

Public Management Review

ISSN: 1471-9037 (Print) 1471-9045 (Online) Journal homepage: www.tandfonline.com/journals/rpxm20

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To cite this article: Fabio Monteduro & Riccardo Mussari (07 Oct 2026): Decentralization as an anticorruption strategy: does revenue autonomy make a difference?, Public Management Review, DOI: 10.1080/14719037.2026.2743138

To link to this article: https://doi.org/10.1080/14719037.2026.2743138

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PUBLIC MANAGEMENT REVIEW
https://doi.org/10.1080/14719037.2026.2743138

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Decentralization as an anticorruption strategy: does revenue autonomy make a difference?

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ABSTRACT

This study investigates how revenue autonomy is associated with documented municipal corruption risk, distinguishing between own-source tax and non-tax revenues. Drawing on public administration theories of decentralization, it adopts a meso-level analysis of Italian medium-to-large municipalities and relies on an event-based indicator derived from legally mandated anticorruption reports. The empirical strategy combines dynamic correlated random-effects logit, dynamic random-effects probit, and fixed-effects logit models, complemented by sensitivity analyses simulating under-reporting scenarios. Results indicate that higher levels of both tax and non-tax revenue autonomy are negatively associated with documented corruption risk. Tax autonomy shows stronger associations where political competition is higher, whereas the non-tax revenue pattern is more consistent with a service-based responsiveness logic. These findings, observed in the Italian municipal context, suggest that revenue autonomy is not a uniform anticorruption safeguard but an institutional feature whose relevance depends on revenue composition, accountability conditions, municipal capacity, and reporting practices.

ARTICLE HISTORY Received 14 May 2025; Accepted 28 September 2026

KEYWORDS Revenue autonomy; corruption; decentralization; municipalities; panel data analysis; Public Management; anticorruption

Introduction

Integrity and anticorruption strategies have become central concerns in public management research, yet how core public sector reforms – particularly decentralization – are associated with corruption dynamics at the organizational level remains only partly understood. Evidence on the relationship between decentralization and corruption is mixed, especially beyond cross-country analyses (Gans-Morse et al. 2018; Zarychta et al.

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Supplemental data for this article can be accessed online at https://doi.org/10.1080/14719037.2026.2743138

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2024), suggesting that decentralization should be treated not as uniformly integrity-enhancing, but as an institutional arrangement whose association with corruption depends on local accountability and administrative conditions.

We define corruption as administrative corruption, namely deviations by public officials from legal and behavioural norms for private pecuniary or status gains (Nye 1967). Empirically, however, we focus on documented corruption events reported in legally mandated municipal anticorruption reports. Corruption risk therefore refers to the probability that at least one such event is formally documented in a municipality-year, rather than to the full latent incidence of corruption.

We conceptualize decentralization as the transfer of authority, responsibilities, and resources to subnational governments, and autonomy as the discretion local governments exercise as a result. The analysis focuses on revenue autonomy, understood as reliance on own-source revenues rather than intergovernmental transfers. Higher own-source revenues, however, may also reflect broader municipal capacity, revenue base, administrative professionalization, or governance quality. We therefore examine revenue autonomy as a meso-level fiscal-institutional characteristic rather than as an isolated causal lever.

The paper contributes to this debate in three ways. First, drawing on public administration theories of decentralization (Andrews and de Vries 2007; Hart 1972), it shifts attention from aggregate fiscal decentralization to municipal revenue composition, distinguishing own-source tax and non-tax revenues. Second, it adopts a meso-level focus on municipalities within a shared institutional framework (Beeri and Navot 2013; Zarychta et al. 2024). Third, it uses an event-based indicator from legally mandated municipal anticorruption reports, while recognizing that documented events depend on reporting and detection practices (Ferraz and Finan 2008; Timmons and Garfias 2015; Treisman 2007).

We examine these arguments in Italian municipalities, which combine extensive political and administrative decentralization with uneven revenue autonomy under a common institutional and anticorruption framework. Municipalities have direct electoral legitimacy and broad service responsibilities, but revenue autonomy remains constrained by national legislation, equalization schemes, fiscal coordination, and local revenue capacity (Cepiku, Mussari, and Giordano 2016; Mussari and Giordano 2013).

Against this background, the central research question is: how are different forms of municipal revenue autonomy associated with documented corruption risk, and under what local accountability conditions are these associations more or less pronounced?

To address this question, we first review arguments linking decentralization, revenue autonomy, and corruption, distinguishing between

own-source tax and non-tax revenues as institutional features with theoretically plausible links to distinct accountability channels. We then present the research design, based on a panel of Italian medium-to-large municipalities observed over 2016–2023, and discuss the findings within the limits of an associational meso-level design. Our findings show that higher own-source tax and non-tax revenue autonomy are associated with a lower likelihood of documented corruption events, and that the tax-autonomy association emerges more clearly where political competition is stronger, whereas non-tax autonomy points to a service-based responsiveness logic. At the same time, the findings are interpreted within an associational meso-level design, with municipal capacity, fiscal capacity, and reporting practices treated as boundary conditions.

Literature review

Scholarship increasingly treats local corruption, including administrative corruption, as a governance and organizational problem shaped by reform design, accountability arrangements, administrative capacity, and transparency practices.

Two lines of inquiry are especially relevant. One examines how institutional and administrative configurations shape integrity risks in multilevel and local settings through intergovernmental arrangements, professional norms, and transparency practices (Astudillo-Rodas 2023; Beeri and Navot 2013; Knott and Miller 2006). The other studies how anticorruption instruments are embedded in organizational and political contexts, shaping their effectiveness and unintended consequences (Lee, Meyer-Sahling, and Park 2025; Peña Miguel and Cuadrado-Ballesteros 2019; Tian and Io Lo 2009).

Together, these perspectives suggest that the integrity implications of decentralization should be understood through the local conditions under which autonomy is exercised, rather than assumed to follow from decentralization per se.

The decentralization–corruption literature can be grouped into two main strands. The first examines resource autonomy as a fiscal-institutional condition associated with corruption risk. Drawing on fiscal federalism and political economy, some studies argue that decentralization brings government closer to citizens and strengthens accountability, and may therefore be associated with lower corruption (Fisman and Gatti 2002; Ivanyna and Shah 2011). Others contend that it fragments oversight and empowers local elites, potentially increasing opportunities for rent extraction (Goel and Nelson 2011; Shon and Cho 2020). Consistent with this latter view, single-country evidence finds that greater expenditure and tax-revenue decentralization is

associated with more provincial corruption cases when objective case data are used (Alfada 2019).

The second strand examines how corruption shapes fiscal resources and institutional responses. Drawing on fiscal contract theory, it argues that citizens' tax compliance depends on perceived integrity and spending quality. Timmons and Garfias (2015), using randomized federal audits and audit-based corruption indicators, show that exposed corruption reduces municipal property tax revenues and increases the likelihood of participatory budgeting adoption.

Across both strands, findings remain difficult to reconcile because studies differ in their unit of analysis (countries, regions, municipalities), in how they operationalize decentralization (aggregate expenditure/revenue shares versus more fine-grained indicators of autonomy), and in how they measure corruption (perception indices, conviction data, investigated cases, or event-based audit findings). Causal identification is also challenging. It remains difficult to determine whether revenue autonomy reduces or increases corruption, whether corruption erodes fiscal capacity, or whether both are shaped by broader municipal capacity, administrative professionalism, institutional trust, and reporting practices. As a result, the direction and mechanisms underlying these relationships often remain theory driven and empirically difficult to separate.

Building on these debates, this paper locates itself within the first strand by examining revenue autonomy as a municipal fiscal-institutional characteristic associated with documented corruption risk. It treats revenue autonomy as a multidimensional municipal-level construct, distinguishing own-source tax and non-tax revenues rather than using aggregate fiscal shares. It brings a public management perspective to an economics-rooted literature by emphasizing theoretically plausible accountability channels linking revenue autonomy to documented corruption risk. It also improves corruption measurement through an event-based indicator drawn from legally mandated municipal anticorruption reports, while recognizing that documented events may depend on formal reporting and detection practices.

Theoretical framework

Decentralization and autonomy: concepts, typologies, and interrelations

Decentralization and autonomy are related but distinct concepts in public administration: the former refers to the transfer of authority, resources, and responsibilities from central to subnational governments, while the latter denotes the discretion local entities can exercise. This distinction is

important for the present study because the empirical analysis does not examine decentralization as a broad institutional reform, but focuses on one specific and observable dimension of local autonomy: the composition of municipal revenues.

Decentralization, commonly distinguished into deconcentration, delegation, devolution, and privatization (Rondinelli et al. 1983; Smith 1985), has been central to public management reform (Pollitt 2007), especially within NPM agendas emphasizing efficiency and managerial autonomy (Hood 1991; Pollitt and Bouckaert 2011). However, empirical evidence shows that NPM-inspired decentralization has produced complex and context-dependent institutional consequences. Although associated with improvements in some performance dimensions (Lapuente and Van de Walle 2020), it has also raised concerns about long-term governance integrity and coordination (Christensen and Lægreid 2007).

Autonomy has likewise been conceptualized across several dimensions, especially in local governance studies (Ladner, Keuffer, and Baldersheim 2016). These include political autonomy, concerning the right to elect leaders and define priorities; administrative autonomy, concerning control over public service management; financial autonomy, concerning the generation and allocation of financial resources; and organizational autonomy, concerning the definition of internal administrative structures. These dimensions are interrelated but do not always coexist.

This study focuses specifically on revenue autonomy as a core component of financial autonomy, and as one of the most tangible features of decentralization at the local level. Revenue autonomy refers to the degree to which local governments can mobilize own-source revenues – financial resources generated locally rather than obtained through intergovernmental transfers. Following De Clerck and Wickens (2015), own-source revenues comprise two conceptually distinct categories: own-source tax revenues (local taxes over which municipalities hold varying degrees of rate or base-setting authority) and own-source non-tax revenues (revenues other than taxes, social contributions, and grants, including user fees, service charges, and dividends). Because these categories are theoretically linked to different accountability relationships, we disaggregate revenue autonomy into its tax and non-tax components and examine whether their associations with documented municipal corruption risk follow distinct empirical patterns. At the same time, own-source revenues may also reflect differences in local revenue base, administrative capacity, and governance quality. We therefore treat revenue autonomy as a municipal fiscal-institutional characteristic rather than as a stand-alone causal lever.

The public administration theory of decentralization

Decentralization has long been central to public administration, both as a structural shift and as a normative commitment to democratic governance, responsiveness, and institutional effectiveness (Fesler 1965; Hart 1972; Waldo 1948). A key rationale is democratic legitimacy through participation: Hart (1972, 613) argued that 'participation develops and fosters the very qualities necessary for it; the more individuals participate the better able they become to do so'. Kaufman (1969) similarly saw decentralization as a response to citizen alienation, while warning that it must genuinely redistribute power rather than create formal channels that preserve elite control. Administratively, local governments are better placed to tailor public goods to community needs (Hart 1972), while Oates's (1972) decentralization theorem links local alignment of costs and benefits to greater efficiency and accountability.

However, decentralization's integrity implications hinge on institutional design: its relationship with accountability and corruption risk depends on the interaction between autonomy and the institutional context, and decentralization does not uniformly improve participation across settings (Andrews and de Vries 2007). From a managerial perspective, decentralization without substantive revenue autonomy – understood as the concrete capacity of local governments to mobilize own-source revenues rather than a merely formal transfer of responsibilities – risks constituting an incomplete form of local discretion. Revenue autonomy may make local responsibility more visible and fiscally meaningful, but its accountability relevance depends on the political and civic conditions under which it is exercised (Andrews and de Vries 2007).

Expanding the framework: revenue autonomy components and accountability channels

As a substantive dimension of decentralization, revenue autonomy can make local responsibility more visible and fiscally meaningful. Rather than assuming it is uniformly integrity-enhancing, we treat it as an institutional feature whose association with documented corruption risk depends on the type of revenue involved and on the accountability environment in which it is exercised.

However, existing research leaves two questions inadequately addressed (Fisman and Gatti 2002; Gurgur and Shah 2014). First, it rarely disaggregates revenue autonomy into tax and non-tax components, leaving non-tax sources undertheorized. Second, few studies theorize how political competition and civic participation condition its association with corruption risk,

despite widespread recognition that decentralization's integrity implications are context-dependent (Andrews and de Vries 2007; Bardhan and Mookherjee 2000). This matters because revenue autonomy may create accountability pressures but may also reflect broader fiscal capacity or governance quality, and in some contexts expand rather than constrain discretion.

This study addresses these gaps through a framework built on two core distinctions. First, own-source tax revenues are theoretically linked to a 'direct fiscal contract' between citizens and government, wherein taxpayers can more clearly perceive the cost of public goods and may have stronger incentives to monitor spending; own-source non-tax revenues are linked to a different channel – a fee-based service responsiveness logic – where local autonomy in fee-setting may connect municipal revenue stability more closely to user satisfaction, service credibility, and responsiveness. Second, the association between tax autonomy and documented corruption risk is expected to depend on political and civic conditions: political competition can strengthen accountability through opposition monitoring, while civic participation may signal voter engagement and the potential for electoral sanctioning. Non-tax revenues, by contrast, are expected to be less dependent on formal political contestation and more closely connected to user- and service-based forms of accountability.

Own-source tax revenues and the direct fiscal contract

Own-source tax revenues are theoretically linked to documented corruption risk through a direct fiscal contract logic (Levi 1988). More specifically, when municipalities rely more heavily on locally raised taxes, fiscal costs become more visible and attributable to elected officials. This creates a reciprocal accountability relationship: citizens pay taxes in exchange for public goods and political voice, incentivizing both citizen monitoring and government responsiveness (Besley 2020). From this perspective, tax autonomy is expected to be negatively associated with documented corruption risk because it can make the misuse of locally raised resources more visible, attributable, and politically costly.

This expectation should be read alongside competing interpretations. Tax autonomy may expand discretion and create rent-extraction opportunities (Bardhan and Mookherjee 2000), and corruption may itself erode tax capacity through weakened compliance (Timmons and Garfias 2015). Higher own-source tax revenues may also reflect broader municipal capacity, stronger administrative professionalism, higher institutional trust, or a more favourable local revenue base. The Italian municipal context – characterized by direct mayoral elections, legally mandated transparency, and electorally salient local taxes – makes the fiscal-contract interpretation theoretically

plausible and institutionally relevant. At the same time, these institutional features do not rule out alternative explanations; rather, they define the conditions under which a negative association between tax autonomy and documented corruption risk can reasonably be expected.

Several complementary arguments support this theoretical expectation. Tax autonomy may reduce reliance on intergovernmental transfers – often allocated through politically mediated formulas – thereby potentially limiting discretionary bargaining and strengthening local responsibility for revenue and spending choices (Gurgur and Shah 2014). Because locally raised taxes are directly attributable to elected officials, they may increase fiscal salience and tighten the accountability loop (Lindberg 2013; Yilmaz, Beris, and Serrano-Berthet 2010). Empirical evidence is consistent with this interpretation: mayors perceive higher citizen scrutiny when services are tax-funded rather than grant-funded (Dynes and Martin 2021), and citizens who directly finance their government are more likely to demand transparency and sanction misuse at the ballot box (Weigel 2020). Consistent with these arguments, revenue decentralization has been associated with lower corruption (Bianchi, Giorcelli, and Martino 2023; Fiorino, Galli, and Padovano 2015).

We therefore hypothesize:

H1: *Higher own-source tax revenues are negatively associated with documented municipal corruption risk.*

Political competition and civic participation as accountability conditions for tax revenues

Tax salience may make fiscal choices more visible, but the accountability implications of this visibility are expected to depend on the local political environment. Political competition provides one institutional route through which fiscal concerns can become electorally consequential. When multiple parties compete credibly, opposition actors have incentives to scrutinize incumbents and draw attention to fiscal irregularities (Faguet 2014). In such contexts, citizen concerns about taxation and spending are more likely to be organized, publicized, and translated into electoral pressure. Through council scrutiny, media amplification, and campaign contestation, opposition parties may increase the reputational and electoral costs associated with the misuse of locally generated revenues. Where political competition is weak, however, tax autonomy may provide additional resources and discretion to entrenched local elites without generating equivalent accountability pressures (Bardhan and Mookherjee 2000; Kaufman 1969). Empirical evidence is consistent with this conditional argument. Italian municipalities

with greater tax autonomy improved service efficiency primarily where political competition was stronger (Bianchi, Giorcelli, and Martino 2023).

We therefore hypothesize:

H2: *The negative association between own-source tax revenues and documented municipal corruption risk is stronger in contexts of higher political competition.*

Beyond political competition, civic participation provides a second accountability condition. Public administration theory has long linked participation to democratic legitimacy and citizen oversight (Hart 1972). Where citizens are more engaged in local political life, fiscal choices are more likely to become visible, debated, and politically consequential. Civic participation can therefore strengthen the accountability relevance of tax autonomy by increasing the likelihood that citizens notice, contest, and sanction the misuse of locally generated resources (Hart 1972; Zheng 2016).

We therefore hypothesize:

H3: *The negative association between own-source tax revenues and documented municipal corruption risk is stronger where civic participation is higher.*

Own-source non-tax revenues and service responsiveness

Own-source non-tax revenues – such as user fees and service charges – are theoretically linked to a different accountability logic from tax revenues. Unlike taxes, which create a generalized fiscal relationship with citizens as taxpayers, non-tax revenues may connect municipal income more directly to users of specific services, whose payments are tied to service access, quality, and credibility. Where revenues depend on service fees, municipal income may become more closely associated with user satisfaction, perceived fairness, and trust in service provision.

As fee-based revenues increase, local governments may have stronger incentives to maintain credible and responsive services, since poor quality, opaque allocation, or limited transparency can affect user trust, complaints, reputational pressure, and revenue flows. This logic is consistent with Hirschman's (1970) exit-voice dynamic and evidence on user accountability in local service provision (Esteve et al. 2024). However, higher non-tax revenues may also reflect stronger administrative capacity, a larger service base, greater demand, or better collection systems, and may expand opportunities for opaque contracting, discretionary fee-setting, unequal access, or rent extraction. We therefore do not assume that non-tax revenues are

Table 1. Revenue autonomy components, accountability logics, and theoretical expectations.

Revenue type	Accountability logic	Plausible intermediate accountability pressure	Boundary condition	Hypothesized association with corruption risk
Own-source tax revenues	Direct fiscal-contract accountability	Fiscal salience may increase monitoring, attribution of responsibility, and credible electoral sanctioning	Political competition; civic participation	H1: Negative association; stronger under higher competition (H2); stronger under higher civic participation (H3)
Own-source non-tax revenues	Service-based responsiveness logic	Revenue stability may depend on user satisfaction, perceived fairness, service credibility, and transparency	Service transparency and user feedback; expected to be less dependent on formal electoral competition	H4: Negative association

inherently integrity-enhancing, but expect a negative association with documented corruption risk where fee-based services make performance, user satisfaction, and administrative responsiveness more visible.

We hypothesize:

H4: *Higher own-source non-tax revenues are negatively associated with documented municipal corruption risk.*

Table 1 summarizes the theoretical expectations developed above, distinguishing revenue types by the accountability logic to which they are theoretically linked, the intermediate accountability pressures with which they may be associated, the relevant boundary conditions, and the hypothesized association with documented municipal corruption risk.

Research design

Empirical sample, data sources and collection methods

To assess our hypotheses, we employ a within-country longitudinal municipal design. This approach matches the municipal level at which revenue autonomy, electoral contestation, civic participation, service/user responsiveness, and documented corruption events are observed. It allows us to examine how variation in revenue autonomy is associated over time with the likelihood of documented corruption events. Focusing on a single national setting also reduces cross-context institutional heterogeneity that can confound decentralization–corruption associations in cross-national designs, while still leaving room for within-country differences in administrative capacity, fiscal capacity, and reporting practices.

Italy is a strategically relevant setting because administrative devolution expanded municipal responsibilities while revenue autonomy remained uneven across jurisdictions, generating substantial within-country variation in the key explanatory variables under a common institutional framework (Mussari and Giordano 2013; Ongaro 2006). This combination makes it possible to examine municipal-level associations under shared national fiscal, electoral, and anticorruption rules, while recognizing that municipalities differ in revenue base, administrative professionalism, and reporting capacity.

We use a longitudinal dataset covering the full statistical population of Italian municipalities with population ≥ 15,000 (738 units) observed from 2016 to 2023. We adopt this threshold to enhance institutional comparability (including a common two-round mayoral electoral system) and data reliability. We then exclude only municipality–years with missing values in key variables, yielding an analytical sample of 644 municipalities and 4,095 municipality–year observations.

Corruption data come from legally mandated annual anti-corruption reports compiled by each municipality's Municipal Anticorruption Officer (Law 190/2012; Legislative Decree 33/2013). As discussed below, these data capture formally documented corruption-related proceedings rather than the full latent incidence of corruption.

Revenue autonomy data were sourced from AIDA-PA (Moody's Analytics), which provides standardized accounting information for Italian local governments. Electoral results, candidate lists, and information on municipal administrators came from the Ministry of the Interior's historical electoral archive (*Elezioni storico*) and registry of local and regional administrators (*Anagrafe degli Amministratori Locali e Regionali*). Personnel data were drawn from the Ministry of Economy and Finance's public sector workforce census (*Conto annuale*), while local taxable income data came from the Department of Finance Tax Return Open Data (*Open data dichiarazioni*).

Dependent variable

This study focuses on administrative corruption, defined as deviations by public officials from legal and behavioural norms for private pecuniary or status gains (Nye 1967). Following the classifications adopted by the Italian National Anticorruption Authority (ANAC), we consider corruption-related criminal offences, including embezzlement, bribery, bid rigging, and trading in influence, as well as connected disciplinary violations.

Corruption can be measured through perceptions, experiences, or documented events, each with specific limitations: perception-based measures may diverge from actual behaviour (Donchev and Ujhelyi

2014), experience-based measures are vulnerable to reporting bias (Treisman 2007), and event-based measures depend on legal definitions and enforcement capacity, and formal reporting practices (Escresa and Picci 2020). In the Italian municipal context, however, legally mandated reports by Corruption Prevention and Transparency Officers (RPCT) provide a standardized administrative source for formally recorded corruption-related proceedings. Accordingly, and consistent with prior research (Benito, Guillamón, and Bastida 2015; López-Valcárcel, Jiménez, and Perdiguero 2017; Monteduro, D'onza, and Mussari 2024), we rely on documented corruption-related proceedings reported annually by each municipality's RPCT, as required by Italian anticorruption law (Law 190/2012; Legislative Decree 33/2013) and reported to ANAC.

Our dependent variable, *Mun-corrupt*, is a binary indicator coded 1 if at least one corruption-related criminal proceeding, or connected disciplinary proceeding, is formally documented in municipality *i* in year *t*, and 0 otherwise. It is derived from the legally mandated annual report of the Corruption Prevention and Transparency Officer (RPCT), compiled through a standardized ANAC template, specifically item 12.B, which records whether corruption-related criminal proceedings, or related disciplinary proceedings, were initiated during the year. Because this is a closed-ended binary field, the main concern is not inter-coder reliability but the replicability and accuracy of the extraction procedure, which we document in Appendix D. Full variable definitions and data sources are reported in Appendix A.

We interpret *Mun-corrupt* as a conservative proxy for documented corruption risk – that is, the likelihood of formally recorded corruption-related proceedings in a municipality-year – rather than as a direct measure of the full latent incidence of corruption. Within its declared scope, the indicator can be considered valid insofar as it draws on a standardized, legally mandated reporting procedure applied uniformly across municipalities. At the same time, the measure remains dependent on reporting practices, administrative capacity, legal interpretation, enforcement dynamics, and organizational willingness to disclose problems. Municipalities with stronger administrative systems may differ both in their underlying corruption risk and in their capacity or willingness to detect and report irregularities. This means that differential reporting cultures could shape the observed outcome in either direction. To further probe the validity of inferences drawn from this measure, Appendix C presents sensitivity analyses simulating alternative under-reporting scenarios. These analyses help assess the robustness of the main patterns to under-reporting, but they do not eliminate the broader possibility of differential reporting across municipalities. The empirical results should therefore be interpreted as associations with documented corruption risk.

Independent variables

In this study, we conceptualize revenue autonomy as an observable dimension of what Dubois and Fattore (2009) term resource autonomy, rather than using the broader and more ambiguous label of fiscal decentralization. Resource autonomy includes both revenue-raising capacity and spending discretion; our analysis focuses on the former, namely the extent to which local governments rely on own-source revenues rather than intergovernmental transfers. This focus captures a key dimension of substantive local financial autonomy, while recognizing that higher own-source revenues may also reflect differences in local revenue base, administrative capacity, and fiscal management.

To operationalize this dimension, we distinguish between own-source tax and own-source non-tax revenues, following the structure of Italian municipal budgets (Bisogno et al. 2019). Current revenues include Title I (own-source taxes), Title II (current transfers, excluded because they do not originate within the municipality), and Title III (own-source non-tax revenues such as user fees, service charges, rents, and concession income).

Based on this classification, our main explanatory variables are *the share of own-source tax revenues* and *the share of own-source non-tax revenues*, measured as the share of Title I and Title III, respectively, over total current revenues. Both variables are rescaled so that one unit corresponds to a 10-percentage-point increase. We interpret these shares as indicators of municipal revenue composition and own-source revenue reliance, rather than as direct measures of unconstrained discretion over tax rates, tax bases, or fee-setting.

These measures allow us to examine whether different revenue structures are associated with documented corruption risk in distinct ways. Full variable definitions and dataset codes are reported in Appendix A.

Moderating variables (interaction terms)

To assess whether the association between revenue autonomy and documented corruption risk varies with local accountability conditions, we consider two moderators: political competition and civic participation. Political competition is measured by the *Effective Number of Parties* (ENP) in the municipal council, calculated using the Laakso–Taagepera index based on seat shares (Golosov 2010; Laakso and Taagepera 1979). Higher ENP indicates a more contestable electoral environment and, consistent with electoral accountability theory, may strengthen opposition scrutiny and increase the likelihood that fiscal choices and irregularities become politically salient (Faguet 2014; Pellegata 2013).

Civic participation is operationalized by *voter turnout in mayoral elections*, expressed as the share of eligible voters casting a ballot. We treat turnout as an observable but partial indicator of electoral participation, capturing one form of civic engagement but not active monitoring, deliberation, civic oversight, or direct involvement in budgetary processes. Still, higher turnout may signal a more attentive electorate and greater political salience of fiscal issues, consistent with public administration theories linking participation to local accountability (Andrews and de Vries 2007; Geys, Heinemann, and Kalb 2010; Hart 1972).

Both variables enter the models as main effects and in interaction with the share of own-source tax revenues. These interactions assess whether the association between tax autonomy and documented corruption risk is more pronounced under stronger electoral contestation or broader electoral participation.

Control variables

To partially account for observable confounding, we include standard controls for socioeconomic context, administrative capacity, and political conditions. Socioeconomic development is measured by *per capita taxable income*, capturing territorial inequalities associated with documented corruption risk (Alt and Lassen 2014; Treisman 2007), while municipality size is measured by *population (thousands)*, given the greater organizational complexity and exposure of larger municipalities (Fisman and Gatti 2002). Administrative capacity is captured through observable staffing indicators: *staff per capita* and workforce composition – *female staff share*, *graduate staff share*, and the *share of newly hired staff* – which are often associated with performance and corruption (Decarolis et al. 2023; Wang et al. 2025; Worthington 2000). We also control for the *mayor's university degree* as an observable indicator of mayoral competence (Avellaneda 2009). Political conditions are captured through a *tight mayoral race*, *incumbent coalition vote share*, and *year in mayoral term*, in line with evidence on electoral cycles and clientelist incentives (Gherghina and Marian 2024; Mironov and Zhuravskaya 2016). *Year fixed effects* absorb common national shocks and reforms. These controls capture observable socioeconomic, administrative, workforce, and political dimensions, but not broader differences in municipal capacity, institutional quality, or reporting culture. The estimates are therefore interpreted as conditional associations rather than as fully isolating revenue autonomy from all dimensions of municipal capacity. Further details on all control variables, including dataset codes, are reported in Appendix A.

Model specification and robustness checks

Given the binary longitudinal outcome, we estimate three complementary panel models to assess the observed associations while accounting for key features of the data: unobserved municipal heterogeneity, persistence in documented corruption, and within-municipality variation (Wooldridge 2016). In all specifications, the shares of own-source tax and non-tax revenues are expressed in 10-percentage-point units and year fixed effects are included. Municipality-clustered standard errors are used in the CRE specifications.

Our baseline model is a correlated random-effects logit using the Mundlak–Chamberlain approach (Chamberlain 1980; Mundlak 1978). By including municipality-level means of all time-varying regressors, it helps account for time-invariant municipal heterogeneity while retaining within- and between-municipality variation (Crisman-Cox 2021; Wooldridge 2019). We interact the share of own-source tax revenues with the Effective Number of Parties (ENP) and with voter turnout in mayoral elections, using mean-centred variables (Brambor, Clark, and Golder 2006). Comparable interactions for the share of own-source non-tax revenues are reported as diagnostic specifications, but they are not central to the theoretical argument because the service-responsiveness logic is expected to be less dependent on formal electoral contestation.

Table 2 reports baseline CRE logit estimates and interaction specifications.

To account for state dependence and initial conditions, we estimate a dynamic correlated random-effects probit following Wooldridge (2005). The model includes the lagged dependent variable, an initial-conditions correction, and Mundlak means, thereby modelling persistence in documented corruption and initial conditions within the correlated random-effects framework (Rabe-Hesketh and Skrondal 2013).

Table 3 presents dynamic CRE probit estimates, including the baseline specification and competition moderation.

As a robustness check, we estimate a fixed-effects (conditional) logit model. Since documented corruption events are rare, only municipalities with within-unit variation contribute to the estimation, mechanically reducing the sample. However, this trade-off allows us to examine whether the main associations persist after conditioning out time-invariant municipal heterogeneity (Wooldridge 2010). Table 4 reports these estimates as a within-municipality robustness check.

The estimation strategy addresses several threats to inference, without eliminating them entirely. The Mundlak–Chamberlain approach helps account for time-invariant unobserved heterogeneity (Wooldridge 2010); time-varying controls capture observable differences in socioeconomic context,

Table 2. Cre logit models (static).

Variables	(1) Baseline	(2) Interaction with political competition (ENP)	(3) Interaction with civic participation (turnout).
Share of own-source tax revenues	**−0.355**** (0.153)	−0.189 (0.167)	**−0.312**** (0.157)
Share of own-source non-tax revenues	**−0.512***** (0.193)	**−0.426**** (0.202)	**−0.491**** (0.195)
Share of own-source tax revenues ×Effective Number of Parties		**−0.060***** (0.019)	
Share of own-source tax revenues ×Voter turnout in mayoral elections			−1.309 (0.847)
Share of own-source non-tax revenues ×Effective Number of Parties		−0.022 (0.024)	
Share of own-source non-tax revenues ×Voter turnout in mayoral elections			−0.410 (1.180)
Voter turnout in mayoral elections	−1.411 (3.086)	−1.318 (3.056)	−1.073 (3.053)
Effective Number of Parties	−0.008 (0.045)	0.001 (0.044)	−0.006 (0.045)
Population (thousands)	0.034 (0.030)	0.042 (0.030)	0.031 (0.031)
Per capita taxable income	**0.195*** (0.103)	**0.203*** (0.105)	**0.188*** (0.103)
Staff per capita	−0.194 (0.162)	−0.189 (0.165)	−0.195 (0.161)
Female staff share	−1.061 (2.279)	−1.304 (2.272)	−1.096 (2.275)
Graduate staff share	1.192 (1.371)	1.053 (1.358)	1.125 (1.358)
Share of newly hired staff	**1.882**** (0.923)	**1.790*** (0.938)	**1.816*** (0.932)
Mayor's university degree	0.316 (0.258)	0.288 (0.255)	0.312 (0.258)
Tight mayoral race	−0.062 (0.222)	−0.065 (0.221)	−0.076 (0.223)
Incumbent coalition vote share	−0.456 (0.408)	−0.467 (0.410)	−0.451 (0.408)
Year in mayoral term	−0.030 (0.034)	−0.031 (0.034)	−0.031 (0.034)
Year fixed effects (2017–23)	Yes	Yes	Yes
Mundlak means	Yes	Yes	Yes
Observations	4,095	4,095	4,095
Municipalities	644	644	644
Log pseudolikelihood	−1275.86	−1270.50	−1274.67
Wald χ^2	199.28***	203.15***	201.82***

Notes. The dependent variable is Mun-corrupt, a binary indicator equal to 1 if at least one corruption-related criminal proceeding, or connected disciplinary proceeding, is formally documented in municipality i in year t, and 0 otherwise.

Revenue variables are expressed in 10-percentage-point units.

Full variable definitions and dataset codes are reported in Appendix A.Robust standard errors clustered at the municipality level are reported in parentheses. Year fixed effects are included in all models.Significance levels:$p < 0.10$ (*), $p < 0.05$ (**), $p < 0.01$ (***).

Table 3. Dynamic cre probit (Wooldridge Initial-conditions approach).

Variables	(1) Baseline	(2) Interaction with political competition (ENP)
Lagged corruption	**0.603*** (0.109)	**0.592*** (0.110)
Initial corruption status (y_0)	**0.224**** (0.105)	**0.233**** (0.104)
Share of own-source tax revenues	**−0.204**** (0.085)	−0.116 (0.089)
Share of own-source non-tax revenues	**−0.223*** (0.116)	−0.187 (0.116)
Share of own-source tax revenues × Effective Number of Parties		**−0.035*** (0.009)
Voter turnout in mayoral elections	2.348 (1.872)	2.327 (1.853)
Effective Number of Parties	0.016 (0.026)	0.019 (0.026)
Population (thousands)	**0.050**** (0.017)	**0.060**** (0.019)
Per capita taxable income	**0.127**** (0.065)	**0.135*** (0.073)
Staff per capita	−0.127 (0.091)	−0.129 (0.092)
Female staff share	−0.195 (1.251)	−0.397 (1.252)
Graduate staff share	0.395 (0.722)	0.312 (0.715)
Share of newly hired staff	**0.987*** (0.570)	0.948 (0.576)
Mayor's university degree	0.143 (0.150)	0.120 (0.148)
Tight mayoral race	−0.114 (0.135)	−0.112 (0.134)
Incumbent coalition vote share	−0.023 (0.238)	−0.011 (0.236)
Year in mayoral term	−0.033 (0.019)	−0.032 (0.019)
Year fixed effects (2018–23)	Yes	Yes
Mundlak means	Yes	Yes
Observations	3,061	3,061
Municipalities	574	574
Log pseudolikelihood	−906.98	−900.53
Wald χ^2	275.93***	283.81***

Notes. The dependent variable is Mun-corrupt, a binary indicator equal to 1 if at least one corruption-related criminal proceeding, or connected disciplinary proceeding, is formally documented in municipality i in year t, and 0 otherwise.

Revenue variables are expressed in 10-percentage-point units.

Full variable definitions and dataset codes are reported in Appendix A. Robust standard errors clustered at the municipality level are reported in parentheses. Year fixed effects and Mundlak unit means included in all specifications. Coefficients are from a dynamic CRE probit model using Wooldridge's initial-conditions approach. Significance levels: $p < 0.10$ (*), $p < 0.05$ (**), $p < 0.01$ (***).

Table 4. Fixed-effects logistic regression.

Variables	(1) Fixed-effects logit
Share of own-source tax revenues	**−0.422**** (0.173)
Share of own-source non-tax revenues	**−0.510**** (0.221)
Effective Number of Parties	−0.013 (0.045)
Voter turnout in mayoral elections	−1.477 (2.821)
Population (thousands)	0.021 (0.024)
Per capita taxable income	0.230 (0.194)
Staff per capita	−0.262 (0.181)
Tight mayoral race	−0.101 (0.225)
Incumbent coalition vote share	−0.546 (0.402)
Mayor's university degree	0.233 (0.237)
Female staff share	−0.894 (2.346)
Graduate staff share	1.090 (1.345)
Share of newly hired staff	**1.645*** (0.973)
Year in mayoral term	−0.031 (0.034)
Year fixed effects (2017–23)	Yes
Municipality fixed effects	Yes
Observations	1,756
Municipalities	268
Log likelihood	−597.15
LR χ^2	64.96***

Notes. The dependent variable is Mun-corrupt, a binary indicator equal to 1 if at least one corruption-related criminal proceeding, or connected disciplinary proceeding, is formally documented in municipality i in year t, and 0 otherwise.

Revenue variables are expressed in 10-percentage-point units.

Full variable definitions and dataset codes are reported in Appendix A. Standard errors are in parentheses. Municipality clustering leaves substantive conclusions unchanged. Coefficients are conditional fixed-effects logit estimates. Year fixed effects included. Significance levels: $p < 0.10$ (*), $p < 0.05$ (**), $p < 0.01$ (***).

administrative resources, and political conditions (Alt and Lassen 2014); and the dynamic correlated random-effects probit models persistence and initial conditions (Rabe-Hesketh and Skrondal 2013; Wooldridge 2005). Nevertheless, risks of reverse causality and time-varying omitted variables remain. Lower documented corruption, stronger administrative capacity, higher institutional trust, or more effective fiscal systems may themselves be associated with higher own-source revenues, while reporting practices may affect whether corruption events are formally documented. We therefore interpret the results as robust conditional associations consistent with theoretical expectations.

Remaining validity threats and boundaries of inference are discussed explicitly in the concluding section.

Findings

We report the results hypothesis by hypothesis, first presenting the observed empirical patterns and then assessing their robustness across specifications.

The results are consistent with H1. The share of own-source tax revenues is negatively associated with documented corruption risk. In the static correlated random-effects (CRE) logit model (Table 2, column 1), the coefficient is −0.355 ($p < 0.05$). Table 5 translates this into an average marginal effect of −0.029 ($p < 0.05$), indicating that a 10-percentage-point increase in the share of own-source tax revenues is associated with a 2.9-percentage-point lower probability that a corruption-related proceeding is documented. Given an observed baseline incidence of documented corruption events of about 12%, this corresponds to roughly 25% of the baseline probability. The negative association persists in the dynamic CRE probit model (Table 3), where the average marginal effect is −0.031 ($p < 0.05$), and in the fixed-effects logit model (Table 4), where the coefficient is −0.422 ($p < 0.05$), corresponding to approximately 34% lower odds of documented corruption.

The results also provide support for H2. In the static CRE logit model (Table 2, column 2), the interaction between the share of own-source tax revenues and the Effective Number of Parties (ENP) is negative and significant (−0.060, $p < 0.01$). As reported in Appendix B, the association is close to null at low levels of political competition, becomes moderately negative around the median, and grows stronger at higher ENP values. This pattern also appears in the dynamic CRE probit model (Table 3, column 2), where the interaction term remains negative and highly significant (−0.035, $p < 0.001$).

By contrast, the results do not support H3. In the static CRE logit model (Table 2, column 3), the interaction between the share of own-source tax revenues and voter turnout in mayoral elections is not statistically significant (−1.309, $p = 0.122$). Although the sign is directionally consistent with the hypothesis, the evidence does not indicate that turnout strengthens the association between tax autonomy and documented corruption risk. Because turnout captures electoral participation rather than active civic monitoring, this null finding should be interpreted as limited evidence for turnout-based moderation rather than as evidence against participatory accountability more broadly.

Table 5. Average marginal effects of revenue autonomy.

Variable	Static CRE logit (Mundlak)	Dynamic CRE probit (Wooldridge)
Own-source tax revenues	−0.029**	−0.031**
Own-source non-tax revenues	−0.042***	−0.033*
Lagged corruption		0.090***

Notes: Entries are average marginal effects (dy/dx) on Pr(Mun corrupt = 1) for a one unit increase in the covariate. For revenue shares, one unit equals a 10-percentage point increase. Significance levels refer to the underlying model coefficients: $p < 0.10$ (*), $p < 0.05$ (**), $p < 0.01$ (***). All models include the full set of controls, year fixed effects, and Mundlak unit means; standard errors are clustered by municipality.

Revenue variables are expressed in 10-percentage-point units.

Full variable definitions and dataset codes are reported in Appendix A. Further details on AMEs are provided in Appendix B.

The results provide support for H4. The share of own-source non-tax revenues is negatively associated with documented corruption risk. In the static CRE logit model (Table 2, column 1), the coefficient is −0.512 ($p < 0.01$), which Table 5 translates into an average marginal effect of −0.042 ($p < 0.01$). This indicates that a 10-percentage-point increase in the share of own-source non-tax revenues is associated with a 4.2-percentage-point lower probability that a corruption-related proceeding is formally documented, or roughly 35% of the observed baseline probability. The negative association also appears in the dynamic CRE probit model (AME = −0.033, $p = 0.054$) and in the fixed-effects logit model (coefficient = −0.510, $p < 0.05$). Consistent with the expectation that the service-responsiveness logic is less dependent on formal electoral contestation, interactions with political competition and voter turnout are not statistically significant.

Sensitivity analysis

Because our corruption measure relies on officially reported events, under-reporting remains a potential concern. We therefore conduct a sensitivity analysis that inflates assumed corruption prevalence under increasingly severe contamination scenarios by randomly recoding a proportion of zeros and missing values as ones, with higher contamination in low-income municipalities (details in Appendix C). Three contamination scenarios increase assumed corruption prevalence by mild (Scenario 1), moderate (Scenario 2), and severe (Scenario 3) proportions.

Across all scenarios, the negative association for own-source tax revenues remains stable: static CRE AMEs range from −0.029 to −0.038, and dynamic CRE AMEs range from −0.031 to −0.042 in Scenarios 0–2 and −0.035 in Scenario 3. The negative association for own-source non-tax revenues also remains stable across contamination scenarios, although statistical significance is weaker in some dynamic specifications.

Overall, the sensitivity analysis indicates that the main associations for own-source tax and non-tax revenues are not driven solely by plausible asymmetric under-reporting. These simulations support the stability of the observed patterns, while leaving open the possibility of differential reporting cultures across municipalities. The findings should therefore still be interpreted as associations with documented corruption risk.

Discussion

This study examined how decentralization, operationalized as revenue autonomy, is associated with documented corruption risk at the municipal level through a meso-level analytical lens. Drawing on public administration

theory, we theorized that different types of revenue autonomy are linked to documented corruption risk through distinct accountability channels. Tax revenues are theoretically connected to political accountability because locally raised resources may make fiscal choices more visible and attributable to elected officials, especially where political competition makes them electorally salient (Besley 2020; Levi 1988; Weigel 2020). Non-tax revenues, such as fees, charges, and tariffs, instead align with a service-responsiveness logic, where revenue stability may depend on user satisfaction, perceived fairness, and service credibility (Birchall, Putman, and Pollitt 2016). Although user scrutiny is not directly observed, the absence of electoral moderation for non-tax revenues is consistent with accountability pressures operating outside formal electoral contestation.

Empirically, both tax and non-tax revenue autonomy are negatively associated with documented corruption risk. A 10-percentage-point increase corresponds to a lower probability of documented corruption-related proceedings, by about 3% points for tax revenues and 3–4 for non-tax revenues, against a baseline of about 12%. The tax-revenue pattern is consistent with the direct fiscal-contract logic and is stronger under higher political competition, whereas non-tax revenues show no systematic moderation by competition or turnout. This is consistent with formal electoral contestation strengthening the accountability relevance of tax autonomy, while non-tax revenues align more with a service-based responsiveness logic.

Theoretical implications

Public administration theory conceptualizes decentralization as a governance design strategy that shapes relations between administrations and constituencies through political accountability, civic participation, and service responsiveness (Andrews and de Vries 2007; Hart 1972). This study contributes by treating revenue autonomy, disaggregated into tax and non-tax components, as a local governance feature connected to distinct accountability logics and associated with documented corruption risk.

The pattern for own-source tax revenues is consistent with the political accountability logic developed above. Tax autonomy is a concrete manifestation of substantive decentralization (Dubois and Fattore 2009), as local governments can both implement policies and raise part of the resources to fund them. In Italian municipalities, salient local taxes may make government costs more visible to residents, while direct mayoral elections can personalize responsibility for fiscal choices, connecting public administration theories of decentralization with classical models of corruption (Klitgaard 1988; Persson, Rothstein, and Teorell 2013; Rose-Ackerman 1978, 1999). However, our results indicate that this accountability relationship is conditional on political competition. Where the effective number of

parties is low, additional tax autonomy is not associated with lower documented corruption risk, consistent with the possibility that revenue autonomy provides resources and discretion to entrenched local elites without equivalent oversight. Where political competition is higher, opposition actors may be better positioned to scrutinize fiscal choices, question irregularities, and translate tax-based grievances into political pressure. The theoretical implication is therefore conditional rather than universal. Tax autonomy is more likely to be associated with lower documented corruption risk where political competition makes fiscal salience electorally consequential. This finding aligns with the context-dependent perspective of public management theory (O'Toole and Meier 2015), which emphasizes that governance arrangements' implications depend on political-institutional conditions, while complementing political economy models (Albornoz and Cabrales 2013; Bardhan and Mookherjee 2000) by identifying political competition as a key boundary condition for the accountability relevance of revenue autonomy.

The empirical pattern for own-source non-tax revenues is different. The consistently negative coefficients, combined with the absence of significant interactions with either Effective Number of Parties (ENP) or voter turnout, are more consistent with a service-based responsiveness interpretation than with formal electoral moderation. Unlike electoral sanctioning models (Albornoz and Cabrales 2013), service-based accountability theories suggest that non-tax revenues may connect citizen perceptions of service quality, fairness, and credibility to municipal revenue flows. Poor quality or opaque fee structures may reduce demand and damage organizational reputation, while credible service management may sustain legitimacy (Esteve et al. 2024). The analysis does not observe these user-based processes directly, but the empirical pattern is consistent with the possibility that non-tax revenues are linked to accountability pressures that operate partly outside partisan electoral dynamics.

At a more general level, the broader theoretical implication is that decentralization should be theorized in differentiated terms rather than as a uniform integrity-enhancing reform. Its integrity implications depend on which dimension of autonomy is examined, which accountability logic is theoretically relevant, and whether surrounding institutional conditions make that logic plausible and observable (Falleti 2005; O'Toole and Meier 2015). Tax autonomy is associated with lower documented corruption risk primarily where political competition allows fiscal salience to become electorally consequential, whereas turnout alone does not provide evidence of turnout-based moderation (Albornoz and Cabrales 2013; Bardhan and Mookherjee 2000). Non-tax revenues show a different pattern, more consistent with a service-based responsiveness interpretation and less dependent on electoral contestation (Esteve et al. 2024; Hirschman 1970). These

arguments are most applicable where local executives are directly elected, own-source revenues are visible, and anticorruption reporting is institutionalized. They travel less well to settings dominated by central transfers, weak local competition, limited user feedback, or uneven reporting capacity.

Taken together, these findings point to three implications for public management scholarship. First, they help reposition integrity concerns within public management research (Astudillo-Rodas 2023; Lee, Meyer-Sahling, and Park 2025; Loyens, Rick, and Heres 2023), bringing public administration perspectives on accountability into a debate often shaped by economic-institutionalist explanations. Second, they may help clarify why research on decentralization and corruption has produced mixed findings, especially when studies do not distinguish substantive revenue autonomy from formal decentralization or differentiate across revenue components (Falleti 2005). Third, they are consistent with the view that different forms of revenue autonomy may be linked to distinct accountability logics, political for tax revenues and service-based for non-tax revenues, rather than to a single uniform decentralization effect (Villeneuve, Mugellini, and Heide 2020).

Implications for policymakers and practitioners

Anticorruption policies have often emphasized centralized enforcement, including national agencies, audits, and punitive legal instruments, but such approaches alone may be insufficient (Smidova 2020). Excessive reliance on control can generate an 'accountability paradox', in which bureaucratic overload constrains administrative initiative without necessarily deterring corruption (Anechiarico and Jacobs 1996). This supports the case for complementing enforcement with institutional and managerial interventions that treat anticorruption as a systemic condition (Villeneuve, Mugellini, and Heide 2020). Our findings align with this perspective by indicating that municipal revenue structures should be considered alongside local accountability and administrative conditions.

The practical implications follow from the distinct accountability logics associated with the two revenue types. Tax autonomy is associated with lower documented corruption risk primarily where political competition is strong enough to make fiscal salience electorally consequential, whereas non-tax revenues are more consistent with a service-based responsiveness logic. Revenue autonomy, therefore, should not be treated as an automatic institutional safeguard.

For national and regional policymakers, reforms that expand local revenue autonomy should not be conceived as purely fiscal measures. Increases in tax autonomy should be accompanied by measures that strengthen political scrutiny, including transparent tax communication, timely budget

disclosure, and arrangements that support opposition oversight. In low-competition settings, greater tax autonomy may not be associated with lower documented corruption risk and may instead expand local discretionary power.

For municipal political actors, tax-based accountability is more likely to emerge where fiscal decisions are visible and contestable. Tax choices should therefore be framed in ways that make their links to spending decisions and service outcomes more transparent.

For municipal managers and service administrators, the accountability relevance of non-tax revenues is more likely to emerge where fee-based services are transparent, standards are observable, complaints are monitored, and users can assess the correspondence between charges and service quality. The relevant implication is not simply to expand non-tax revenues, but to strengthen the credibility and responsiveness of the services through which they are generated.

These findings may also inform corruption risk assessment. Since corruption is difficult to observe directly (Fazekas, Tóth, and King 2016; Trapnell 2015), revenue composition can be read alongside local political, administrative, and reporting conditions as a contextual risk signal. For instance, low tax autonomy with weak political competition, or fee-based services with limited transparency and user feedback, may indicate settings where accountability pressures are less likely to be visible or consequential. This is especially relevant where local governments must develop risk-based corruption prevention plans, as in Italy after Law 190/2012.

These implications are most relevant in contexts similar to Italian medium-to-large municipalities and are less likely to travel unchanged to systems dominated by central transfers, weak local competition, or limited user feedback in service provision, or highly uneven reporting capacity.

Conclusions

This study has examined how decentralization, operationalized as revenue autonomy, is associated with documented corruption risk in Italian municipalities. In contrast to cross-national studies relying on broad indicators of formal decentralization, it adopts a meso-level perspective within a single institutional system and focuses on substantive revenue autonomy – disaggregated into own-source tax and non-tax revenues – to connect public administration theories of decentralization with local corruption dynamics. The results suggest that higher shares of own-source tax and non-tax revenues are associated with a lower likelihood of documented corruption-related proceedings, with patterns that are consistent with distinct accountability logics. Tax revenues are more consistent with a political accountability logic, because locally raised fiscal resources may make fiscal choices more visible

and attributable to elected officials. However, this association is conditional on political competition. In low-competition settings, additional revenue autonomy is not associated with lower documented corruption risk and may widen the discretionary space of local elites. Non-tax revenues show a different pattern, more consistent with a service-based responsiveness interpretation linked to user satisfaction, perceived fairness, and organizational reputation.

These findings should be interpreted as robust conditional associations rather than definitive causal effects. Several validity threats remain, although the design includes strategies to reduce inferential concerns. The lagged dependent variable, panel data, and dynamic specifications improve temporal sequencing, but cannot rule out reverse causality, since lower corruption, stronger administrative capacity, higher trust, or more effective fiscal systems may support higher own-source revenues. Omitted-variable bias is mitigated through correlated random effects, year fixed effects, time-varying controls, and robustness checks with dynamic and fixed-effects estimators. Yet time-varying unobservables, such as prosecutorial intensity, media scrutiny, or reform capacity, may still affect both revenue autonomy and documented corruption events. Measurement threats are also relevant. The corruption indicator relies on a standardized administrative source and a closed-ended RPCT item, reducing subjective coding, with high extraction reliability. However, reporting heterogeneity and under-reporting remain possible. Sensitivity analyses simulating asymmetric under-reporting and strategic missingness show stable patterns across plausible contamination scenarios, supporting robustness but not eliminating differential reporting cultures across municipalities. Common-method bias is less likely because dependent and main explanatory variables come from different administrative sources. External validity remains bounded to medium-to-large municipalities under comparable fiscal, electoral, and anticorruption institutions, as the analysis covers all eligible Italian municipalities with population $\geq 15{,}000$.

These limitations also suggest avenues for further research. Future studies could integrate revenue-raising autonomy with expenditure autonomy and other decentralization dimensions, extending the meso-level panel approach to comparative settings. Combining event-based measures with perception- or experience-based indicators, as well as qualitative or mixed-methods designs, could clarify how revenue autonomy interacts with political competition and user responsiveness.

Despite these limitations, the study indicates that revenue autonomy is not merely a technical fiscal attribute but an institutional feature of local governance whose relationship with documented corruption risk depends on revenue composition and local accountability conditions. This perspective

aligns with systemic approaches to anticorruption that treat integrity as a cross-cutting policy integrating institutional, legal, and organizational dimensions, and points to revenue autonomy as one component within a broader set of complementary institutional and managerial interventions, rather than as a stand-alone anticorruption safeguard.

Acknowledgments

The corresponding author used OpenAI's ChatGPT (GPT-5 family model) solely for language editing and grammar checks in the manuscript. The tool was not used for idea generation, data analysis, interpretation of results, or substantive content generation. All AI-assisted text was carefully reviewed, edited, and revised by the authors, who take full responsibility for the final content of the manuscript.

Disclosure statement

No potential conflict of interest was reported by the author(s).

Funding

This work was supported under the National Recovery and Resilience Plan (NRRP), Mission 4, Component 2, Investment 1.1, Call for tender No. 104 of 2 February 2022 issued by the Italian Ministry of University and Research (MUR), funded by the European Union – NextGenerationEU, PRIN 2022 project 'Corruption risk in municipal governments: the managerial perspective' (Project code 2022E9C3ZE; CUP E53D23006220006).

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Human subjects research

The manuscript does not contain neither data on individual persons in any form nor other forms of sensitive information. The study is not subject to human subjects research approval or other ethical research standard bodies and oversight organizations.

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