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ORIGINAL PAPER

Divided autonomy: fiscal decentralisation across Italian regions and municipalities

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Abstract

This paper shows how granular subnational data reveal asymmetries invisible in national aggregates by constructing indicators of fiscal autonomy, revenue composition and fiscal dependence for Italian regional and municipal governments using the novel OECD's REGOFI and MUNIFI databases. The analysis documents persistent asymmetries along three distinct layers: the constitutional divide between special-statute regions (SSRs) and ordinary-statute regions (OSRs), the north–south development gradient, and the contrasting patterns between governmental tiers. SSRs exhibit markedly higher fiscal autonomy and substantially lower transfer dependence. At the municipal level, the pattern reverses: ordinary-region municipalities show higher own-revenue ratios, producing a configuration of autonomous regions with dependent municipalities versus dependent regions with more autonomous ones. The north–south gradient remains pronounced municipally, where large revenue asymmetries coexist with broadly convergent per capita expenditure. This nominal equalisation cannot be taken as evidence of equivalent service provision. From a policy perspective, greater regional differentiation should be balanced with effective equalisation mechanisms to avoid adverse consequences for service provision in poorer regions.

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1 Introduction

Devolution refers to transferring decision-making powers, responsibilities, and resources from the central government to local or regional authorities to guarantee more responsive and tailored public goods and services (Oates 1972). Higher regional autonomy may lead to innovative approaches, foster modernisation (Rose-Ackerman 1980), and lead to a successful management of a multilevel governance structure (Fiorillo et al. 2021). However, from an equity perspective, decentralising responsibility and provision of certain policy domains (e.g. healthcare) could lead to inequalities in public sector activities, undermining equality conditions for all citizens throughout the national territory (Bird 2003; Sacchi and Salotti 2016; Nirola et al. 2022).[1]

The Italian case serves as a laboratory example because the evolution of the decentralisation process reveals a persistent and institutionalised asymmetry (Congleton 2006; Allain-Dupré et al. 2020). The coexistence of special and ordinary regimes, divergent fiscal capacities, and differentiated political demands produces a territorially fragmented governmental structure (see Podestà 2017). Rather than being a temporary phase leading to a more uniform system, this asymmetry has become the defining feature of Italian multilevel governance.

In this paper, we construct indicators of fiscal autonomy, revenue composition, and fiscal dependence for all Italian regional and municipal governments, using the novel REGOFI and MUNIFI databases provided by the OECD (OECD 2024), supplemented with ISTAT and Eurostat data. These datasets provide detailed budgetary data at the regional and municipal level across OECD countries, enabling a granular analysis that goes well beyond what standard national-level fiscal data can reveal. Specifically, we use regional data for the 21 Italian NUTS-2 entities (19 regions and 2 autonomous provinces), and municipal data aggregated to the NUTS-2 territorial scale.

We contribute to the existing literature by shedding light on the deep asymmetries that characterise the Italian system, which have been emphasised by both comparative work on asymmetric decentralisation and vertical fiscal imbalances and country-specific analyses of Italian regional finance (De Mello 2000; Eyraud and Lusinyan 2013; Baldini and Baldi 2014; Podestà 2017). This speaks directly to a central question in the existing literature on asymmetric decentralisation: whether devolving fiscal and taxing powers widens or narrows territorial disparities. Cross-country evidence suggests that the effect of decentralisation on regional inequality hinges on the level of development and, crucially, on a country's redistributive capacity (Rodríguez-Pose and Ezcurra 2010; Lessmann 2012; Nirola et al. 2022). Our within-country analysis brings granular evidence to bear on this question, showing how, in a single high-income setting, asymmetric arrangements interact with an

[1] For instance, decentralising health function can result in divergent outcomes, leading to disparities between regions, where some areas can achieve better health targets due to more favourable socio-economic conditions or higher resource management (Ferrario and Zanardi 2011).

underlying north–south divide to shape the distribution of tax autonomy and fiscal dependence across governmental tiers.

From a methodological standpoint, our analysis demonstrates the value of granular subnational fiscal data for understanding decentralisation in countries with significant within-country heterogeneity, compared with relying solely on national-level aggregates, as is standard in the cross-country literature. The REGOFI and MUNIFI databases enable deeper analysis, and the indicators constructed here provide a replicable framework applicable to other OECD countries facing similar questions of institutional heterogeneity and multilevel fiscal design (Gianelle et al. 2026).

The analysis yields four main findings. First, the constitutional statute is the dominant source of regional asymmetry: special-statute regions (SSRs) have own-revenue shares more than three times higher than ordinary-statute regions (OSRs), fiscal dependence more than seven times lower, and vertical fiscal imbalance around five times lower, with the revenue-sharing arrangements structurally favouring economically stronger SSRs, since the major shared taxes yield more in richer territories. Second, a persistent north–south gradient is superimposed on this divide, with northern OSRs showing nearly double the revenue autonomy of southern ones. Third, the SSR/OSR pattern reverses at the municipal tier: ordinary-region municipalities outperform special-region ones in fiscal autonomy, partly because generous regional-to-municipal transfers in SSR territories reduce municipal own-revenue effort without raising spending. Fourth, per capita municipal expenditure is broadly convergent despite large revenue asymmetries, suggesting a substantial equalising function of the transfer system. However, this nominal convergence masks disparities in service quality; it is fragile insofar as it depends on transfer flows rather than autonomous fiscal capacity.

The remainder of this paper is structured as follows. Section 2 provides an overview of the decentralisation process in Italy from a normative viewpoint. Section 3 uses the Regional Authority Index (RAI) and the traditional quantitative decentralisation indicators to present an international comparison, contextualising Italy's experience within a broader framework. Section 4 provides empirical evidence from the REGOFI and MUNIFI databases to analyse fiscal dynamics at regional and municipal levels in Italy, including formal statistical tests and panel regressions that corroborate the descriptive patterns. Section 5 discusses their policy implications and identifies priorities for future research.

2 The institutional and fiscal framework of Italian decentralisation

Italy's decentralisation is defined by a persistent, multidimensional asymmetry designed to balance national unity with regional characteristics. This dualism began with the 1948 Constitution, which granted five SSRs broad legislative and fiscal powers (Sicily, Sardinia, Trentino-Alto Adige, composed of the autonomous provinces of Trento and Bolzano-Bozen, Friuli-Venezia Giulia and Aosta Valley), while the fifteen OSRs were not established until 1970. This historical divide created a structural heterogeneity that remains a defining feature of the Italian system.

The institutional framework evolved through three major legislative milestones. First, the Bassanini reforms (Law 59/1997 and Legislative Decree 112/1998) introduced the principles of subsidiarity and differentiation (influenced by the European regional policy—Keating 2008), redefining functions between government levels while increasing administrative complexity. Second, the 2001 reform of Title V of the Constitution formally enshrined fiscal autonomy in Article 119 and expanded regional competencies, yet often left OSRs without the financial capacity to exercise them effectively (Baldini and Baldi 2014; Lagravinese et al. 2018). In particular, healthcare became the dominant regional expenditure function, absorbing the largest share of regional budgets and representing the most visible arena in which fiscal asymmetries between SSRs and OSRs play out.

Finally, Law 42/2009 sought to replace historical spending with a needs-based framework of standard costs; however, its partial implementation has left OSRs structurally dependent on central transfers. This uneven landscape has reinforced territorial disparities (Del Monte et al. 2022; Ferrario et al. 2023), particularly along the north–south gradient (Martinez-Vazquez et al. 2020), sparking ongoing debates over "differentiated autonomy" under Article 116 (comma 3) (Cepiku 2021; Baldini and Baldi 2014) and reinforcing the perception that decentralisation has exacerbated rather than reduced interregional disparities and household income inequality (Beramendi 2012; Bordignon and Turati 2013; Sacchi and Salotti 2014).

This complex landscape was further tested by the Covid-19 pandemic, which prompted temporary recentralisation and central coordination of investments to address negative externalities (Lago-Peñas et al. 2022), leaving the Italian system in a hybrid state between regional discretion and central coordination (Fabbrini 2022). Table A1 in the Online Appendix summarises the evolution of decentralisation in Italy from 1948 to the early 2020s, incorporating the key elements above.

This legislative evolution has produced starkly different regional revenue structures, as detailed in Table 1, which reports, for each region and statute type, the percentage of each major national tax that is retained by or transferred to the regional level. OSRs possess limited tax autonomy; they do not participate in corporate income tax (IRES), and their personal income tax (IRPEF) access is restricted to a small surcharge. To make the OSR and SSR columns comparable despite their different legal nature (statutory shares of the whole tax for SSRs versus a surcharge for OSRs), we express the OSR surcharge as an equivalent share: the revenue raised through the regional IRPEF surcharge as a percentage of total IRPEF revenue generated in the OSRs (2017–2021 average). This equivalent share is small (7.45%), reflecting both the modest surcharge rate and the limited room regions have to vary it.

The VAT shares are mediated by an equalisation mechanism based on historical expenditure, functioning de facto like a transfer than an autonomous source. In contrast, SSRs retain significant statutory shares of IRPEF, IRES, and VAT, ranging from approximately 59% in Friuli-Venezia Giulia to 100% in Aosta Valley, with few or no redistribution obligations. This SSR group is itself heterogeneous, reflecting individually negotiated statutes where northern SSRs generally retain higher shares of major national taxes than southern counterparts like Sicily. These statutory arrangements are not directly visible in the standard fiscal data used in Sect. 4,

Table 1 Tax revenue shares retained, by region and type (average 2017–2021)

Region	Statutory share	Personal Income Tax (IRPEF) Equiv. surcharge share*	Corporate Income Tax (IRES) Statutory share	Value-Added Tax (VAT) Statutory/distributed share	Main excise taxes Statutory share	Regional Production Tax (IRAP) Wholly regional tax**	Vehicle Tax Wholly regional tax**
Ordinary-Statute Regions							
Ordinary-Statute Regions (OSRs)	–	7.45%	–	65.7% (equalised)	Minor surcharge (natural gas)	3.9% base rate (±0.92%)	Regional; ± 10% of prior year
Special-Statute Regions							
Bolzano-Bozen	90%	1.3%	90%	80% (internal) 90% (import)	90%	3.9% base rate (wider margin)	Regional; wider margin
Trento	90%	4.9%	90%	80% (internal) 90% (import)	90%		
Aosta Valley	100%	5.8%	100%	100%	100%		
Friuli-Venezia Giulia†	59.1%	4.4%	59.1%	59.1%	29.75–59.1% (varies by product)		
Sicily	71%	7.1%	100%	36.4%	—		
Sardinia	70%	6.0%	70%	90%	90%		

Source: Authors' elaborations based on Camera dei Deputati, Studi—Affari regionali, Autonomie territoriali e finanza locale, "La finanza regionale", Tema 19 gennaio 2026; Ministero dell'Economia e delle Finanze, Dipartimento delle finanze, "Bollettino delle entrate tributari", various years; Centro Studi e Ricerche Itinerari Previdenziali—Osservatorio sulla spesa pubblica e sulle entrate, various reports

* Equivalent share: revenue from the regional IRPEF surcharge as a percentage of total IRPEF revenue collected in the relevant region(s), own calculations (2017–2021 average). The regional surcharge consists of a base rate of 1.23%, to which regions may add up to 2.1% (OSRs) or up to 0.5% (SSRs). ** IRAP and Vehicle Tax are entirely regional taxes for both groups; SSRs have greater flexibility in setting the tax base. † Friuli-Venezia Giulia data from 2018 following revision of sharing rates under the 2018 budget law. – indicates no participation in the relevant tax. SSRs also retain a share of inheritance and gift taxes, as well as various taxes on registration, concessions, and stamp duties, which together contribute a minor amount to regional revenue. There is also a regional entity called "Trentino-Alto Adige Region", which encompasses the autonomous provinces of Trento and Bolzano. However, it has residual competences and resources, and is therefore not included in our analysis; the region is endowed with 10/10 of real-estate registration tax, 9/10 of inheritance and gift taxes and lotto proceeds, and 1/10 of internal VAT; the autonomous provinces of Trento and Bolzano benefit from these revenues in addition to their own shares

where SSR revenues are aggregated as "taxes devolved and regulated to special autonomies". Thus, Table 1 provides vital context for the high fiscal autonomy documented later.

Regions differ not only in the shares they retain but also in the powers they exert over these taxes. On the one hand, OSRs have limited room for manoeuvre: they may set the rate of the IRAP and IRPEF surcharges within boundaries fixed by the national law and, in some cases, differentiate the type of taxpayers (by income bracket for the IRPEF surcharge, by economic sector for IRAP), while also handling the administrative side (assessment, collection, refunds, recovery, and penalties) within nationally defined limits. On the other hand, SSRs enjoy considerably more power than the OSRs. Their statutes specify the shared national taxes, the applicable (and sometimes differentiated) rates, the computation base, and the attribution rules. Most importantly, Sicily, Friuli-Venezia Giulia (since 2008), and Trentino-Alto Adige, together with the autonomous provinces of Trento and Bolzano (since 2011), collect the shared national taxes directly, with the corresponding revenue paid into their own treasury accounts rather than transiting central government accounts; Sardinia's direct-collection arrangement is being phased in, while in Aosta Valley, the State collects and then devolves the regional share. This combination of higher statutory shares and direct collection is the strongest institutional marker of SSR fiscal autonomy.

At the municipal level, the institutional logic changes significantly: the system is overall legally uniform across the entire national territory and, most importantly, there are no legal distinctions based on regional statute.[2] All municipalities rely on three main own taxes: (i) a PIT surcharge (limited to 0.8–0.9%); (ii) the municipal property tax (IMU) on buildings; and (iii) the waste tax (TARI) to cover the cost of collection. As these powers are identical for all municipalities, any observed heterogeneity in the revenue structure, which will be examined in Sect. 4, is anticipated to be primarily driven by local economic conditions and administrative capacity. These factors are closely tied to the north–south development gradient, rather than statutory privilege.

3 Regional authority and fiscal decentralisation: international comparisons and measurements

To benchmark Italy's decentralisation, we evaluate its position against OECD peers using both qualitative information (similar to Marks et al. 2008 and Ladner et al. 2023), namely the Regional Authority Index (RAI), and standard quantitative fiscal indicators.

[2] There are some minor differences in the way specific taxes are treated in the municipalities of Rome and Venice, the provincial capitals, and the municipalities on smaller islands.

3.1 Regional authority: a qualitative approach

The institutional and administrative dimensions of regional governance are captured by the RAI, which measures self-rule (independence over policy and resources) and shared rule (regional influence on national decision-making) (Hooghe et al. 2016; Shair-Rosenfield et al. 2021). As shown in Figure A1 (in the Online Appendix), which shows data for 22 OECD countries, Italy's overall RAI score is notably high, driven primarily by its self-rule component.

Figure 1 highlights the centrifugal nature of this model. Panel (a) plots the overall RAI score on the vertical axis against the *self-rule* score on the horizontal axis. Panel (b) replaces the horizontal axis with the *shared-rule* score. Italy is among the countries with high self-rule, indicating significant regional control over policy competencies and resources. However, panel (b) reveals that shared rule (the formal participation of regions in national governance) remains comparatively limited (Cepiku 2021). This imbalance, where regions possess wide formal autonomy but lack integrated influence on national fiscal coordination, is consistent with the institutional dualism described in Sect. 2: a system of high formal authority but weak national integration.

3.2 Expenditure and revenue decentralisation: a quantitative approach

In most quantitative studies, fiscal decentralisation is typically measured by the proportion of subnational revenues (or taxes) and expenditure relative to the general government's one (Ebel and Yilmaz 2003; Stegarescu 2005; Liberati and Sacchi 2013; Gemmell et al. 2013; Dougherty et al. 2019).

Figure 2 is constructed using this standard approach. Each observation represents an individual country to provide a comparative overview of how national systems allocate expenditure and revenue responsibilities across subnational tiers of government. The distribution of values highlights a substantial degree of cross-country heterogeneity. Most countries are positioned below the 45-degree line, meaning that expenditure decentralisation values (on the horizontal axis) exceed revenue decentralisation values (on the vertical axis). This includes Italy.

This evidence confirms the asymmetry between the expenditure responsibilities for which subnational governments are held accountable and the revenue sources directly under their control, as highlighted by previous studies on OECD countries (e.g. Bird 2003; Congleton 2006; Allain-Dupré et al. 2020). Additionally, the existence of such an asymmetry implicitly suggests the need for continuous fiscal transfers from the central government to subnational jurisdictions to finance their expenditure and close the fiscal gap (Lago et al. 2024). Focusing specifically on Italy, Fig. 2 places it in the lower-left area of the distribution, with subnational expenditure and revenue shares that are moderate by OECD standards—below federal countries such as Canada, Australia, and Germany, but above more centralised unitary states. This gap, one of the widest in the sample among unitary states, reflects precisely the structural dependence on central transfers that characterises the Italian system, particularly for OSRs. The granular within-country analysis in Sect. 4 will show that

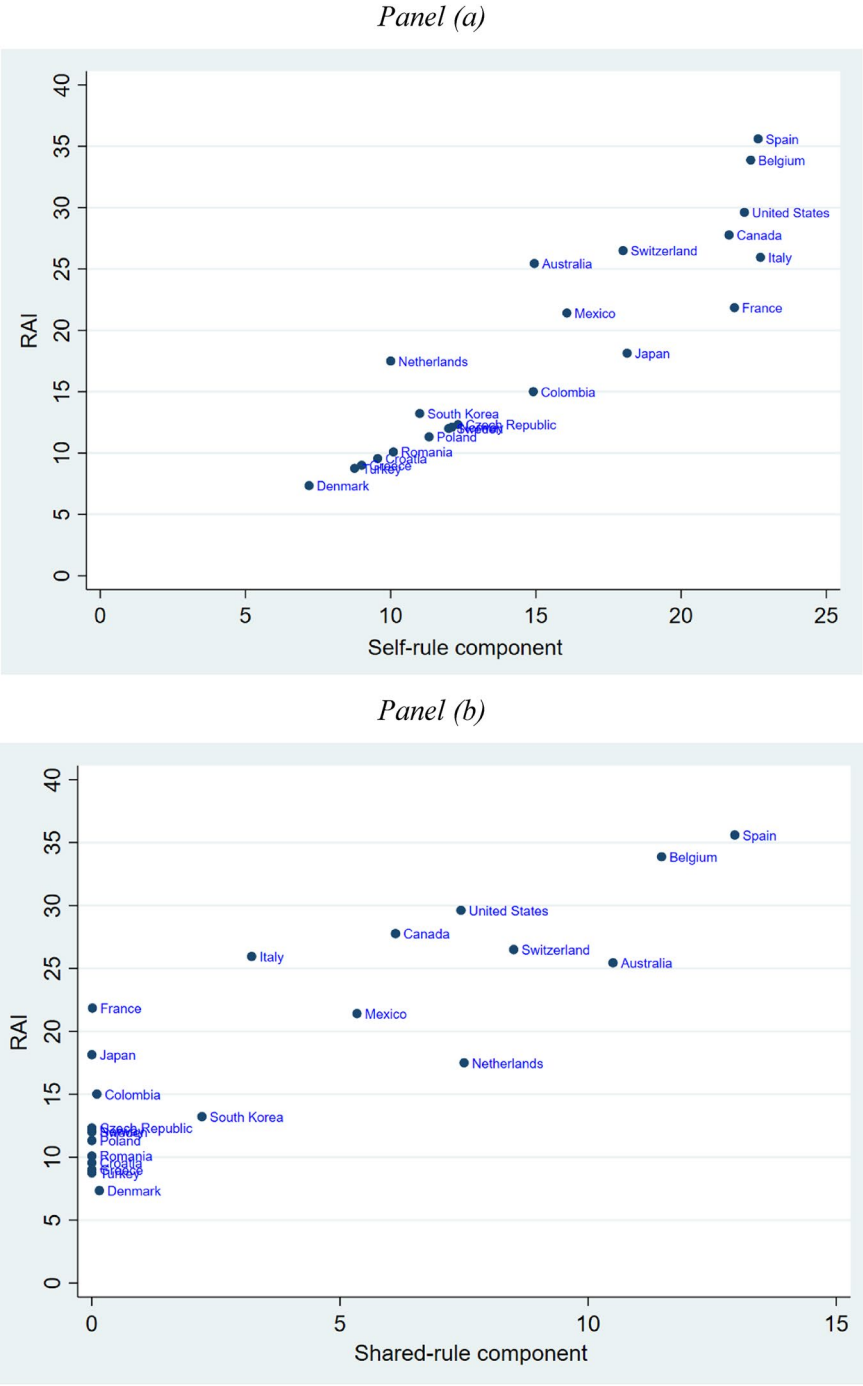


Fig. 1 RAI self-rule and shared-rule component in 22 countries (year 2018) Panel (a). Source: Authors' elaborations on Hooghe et al. (2016) and Shair-Rosenfield et al. (2021). Note: 2018 is the latest year for which data are available

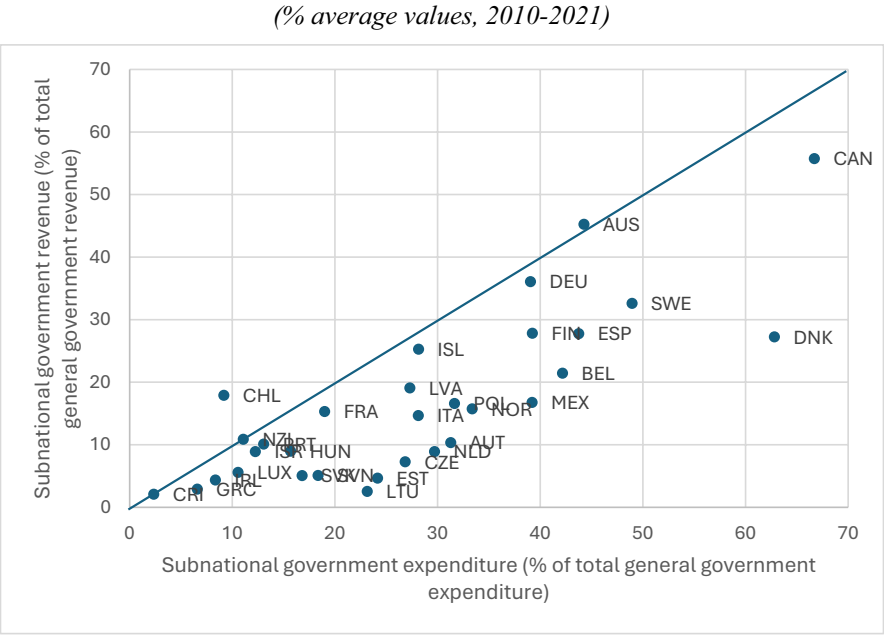


Fig. 2 Expenditure and revenue decentralisation in 22 OECD countries (% average values, 2010–2021). Source: Authors' elaborations on the OECD Fiscal Decentralisation Database

this aggregate picture conceals a wide dispersion across regions, with the SSR/OSR divide and the north–south development gradient producing patterns that are invisible at the national level.

4 Empirical evidence on Italian regions and municipalities: methodology and results

To understand the practical implementation of Italian decentralisation, we move beyond national aggregates to examine regional and municipal data from the OECD's REGOFI and MUNIFI databases. These datasets, supplemented by ISTAT and Eurostat figures, provide the granularity necessary to reveal three layers of heterogeneity: the constitutional divide between SSRs and OSRs, the north–south development gradient, and the distinct (and sometimes reversed) patterns between the regional and municipal tiers.

It is worth explaining briefly the essence of the REGOFI and MUNIFI databases. They are the product of a joint OECD–European Commission (EC) project (2022–2024) and currently cover 37 countries over 2010–2022 (OECD 2024). Their advantage over the standard decentralisation indicators used in Sect. 3 is twofold. First, and most clearly, they disaggregate the subnational sector into its two self-governing tiers (regional and municipal governments), which conventional aggregate measures collapse into a single subnational category, thereby concealing precisely

the cross-tier asymmetries that are central to the Italian case. Second, the data are built on a common methodology and taxonomy developed by the OECD and the EC together with national statistical institutes, by harmonising the definition and classification of revenue, expenditure, and debt items across countries and across tiers (see also Gianelle et al. 2026). This harmonisation is what makes the revenue components entering our indicators (the distinction between own taxes, shared taxes, transfers and non-tax revenues) consistent and comparable across the 21 Italian units, rather than dependent on the potential idiosyncrasies of national budget classifications.

Our analysis proceeds by calculating indicators for tax autonomy, fiscal dependence, and vertical fiscal imbalance (defined formally in Sects. 4.1 and 4.2) across the 21 NUTS-2 units mentioned in Sect. 1. To account for institutional and economic diversity, the analysis is organised around two primary dimensions: the statutory framework (SSR versus OSR) and economic development (proxied by GDP per capita). For each unit, we calculate indicators at both the regional level and for municipalities aggregated by region, with descriptive details for all 21 units provided in Table A2 in the Online Appendix. Section 4.3 examines per capita expenditure to assess the equalising role of the transfer system, and Sect. 4.4 complements the descriptive evidence with formal statistical tests and panel regressions.

4.1 Revenue and tax composition

We calculate three indicators using regional government data and municipal data aggregated by region to assess the varying degrees of subnational revenue control. This is done in accordance with the information reported in Sect. 2 and ensures comparability with Sect. 3, which focuses primarily on the regional level. The first indicator is denoted *OwnRev* and is calculated as follows, differentiating between OSR and SSR:

$$\begin{aligned} OwnRev_{OSR} &= \frac{Owntaxrevenues + otherownrevenues}{Totalrevenues} \\ &= \frac{PIT_{surcharge} + PT_{MUNI} + OtherTaxRev + UserCharges + AssetMan}{Totalrevenues} \end{aligned} \tag{1a}$$

$$\begin{aligned} OwnRev_{SSR} &= \frac{Owntaxrevenues + otherownrevenues}{Totalrevenues} \\ &= \frac{PIT_{share+surcharge} + CIT_{share} + VAT_{share} + PT_{MUNI} + OtherTaxRev + UserCharges + AssetMan}{Totalrevenues} \end{aligned} \tag{1b}$$

The numerators of Eqs. (1a) and (1b) essentially comprise all revenues except those originating from incoming transfers (primarily from other levels of government, and to a minor extent from enterprises, households, and non-governmental public entities), revenues on behalf of third parties, and social contributions where applicable. Note that own tax revenues of the OSRs exclude VAT sharing (*R113*, according to the nomenclature used in REGOFI and MUNIFI), which we treat as a transfer per the OECD's (1999) seminal tax autonomy classification, as Italian

OSRs lack control over its base/rate and its allocation is equalisation-mediated. In the OSRs, the following components are classified as own tax revenues: the personal income tax PIT (*R112*), limited to the surcharges applied at the regional and municipal levels; the property tax PT (*R114*, present only at the municipal level); and other tax revenues (*R115*), which for instance include the vehicle tax, the regional production tax (IRAP), which is a tax on productive activities realised within a regional territory, and excise taxes. In the case of SSRs, own tax revenues also include the PIT and the CIT statutory shares, as well as a wider range of minor taxes, as detailed in Table 1. Besides, the numerators of (1) and (1bis) also include own-source non-tax revenues, such as user charges and fees (*R13*), as well as income from asset management (*R14*).

Following this OECD framework and recent literature (Liberati and Sacchi 2013; Gemmell et al. 2013; Mauri 2024), the numerator includes revenues over which the subnational governments have some *actual* autonomy and power. However, it excludes resources received as transfers or on behalf of third parties, which are usually beyond the control (and often beyond the forecasting and planning capabilities) of the receiving public administration. The denominator is simply the totality of revenues (*R1*).

By further excluding non-tax revenues at the numerator (user charges and fees and income from asset management), we can calculate a second indicator, denoted *OwnTaxRev*, which now only considers own tax revenues:

$$OwnTaxRev_{OSR} = \frac{Owntaxrevenues}{Totalrevenues} = \frac{PIT_{surcharge} + PT_{MUNI} + OtherTaxRev}{Totalrevenues} \tag{2a}$$

$$\begin{aligned} OwnTaxRev_{SSR} &= \frac{Owntaxrevenues}{Totalrevenues} \\ &= \frac{PIT_{share+surcharge} + CIT_{share} + VAT_{share} + PT_{MUNI} + OtherTaxRev}{Totalrevenues} \end{aligned} \tag{2b}$$

Finally, Eq. (3) defines a measure of fiscal dependence that takes into account the role of intergovernmental transfers in a decentralised institutional setting. This indicator is denoted FisDep and is defined in a way that applies to both OSR and SSR:

$$FisDep = \frac{Totaltransfersreceivedfromotherlevelsofgovernment}{Totalrevenues} = \frac{Gov.transfersreceived}{Totalrevenues} \tag{3}$$

Although *FisDep* and *OwnRev* are related, they are not mere inverses of one another and provide useful information on the intergovernmental fiscal relations across tiers of government. The two numerators do not exhaust total revenue: *OwnRev* captures own tax and non-tax revenues, *FisDep* captures only transfers received from other levels of government, and total revenue (the common denominator) also includes items that enter neither (namely revenues collected on behalf of third parties and social contributions, and, for OSRs, the equalisation-mediated VAT share that we treat as a transfer). As a result, *OwnRev* and *FisDep* do not sum to one, and the residual between them is itself informative about revenue composition. The two indicators therefore convey distinct information: *OwnRev* measures the share of

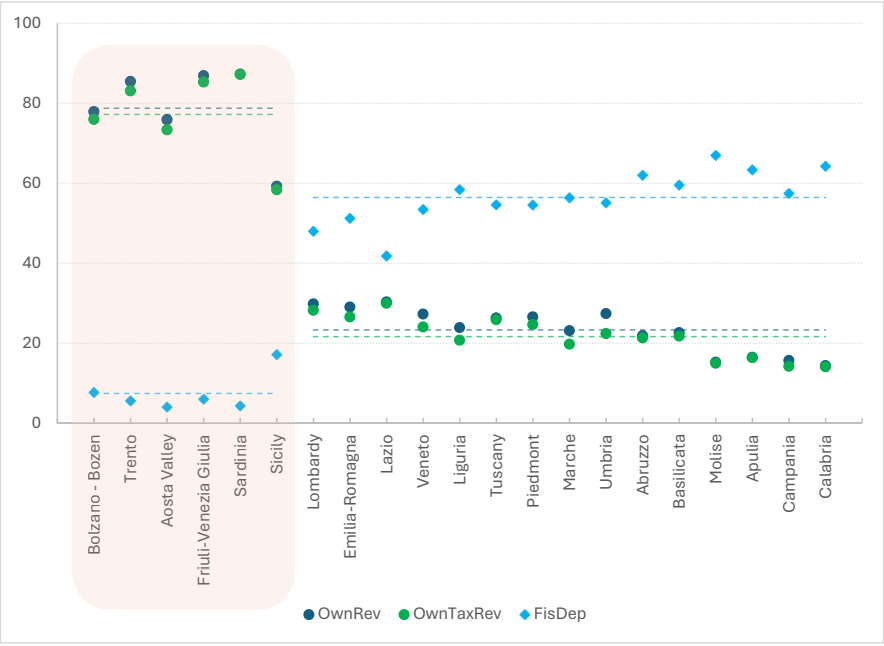


Fig. 3 Revenue composition of the Italian regional governments (average values, 2017–2021). Source: Authors' elaborations on data from the OECD REGOFI and MUNIFI databases (October 2025), ISTAT and EUROSTAT. Notes: The indicators (defined in Eqs. (1–3)) are shown on a scale of 0 to 100, which enables them to be interpreted as percentages. The six regions with special statute are shown on the left, and the regions with ordinary statute are shown on the right. Within these two groups, the regions are ordered from left to right according to their GDP per capita levels (average for the period 2017–2021, in current prices). This also reflects a geographical distribution from north to south as we move to the right along the axis. The dotted lines show the averages for each group of indicators in their respective colours

resources under autonomous control, whereas *FisDep* isolates the specific role of intergovernmental transfers in a decentralised setting.

One caveat applies to all the indicators defined so far. Our measures are built on realised revenues, which blend two distinct elements: fiscal capacity (the size of the underlying tax base) and fiscal effort (the rates and reliefs that regions actually choose within the bands available to them). For the taxes over which subnational governments hold regulatory powers, a territory that exercises greater fiscal effort will therefore appear more autonomous, even at equal capacity. Isolating capacity from effort would require estimating each jurisdiction's potential revenue (the yield obtainable at a standard fiscal effort) through a dedicated econometric apparatus, as in the regression-based fiscal capacity approach of Di Liddo et al. (2016). Such an exercise lies beyond the descriptive scope of this paper and would in any case be severely constrained by the source data: in REGOFI and the underlying ISTAT accounts, over 90% of SSR tax revenue is booked under a single aggregate item ("taxes devolved and regulated to special autonomies", classified as other own taxes, R115), so that the individual shared taxes, and hence the rates and bases that would

be needed to recover potential revenue, are not separately observable. We therefore work with realised revenues throughout and interpret the indicators as measures of autonomy as exercised rather than as latent capacity.

Figure 3 shows the three indicators defined above for the 21 regional-tier governments. The revenue indicators (*OwnRev* and *OwnTaxRev*) together illustrate a distinct dual pattern. SSRs, located on the left of the graph, demonstrate a notably higher range of just below 80% for these indicators. In contrast, OSRs on the right show a much lower range, averaging between 21 and 23%. This asymmetry is primarily driven by constitutional distinctions between these types of regions, highlighting the significant impact of legal frameworks on regional fiscal capacities.

Along the north–south development axis, another noticeable trend emerges, albeit less pronounced and somewhat obscured within the data. Regions in "Mezzogiorno", the southernmost area in Italy, consistently display below-average values across both revenue indicators. This suggests that these regions rely less on their own-revenue sources than wealthier, more developed regions do. For example, Campania, Calabria and Sicily, despite the latter having a special statute, demonstrate a lower reliance on their own revenues. Focusing solely on OSRs reveals a disparity of 10 percentage points for *OwnRev* and eight for *OwnTaxRev* between northern and southern regions, indicating a clear north–south divide that, among regions sharing the same tax powers, point to differences in underlying fiscal capacity rather than in formal autonomy.

Furthermore, the figure shows almost no difference between *OwnRev* and *OwnTaxRev*. This proximity emphasises the minimal contribution of non-tax revenues, such as user fees, charges, and income from asset management, to the overall revenue mix. Specifically, these non-tax revenues account for an average of just 1.6% of total revenues in both SSRs and OSRs. This underscores the predominant reliance on tax revenues (and transfers) within regional fiscal structures.

The fiscal dependence indicator *FisDep*, which measures the proportion of intergovernmental transfers to regional revenues, shows an inverse pattern compared to the other three indicators. SSRs exhibit lower fiscal dependence at around 7.5%, whereas OSRs demonstrate significantly higher dependence at 56.5%. Furthermore, more developed regions tend to have lower fiscal dependence. In contrast, less-developed regions in the Mezzogiorno are, on average, around 10 percentage points more fiscally dependent than northern regions.

Figure 4 illustrates the three indicators derived from Eqs. (1–3) calculated using data from the municipalities within each of the 21 regional entities and then aggregated at the regional level.

Examining the own-revenue components at the municipal level in Italy offers a contrasting perspective to the regional analysis. Unlike the regional data, the municipal data does not exhibit an immediately evident dual pattern that distinguishes regions based on their constitutional statute. On average, the relationship between OSRs and SSRs is reversed, with the former averaging slightly above the latter in terms of their own-revenue components, and especially own taxes (which are on average six percentage points higher). Although the legislative framework governing municipal finance does not change with the regional constitutional statute, Fig. 4 suggests that municipal fiscal capacities are moderately, but still significantly

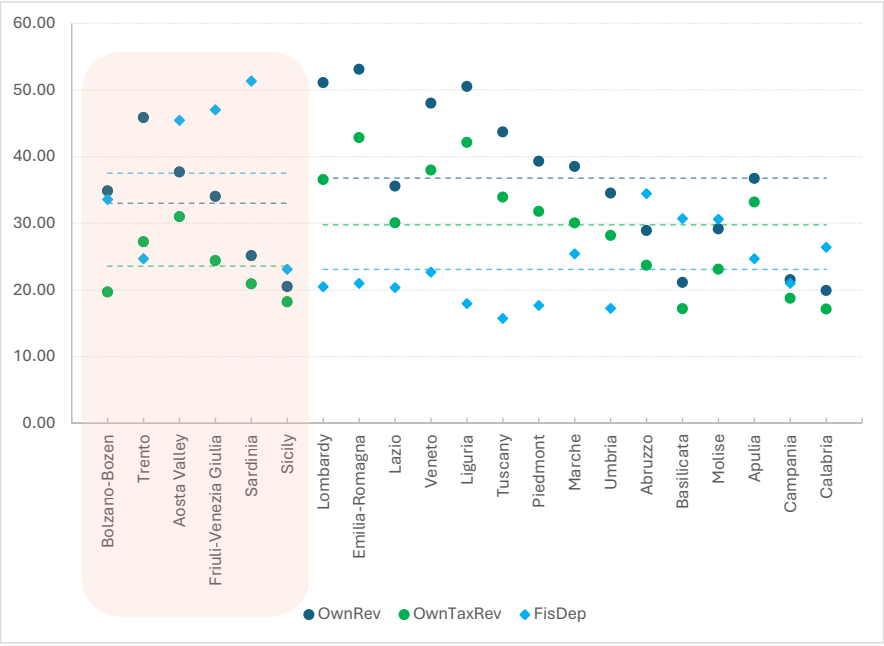


Fig. 4 Revenue composition of the Italian municipal governments, by region (average values, 2017–2021). Source: Authors' elaborations on data from the OECD REGOFI and MUNIFI databases (October 2025), ISTAT and EUROSTAT. Note: The indicators (defined in Eqs. 1–3) are shown on a scale of 0 to 100, which enables them to be interpreted as percentages. The six regions with special statute are shown on the left, and the regions with ordinary statute are shown on the right. Within these two groups, the regions are ordered from left to right according to their GDP per capita levels (average for the period 2017–2021, in current prices). This also reflects a geographical distribution from north to south as we move to the right along the axis. The dotted lines show the averages for each group of indicators in their respective colours

influenced in practice by their region's statute. Other socio-economic and administrative factors may also play an important role.

Revenue shares are negatively correlated with development levels across both groups of regions, mirroring and amplifying the pattern observed at the regional level. Among OSRs, northern and southern municipalities differ by 22 percentage points in *OwnRev* and 16 in *OwnTaxRev*, which represents a stark north–south divide in fiscal capacity. Non-tax revenues (user fees, charges, and income from asset management) play a more significant role at the municipal than at the regional level, averaging 9% of total revenues. Their contribution is, however, uneven: northern regions average 11 percentage points against around four in the south, reflecting the limited capacity of transfer-dependent administrations to leverage non-tax own sources.

The fiscal dependence indicator shows a further contrast: municipalities in SSRs exhibit high dependence on transfers from other subnational governments, namely the regional government, exceeding 40% of revenues in Friuli-Venezia Giulia

and Aosta Valley and 50% in Sardinia, compared to an average of around 23% in OSRs. Consequently, fiscal dependence at the municipal level does not correlate with regional development levels. This evidence suggests that SSRs have sufficient resources to meet some of their municipalities' needs. If the overall size of the municipal budgets does not differ between types of region, this would also indicate that municipalities in SSRs could offset lower tax revenue with increased regional funding, or that SSR municipal governments are willing to exchange fiscal dependency for reduced tax pressure on their constituents, thereby participating in the statutory privileges accruing to their region. We elaborate further on this scenario in Sect. 4.3, when analysing per capita expenditure levels.

4.2 Revenues and expenditures dynamics: the vertical fiscal imbalances

Before presenting our indicators, we clarify the concepts they represent and the limits of what they can measure with the available data. We capture three related, but distinct, dimensions of subnational public finance. Fiscal autonomy refers to the share of resources a government raises and controls through its own taxes and other own sources, over which it has genuine discretion; fiscal dependence refers, conversely, to the share financed by transfers from other levels of government, which are typically beyond the recipient's control; and vertical fiscal imbalance (VFI) refers to the gap between a government's own revenues and its expenditure responsibilities. The first two concern the composition of revenue; the third the matching of revenue to spending.

The literature on fiscal federalism distinguishes two forms of imbalance (Bird 2006; Boadway and Shah 2009; Di Liddo et al. 2016). VFI is conventionally understood as the structural mismatch between the expenditure responsibilities assigned to a given tier of government and the own revenues it controls; it exists because part of subnational spending is financed through transfers from higher levels of government (Boadway and Shah 2009). Horizontal fiscal imbalance (HFI) arises instead from differences in fiscal capacity across jurisdictions within the same tier. Because some territories are richer than others, they can raise more revenue at the same level of fiscal effort (Bird 2006). As Di Liddo et al. (2016) emphasise in their analysis of Italian municipalities, this distinction matters because the two imbalances have different sources and call for different corrective instruments: VFI reflects the structural assignment of revenues and responsibilities across tiers, whereas a gap arising in a given year from discretionary spending or borrowing choices is a budgetary deviation rather than a structural imbalance.

Two clarifications should be made. First, the term "imbalance" is not used here in a normative sense: a positive VFI is an intrinsic feature of virtually all decentralised systems and need not be judged negatively, since intergovernmental transfers are themselves a legitimate instrument for pursuing equity, allocative efficiency and territorial cohesion (Lago et al. 2024). What matters analytically is the variation in these measures across territories and tiers, not their level as such.

Second, our indicators are computed at the level of individual regional and municipal governments and therefore reflect both dimensions simultaneously. Differences

between groups defined by constitutional statute (SSRs versus OSRs) primarily capture the vertical dimension, since the statute determines the revenue-raising powers assigned to each region. Differences within these groups, along the north–south development gradient, instead reflect the horizontal dimension, since regions sharing the same statutory powers but endowed with different economic bases will display different own-revenue and imbalance values. This is particularly clean among OSRs, which share essentially identical tax powers: any gradient in their indicators along GDP per capita can be attributed largely to differences in fiscal capacity rather than in formal autonomy. We do not attempt to decompose the two dimensions into separate quantitative indices (an exercise that would require estimating the fiscal capacity of each jurisdiction through a dedicated econometric apparatus—Di Liddo et al. 2016), but we interpret the between-group and within-group variation in our indicators through this conceptual lens throughout the analysis.

A further comparability issue concerns expenditure responsibilities, which our indicators take as given on the denominator side. At the regional level, the comparison does not hold spending assignments constant: SSRs carry additional competences relative to OSRs (notably in healthcare, education, and infrastructure), with the precise allocation set by each region's own statute (OECD 2024). Their higher VFI autonomy therefore reflects a combination of broader revenue powers and broader spending responsibilities, the two being jointly determined by the statutory regime. We accordingly interpret our regional indicators as describing the overall fiscal position of each statutory regime, not a comparison at constant expenditure assignments. At the municipal level, the concern is weaker: municipal competences are legally uniform across the country irrespective of size or regional statute, under the principle of juridical uniformity codified in the consolidated law on local government (Legislative Decree 267/2000). The main qualification is that municipalities below 5,000 inhabitants must exercise certain fundamental functions in an associated form, which affects the mode of provision rather than the set of competences (Fiorillo et al. 2021). Aggregating municipal data to the regional level, as we do, further attenuates the influence of size composition.

To examine the relationship between revenue-generating capacity and expenditure responsibilities, we introduce two additional indicators of VFI, to adopt a definition commonly used in the literature (de Mello 2000; Sharma 2012; Eyraud and Lusinyan 2013). These measure the degree to which subnational governments rely on external transfers to meet their spending needs. *VFI_OwnRev* considers all own revenues, while *VFI_OwnTax* focuses strictly on own tax revenues. Distinguishing between OSRs and SSRs, we obtain:

$$\begin{aligned} VFI_OwnRev_{OSR} &= 1 - \frac{Owntaxrevenues + otherownrevenues}{Totalexpenditure} \\ &= 1 - \frac{PIT_{surcharge} + PT_{MUNI} + OtherTaxRev + UserCharges + AssetMan}{Totalexpenditure} \end{aligned} \tag{4a}$$

$$VFI_OwnRev_{SSR} = 1 - \frac{Owntaxrevenues + otherownrevenues}{Totalexpenditure} = 1 - \frac{PIT_{share+surcharge} + CIT_{share} + VAT_{share} + PT_{MUNI} + OtherTaxRev + UserCharges + AssetMan}{Totalexpenditure} \tag{4b}$$

$$VFI_OwnTax_{OSR} = 1 - \frac{Owntaxrevenues}{Totalexpenditure} = 1 - \frac{PIT_{surcharge} + PT_{MUNI} + OtherTaxRev}{Totalexpenditure} \tag{5a}$$

$$VFI_OwnTax_{SSR} = 1 - \frac{Owntaxrevenues}{Totalexpenditure} = 1 - \frac{PIT_{share+surcharge} + CIT_{share} + VAT_{share} + PT_{MUNI} + OtherTaxRev}{Totalexpenditure} \tag{5b}$$

A low value of *VFI_OwnRev* or *VFI_OwnTax* indicates that a region has a greater ability to finance its spending through its own-revenue sources, denoting lower vertical fiscal imbalance and greater fiscal autonomy. Conversely, a higher value implies that the government examined relies more heavily on transfers from other (higher) levels of government to meet its expenditure needs, indicating higher vertical fiscal imbalance and lower fiscal autonomy.

Since the denominator in Eqs. (4a–5b) is total expenditure, the VFI measures could in principle be affected by borrowing: at equal fiscal capacity and spending responsibilities, a government that debt-finances part of its outlays would display a higher imbalance. In the Italian case, however, this channel is of limited empirical relevance (Bartolini and Santolini 2012; Monacelli et al. 2016; Bonfatti et al. 2019). Under the so-called golden rule of Article 119 of the Constitution, subnational governments may borrow only to finance investment, and Constitutional Law 1/2012 extended the balanced-budget requirement to all regions and local authorities. As a result, subnational debt is relatively small compared to the general government sector (of the order of three per cent in recent years according to Bank of Italy data). Consistent with the conceptual distinction drawn above, the cross-territorial variation in our VFI indicators therefore reflects the structural assignment of revenues and responsibilities rather than discretionary borrowing choices, which would constitute a budgetary deviation rather than a structural imbalance.

As shown in Fig. 5, the regional-tier results confirm the dual pattern established in Sect. 4.1 but with greater intensity. SSRs exhibit a high degree of fiscal self-sufficiency with an average VFI of 15%, whereas OSRs show a starkly higher imbalance, averaging 76%. This divide underscores the profound impact of the constitutional statute on regional fiscal capacity. The north–south gradient is also visible: southern regions like Campania and Calabria, alongside special-statute Sicily, show the highest imbalances, with own revenues covering as little as 15–16% of their total expenditure. Furthermore, the negligible difference between the two indicators at this level (averaging 1.6%) confirms that regional governments rely almost exclusively on taxes and transfers rather than user charges or asset management income. These two patterns map onto the two dimensions set out above. The large gap between SSRs and OSRs is primarily vertical: it follows from the constitutional statute, which assigns fundamentally different revenue-raising powers to the two

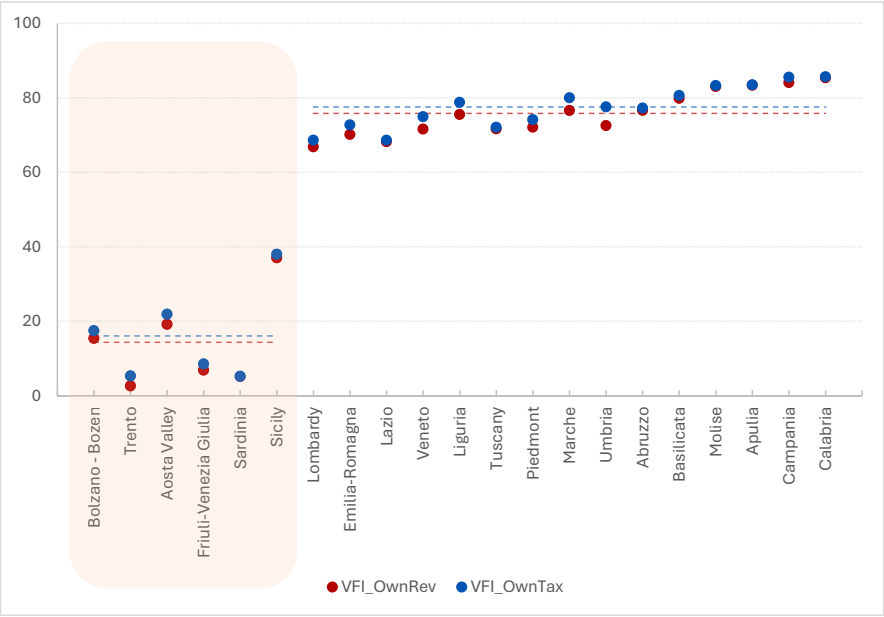


Fig. 5 Vertical fiscal imbalances indicators, regional governments (average values, 2017–2021). Source: Authors' elaborations on data from the OECD REGOFI and MUNIFI databases (October 2025), ISTAT and EUROSTAT. Notes: The indicators (defined in Eqs. 4–5b) are shown on a scale of 0 to 100, which enables them to be interpreted as percentages. The six regions with special statute are shown on the left, and the regions with ordinary statute are shown on the right. Within these two groups, the regions are ordered from left to right according to their GDP per capita levels (average for the period 2017–2021, in current prices). This also reflects a geographical distribution from north to south as we move to the right along the axis. The dotted lines show the averages for each group of indicators in their respective colours

groups. The gradient within each group, by contrast, reflects the horizontal dimension; that is, differences in fiscal capacity across territories endowed with the same statutory powers but unequal economic bases. The latter is cleanest among OSRs, where identical tax powers mean that the systematically higher imbalances of southern regions can be attributed largely to weaker fiscal capacity rather than to lesser formal autonomy.

Figure 6 illustrates the VFI indicators for the municipal level, where the statutory pattern reverses. Municipalities in OSRs exhibit slightly lower imbalances than those in SSRs, confirming that the statutory privileges of SSRs do trickle down to the municipal tier. However, the north–south divide is even more pronounced here than at the regional level. Among OSRs, there is a 22-percentage-point (16-percentage-point) gap in *VFI_OwnRev* (*VFI_OwnTax*) between northern and southern municipalities, and there is a negative correlation between the GDP per capita and the VFI indicators. This substantial disparity indicates that southern municipalities face greater fiscal challenges and a deeper reliance on external transfers. Here too, the north–south gap is horizontal in nature: since municipal tax powers are uniform across the country irrespective of regional statute, the gap between northern and

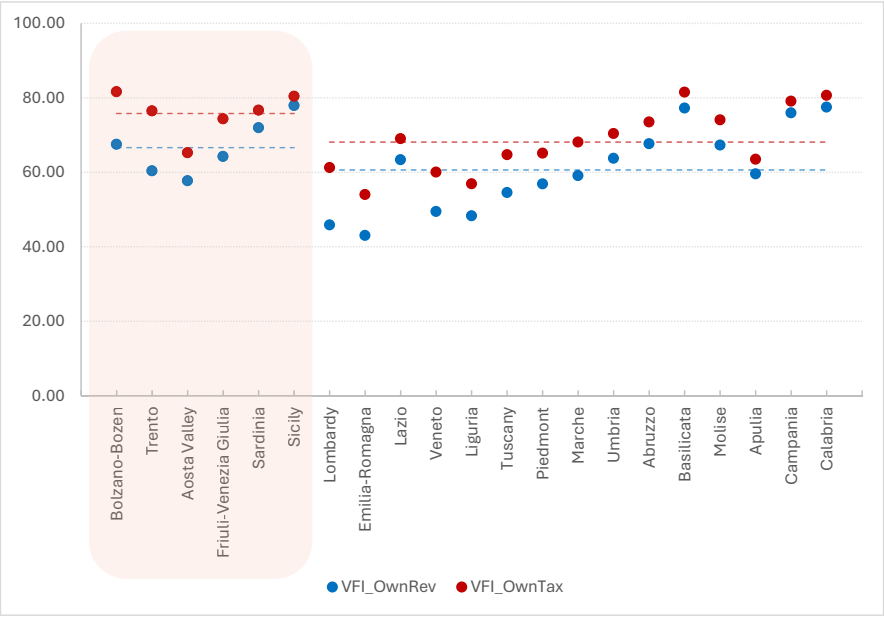


Fig. 6 Vertical fiscal imbalances, municipal governments, by region (average values, 2017–2021). Source: Authors' elaborations on data from the OECD REGOFI and MUNIFI databases (October 2025), ISTAT and EUROSTAT. Notes: The indicators (defined in Eqs. (4) to (5b)) are shown on a scale of 0 to 100, which enables them to be interpreted as percentages. The six regions with special statute are shown on the left, and the regions with ordinary statute are shown on the right. Within these two groups, the regions are ordered from left to right according to their GDP per capita levels (average for the period 2017–2021, in current prices). This also reflects a geographical distribution from north to south as we move to the right along the axis. The dotted lines show the averages for each group of indicators in their respective colours

southern municipalities reflects differences in fiscal capacity rather than in formal autonomy.

A key divergence from the regional analysis is the significant role of non-tax revenues at the municipal level. Unlike the regional tier, municipal *VFI_OwnRev* is 7 to 9 percentage points lower than *VFI_OwnTax*, suggesting that municipalities are more successful at diversifying revenue through user charges and asset management. This capacity is, however, unevenly distributed: in wealthy northern regions, non-tax sources reduce the fiscal imbalance by an average of 11 percentage points, compared to less than 4 points in the south. This confirms that transfer-dependent administrations in less-developed areas have a limited capacity to leverage non-tax own sources, further entrenching their fiscal dependence.

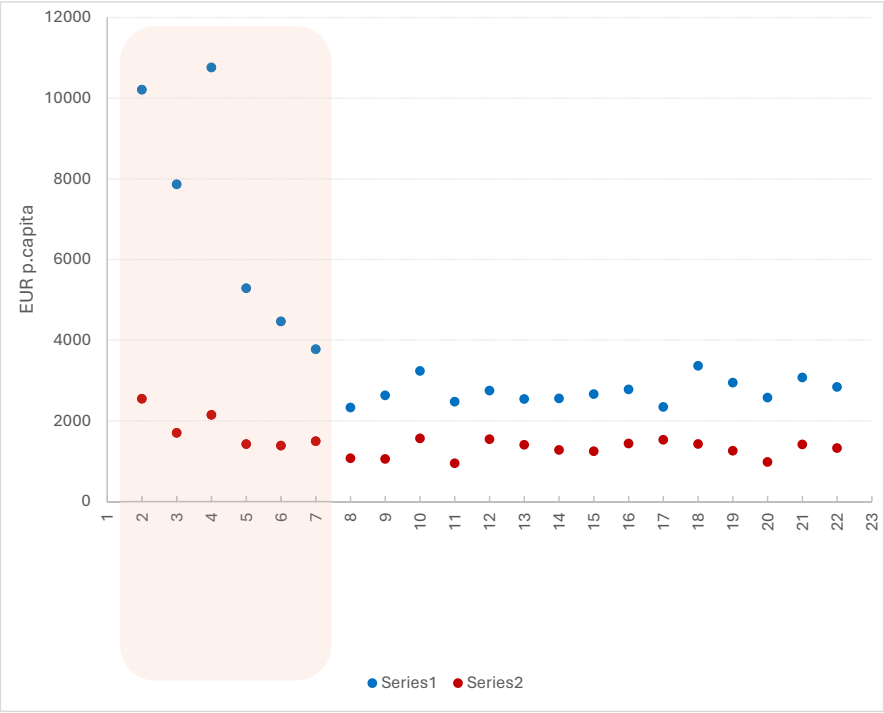


Fig. 7 Per capita public expenditure (in euros) by regional and municipal governments (average values, 2017–2021). Source: Authors' elaborations on data from the OECD REGOFI and MUNIFI databases (October 2025), ISTAT and EUROSTAT. Notes: The six regions with special statute are shown on the left, and the regions with ordinary statute are shown on the right. Within these two groups, the regions are ordered from left to right according to their GDP per capita levels (average for the period 2017–2021, in current prices). This also reflects a geographical distribution from north to south as we move to the right along the axis. The dotted lines show the averages for each group of indicators in their respective colours

4.3 Public services to citizens: evidence across territories

This section analyses per capita expenditure (*PCExp*, obtained by dividing total public expenditure by population) at the regional government level and at the municipal level aggregated by region, as can be seen in Fig. 7.[3]

At the regional level, per capita expenditure is notably higher than at the municipal level, primarily due to healthcare spending, which, following the 2001 constitutional reform, constitutes the largest proportion of regional expenditure (as noted in Sect. 2). SSRs have significantly higher per capita expenditure, averaging 2.5 times that of OSRs. However, there is substantial variability within the SSR group itself, which mirrors the revenue heterogeneity documented in Sect. 4.1 and

[3] Note that summing the two levels would result in an unconsolidated figure that would likely overestimate the actual expenditure.

Table 1. Territories such as Bolzano, Trento, and Aosta Valley (the regions with the highest statutory revenue shares) spend around 2.5 times more per capita than Sicily, whose per capita expenditure is instead comparable to that of OSRs. This within-SSR gradient partly reflects the structural regressivity of the revenue-sharing arrangements: since SSRs retain statutory shares of nationally collected taxes, their revenues are directly tied to the local tax base, meaning that fiscally stronger territories automatically capture higher yields from the same statutory rates. This suggests that higher fiscal autonomy translates directly into higher spending capacity and that the SSR label conceals a range of fiscal conditions nearly as wide as the SSR/OSR divide itself. Among OSRs, by contrast, there is no discernible correlation between per capita expenditure and GDP per capita, suggesting that the intergovernmental transfer system broadly compensates for differences in revenue-generating capacity regionally, at least in nominal terms.

The picture at the municipal level is different and constitutes one of the more notable findings of the analysis. While municipal per capita expenditure shows some degree of variability across the country (with a maximum in Bolzano at 2546 and a minimum in Veneto at 948), there is no meaningful correlation to the level of economic development. Northern and southern municipalities spend comparable amounts per capita. This stands in contrast to the large revenue asymmetries documented in Sects. 4.1 and 4.2, where differences of 22 percentage points in own-revenue shares between northern and southern municipalities were recorded. The juxtaposition of high revenue heterogeneity and low expenditure heterogeneity at the municipal level suggests that the transfer system (encompassing both central-to-municipal and regional-to-municipal flows) is performing a substantial equalising function, broadly compensating for differences in fiscal capacity across the country.

Caution is required when interpreting these findings: per capita expenditure reflects financial inputs rather than service outputs, and nominal uniformity does not imply equivalent provision. Differences in input costs, administrative efficiency, demographic composition, and the degree to which nominal spending is converted into actual service delivery can all produce substantial disparities in outcomes even under comparable expenditure levels. The expenditure uniformity observed here is therefore an ambiguous signal: it may reflect the equalising capacity of the transfer system, but it cannot be taken as evidence of equivalent service provision across the national territory. Disentangling these mechanisms would require data on service quality and outcomes that go beyond the scope of the present analysis.

A related observation concerns the pattern of municipal spending within SSR territories. As documented in Sect. 4.1, municipalities in SSRs receive substantially higher intergovernmental transfers from their regional governments than municipalities in OSRs, reflecting the greater fiscal resources available to SSR regional administrations. Yet Fig. 7 shows that this higher transfer income only translates to a minor extent into higher municipal per capita expenditure in SSRs (Bolzano, Aosta Valley) compared to OSRs. This is consistent with the substitution effect discussed in Sect. 4.1: generous regional transfers may be partially replacing own-revenue sources, such as local PIT surcharges, that municipalities would otherwise need to levy, resulting in lower fiscal effort but similar expenditure levels. This pattern raises broader questions about the incentive structure that abundant intergovernmental

transfers create for subnational fiscal responsibility, which we return to in the concluding section.

Figure 7 shows that Italy's subnational architecture achieves broad spending convergence at municipal level across a heterogeneous landscape, though, as the literature on Italian healthcare decentralisation documents, nominal input convergence does not guarantee equivalent service outcomes across territories (Ferrario and Zanardi 2011; Ferrario et al. 2023). This distinction is consequential for the policy debate: if the apparent uniformity of municipal expenditure is already fragile and sustained by substantial transfer flows rather than by autonomous fiscal capacity, then further differentiation of regional powers risks undermining the very mechanisms that currently prevent spending deprivation in less well-endowed territories.

4.4 Statistical tests and panel regressions

The evidence presented in Sects. 4.1 to 4.3 is primarily descriptive and graphical. To assess whether the group differences visible in the figures are statistically significant and to quantify the relative importance of the institutional and economic dimensions while holding them simultaneously, we complement the analysis with formal nonparametric tests and a short panel model.

4.4.1 Nonparametric tests of group differences

Given the small number of units, and in particular the small special-statute group (six regions), we rely on Kruskal–Wallis rank tests, which make no distributional assumptions and remain valid without requiring normality or equal variances. We test two group comparisons: SSR versus OSR (the statutory divide) and north versus south (the development gradient). For the geographical comparison, we also restrict the sample to OSRs alone, which share identical tax powers: any surviving north–south difference in that subsample can be attributed to differences in fiscal capacity rather than in formal autonomy.

Table 2 reports the results. At the regional level, the SSR–OSR divide is highly significant for every indicator at any conventional level, reflecting the sharp constitutional boundary visible in Figs. 3 and 5. The north–south difference is also significant for all revenue and vertical-imbalance indicators, and it remains so when estimated on OSRs alone, lending formal support to the horizontal-imbalance interpretation set out in Sect. 4.2. At the municipal level, the statutory divide weakens: the SSR–OSR difference in own revenue is only marginally significant, consistent with the tier reversal visible in Figs. 4 and 6. The north–south gap, by contrast, is large and highly significant, including when restricted to OSRs alone, confirming that the municipal revenue asymmetry is primarily a capacity effect driven by local economic conditions rather than statutory privilege.

Notably, per capita expenditure is the only indicator for which the north–south difference is not statistically significant at either tier. This provides formal confirmation of the equalisation result of Sect. 4.3: the sharp revenue asymmetries documented above do not carry over into nominal spending per head.

Table 2 Kruskal–Wallis rank tests: differences by statute and by geography

	SSR vs OSR (reg.)	SSR vs OSR (mun.)	North vs South, all (reg.)	North vs South, OSR only (reg.)	North vs South, all (mun.)	North vs South, OSR only (mun.)
OwnRev	63.68***	2.87*	10.76***	19.09***	61.56***	45.54***
OwnTaxRev	63.68***	12.58***	6.90***	11.61***	42.93***	38.54***
FisDep	63.68***	28.83***	19.43***	37.07***	7.98***	22.03***
VFI_OwnRev	63.68***	7.19***	10.63***	18.16***	53.17***	41.83***
VFI_OwnTax	63.68***	16.64***	7.57***	12.35***	31.38***	33.73***
PCExp	62.66***	30.38***	0.11	1.83	1.01	0.51

Source: Authors' calculations

Chi-squared statistic (1 d.f.). n = 105 per tier (21 units × 5 years). *** $p < 0.01$, ** $p < 0.05$, * $p < 0.10$. South = Abruzzo, Molise, Campania, Puglia, Basilicata, Calabria, Sicily, Sardinia. Identical regional SSR-vs-OSR statistics arise from the perfect rank separation of the two groups on these indicators. The "OSR only" columns restrict the sample to the 15 ordinary-statute regions ($n = 75$)

4.4.2 Panel regressions

To complement the nonparametric tests with a multivariate framework, we estimate a short panel model regressing each decentralisation indicator on the SSR dummy, GDP per capita, population, and year dummies. The aim is not causal identification: the panel is short ($T=5$), the key regressor (the constitutional statute) is time-invariant, so the set of controls is necessarily limited. Rather, we want to assess whether the associations suggested by the graphical evidence survive when the institutional and economic dimensions are held simultaneously, and to quantify their relative magnitudes. Because the SSR dummy does not vary over time, a fixed-effects estimator would absorb it entirely; we therefore use a random-effects specification.

Table 3 reports the results. At the regional level (panel A), the SSR dummy coefficient is large, highly significant and correctly signed for every indicator: holding GDP per capita and population constant, special-statute regions display own-revenue ratios roughly 53 percentage points higher, fiscal dependence 48 points lower, and vertical imbalance 58–59 points lower than their ordinary-statute counterparts. GDP per capita is generally not significant once the statute is controlled for, confirming that at the regional level the statutory regime is the dominant divide. The one exception is fiscal dependence, where GDP per capita carries a significant negative coefficient, indicating that even among regions of the same statutory type, richer regions receive proportionally fewer transfers, a result consistent with the horizontal-imbalance interpretation of Sect. 4.2.

At the municipal level (panel B), the pattern reverses. The coefficient of the SSR dummy weakens and reverses sign for revenue indicators, while GDP per capita becomes the significant correlate: GDP per capita is positively associated with municipal own-revenue ratios and negatively with vertical imbalance. This confirms that, at the municipal level (where tax powers are uniform by law), the development gradient rather than the constitutional statute drives fiscal outcomes, consistent with the tier reversal central to Sects. 4.1 and 4.2.

4.4.3 The development gradient among ordinary-statute regions

Two further specifications sharpen the econometric evidence above. To isolate the development gradient where it is expected to operate most cleanly (among regions sharing the same statutory powers), we re-estimate the model restricting the sample to OSRs only (see Table 4). At the municipal level, GDP per capita is a strong and correctly signed correlate of own revenue and vertical imbalance: richer OSR municipalities raise more own revenue and display lower fiscal imbalance, confirming the horizontal (capacity) dimension among units with identical formal autonomy. At the regional level, only fiscal dependence correlates significantly with GDP per capita, consistent with the finding that among OSRs, the transfer system responds to economic conditions while own-revenue indicators are compressed within a narrow range by the limited tax powers available. In both cases, per capita expenditure shows no significant association with GDP per capita, reinforcing the equalisation result: differences in fiscal capacity are offset by the transfer system before they translate into spending differences.

Table 3 Institutional and economic correlates of subnational fiscal indicators

	OwnRev	OwnTaxRev	FisDep	VFI_OwnRev	VFI_OwnTax	PCExp
Panel A: Regional tier						
SSR	0.5300***	0.5368***	−0.4834***	−0.5839***	−0.5900***	3,281.0***
	(0.0434)	(0.0425)	(0.0266)	(0.0473)	(0.0467)	(626.753)
GDP per capita	2.58e−06	1.89e−06	−4.79e−06***	−4.26e−06*	−3.48e−06	0.1124***
	(2.20e−06)	(2.15e−06)	(1.37e−06)	(2.43e−06)	(2.40e−06)	(0.0321)
Population	4.84e−09	6.21e−09	−7.29e−09	−4.78e−09	−6.13e−09	−2.77e−04**
	(7.74e−09)	(7.57e−09)	(4.73e−09)	(8.41e−09)	(8.31e−09)	(1.12e−04)
Year 2018	−0.0020	−0.0067	0.0166	0.0080	0.0125	0.5635
	(0.0103)	(0.0102)	(0.0113)	(0.0158)	(0.0155)	(196.395)
Year 2019	−0.0029	−0.0081	0.0155	0.0037	0.0089	−8.107
	(0.0105)	(0.0105)	(0.0113)	(0.0159)	(0.0157)	(198.964)
Year 2020	−0.0406***	−0.0438***	0.0158	0.0266*	0.0300*	408.430**
	(0.0104)	(0.0103)	(0.0113)	(0.0158)	(0.0156)	(197.581)
Year 2021	−0.0491***	−0.0502***	0.0464***	0.0303*	0.0318**	252.095
	(0.0111)	(0.0110)	(0.0116)	(0.0164)	(0.0161)	(205.526)
Constant	0.1897***	0.1903***	0.7044***	0.8526***	0.8498***	426.481
	(0.0646)	(0.0633)	(0.0406)	(0.0714)	(0.0705)	(944.868)
Observations	105	105	105	105	105	105
Units	21	21	21	21	21	21
R^2	0.71	0.71	0.82	0.68	0.69	0.46
Panel B: Municipal tier						
SSR	−0.0661*	−0.0698**	0.1354***	0.0833**	0.0809**	297.709**
	(0.0376)	(0.0344)	(0.0400)	(0.0397)	(0.0376)	(134.415)
GDP per capita	8.45e−06***	4.14e−06**	−2.65e−06	−7.83e−06***	−3.63e−06*	0.0172**
	(1.86e−06)	(1.68e−06)	(1.96e−06)	(1.99e−06)	(1.86e−06)	(0.0068)
Population	5.56e−09	6.04e−09	−1.04e−08	−6.87e−09	−6.84e−09	−5.70e−05**
	(6.70e−09)	(6.13e−09)	(7.14e−09)	(7.08e−09)	(6.71e−09)	(2.39e−05)
Year 2018	0.0110	0.0118**	0.0125*	−0.0220***	−0.0207***	−21.285
	(0.0069)	(0.0057)	(0.0068)	(0.0083)	(0.0067)	(31.090)
Year 2019	0.0043	0.0095	0.0169**	−0.0112	−0.0152**	12.072
	(0.0071)	(0.0059)	(0.0070)	(0.0085)	(0.0069)	(31.810)
Year 2020	−0.0263***	−0.0134**	0.0925***	−0.0053	−0.0125*	−12.034
	(0.0070)	(0.0058)	(0.0069)	(0.0084)	(0.0068)	(31.424)
Year 2021	−0.0177**	−0.0063	0.0892***	0.0018	−0.0065	−22.238
	(0.0077)	(0.0065)	(0.0077)	(0.0091)	(0.0076)	(33.621)
Constant	0.1215**	0.1629***	0.2974***	0.8529***	0.8150***	1,022.6***
	(0.0550)	(0.0498)	(0.0581)	(0.0586)	(0.0549)	(199.664)
Observations	105	105	105	105	105	105
Units	21	21	21	21	21	21
R^2	0.50	0.37	0.80	0.30	0.21	0.24

Table 3 (continued)

Source: Authors' calculations

Random-effects GLS. Dependent variable in column header. Standard errors in parentheses. ***$p < 0.01$, **$p < 0.05$, *$p < 0.10$. Reference year 2017

Finally, allowing the effect of GDP per capita to differ by statute through an interaction term confirms the structural regressivity of the revenue-sharing arrangements noted in Sect. 4.3: among SSRs, per capita spending rises significantly with local income, whereas among OSRs the relationship is essentially flat (see Table A3 in the Online Appendix).

5 Concluding remarks

This paper demonstrates that relying on national-level aggregates masks the profound internal asymmetries defining the Italian fiscal landscape. By utilising the granular REGOFI and MUNIFI databases, appropriately supplemented by national sources, our analysis reveals three distinct layers of heterogeneity (statutory, developmental, and jurisdictional) that are invisible in standard cross-country comparisons. This methodological approach provides a replicable framework for other OECD countries to quantify the impact of institutional differentiation and multilevel fiscal design.

Our primary empirical contribution is the identification of a structural reversal between governmental tiers: while SSRs enjoy markedly higher autonomy than OSRs, the pattern flips at the municipal level, where ordinary-region municipalities exhibit higher own-revenue ratios. This creates a unique configuration of autonomous regions with dependent municipalities versus dependent regions with more autonomous ones. Furthermore, we document broad convergence in municipal per capita expenditure across the national territory, despite a 22-percentage-point gap in own-revenue capacity between northern and southern municipalities. These descriptive findings are corroborated by nonparametric tests and panel regressions that formally separate the two underlying dimensions: the constitutional statute governs the vertical (institutional) divide, while GDP per capita governs the horizontal (fiscal capacity) divide, with the former dominating at the regional tier and the latter at the municipal tier.

These findings have significant implications for the current debate on "differentiated autonomy". The observed broad convergence in municipal spending suggests that the intergovernmental transfer system is performing a substantial equalising function. However, this equilibrium is fragile because it depends on central and regional transfer flows rather than autonomous local capacity. At the regional level, the risk is equally concrete: OSRs already exhibit an average fiscal dependence of 56% and a vertical fiscal imbalance exceeding 76%, meaning that any reduction in central transfers accompanying a reallocation of revenue-raising powers to wealthier OSRs would leave fiscally weaker regions with neither the own-revenue capacity nor the transfer income to sustain current service levels. The estimated interaction

Table 4 Development gradient among ordinary-statute regions: GDP per capita coefficient from random-effects regressions (OSR only)

	OwnRev	OwnTaxRev	FisDep	VFI_OwnRev	VFI_OwnTax	PCExp
Panel A—Regional governments (OSR only, n = 75, 15 units)						
GDP per capita	−1.11e−06	−2.08e−06	−6.73e−06***	6.70e−08	1.20e−06	−0.0109
	(2.88e−06)	(2.62e−06)	(1.91e−06)	(2.90e−06)	(2.63e−06)	(0.0159)
Population	1.72e−08**	1.91e−08***	−6.07e−09	−1.80e−08**	−2.01e−08***	−1.95e−05
	(8.07e−09)	(7.27e−09)	(5.08e−09)	(7.92e−09)	(7.16e−09)	(4.25e−05)
Year dummies	Yes	Yes	Yes	Yes	Yes	Yes
Observations	75	75	75	75	75	75
Units	15	15	15	15	15	15
R^2	0.52	0.51	0.35	0.40	0.41	0.27
Panel B—Municipal governments (OSR only, n = 75, 15 units)						
GDP per capita	1.13e−05***	7.10e−06***	−3.56e−06	−1.13e−05***	−6.94e−06**	0.0055
	(2.97e−06)	(2.68e−06)	(2.25e−06)	(3.21e−06)	(2.85e−06)	(0.0095)
Population	2.35e−09	2.37e−09	−4.02e−09	−2.80e−09	−2.78e−09	−4.10e−05
	(8.31e−09)	(7.55e−09)	(6.18e−09)	(8.89e−09)	(7.99e−09)	(2.59e−05)
Year dummies	Yes	Yes	Yes	Yes	Yes	Yes
Observations	75	75	75	75	75	75
Units	15	15	15	15	15	15
R^2	0.49	0.36	0.84	0.34	0.27	0.11

Source: Authors' calculations

Random-effects GLS on ordinary-statute regions only. Standard errors in parentheses. ***$p < 0.01$, **$p < 0.05$, *$p < 0.10$. Year dummies included but not reported

model further shows that SSR per capita spending rises steeply with local income while OSR spending does not, confirming that statutory revenue-sharing arrangements are structurally regressive, a property that would be replicated, not corrected, by extending similar arrangements to wealthier OSRs. Further regional differentiation therefore risks undermining equalising mechanisms at both tiers simultaneously, potentially leading to spending deprivation in less-developed territories. The risk depends crucially on how additional competences would be financed: arrangements that crystallise fixed regional shares of nationally collected taxes would tie revenues to the local base and weaken interregional redistribution, whereas financing tied to standard needs and revisable over time would preserve it (Zanardi 2019; Petraglia et al. 2020).

Several questions remain for future investigation. First, while we document broad convergence in nominal expenditure, we cannot yet assess whether this translates into equivalent service quality or outcomes for citizens. Second, the substitution effect identified in SSR territories, where generous regional transfers may reduce municipal fiscal effort without increasing spending, merits formal empirical investigation to better design subnational fiscal incentives. Finally, the cross-country comparability of these granular databases offers the opportunity to examine whether the asymmetric patterns documented for Italy are representative of other OECD countries with differentiated subnational regimes.

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Data Availability We have used publicly available data of the REGOFI and MUNIFI dataset of the OECD, plus ISTAT data.

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