementary spatial mechanisms: outcome-driven spillovers across neighboring units (SAR), and structural spatial dependence due to unobserved contextual factors (SEM). This dual strategy improves the robustness of our findings and avoids conflating direct causal effects with spatial dependencies. In the sections that follow, we detail the specification and estimation of each model and interpret their respective results. We formally specified below the econometric models to assess.

Spatial Error Model (SEM) The SEM captures spatial correlation in the error term and is specified as follows:

$$y_{it} = X_{it}\beta + u_{it}, \quad u_{it} = \lambda W u_{it} + \epsilon_{it} \quad (6)$$

where y_{it} denotes the intensity of conflict in state i at time t , X_{it} is a matrix of explanatory variables (including autonomy, decentralization, and controls), β is a vector of parameters, W is the spatial weights matrix, λ is the spatial error coefficient, and ϵ_{it} is an i.i.d. error term.

Spatial Autoregressive Model (SAR) The SAR accounts for spatial dependence in the dependent variable:

$$y_{it} = \rho W y_{it} + X_{it}\beta + \epsilon_{it} \quad (7)$$

Here, ρ captures the strength of spatial spillovers, with $W y_{it}$ representing the spatially lagged dependent variable. As before, X_{it} includes autonomy, decentralization, and relevant controls, and ϵ_{it} is the disturbance term.

These specifications provide two complementary lenses on spatial dynamics: the SEM corrects for omitted spatially correlated influences, while the SAR identifies how conflict levels propagate across space.

Results

The results of the spatial analysis are available in appendix section and provide an interesting perspectives on the relationship between federalism and conflicts. Indeed, the results highlight the impact of autonomy on three distinct outcomes within a spatial error model framework,

providing insights into the relationship between autonomy and various socio-economic indicators. The coefficient for autonomy is statistically significant in two of the three models, with magnitudes of -0.0148 and 0.0053, suggesting that autonomy has a negative association in one context and a positive association in another (by considering spatial model). This variation indicates that the effect of autonomy may depend on the specific outcome being examined. The coefficient Lambda in the Spatial Error Model (SEM) represents the spatial dependence of intensity in different types of conflicts. A negative and statistically significant Lambda across all models indicates that the intensity of conflict in one region is negatively correlated with the intensity in neighboring regions. This suggests that when one region experiences a high intensity of conflict, surrounding regions tend to have lower levels of conflict intensity. One possible explanation for this is that conflicts may be concentrated in certain areas due to regional dynamics such as political instability, competition for resources, or governance issues (Siegle and O'Mahony (2006b)), which could reduce the likelihood of conflict in neighboring regions. Additionally, the presence of ethnic or armed groups that operate across borders may explain these spatial patterns. These groups could be incentivized to attack in one region due to geographical or economic factors, such as access to resources, strategic positioning, or political vulnerabilities, while neighboring regions might be spared if they offer less incentive or resistance. For example, regions with greater autonomy might be able to address underlying issues like resource allocation or political grievances, potentially reducing conflict intensity locally but possibly exacerbating tensions in nearby regions. The spatial dependence of conflict intensity highlights the interconnectedness of regions and suggests that conflicts do not occur in isolation, but rather spill over or influence one another across borders. Understanding these spatial patterns is crucial for designing policies that aim to reduce conflict in one region without inadvertently increasing it in neighboring areas.

The SAR model estimations provide a more granular view of how autonomy and decentralization influence different types of conflict. The table below reports the estimated coefficients and standard errors for the variables of interest—autonomy, decentralization (measured as spending autonomy), and their spatial lag counterparts—across the three conflict types. The results reveal important spatial dynamics in the relationship between federalism and conflict. In *creation*-related conflicts, both autonomy and its spatial lag are statistically significant and positive, while spending autonomy at the local level is not significant, and its spatial lag is negative and highly significant. These findings suggest a complex pattern: higher local autonomy may raise demands for statehood, while increased spending autonomy in neighboring states might discourage such claims by making devolution short of full statehood appear viable. This stands in partial contrast to the IV results, where autonomy showed no significant effect and spending autonomy (decentralization) had a positive and significant

relationship with creation-related conflict. The SAR model thus suggests that the local effect of spending autonomy may be overstated in models that ignore spatial spillovers. In fact, the spatial lag of spending autonomy has a strong negative association with state creation conflict, indicating that institutional reform in one region can deflate parallel demands elsewhere. In *secessionist* conflicts, the SAR results show no significant direct effects for autonomy or spending autonomy, but again the spatial lag of spending autonomy is negative and significant. This suggests a regional deterrent effect: when nearby states are empowered fiscally, it may reduce incentives to escalate secessionist claims locally. One possible explanation is that fiscal decentralization in neighboring states signals the viability of peaceful institutional accommodation, leading minority groups to reconsider violent strategies and engage instead through political channels. In such a context, subnational elites or marginalized ethnic groups observing successful reforms elsewhere may shift from confrontation to negotiation, entering the institutional game with expectations of achieving meaningful concessions over time. This adjustment in strategy helps de-escalate conflict intensity by framing decentralization not as a zero-sum demand, but as a step toward inclusion. These dynamics align with theories of endogenous conflict resolution, where groups internalize the potential rewards of institutional integration when the system appears increasingly responsive and representative. More broadly, this pattern supports the idea that fiscal reforms in one state send institutional signals across borders. These signals can reshape the perceived payoffs of conflict versus cooperation, especially in federal systems where regional coordination, political imitation, and elite bargaining are frequent. The effectiveness of decentralization therefore transcends local boundaries and functions as a regional public good in conflict management. Furthermore, the presence of trans-state ethnic or armed networks may amplify these spatial effects. Armed groups or regional coalitions operating across multiple territories might respond to reforms in one area by reducing activities in another, reallocating strategic efforts based on relative political opportunity structures. In this way, institutional developments in one state can lead to a reconfiguration of conflict geography, redistributing contestation away from regions where reform is perceived as viable. Turning to fiscal autonomy (autonomy), the positive coefficient for creation-related conflict indicates that when states possess more discretion over their own revenues, they may also develop stronger institutional capacities and ambitions. This can embolden regional elites to push for full statehood as a means to consolidate power and access federal transfers more directly. Conversely, the negative spatial lag of autonomy suggests that when neighboring states hold greater fiscal autonomy, the local pressure for state creation diminishes, possibly because the central government is perceived as more flexible or responsive across the federation. This apparent contradiction between the SAR and IV results can be interpreted econometrically. IV estimates capture an average treatment

effect of local decentralization on conflict, assuming spatial independence. In contrast, the SAR explicitly models interdependence in outcomes, revealing how reforms in one location shape outcomes in another. When spatial dynamics are omitted, as in IV, conflict responses may appear stronger because they fail to account for offsetting effects in neighboring units. The SAR highlights that some of the conflict-mitigating effects of fiscal autonomy might be externalized. Overall, the SAR results qualify and refine the IV findings. While IV regressions pointed to a conflict-dampening role of spending autonomy, the SAR model reveals that such effects may be primarily external rather than internal to the reforming state. These findings emphasize the importance of spatially aware policymaking: institutional reforms may influence conflict patterns beyond the territories where they are enacted. Our SAR results also suggest that these effects are not uniformly local. Instead, decentralization generates regional externalities that can either deter or inspire demands in neighboring jurisdictions. Federalism thus functions as both a conflict management mechanism and a policy tool for regional integration. The SAR results underscore the importance of designing decentralization policies that account not only for intra-state equity and representation, but also for their inter-state effects. Ignoring these spatial linkages would underestimate both the risks and the benefits of fiscal and institutional reform.

8 Conclusion

This paper has examined how fiscal autonomy shapes the intensity of different types of conflicts (secessionist violence, demands for new state creation, and disputes over natural resources) using a panel of Indian states from 1991 to 2020. Combining a Two-Stage Least Squares estimation with a spatial perspective, we have captured not only the direct impact of autonomy within states but also the broader regional context in which these dynamics unfold.

Our results show that greater autonomy in both spending and revenues tends to reduce conflicts driven by secessionist claims and natural resource disputes, suggesting that when states have more control over their finances, they are better equipped to address local grievances and manage competition over resources. At the same time, we find that increased autonomy is associated with a rise in demands for state creation, indicating that while decentralization can defuse some forms of unrest, it may simultaneously encourage new claims for political recognition and administrative separation. These findings highlight that the effects of fiscal federalism are not uniform and depend on the type of conflict at stake. Autonomy can stabilize center–region relations in some contexts but may also intensify internal competition in heterogeneous states.

The analysis also underlines the importance of interregional dynamics. Autonomy generates spillover effects: what happens in one state can send signals to its neighbors and reshape incentives across the federation. Greater fiscal autonomy in surrounding states often has a stabilizing effect, reducing secessionist and partitionist pressures locally by signaling the viability of accommodation within the federal framework. This demonstrates that decentralization is not only a local governance tool but also a regional public good, whose effects extend beyond state borders.

These results echo broader debates on fragility and conflict-sensitive governance. International guidance emphasizes two elements that resonate with our findings: the need for diagnostics that differentiate between drivers of instability, and the recognition that fragility does not stop at borders. In the Indian case, distinguishing between secessionist, partitionist, and resource conflicts provides a diagnostic lens that clarifies which forms of autonomy reduce violence and which fuel new demands. Likewise, accounting for spatial spillovers shows that decentralization must be coordinated across states if it is to enhance stability.

Taken together, this work suggests that federalism should not be seen as a one-size-fits-all solution for managing conflict. Its stabilizing potential depends on how autonomy is designed, balanced, and coordinated across regions. For policymakers, empowering local governments can help address grievances and reduce violence linked to secession and resources, but such reforms must be accompanied by safeguards against partitionist pressures and by mechanisms of interregional coordination.

Future research could extend this analysis by examining the long-term effects of fiscal autonomy, identifying the best institutions to contain partitionist pressures, and distinguishing the impact of different categories of resource rents. These steps would further clarify the conditions under which fiscal federalism contributes to peace and stability in diverse societies.

References

- Adeney, K. (2018). Does ethnofederalism explain the success of indian federalism? In *Understanding Contemporary Indian Federalism*, pages 125–148. Routledge.
- Agrawal, A. and Kumar, V. (2017). Cartographic conflicts within a union: Finding land for nagaland in india. *Political geography*, 61:123–147.
- Alesina, A. and Spolaore, E. (1997). On the number and size of nations. *The Quarterly Journal of Economics*, 112(4):1027–1056.
- Arellano-Yanguas, J. (2011). Aggravating the resource curse: decentralisation, mining and conflict in peru. *The Journal of Development Studies*, 47(4):617–638.
- Bakke, K. M. and Wibbels, E. (2006). Diversity, disparity, and civil conflict in federal states. *World politics*, 59(1):1–50.
- Baron, D. P. and Ferejohn, J. A. (1989). Bargaining in legislatures. *American political science review*, 83(4):1181–1206.
- Bartolini, D., Ninka, E., and Santolini, R. (2019). Tax decentralization, labour productivity, and employment in oecd countries. *Applied Economics*, 51(34):3710–3729.
- Brancati, D. (2006). Decentralization: Fueling the fire or dampening the flames of ethnic conflict and secessionism? *International organization*, 60(3):651–685.
- Brass, P. R. (2024). Elite groups, symbol manipulation and ethnic identity among the muslims of south asia. In *Political Identity in South Asia*, pages 35–77. Routledge.
- Broschek, J. (2010). Federalism and political change: Canada and germany in historical-institutionalist perspective. *Canadian Journal of Political Science/Revue canadienne de science politique*, 43(1):1–24.
- Chernozhukov, V. and Hansen, C. (2008). The reduced form: A simple approach to inference with weak instruments. *Economics Letters*, 100(1):68–71.
- Cornell, S. E. (2002). Autonomy as a source of conflict: Caucasian conflicts in theoretical perspective. *World politics*, 54(2):245–276.
- Dion, S. (1996). Why is secession difficult in well-established democracies? lessons from quebec. *British Journal of Political Science*, 26(2):269–283.

- Eastin, J. (2018). Hell and high water: Precipitation shocks and conflict violence in the philippines. *Political Geography*, 63:116–134.
- Eaton, K. (2006). The downside of decentralization: Armed clientelism in colombia. *Security Studies*, 15(4):533–562.
- Fisman, R. and Gatti, R. (2002). Decentralization and corruption: evidence across countries. *Journal of public economics*, 83(3):325–345.
- Gizelis, T.-I., Pickering, S., and Urdal, H. (2021). Conflict on the urban fringe: Urbanization, environmental stress, and urban unrest in africa. *Political Geography*, 86:102357.
- Goodhand, J. (2003). Enduring disorder and persistent poverty: a review of the linkages between war and chronic poverty. *World Development*, 31(3):629–646.
- Grigoryan, A. (2012). Ethnofederalism, separatism, and conflict: what have we learned from the soviet and yugoslav experiences? *International Political Science Review*, 33(5):520–538.
- Jennings, I. (1953). Some characteristics of the indian constitution: being lectures given in the university of madras during march 1952 under the sir alladi krishnaswami aiyer shashtiabdapoorthi endowment. (*No Title*).
- Lal, A., Lockhart, M., Xu, Y., and Zu, Z. (2024). How much should we trust instrumental variable estimates in political science? practical advice based on 67 replicated studies. *Political Analysis*, 32(4):521–540.
- Lee, D. S., McCrary, J., Moreira, M. J., and Porter, J. (2022). Valid t-ratio inference for iv. *American Economic Review*, 112(10):3260–3290.
- Madiès, T., Rota-Grasiozi, G., Tranchant, J.-P., and Trépier, C. (2018). The economics of secession: a review of legal, theoretical, and empirical aspects. *Swiss journal of economics and statistics*, 154:1–18.
- Maertens, R. (2021). Adverse rainfall shocks and civil war: myth or reality? *Journal of Conflict Resolution*, 65(4):701–728.
- Mainali, R., Tosun, M. S., and Yang, J. (2022). Fiscal decentralization, intergovernmental transfer reform and conflict in colombian municipalities. *Socio-economic planning sciences*, 83:101108–.
- McGarry, J. and O’Leary, B. (2009). Must pluri-national federations fail? *Ethnopolitics*, 8(1):5–25.

- Olea, J. L. M. and Pflueger, C. (2013). A robust test for weak instruments. *Journal of Business & Economic Statistics*, 31(3):358–369.
- Peluso, N. L. (2007). Violence, decentralization, and resource access in indonesia. *Peace Review: A Journal of Social Justice*, 19(1):23–32.
- Premand, P. and Rohner, D. (2024). Cash and conflict: Large-scale experimental evidence from niger. *American Economic Review: Insights*, 6(1):137–153.
- Raleigh, C. and Hegre, H. (2009). Population size, concentration, and civil war. a geographically disaggregated analysis. *Political geography*, 28(4):224–238.
- Roeder, P. G. (2013). Ethnofederalism and the mismanagement of conflicting nationalisms. In *The paradox of federalism*, pages 13–29. Routledge.
- Rueda, M. R. (2017). Small aggregates, big manipulation: Vote buying enforcement and collective monitoring. *American Journal of Political Science*, 61(1):163–177.
- Sanogo, T. (2019). Does fiscal decentralization enhance citizens’ access to public services and reduce poverty? evidence from côte d’ivoire municipalities in a conflict setting. *World development*, 113:204–221.
- Sharma, C. K. (2024). Does fiscal federalism prevent or provoke secessionist conflicts? the autonomy-equalization conundrum and the promise of concessionary federalism. *Political Science*, 76(2-3):157–188.
- Siegle, J. and O’Mahony, P. (2006a). Assessing the merits of decentralization as a conflict mitigation strategy.
- Siegle, J. and O’Mahony, P. (2006b). Assessing the merits of decentralization as a conflict mitigation strategy.
- Swenden, W. (2015). India and the management of ethnic diversity: The unfinished business of accommodation. *From the Margins to the Mainstream: Institutionalising Minorities in South Asia*.
- Tranchant, J.-P. (2010). Does fiscal decentralization dampen all ethnic conflicts? the heterogeneous impact of fiscal decentralization on local minorities and local majorities.
- Tselios, V. (2023). Does political decentralization affect income inequality? the role of governance quality. *Regional Studies*, 57(5):829–843.

- Vu, T. V. (2021). Statehood experience and income inequality: A historical perspective. *Economic Modelling*, 94:415–429.
- Weingart, L. R., Behfar, K. J., Bendersky, C., Todorova, G., and Jehn, K. A. (2015). The directness and oppositional intensity of conflict expression. *Academy of Management Review*, 40(2):235–262.

Appendices

Appendix A

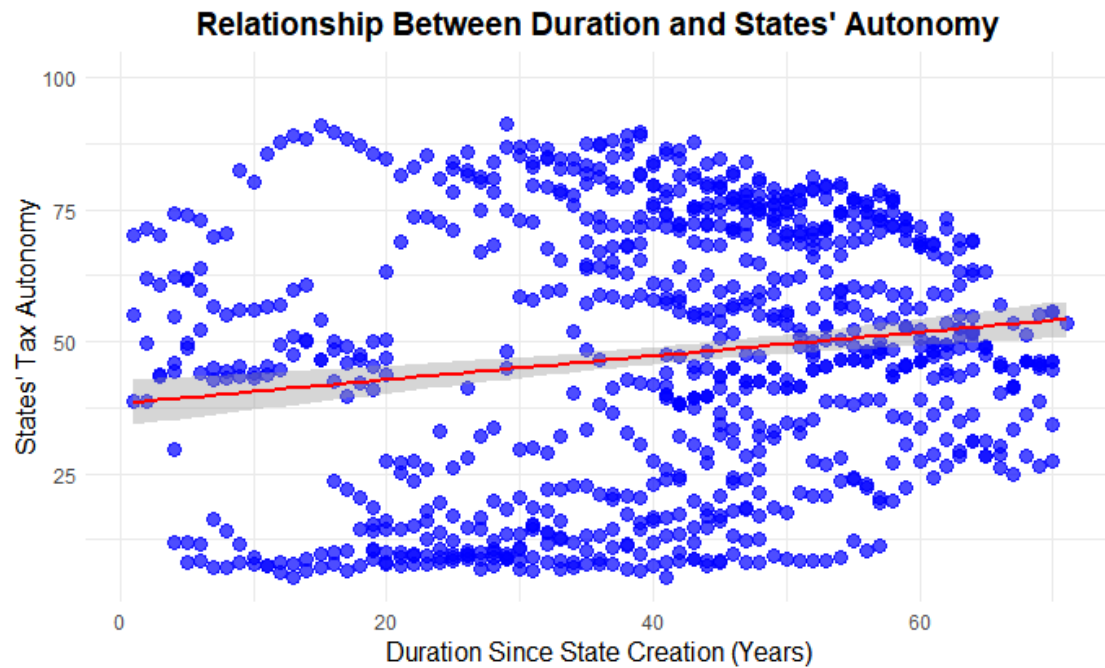


Figure .1: Correlation between tax autonomy and duration

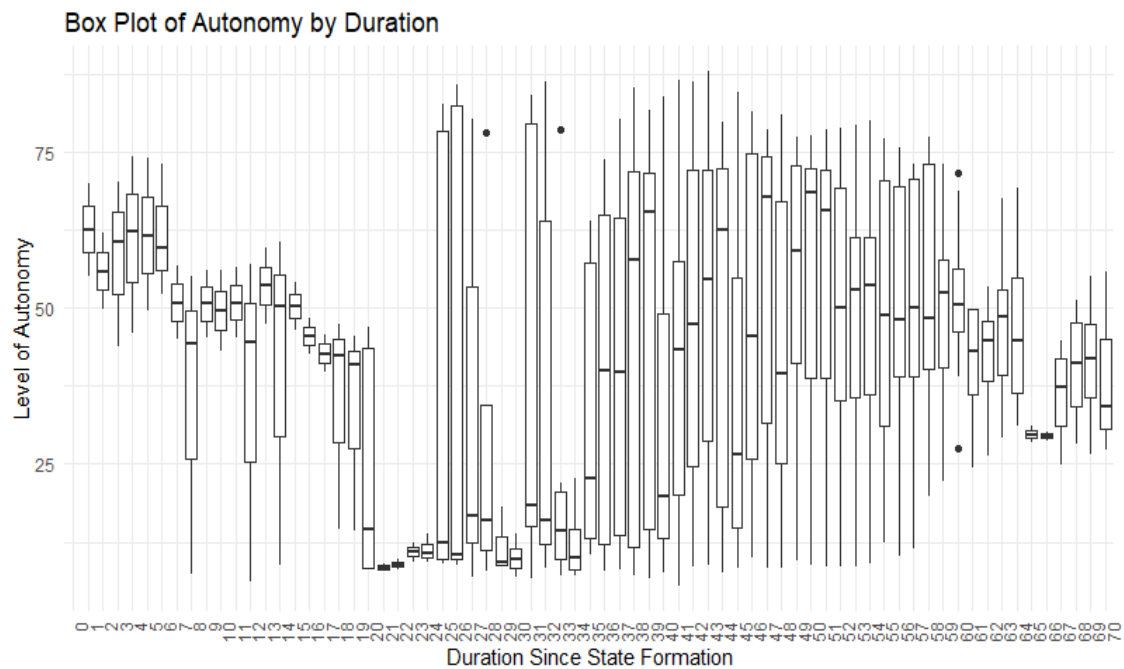


Figure .2: Relation between tax autonomy and duration

Appendix B

A 2SLS Results

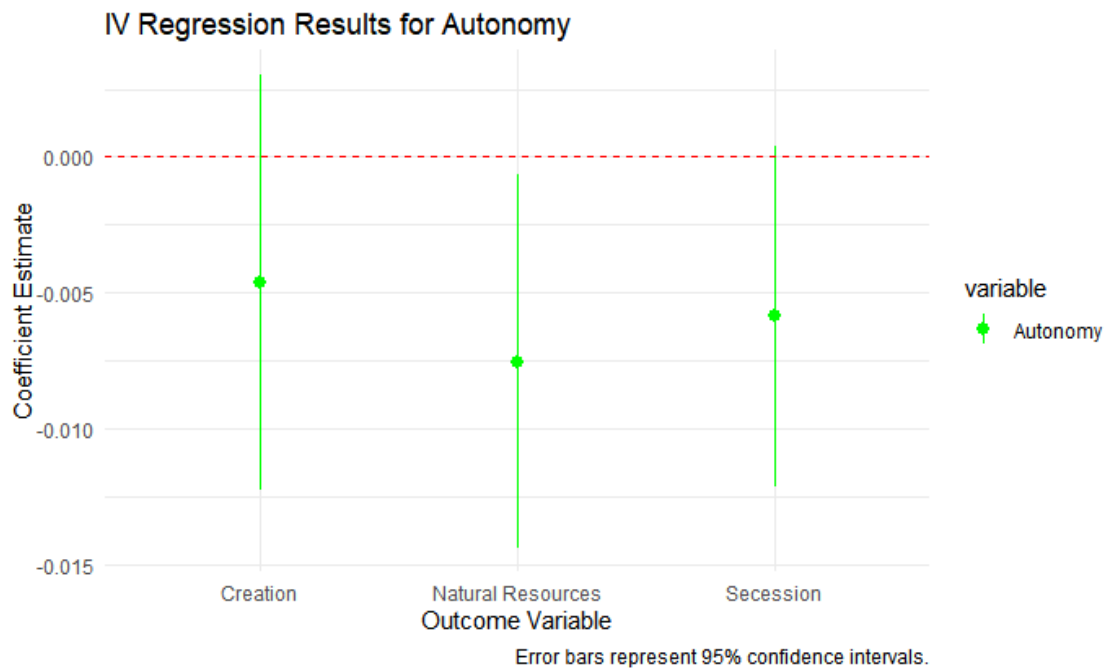


Figure A.1: Results for autonomy

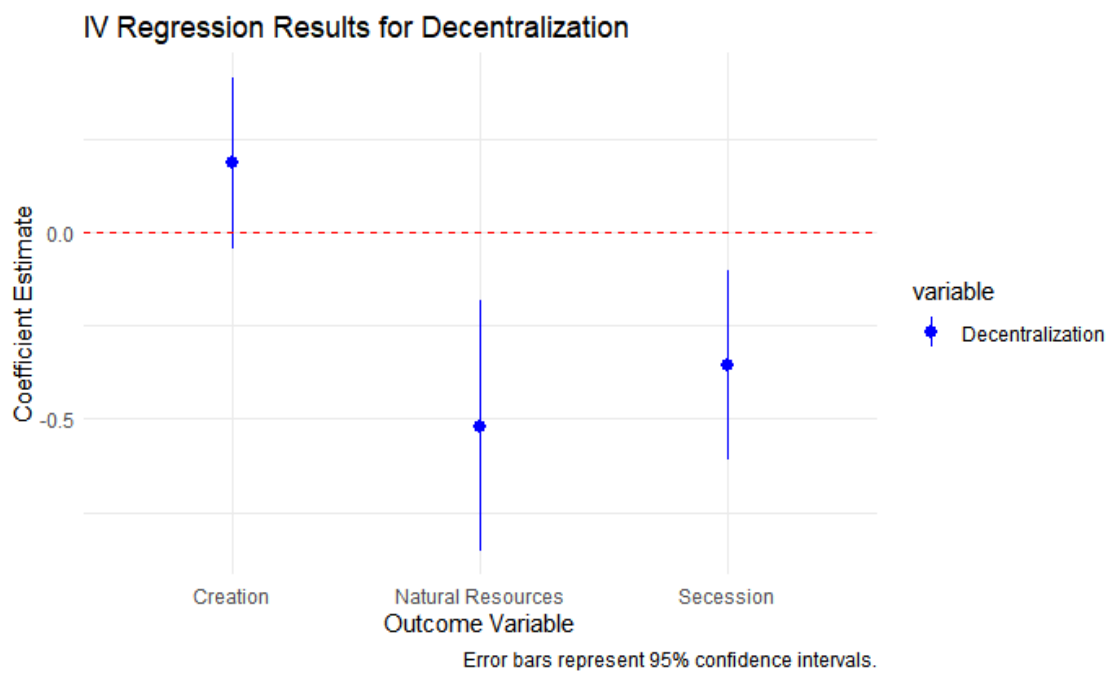


Figure A.2: Results for decentralization

B Occurences results

Table B.1: Results for autonomy effects on occurences

	<i>Dependent variable:</i>		
	<i>secession</i>	<i>creation</i>	<i>natural</i>
	(1)	(2)	(3)
autonomy	-0.007*** (0.003)	-0.005 (0.004)	-0.010*** (0.004)
Observations	361	361	361
R ²	0.154	0.273	0.069
Adjusted R ²	0.137	0.259	0.051
Residual Std. Error	0.829 (df = 353)	1.121 (df = 353)	1.060 (df = 353)
<i>Note:</i>		* $p < 0.1$; ** $p < 0.05$; *** $p < 0.01$	

Table B.2: Results for autonomy effects on occurences

	<i>Dependent variable:</i>		
	<i>secession</i>	<i>creation</i>	<i>natural</i>
	(1)	(2)	(3)
decentralization	-0.416*** (0.137)	0.198* (0.119)	-0.596*** (0.189)
Observations	361	361	361
R ²	-2.443	-0.218	-3.419
Adjusted R ²	-2.501	-0.238	-3.494
Residual Std. Error	1.669 (df = 354)	1.448 (df = 354)	2.307 (df = 354)
<i>Note:</i>		* $p < 0.1$; ** $p < 0.05$; *** $p < 0.01$	

Appendix B

C Placebo Test

Table 3: Placebo test results for spending

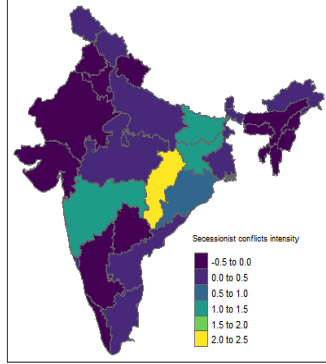
	<i>Dependent variable</i>		
	<i>random_secession</i>	<i>random_creation</i>	<i>random_natural</i>
decentralization	-0.051 (0.080)	-0.071 (0.075)	-0.036 (0.077)
Observations	508	508	508
R2	0.001	0.026	0.002
Residual Std. Error	1.753	1.640	1.683

Table 4: Placebo test results for autonomy

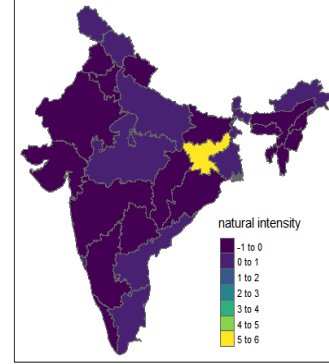
	<i>Dependent variable</i>		
	<i>random_secession</i>	<i>random_creation</i>	<i>random_natural</i>
autonomy	-0.003 (0.005)	-0.005 (0.004)	-0.005 (0.005)
Observations	508	508	508
R2	0.012	0.001	0.0001
Residual Std. Error	1.743	1.618	1.684

Appendix C

D Spatial analysis



(a) Secessionist conflicts intensity



(b) Natural resources conflicts intensity

Figure 1: Comparison of conflict intensities by type in 2019

	Secession	Creation	Natural
Autonomy	0.00059 (0.00087)	-0.0148*** (0.00073)	0.0053*** (0.00079)
Lambda	-1.8321* (0.7067)	-4.2717*** (0.1342)	-2.9496** (0.5302)
Observations	668	668	668
AIC	1493.9	1632.7	1564
Log Likelihood	-738.97	-808.36	-774.01

Table 5: Summary of Spatial Error Model Results with autonomy

	Secession	Creation	Natural
Decentralization	-0.00017 (0.00562)	-0.0198*** (0.00704)	-0.00173 (0.00645)
Lambda	-1.6232** (0.7306)	-0.4896** (0.6595)	0.3339 (0.3971)
Log Likelihood	-985.35	-1116.67	-1001.83
AIC	1986.7	2249.3	2019.7
Observations	668	668	668

Table 6: Summary of Spatial Error Model Results with spending

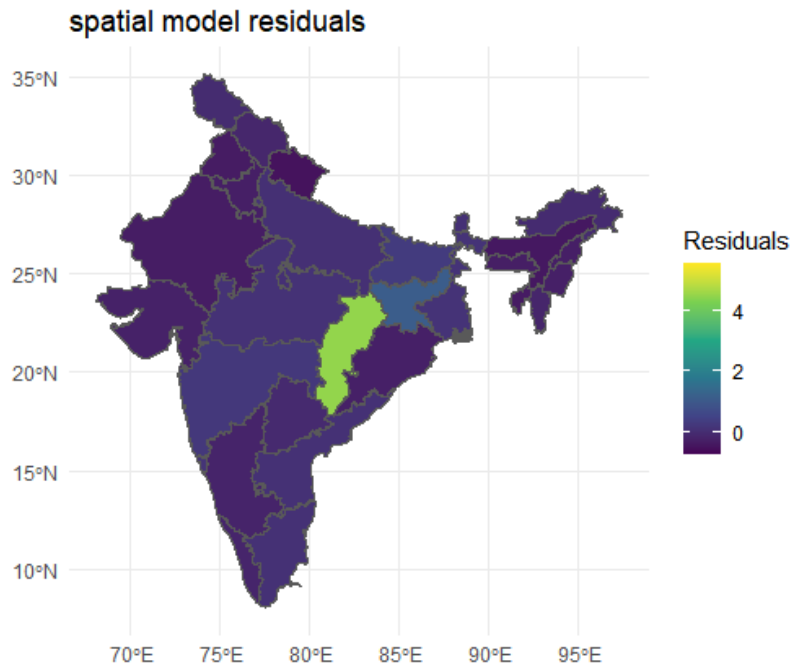


Figure 2: Residuals from SEM

	Secession	Creation	Natural
Autonomy	0.00236 (0.00166)	0.00801*** (0.00184)	0.00008 (0.00170)
Autonomy (neigh.)	-0.00820** (0.00407)	-0.05131*** (0.00684)	-0.00245 (0.00412)
Spending Autonomy	0.00840 (0.00648)	0.00057 (0.00739)	0.00021 (0.00662)
Spending Aut. (neigh.)	-0.09681** (0.04188)	-0.43274*** (0.07746)	-0.04394 (0.03995)
Log Likelihood	-978.5	-1073.7	-1000.6
AIC	1977.1	2167.4	2021.1
Observations	887	887	887

Table 7: Summary of Spatial Autoregressive Model Results