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Firms' Perception of a Fair Tax Burden - The Impact of Trust and Public Goods

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Firms' Perception of a Fair Tax Burden - The Impact of Trust and Public Goods*

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Abstract

This study analyses how owner-managers' satisfaction with public goods and their trust in municipalities' handling of tax revenues shape firm-level tax attitudes. Using survey data from German small and medium-sized enterprises (SMEs), we find no significant association between SME owner-managers' overall satisfaction with the provision of public goods and their perception of a fair tax burden (perceived fair tax rate). However, when distinguishing between public goods related to the SME owner-managers personal- and business-sphere, satisfaction with public goods tied to the personal-sphere is associated with an increase in the perceived fair tax rate of about 6%. We observe no similar link for the satisfaction with business-related public goods. By contrast, owner-managers' trust in municipalities' handling of tax revenues is strongly associated with higher perceived fair tax rates, with an effect size nearly twice that of satisfaction with personal-related public goods. Furthermore, municipalities where SME owner-managers report higher perceived fair tax rates, show on average a 13% reduction in firm-level tax avoidance. These findings underscore the critical role of transparent tax revenue management and trust-building in promoting tax compliance, offering actionable insights for municipalities seeking to strengthen sustainable exchange relationships with SMEs.

Keywords: Tax Perception, Business Taxation, Tax Avoidance, Public Goods, Tax Revenue

JEL classification: H25, H26, H41, H71, D91

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1 INTRODUCTION

“[W]hile the government taketh away, it also giveth back (...).”
- Cowell and Gordon (1988)

Local business taxes constitute a key revenue source for municipalities¹, funding the provision of public goods and services² that support economic and social infrastructure (Fossen and Bach, 2008; OECD, 2019; Beerli et al., 2022). Small and medium-sized enterprises (SMEs)—which account for the vast majority of firms in most economies such as Germany, the USA, and Canada³—are particularly affected by local tax policy due to their typically limited geographical mobility and resource constraints. These firms often operate in competitive environments in which municipal tax levels can influence investment decisions, location choices, and long-term viability (Barrios et al., 2012; Dobbins and Jacob, 2016). Understanding how SME owner-managers⁴ perceive local tax burden is therefore relevant for both policy design and academic inquiry in taxation, public finance, and accounting.

This paper examines how SME owner-managers perceive the fairness of local business tax rates and whether this perception is shaped by satisfaction with local public goods and trust in the municipality’s handling of tax revenues. Our focus is on the concept of the *perceived fair tax rate*—an attitudinal measure reflecting what SME owner-managers consider an appropriate tax burden in their municipality, rather than the statutory rate. This focus on perceptions follows research emphasising the importance of subjective tax perceptions over objective burdens (Alm, Jackson, and McKee, 1992a; Feld and Frey, 2002; Kirchler et al., 2008; Luttmer and Singhal, 2014). We further assess the *tax differential*, defined as the gap between this perceived fair tax rate and the statutory local business tax rate. This differential serves as an indicator of potential misalignment between perceived value received and tax paid.

To explain variation in these perceptions, we draw on fiscal and social exchange theories (Alm et al., 1993; Blau, 1964; Feld & Frey, 2002), which conceptualise taxation as a reciprocal relationship: taxpayers contribute financially and, in return, expect valuable and responsibly managed public goods. We distinguish between two dimensions of this reciprocal relationship: (1) *satisfaction with local public goods*, capturing the perceived quality and relevance of tax-financed goods, and (2) *trust in municipalities’ handling of tax revenues*, reflecting confidence in the governance and transparency of municipal fiscal practices (Glaser and Hildreth, 1999; Anderson, 2017). We further differentiate between the satisfaction with *personal-related* and

¹ We use municipalities as one example for a local government.

² In the following, for easier readability we refer to public goods and services as public goods.

³ See Appendix A2 for an overview of local business tax in OECD-countries.

⁴ Given the structural characteristics of the surveyed firms—particularly their size (nearly 50% employ 0–9 employees) and their classification as craft enterprises—we assume that the respondents are the owner-managers of the businesses (Hoppe et al., 2023; McKerchar et al., 2005).

business-related public goods, acknowledging the dual embeddedness of SME owner-managers as both private individuals and business decision-makers (Wigren-Kristoferson et al., 2022). Owner-managers may evaluate childcare, healthcare, and recreational infrastructure differently from vocational training and transport infrastructure, depending on their relevance for household well-being or business operations. This distinction is built on prior findings that show heterogeneous effects of public goods on tax morale (Spicer and Lundstedt, 1976; Glaser and Hildreth, 1999; Beerli et al., 2022).

Our empirical setting is the German municipal tax system, which allows municipalities to set their own *statutory tax rate* via a tax multiplier ranging from 200% to 650% applied to a uniform base rate of 3.5% (Fuest et al., 2018). This decentralised structure generates substantial cross-municipal variation in tax rates and public goods provision, while a standardised national framework ensures comparability (Buettner & Holm-Hadulla, 2008). We link survey data on SME owner-managers’ perceptions with administrative data on actual public goods provision (sourced from the INKAR database of the German Federal Institute for Research on Building, Urban Affairs and Spatial Development) and statutory tax rates, and supplement this with archival data on effective tax rates. This multi-source approach enables us to connect attitudinal evaluations with observed tax behaviour. In line with Upper Echelons Theory (Hambrick & Mason, 1984), stating that strategic and financial decisions in small firms are strongly shaped by the personal experiences, values, and judgments of those owner-managers, we assume that SME owner-managers’ personal tax evaluations substantially influence firm-level decisions.

Our results show that satisfaction with *personal-related public goods*—but not business-related ones—is significantly associated with higher perceived fair tax rates. Trust in the municipality’s handling of tax revenues exhibits an even stronger relationship, roughly double in magnitude. Objective public goods provision has no significant influence once perceptions are accounted for, highlighting the importance of tax perceptions. Moreover, municipalities where SME owner-managers report higher perceived fair tax rates experience significantly lower levels of tax avoidance, as measured by effective tax rates, implying behavioural consequences of tax perceptions (Dyreng et al., 2008; Graham et al., 2014).

This study contributes to the literature in several ways. First, it develops a framework for analysing SME-specific tax attitudes, integrating fiscal and social exchange theory with the dual role of owner-managers. Second, it improves conceptual precision by distinguishing perceived fair tax rates from objective statutory tax rates and viewing perception–provision gaps as meaningful.⁵ Third, it connects perception-based measures to behavioural outcomes, addressing calls for more firm-level research on tax compliance (Hanlon & Heitzman, 2010; Lisowsky & Minnis, 2020). For policymakers, the findings underscore the fiscal importance of fostering

⁵ We interpret perception–quantity differences in public goods provision as analytically meaningful rather than as “errors”.

trust and ensuring the perceived value of tax-financed goods, to create a sustainable exchange relationship between SMEs and municipalities — a dynamic also evident in historical processes of state-building, where taxation and public legitimacy co-evolved (Xu and Xu, 2016).

2 LITERATURE AND HYPOTHESES DEVELOPMENT

For SMEs, paying local taxes is not only a legal obligation but also part of a broader exchange with their municipality—an exchange in which tax contributions are traded for public goods that shape the firm’s operating environment. Fiscal exchange theory (Alm, Jackson, and McKee, 1992a; Buchanan, 1967; Feld and Frey, 2002; Musgrave, 1959) emphasises the economic dimension of this relationship: compliance is more likely when the value of public goods received is perceived to be commensurate with the taxes paid. Following this, taxation is understood as a quid-pro-quo relationship, where legitimacy of taxation depends on the visibility and adequacy of public good returns. Social exchange theory (Homans, 1961; Blau, 1964) extends this view by highlighting relational elements—mutual trust, perceived fairness, and confidence in the authority’s competence, which sustain cooperation even when the exchange is not strictly balanced. This theoretical strand emphasises relational norms, reciprocity, and the role of trust beyond calculative utility, linking closely to modern conceptualisations of trust in authorities (Mayer et al., 1995; Rousseau et al., 1998).

In the case of SMEs, these exchanges take place within a distinctive decision-making environment: Owner-managers are the key decision-makers in SMEs, and their personal judgments largely determine firm-level outcomes. Unlike in large corporations, SMEs cannot separate ownership and control, which makes the SME decision-maker’s perceptions decisive. They are simultaneously embedded in business and personal contexts (Hambrick and Mason, 1984; Wigren-Kristoferson et al., 2022), meaning that both business-related public goods (e.g., vocational schools, transport infrastructure) and personal-related public goods (e.g., healthcare, child care) can shape tax attitudes. This dual embeddedness has been theorised in the embeddedness literature (Granovetter, 1985; Uzzi, 1997) as a situation in which economic action is constrained and enabled by personal and social contexts.

In SMEs, unlike in large corporations, the boundary between business and household is often blurred, so tax decisions reflect both economic rationality and personal utility. Competitive pressures and thin financial margins further heighten sensitivity to the trade-off between local tax rates and the need to substitute privately for absent public goods (Barrios et al., 2012; Hopp and Stephan, 2012). Moreover, because SMEs often lack the resources to substitute public goods privately (e.g., by arranging firm-specific training or child care), owner-managers’ assessments of municipal provision and governance become central to perceived tax

fairness. From a resource dependence perspective (Pfeffer and Salancik, 1978), SMEs are more dependent on their immediate institutional environment and have less capacity to compensate through private provision or relocation. These SME-specific features imply that perceptions of public goods and trust in the municipality are not simply abstract attitudes. They rather form part of a strategic assessment of the local environment in which the firm operates.

Public goods provision has long been identified as a determinant of tax morale and compliance, particularly in the literature on individual taxpayers. Studies show that perceived disparity between taxes paid and benefits received, e.g. public goods, can erode compliance (Spicer and Lundstedt (1976)), while perceived fairness and adequate service provision can strengthen it (Cowell and Gordon (1988); Kim et al., 2005). Experimental evidence further demonstrates that increasing the availability or quality of public goods reduces tax evasion, especially when benefits are salient (Alm, Jackson, and McKee (1992a); Wahl et al., 2010). Fiscal psychology theories (Schmölders, 1960; Kirchler, 2007) have further shown that taxpayers react primarily to perceived burdens and benefits rather than objective indicators. These mechanisms should also operate in SMEs, but here the decisive factor is the dual embeddedness of owner–managers: public goods relevant to the business domain may be evaluated differently from those that matter in the personal domain. For example, childcare provision directly affects the owner–manager’s family life (also, this might be an important factor for their employees as well), while vocational schools affect the firm’s labour supply. The relative weighting of these domains may influence the perceived appropriateness of local business tax rates.

H1a: Higher satisfaction with the provision of public goods increases the perceived fair tax rate, and the strength of the association varies with the type of public good.

Perceptions of public goods often diverge from their objective provision. At the individual level, studies show that perceived tax burdens and perceived public goods provision often matter more for behaviour than objective measures (e.g., Schmolders, 1960; Rupert and Fischer, 1995; Austin et al., 2021; Stantcheva, 2021; Blaufus et al., 2022). A similar logic applies to SMEs: for owner–managers, perceptions are filtered through everyday experiences as local residents and business operators. Even substantial objective provision of public goods—such as an extensive school network or modern infrastructure—may not translate into higher perceived fair tax rates unless these goods are noticed and considered relevant for the SME decision-maker’s firm or family. This distinction reflects different evaluative processes: objective measures capture statistical quantities or capacities, whereas SME owner-managers’ perceptions are filtered through their specific business needs, personal experiences, and contextual salience. From this perspective, objective provision alone is unlikely to drive firms’ tax attitudes.

H1b: The actual provision of public goods does not increase the perceived fair tax rate that SME owner-managers perceive as appropriate.

Trust in tax authorities is widely recognised as a cornerstone of tax compliance. The slippery slope framework Kirchler et al. (2008) posits trust alongside power as a key determinant of tax compliance, with trust encouraging voluntary cooperation. For SMEs, trust in municipal governance can be especially consequential: owner-managers have, due to the embeddedness in their local context (Rousseau et al., 1998), fewer exit options compared to large firms, so they rely heavily on local governments to provide a certain and fair environment. Trust strengthens confidence that tax revenues will be allocated efficiently, that procurement and contracting processes will be conducted fairly, and that resources will be invested in ways that sustain the local environment for business. Here, relational trust⁶ matters more than calculative trust because SMEs lack exit options and are embedded in their local context (Rousseau et al., 1998). In addition, trust can reduce uncertainty about future costs, a key factor under high competitive pressure (Coleman, 1990). This trust directly fosters acceptance of local tax rates, aligning with fiscal exchange theory by reinforcing the perceived fairness of the tax-benefit relationship and with social exchange theory by sustaining cooperative relations over time.

H2: Higher trust in municipalities' handling of tax revenue increases the perceived fair tax rate.

3 INSTITUTIONAL SETTING

Our study builds on the characteristics of the German local business tax system, also called trade tax. This local business tax is part of a compound tax levied on businesses by their respective municipality (based on the firms' company site). It comprises a basic tax rate of 3.5% (German Trade Tax Act), which is multiplied by a local business tax multiplier set individually by each municipality. The multiplier ranges widely, from a minimum of 200% to as high as 650% in 2022. Applied to the base rate, this corresponds to tax rates ranging roughly from 7% to 22.75%. The amount of revenue generated within a municipality is largely determined by the local business tax multiplier set by each municipality individually. Figure 1 illustrates these regional variations, showing lower multipliers in eastern Germany and Bavaria and higher multipliers in North Rhine-Westphalia. To avoid computational biases associated with asking about tax rates directly (Chirvi et al., 2021) and the multiplier being the more prominent key figure (which is highlighted in public debates due to its significance for the level of tax burden), our survey explicitly focuses on firms' perceptions of the appropriate multiplier level for their municipalities.

⁶ Relational elements are e.g., mutual trust, perceived fairness, and confidence in the authority's competence. They sustain cooperation even when the exchange is not strictly balanced.

< Insert Figure 1 about here >

Our study considers differences in the tax burden across legal forms of businesses. For non-corporations (e.g., sole proprietorships and partnerships), the overall tax burden includes a progressive income tax, a solidarity surcharge⁷, and the local business tax. Non-corporations are subject to the pass-through principle, where profits are attributed to the individual partners for income tax purposes. Against this, the local business tax is incurred at the partnership level. To avoid double taxation, local business tax paid at the partnership level is partially credited against the partners' income tax liability,⁸ ensuring that municipal revenues remain unaffected. Nevertheless, this special regulation can alter perceptions of the tax burden among non-corporations. On the one hand, the procedure may not be fully comprehended, leading to the erroneous perception that no local business tax is payable as a consequence of the tax credit. Alternatively, the tax credit may have a purely psychological effect, whereby the burden is perceived as lower due to the fictitious reduction (which, in reality, only represents an avoidance of double taxation). In contrast, the burden may be perceived as higher if there is a perceived double taxation, that is, if the effect of the tax credit is not fully understood. As a complete tax credit is only possible up to a levy rate of approximately 400%, we examine in additional tests (untabulated) the difference in the perceived fair tax rate for non-corporations located in municipalities with a levy rate of over and under 400%. We find a significant difference. Both the absolute and relative tax differential is higher for non-corporations in municipalities with a levy rate greater than 400%. However, this significant difference is equally evident for corporations. No difference between the legal forms is observed, suggesting that the effect is not due to (insufficient) allocation. Corporations, on the other hand, are subject to the separation principle. Their profits are taxed at the firm level through both corporate tax and local business tax.

Local business tax revenues are collected by municipalities, which also receive shares of income tax (15%) and capital gains tax (12%) under the German Municipal Finance Reform Act. For firms operating across multiple municipalities, the local business tax assessment base is allocated proportionally to wages paid in each location Eichfelder et al., 2023, but this plays a minor role in our sample due to the smaller size of the surveyed firms.

4 SURVEY DESIGN AND SAMPLE

Our analysis draws on survey data collected from owner-managers in German SMEs conducted in collaboration with the German Confederation of Skilled Crafts. The survey design builds on prior literature examining

⁷ The solidarity surcharge is a 5.5% levy on income tax (Section 4, Solidarity Surcharge Code).

⁸ Under § 35 of the German Income Tax Act.

taxpayer behaviour and perceptions (e.g., Schmölders, 1960; Blaufus et al., 2022; Fochmann et al., 2024). It was tailored to capture respondents’ views on local business taxation and public goods provision. The questions were integrated into a special online survey administered by the German Confederation of Skilled Crafts,⁹ which was distributed to handicraft businesses between August 21 and August 28, 2023. The distribution process ensured broad outreach to the target population. To ensure honest response behaviour, participation was voluntary and anonymous. However, this results in information on non-respondents being unavailable, meaning that the response rate cannot be calculated.¹⁰ To assess representativeness, we benchmark our sample against official Census of Crafts data.

The survey instrument was refined with input from the German Confederation of Skilled Crafts and consists of three main sections. (1) Firms provide information on their legal form, number of employees, revenue, industry, and location (federal state and municipality). (2) Firms are asked about the local business tax multiplier they perceive as appropriate for their municipality.¹¹ The zip code of the firm’s municipality is collected to identify the actual multiplier. (3) SME owner-managers assess their satisfaction with various public goods (kindergartens/daycare, primary schools, secondary schools, vocational schools, hospitals, recreational areas, police stations, efficient municipal administration, motorway connections, railway connections, public transportation)¹². They also report their level of trust in municipalities handling of tax revenues.¹³

For ease of interpretation, from now on, we calculate the statutory tax rate by applying the base tax rate to the reported local business tax multiplier and refer to this as the local business tax rate throughout the study. While survey-based research is subject to self-selection bias (e.g., Bethlehem, 2010), three features mitigate this concern. First, the questionnaire covered a broad set of topics beyond taxation, making tax questions less prominent to respondents at the time of participation. Second, participation was anonymous, and tax-related items were neutrally worded, reducing social desirability bias. Third, comparison with Census of Crafts statistics suggests our sample closely mirrors the broader SME population in this sector.

The initial survey yielded 2,496 responses. After excluding incomplete questionnaires, 1,695 valid responses remained. Further exclusions due to missing administrative data reduced the final sample to 543 firms for the main analysis. Among these firms, 41.6% are sole proprietorships, 9.6% are partnerships, 24.5% are mixed forms, and 24.3% are corporations. On average, firms employ 37 workers, with a median of 10. In

⁹ Details on the special survey (“Sonderumfrage”) are available at <https://www.zdh.de/ueber-uns/fachbereich-wirtschaft-energie-umwelt/sonderumfragen/zdh-umfragen-zu-den-auswirkungen-des-ukraine-kriegs/umfrage-zur-den-aktuellen-herausforderungen-kw-34/2023/>.

¹⁰ In addition, we cannot determine how many enterprises were aware of our survey. Therefore, it is impossible to calculate a response rate.

¹¹ This approach avoids computational biases associated with asking about tax rates directly (Chirvi et al., 2021).

¹² We also ask about the category “university”. Due to a comparably small number of responses and the small number of municipalities with universities in general, we exclude this variable from our analysis.

¹³ The full questionnaire is provided in Appendix A1.

terms of revenue, 34.2% of firms report annual turnover below €500,000, 54.1% between €500,000 and €5 million, and 13.6% over €5 million. Following the definition in the German Commercial Code (HGB), we consider all firms to be SMEs (fewer than 250 employees and turnover below €10 million). This classification aligns with official data indicating that 99.6% of craft enterprises in Germany fall within the SME category.¹⁴

Regionally, the sample is concentrated in Hesse (23.4%), North Rhine-Westphalia (18.6%), and Lower Saxony (16.2%). Metalworkers (17.7%), electricians (9.9%), and plumbers (8.7%) represent the largest occupational groups. Table 1 compares the sample characteristics to the broader population of German craft firms, demonstrating its representativeness.

< Insert Table 1 about here >

Finally, Table 2 presents descriptive statistics for the survey variables used in the analysis, including the perceived fair tax rate, satisfaction with public goods, and trust in municipalities’ handling of tax revenue.

< Insert Table 2 about here >

5 MEASURING APPROACH

5.1 Perceived Fair Tax Rate

Our primary construct is the perceived fair tax rate, derived from survey responses of SME owner-managers. Respondents were asked to indicate the local business tax multiplier they considered appropriate in their municipality:

“What local business tax multiplier (in %) would you consider appropriate in the municipality in which your firm is based?”

Applied to the statutory base rate of 3.5%, these responses yield a tax rate that reflects SME owner-managers’ perception of what constitutes a fair tax burden. Crucially, this is an attitudinal measure: it does not capture actual compliance or statutory obligations but instead reveals how SME owner-managers evaluate the balance between municipal tax burdens and the benefits they associate with local public goods. In this sense, it extends beyond binary notions of compliance (e.g., Iraman et al., 2021) and resonates with prior research on subjective tax perceptions (e.g., Blaufus et al., 2010; Blaufus et al., 2022).

While self-reported measures could be subject to potential biases such as strategic understatement or

¹⁴ Based on official craft structural data from 2021: <https://www.destatis.de/DE/Themen/Branchen-Unternehmen/Handwerk/aktuell-struktur-handwerk.html>.

incomplete tax knowledge, they are highly relevant in the SME context. In smaller firms, owner-managers' personal evaluations typically drive organisational decisions, meaning that their attitudes toward local taxation are directly consequential for firm-level outcomes (Miller and Toulouse, 1986).

5.2 Tax Differential

We also construct a measure of the perceived–statutory tax differential (tax differential), defined as the difference between the statutory tax rate, the statutory tax rate, in a municipality and the perceived fair tax rate. Using administrative data on municipal multipliers (Statistische Ämter des Bundes und der Länder, 2023), the tax differential is calculated as:

$$\begin{aligned} Tax\ Differential_i = \\ Statutory\ tax\ rate_j - Perceived\ fair\ tax\ rate_j. \end{aligned} \tag{1}$$

This differential represents the evaluative gap between what tax is levied in municipality j and what a SME owner-manager i 's regards as appropriate. A positive value suggests that the statutory rate exceeds respondents' sense of fairness, while a negative value indicates that respondents would consider a higher rate fair.¹⁵

Following prior research on subjective tax perceptions (e.g., Blaufus et al., 2010; Blaufus et al., 2022; Körösi and Maiterth, 2022), we argue that this evaluative gap is informative for understanding how SME owner-managers experience the fiscal exchange with municipalities. To ensure accuracy, survey responses were matched to municipalities via zip code, and local business tax multipliers were taken from the most recent administrative data (2022) from the Federal Statistical Office (Statistische Ämter des Bundes und der Länder, 2023). In additional analyses, we scale measures relative to the statutory tax rate and in placebo tests use statutory tax rates.

5.3 Trust in Municipalities

To capture trust in municipalities' handling of tax revenue, we asked SME owner-managers to indicate their confidence in their municipality's handling of local business tax revenues. The measure reflects the extent to which respondents believe that revenues are managed responsibly, transparently, and in the collective interest. In line with the fiscal exchange perspective, this variable captures expectations about the municipality's

¹⁵ Importantly, we do not interpret this gap as an error or misperception. Instead, it reflects the different evaluative perspectives of administrative statistics versus lived experience in local economic environments.

ability and willingness to honor the implicit exchange between taxation and public goods provision. Thus, trust is conceptualised as a governance-related belief rather than a purely interpersonal attitude.

5.4 Satisfaction with the Provision of Public Goods

We measure satisfaction with public goods provision based on survey ratings in which SME owner-managers evaluated their contentment with a set of municipal public goods (e.g., daycare centers, primary and secondary schools, vocational schools, hospitals, public transportation) on a six-point Likert-scale. These ratings capture how respondents, in their dual role as owner-managers and local residents, experience the adequacy and usefulness of local public goods.

To examine whether certain types of public goods are more strongly linked to tax attitudes, we distinguish between personal-related and business-related public goods. Personal-related goods (e.g., daycare centers, primary schools, recreational areas, police stations, hospitals) primarily affect the household and family context of SME owner-managers as well as of their employees. Business-related goods (e.g., secondary schools, vocational schools, motorway connections, railway stations, public transportation) more directly support firms' operational needs, particularly workforce development and infrastructure. While some public goods arguably influence both spheres, we assign them based on their predominant relevance, acknowledging that the distinction is analytical rather than absolute. Correlation patterns among the survey responses support this grouping (see Appendix A6). Moreover, we complement our theoretically informed grouping of public goods into personal- and business-related categories with a data-driven validation using exploratory factor analysis and hierarchical cluster analysis (untabulated). Both methods confirm the classification of core transportation public goods (motorway connection, railway stations, public transportation) as business-related, and leisure and early childhood education public goods (recreational areas, kindergartens/daycare, primary schools) as personal-related. These public goods form clear statistical groupings across both approaches. Other public goods—such as hospitals, police, vocational schools, and secondary schools—occupy more ambiguous positions. They load moderately on both factors and cluster with different partners, indicating that respondents perceive them as bridging personal and systemic functions. Overall, the statistical patterns provide meaningful empirical support for our conceptual grouping, while also highlighting the complexity and overlap in how different public goods are perceived.

5.5 Perception-Provision Gap

To complement perceptions, we incorporate measures of the actual provision of public goods using administrative data from the INKAR database of the German Federal Institute for Research on Building, Urban Affairs and Spatial Development. INKAR provides regional statistics on infrastructure, education, transportation, and health public goods. We match these data to municipalities using official municipality codes (details in Appendix A4).

For comparability, we standardise the INKAR indicators in two steps. First, provision levels are scaled relative to population size to account for differences in municipal scale. Second, indicators are rescaled to match the six-point scale used in the survey: municipalities in the top percentile range are coded as six, those in the lowest as one (details in Appendix A5). This allows direct comparison between the satisfaction with public goods and their actual provision.

We define the perception–provision gap as the difference between the satisfaction ratings provided by respondents and the corresponding standardised INKAR values. This measure does not treat divergences as mistakes but as meaningful indicators of how statistical provision levels may or may not translate into lived experiences of adequacy. A large positive or negative gap signals that objective provision levels and subjective satisfaction are not aligned, shedding light on the evaluative processes through which SME owner-managers form attitudes toward local taxation.

6 RESULTS

6.1 Public Goods and Trust

Previous research shows that the provision of public goods significantly influences individual taxpayers’ behaviour (e.g., Spicer and Lundstedt, 1976; Cowell and Gordon, 1988; Alm, McClelland, and Schulze, 1992; Alm, Jackson, and McKee, 1992b; Torgler, 2004). Extending this reasoning to SMEs, we analyze how SME owner-managers’ satisfaction with public goods provision relates to their perceived fair tax rate. In our survey we asked SME owner-managers to evaluate eleven public goods: kindergartens/daycare, primary schools, secondary schools, vocational schools, hospitals, police stations, recreational areas, efficient municipal administration, motorway connections, railway stations, and public transportation.¹⁶ Figure 2 plots the distribution of satisfaction ratings for each good. A left-skewed distribution reflects higher satisfaction, whereas a right-skewed distribution indicates lower satisfaction.

¹⁶ Table 2 displays the average and median ratings for all public goods.

< Insert Figure 2 about here >

The data reveal considerable variation across categories. SME owner-managers report the highest satisfaction with recreational areas, primary schools, railway stations, and motorway connections, whereas they are least satisfied with municipal administration, vocational schools, and public transportation. Childcare and leisure-related public goods receive comparatively favorable evaluations, as do core infrastructure public goods (with the notable exception of public transport). Public goods such as hospitals and police stations receive more mixed ratings, while educational public goods beyond the primary level are rated less favorably.

To assess whether satisfaction differs systematically by type of public good, we grouped items into personal-related (e.g., kindergartens, recreational areas) and business-related (e.g., vocational schools, transport connections). In line with the embeddedness of SME owner-managers in both personal and business contexts (Wigren-Kristoferson et al., 2022), SME owner-managers express similar levels of satisfaction across both groups. Table 2 provides descriptive statistics by category.

< Insert Table 2 about here >

We complement these subjective evaluations with administrative data on the actual provision of public goods, and construct a provision–perception gap measure that captures the extent to which SME owner-managers’ satisfaction diverges from objective provision levels. Table 4 summarises these results.

< Insert Table 4 about here >

The administrative data indicate that vocational schools, efficient municipal administration, and hospitals are among the most extensively provided public goods, while recreational areas and public transportation are comparatively scarce. Comparing objective provision to survey ratings reveals that SME owner-managers frequently perceive public goods as more comprehensive than administrative data suggest, particularly in the case of business-related public goods. Notable exceptions include efficient municipal administration, vocational schools, and hospitals, where provision levels appear higher in administrative data than in respondents’ evaluations.

Aggregating across items, we find that both personal-related and business-related public goods are generally perceived as more available than the administrative data indicate, with mean provision–perception gaps of 0.83 and 1.20, respectively. Importantly, the discrepancy is significantly larger for business-related public goods ($p < 0.01$) than for private-related public goods. This suggests that SME owner-managers may systematically overestimate the quality or availability of infrastructure and education public goods that are salient for business operations, while showing less divergence in their evaluations of personal-related public

goods.

6.2 Owner-managers' Perceptions of Fair Local Business Taxes Rates

We continue by analysing SME owner-managers' self-reported perceived fair tax rate and the corresponding tax differential (evaluating their (dis)satisfaction), as measured by the differential between the statutory tax rate and the perceived fair tax rate. Table 5 shows descriptive statistics for these two key measures. Given the differing tax procedures for non-corporations and corporations, we analyse these groups separately.

< Insert Table 5 about here >

The results indicate that across both legal forms, SME owner-managers report comparatively low levels of *perceived fair tax rates*. Specifically, the average *perceived fair tax rate* for non-corporations (corporations) is 8.9% (9.3%), significantly below the average statutory tax rate of 14.3% (14.4%). Consequently, the difference is large, reflecting dissatisfaction with the current tax levels. On average, SME owner-managers perceive that a reduction of 37.4% in the statutory tax rate would align with the value of public goods provided. SME owner-managers in non-corporations report an average desired reduction of 38.5%, slightly higher than the 35.4% reported by SME owner-managers in corporations; however, this difference is not statistically significant at conventional levels.

Our findings suggest that SME owner-managers in non-corporations experience a greater perceived misalignment between the statutory tax rate and their subjective valuation of a fair tax rate compared to SME owner-managers in corporations. This supports the notion that the tax credit for non-corporations, described in Section 3, does not sufficiently alleviate SME owner-managers' perceived tax burden. Instead, the results indicate that SME owner-managers in non-corporations misjudge the impact of the tax credit, perceiving a higher overall tax burden than SME owner-managers in corporations. This is consistent with prior evidence from Fochmann et al. (2023), who show that SME owner-managers in non-corporations often perceive additional tax burdens (e.g., income taxes) to be higher than those of corporations, likely due to misperceptions of how taxes are calculated.

Interestingly, our results contrast with Cowell and Gordon (1988), who demonstrate that in small economies, where taxpayers perceive their contributions as impactful, the provision of public goods can reduce tax evasion. When comparing the desired reduction of the combined tax rates (income taxes plus local business taxes) to the reduction implied by the tax differential, we find striking parallels. SME owner-managers in non-corporations (corporations) report that a combined income tax reduction of 37.6% (33.0%) would be appropriate as shown in Fochmann et al. (2023), compared to their perceived tax differential of 38.5% (35.4%)

for local business tax. This highlights that dissatisfaction is not unique to local business taxation but reflects broader concerns with the balance between taxation and perceived benefits.

6.3 Effect of Public Goods and Trust on Perceptions of a Fair Tax Rate

Following we analyse the association between SME owner-managers' satisfaction with public goods, their level of trust in municipalities' handling of tax revenues, and their perceptions of a fair tax rate. Specifically, we focus on two measures: the perceived fair tax rate and the tax differential. We employ multivariate OLS regressions to isolate the individual effects between public goods satisfaction, trust in municipal tax revenue handling, and the two tax perception measures while controlling for firm- and municipality-specific characteristics.

As outlined in Section 4, the dependent variables are (1) the perceived fair tax rate and (2) the tax differential, describing the difference between the perceived fair tax rate and the statutory tax rate. For robustness, we also estimate models using the relative tax differential (in percent of the statutory tax rate) and, as a placebo test, the statutory tax rate itself as alternative outcomes. The baseline model is specified as follows:

$$\text{Perceived fair tax rate}_i = \alpha + \beta_1 \text{ public goods}_i + \beta_2 \text{ trust}_i + \beta_4 \eta_m + \beta_5 \kappa_i + \varepsilon_i \quad (2)$$

where public goods_i represent satisfaction with public goods, and in further tests their actual provision or salience. Trust_i captures trust in the municipality's handling of tax revenue, η denotes municipality- and district-level control variables, and κ represents firm-specific controls. We replicate the procedure using the *tax differential* as a dependent variable. To ensure robustness, additional models use the *relative tax differential* (in %) and the statutory tax rate (in %) as alternative dependent variables. Variable definitions and summary statistics for all variables are provided in Appendix A3 and A7.

Public goods provision is measured using three ways: First, we assess the satisfaction with public goods based on survey responses. This measure is calculated both as an aggregate perception of all public goods and as separate measures for personal-related and business-related public goods. Second, we rely on INKAR data to capture the actual provision of public goods at the municipality level, enabling an objective comparison across regions. Third, we calculate the salience of public goods as the difference between perceived and actual provision. These measures are further disaggregated into personal- and business-related categories to account

for differing areas of relevance to SME owner-managers. Trust in municipalities’ handling of tax revenue is derived directly from survey responses on confidence in municipal tax revenue handling.

To account for differences across municipalities and firms, we include several control variables in the analysis. At the municipality and district levels, we control for population size (as of 2022), land area (measured in square kilometers), district debt¹⁷ (used as a proxy for fiscal constraints), local business tax revenue per capita, the allocation of investment promotion measures, and the unemployment rate. The inclusion of unemployment rates allows us to control for potential social spending pressures that may constrain municipal budgets and affect public goods provision.

We also incorporate fixed effects to address unobservable heterogeneity. Fixed effects for municipality-size classes, based on population thresholds defined by the Federal Statistical Office¹⁸, control for inherent differences between municipalities of varying sizes. Legal-form fixed effects are included to distinguish between non-corporations and corporations. As an additional robustness check, we employ municipality fixed effects to account for all municipality-specific factors. This approach enables comparisons within municipalities by holding local characteristics constant. While this approach provides the most precise estimates, this specification is computationally demanding and reduces the sample to municipalities with at least two survey respondents, leaving 350 observations. Consequently, we use this approach only in robustness tests, as detailed in Appendix A9.

Based on Hypotheses 1a and 2, we expect satisfaction with public goods provision and trust in municipal handling of tax revenue to be positively associated with the perceived fair tax rate and negatively with the tax differential. Hypothesis 1b predicts no significant association for actual or salient provision.

Satisfaction with the Provision of Public Goods and Trust in Municipalities’ Handling of Tax Revenue

Table 6 reports the baseline results, which link SME owner-managers’ satisfaction with public goods and their trust in municipal tax revenue handling to both the perceived fair tax rate and the tax differential. The results highlight four central patterns. First, average satisfaction with all public goods is not significantly associated with either the perceived fair tax rate nor the tax differential. Second, trust in municipalities’ tax revenue handling shows a strong positive (negative) association with the perceived fair tax rate (tax differential) at the 1% level. The effect is both statistically and economically significant: a one-standard-

¹⁷ Unfortunately, the INKAR-database does not provide a measure of municipality debt. Hence, we use the closest aggregation level of this item, i.e., the district-level debt.

¹⁸ Federal Statistical Office, see <https://www.destatis.de/DE/Themen/Laender-Regionen/Regionales/Gemeindeverzeichnis/Administrativ/08-gemeinden-einwohner-groessen.html>. We adapt these by combining the large number of size classes into larger categories.

deviation increase in trust raises the perceived fair tax rate by about 1 percentage point (11% of the mean) and lowers the tax differential by about 1.2 percentage points (21%). In fiscal terms, this corresponds to an upper-bound increase of roughly €5.6 billion in municipal revenues if SME owner-managers' stated tax rates translated into actual payments.¹⁹

< Insert Table 6 about here >

Third, when disaggregating satisfaction with public goods into personal- and business-related public goods (columns 4–6 of Table 6), we find that satisfaction with personal-related public goods is positively associated with the perceived fair tax rate and negatively with the tax differential ($p < 0.1$). A one-standard-deviation increase corresponds to a 0.6 percentage point increase in the perceived fair tax rate (6% of the mean), equivalent to an estimated €2.8 billion in additional municipal local business tax revenues. By contrast, satisfaction with business-related public goods shows no significant association.

The effect of trust in municipal tax revenue handling remains consistent across all specifications and is about 50% larger than the effect of personal-related public goods. Again, no association emerges for the statutory tax rate, confirming that perceptions rather than objective tax rates form SME owner-managers' evaluations.

Actual Provision of Public Goods and Trust in Municipalities' Handling of Tax Revenue

Fourth, when testing Hypothesis 1b by replacing perceived satisfaction of public goods with measures of actual and salient provision (Table 7), we find that neither the actual public goods provision nor their salience, whether aggregated or disaggregated, shows a significant association with the perceived fair tax rate or the tax differential. Trust in municipalities' handling of tax revenue remains highly significant and stable in magnitude. Disaggregating by the type of public good confirms this pattern: neither the actual nor salient personal- or business-related public goods are significant predictors. Robustness checks that split the sample by SME owner-managers who over- vs. underestimate provision yield the same result.

< Insert Table 7 about here >

Figure 3 examines heterogeneity by municipality size. Results show that in large municipalities satisfaction with business-related public goods is significantly associated with higher perceived fair tax rates, whereas in small municipalities the effect is negative. For medium-sized municipalities, no effect is observed. This suggests that business-related infrastructure is valued in a way that affects owner-managers' tax attitudes in larger urban contexts but not in smaller municipalities.

¹⁹ The calculation is based on the total municipal trade tax revenues of €75 billion in 2023. See: <https://de.statista.com/statistik/daten/studie/77610/umfrage/einnahmen-aus-der-gewerbesteuer-seit-1999/>.

< Insert Figure 3 about here >

In summary, the multivariate results provide partial support for Hypothesis 1a: satisfaction with personal-related public goods is associated with higher perceived fair tax rates, whereas business-related public goods show no such association. Hypothesis 1b is supported, as neither the actual nor salient provision of public goods influences perceptions of the perceived fair tax rate. Finally, Hypothesis 2 receives strong support: trust in municipalities' handling of tax revenues consistently emerges as the most important determinant of SME owner-managers' evaluations of perceived fair tax rates, with large substantive and fiscal implications. One potential explanation for this pattern is that SME owner-managers in larger municipalities may hold higher baseline expectations regarding the scope and quality of business-related public goods, such as transportation infrastructure or vocational training opportunities. When these expectations are met, they may be more willing to accept higher tax rates as part of a reciprocal exchange. By contrast, owner-managers in smaller municipalities may perceive less need for extensive business-related infrastructure or may have lower expectations of municipal service provision, resulting in a way less pronounced association between satisfaction with these public goods and perceived fair tax rates. While our data do not allow us to directly test expectation-based mechanisms, this interpretation aligns with theories suggesting that attitudes toward taxes are shaped not only by objective conditions but also by context-dependent reference points. Future research could examine how such expectations are formed and how they differ across municipalities of varying size.

Robustness Check

Lastly, we assess the robustness of our findings by replacing the absolute measure of the perceived fair tax rate with a relative measure.²⁰ The relative measure is calculated by dividing respondents' perceived fair tax rate by the statutory tax rate in their municipality. This scaling makes the measure independent of the absolute level of statutory tax rates and allows comparisons across municipalities with different tax rates. The corresponding results are reported in Table 8.

< Insert Table 8 about here >

Consistent with the baseline regressions, average satisfaction with all public goods is not significantly associated with the relative measure of perceived fair tax rates. By contrast, trust in municipalities' handling of tax revenues remains strongly significant ($p < 0.01$), reinforcing its role as the most robust predictor of tax perceptions.

²⁰ Since the tax differential is already scaled, a relative measure would only change the sign. Thus, we do not report them here.

When disaggregating public goods into personal- and business-related categories, the results again point in the same direction as before. Only satisfaction with personal-related public goods exhibits a significant positive association with the perceived fair tax rate ($p < 0.1$). No significant effect is found for business-related public goods. The magnitude of the trust effect is comparable to that observed in the baseline analysis, underscoring the stability of our results across alternative operationalisations.

Taken together, these robustness checks confirm that SME owner-managers' evaluations of personal-related public goods, and above all their trust in municipalities' handling of tax revenues, are the main drivers of perceived fair tax rates—independent of the statutory tax rate level in the municipality.

6.4 Consequences on Municipalities' Tax Revenue

In a final step, we examine whether SME owner-managers' perceived fair tax rate, as captured in the survey, have observable consequences for firms' tax behaviour and thus on municipalities' tax revenue. Specifically, we analyse the relationship between perceived fair rates and effective tax rates (ETRs) at the municipality level, thereby providing insight into how tax perceptions shape tax avoidance behaviour and, in turn, municipal revenues.

We measure tax avoidance using firms' average one-year effective tax rate (ETR), a widely accepted proxy in the literature (Dyregang et al., 2008; Graham et al., 2014). While our main interest lies in the local business tax component, firm-specific local trade tax data are unavailable. We therefore rely on the overall ETR, which includes both corporate and local business taxes. This does not affect our analysis, as the profit base for corporate and local business taxes are largely aligned. Moreover, SMEs generally are located in a single municipality, hence the ETR provides a reliable indicator of their local tax behaviour.

Since *ETR* data is not directly available for the surveyed firms, we adopt an indirect approach. Using archival data from the DAFNE database, we collect financial information on SMEs located in the same municipalities as our survey respondents. By matching survey and archival data at the municipality level, we assign the perceived fair tax rate (*Perceived Fair Tax Rate_m*) and the tax rate differential (*Tax Differential_m*) from the survey to firms in the archival dataset. To ensure comparability, we restrict the archival sample to SMEs not belonging to a corporate group and located in the same municipalities as the surveyed firms. This procedure yields a small sample of 165 firms for our OLS regression analysis. The baseline specification is as follows:

$$Tax\ avoidance_j = \alpha + \beta_1\ Perceived\ fair\ tax\ rate_m + \beta_3\Phi_j + \beta_4\eta_m + \beta_5\gamma_j + \varepsilon_{j,m}. \quad (3)$$

We measure tax avoidance by firms’ average one-year *ETR*.²¹ Perceived fair tax rate_m and Tax Differential_m capture survey-based tax rate perceptions, while additional controls account for municipal, district, and firm-level characteristics.²² The results of the baseline regression analysis are shown in Table 18.

< Insert Table 18 about here >

The results indicate that higher perceived fair tax rates are associated with significantly lower tax avoidance. Both the absolute level of the perceived fair tax rate and the relative measure (scaled by the statutory local tax rate) are positively associated with the *ETR*, while a larger tax differential is negatively associated with it. The coefficients are statistically significant at conventional levels (1–5%). The statutory tax rate itself shows only a weakly significant effect.

Economically, the magnitude is substantial: a one-standard-deviation increase in the perceived fair tax rate is associated with a 22% increase in the one-year *ETR*. This implies that in municipalities where SME owner-managers report higher perceived fair tax rates, firms are less likely to engage in tax avoidance, thereby contributing more effectively to local revenues.

To validate robustness, we replicate the analysis using the three-year *ETR* as an alternative proxy for tax avoidance. Results (for details see Appendix A10) confirm the baseline findings: municipalities with higher perceived fair tax rates and a smaller tax differential exhibit systematically higher effective taxation, suggesting reduced avoidance.

In sum, these findings demonstrate that SME owner-managers’ perceptions of perceived fair tax rates translate into meaningful behavioural consequences. Municipalities, in which SME owner-managers view the prevailing statutory tax rate as closer to fair, experience higher effective tax payments. Policies that strengthen satisfaction with personal-related public goods or foster trust in municipalities’ tax revenue handling can therefore raise effective local tax compliance and, ultimately, municipal tax revenues.

7 CONCLUSION

This study investigates how SME owner-managers perceive local business taxation and the factors that shape their acceptance of local tax burdens. We focus on two key drivers: satisfaction with public goods and trust in municipalities’ handling of tax revenues. Drawing on survey data linked to administrative records on tax rates and public goods provision, we provide a nuanced account of how subjective evaluations translate into

²¹ To minimise the influence of outliers, we winsorise the variable at the first and 99th percentile.

²² Municipality controls include population size, land area, district debt, investment promotion measures, and unemployment. Firm-level controls include total assets, ROA (log), leverage, intangible intensity, and employees (log). Fixed effects for municipality size classes and industries are also included. Summary statistics are in Appendix A8.

firm-level tax attitudes and behaviour.

Our findings show that overall satisfaction with public goods is not significantly related to SME owner-managers' perception of the perceived fair tax rate. However, when distinguishing between types of public goods, satisfaction with personal-related public goods—such as healthcare, childcare, or recreational opportunities—emerges as a meaningful predictor of higher perceived fair tax rates. Satisfaction with business-related public goods, such as infrastructure or vocational schools, shows no significant association. Most notably, trust in municipalities' handling of tax revenues is the strongest predictor of perceived tax fairness, with an effect nearly twice as large as that of personal-related public goods. In contrast, the actual provision of public goods—as measured by administrative indicators—as well as its salience has no measurable influence on tax perceptions. Importantly, we also find that municipalities, in which SME owner-managers report higher perceived fair tax rates, experience significantly lower levels of tax avoidance among local firms, as measured by the average effective tax rate. This suggests that subjective assessment of tax fairness, shaped by trust and satisfaction, has tangible fiscal consequences for municipalities.

These findings carry clear implications for policymakers. Improving the quality of personal-related public goods can enhance acceptance of local taxation among SMEs. Equally crucial is strengthening trust in the responsible handling of tax revenues, through e.g., transparency, participatory governance, and credible communication. Since perceptions rather than objective indicators drive tax attitudes, municipalities should actively manage how public goods and tax spendings are communicated to residents and firms. By fostering satisfaction and trust, municipalities can build a virtuous cycle of increased tax fairness, reduced avoidance, and thus more stable local tax revenues.

Future research could explore whether similar mechanisms apply in larger or multi-site firms, where decision-making is less localised. Moreover, the role of inter-municipal competition and firms' comparative evaluations of tax regimes across jurisdictions deserves further investigation. Longitudinal data would also help assess whether sustained investments in public goods and trust-building lead to long-term gains in tax morale and regional development.

In sum, this study highlights the importance of SME owner-managers' subjective perceptions in shaping firm-level tax behaviour. By addressing both the evaluative dimension (satisfaction with public goods) and the relational dimension (trust in governance), municipalities or more general local governments can enhance the perceived fairness of taxation, improve tax compliance among SMEs and ensure stable tax revenue.

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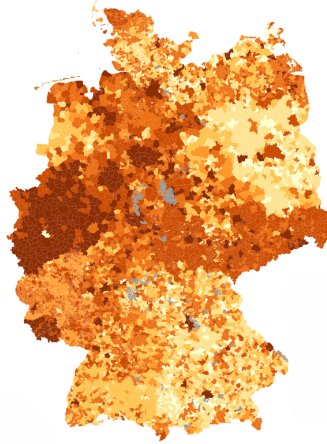
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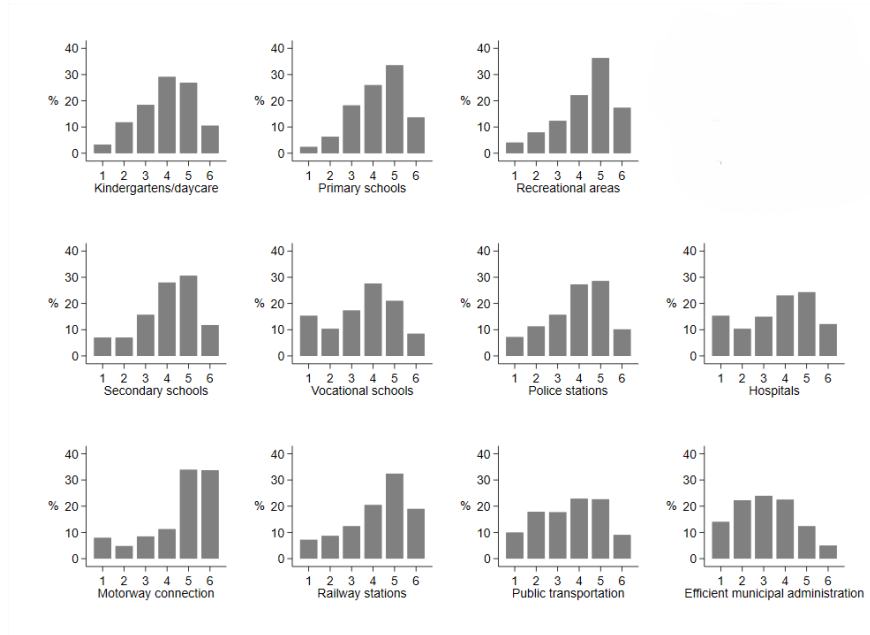
FIGURES AND TABLES

Figure 1: Local Business Tax Multipliers of German Municipalities.



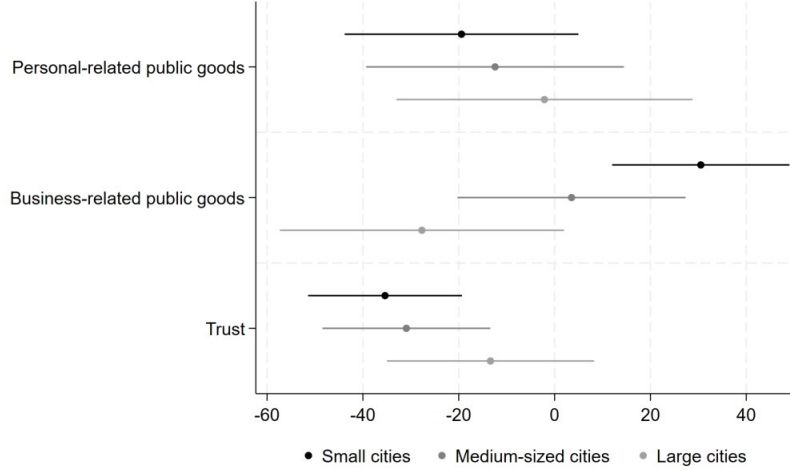
Notes: This map shows the local business tax multipliers across German municipalities in 2022. The darker the coloration, the higher the multiplier. Grey areas indicate areas that are not assigned to a municipality; these areas are subject to the district or federal state, e.g., state forests, military training areas, and wasteland. Source: German Federal and State Statistical Offices, www.statistikportal.de/de/karte-hebesaetze.

Figure 2: Perceived Provision of Public Goods.



Notes: This figure shows the distribution for the provision of each public good separately ($N = 543$). The 6-point Likert-scale ranges from 1 (not good at all) to 6 (very good). Answering the question was voluntary, resulting in a changing base population (N) for the different ratings. The exact questions can be found in the Appendix A1.

Figure 3: Municipality Size Sample Split.



Notes: This figure presents a heterogeneity analysis based on municipality size. Small municipalities have fewer than 20,000 inhabitants, medium-sized municipalities range between 20,000 and 100,000 inhabitants, and large municipalities have populations exceeding 100,000.

Table 1: Survey Sample Comparison.

	Sample N = 543	Handicraft Census 2021 N = 568,314
<u>Legal Form</u>		
Sole proprietorship	41.6%	67.9%
Partnership	9.6%	8.0%
Mixed forms (e.g., GmbH & Co. KG)	24.5%	-
Corporation	24.3%	23.5%
Other	-	0.7%
<u>Employees</u>		
0-9	48.1%	80.1%
10-49	41.3%	17.6%
50 and more	10.7%	2.4%
<u>Sales*</u>		
up to 50.000 €	3.8%	14.4%
50.001 – 150.000 €	10.6%	20.5%
150.001 – 300.000 €	7.9%	17.5%
300.001 – 500.000 €	11.9%	16.4%
500.001 – 5 Mio. €	54.1%	27.7%
more than 5 Mio. €	13.6%	3.4%

Notes: This table compares the characteristics of firms in our sample to the Handicraft Census 2021. *14 firms chose the 'no information' option. Additionally, there are minor deviations between the revenue categories in the survey and the Crafts Census 2021. In the Handicraft Census the following categories are used: up to €50,000, €50,000 to €125,000, €125,000 to €250,000, €250,000 to €500,000, €500,000 to €5 million, more than €5 million. Source: <https://www.zdh.de/ueber-uns/fachbereich-wirtschaft-energie-umwelt/statistik/handwerkszaehlung/handwerkszaehlung-2021/>.

Table 2: Summary Statistics of Sample and Variable Definition.

Name	Definition / Measurement	Group	N	Mean	Median
<u>Local business tax rate</u>					
Perceived fair tax rate	= Perceived fair tax rate	-	543	9.0%	10.5%
<u>Satisfaction with the provision of public goods</u>					
Kindergartens/daycare	6-point Likert scale	personal-related	543	4.0	4
Primary schools	6-point Likert scale	personal-related	543	4.2	4
Secondary schools	6-point Likert scale	business-related	543	4.0	4
Vocational schools	6-point Likert scale	business-related	543	3.5	4
Recreational areas	6-point Likert scale	personal-related	543	4.3	5
Police stations	6-point Likert scale	personal-related	543	3.9	4
Hospitals	6-point Likert scale	personal-related	543	3.7	4
Efficient municipal administration	6-point Likert scale	-	543	3.1	3
Motorway connection	6-point Likert scale	business-related	543	4.6	5
Railway stations	6-point Likert scale	business-related	543	4.2	5
Public transportation	6-point Likert scale	business-related	543	3.6	4
<u>Satisfaction with the provision of categories of public goods</u>					
Personal-related public goods	6-point Likert scale	-	543	4.0	4.2
Business-related public goods	6-point Likert scale	-	543	4.0	4.2
<u>Individual factors</u>					
Trust	6-point Likert scale	-	543	3.2	3

Notes: This table lists the survey variables. All 6-point Likert scales are sorted as follows: 1 = unsatisfactory to 6 = very good. The exact wording of the questions can be found in the Appendix A1 and variable definitions in Appendix A 3.

Table 3: Matching Example – Saliency of Public Goods.

Municipality	No. of kindergartens	Population	Scaled no. of kindergartens	Calculated tiles	Matching firm's survey obs.	Saliency level
M1	10	10,000	0.0010	3	2	1
M2	6	4,000	0.0015	5	6	-1
M3	2	3,000	0.0007	2	1	1
M4	1	500	0.0020	6	4	2
M5	4	3,000	0.0013	4	4	0
M6	8	16,000	0.0005	1	2	-1

Notes: This table presents a fictitious example of our determination of the difference between the actual and perceived provision of public goods.

Table 4: Actual Provision and Salience of Public Goods.

Name	Definition	Group	N	Mean	Median
<u>Actual public goods</u>					
Actual kindergartens/daycare	6-point scale	personal-related	543	3.1	3
Actual primary schools	6-point scale	personal-related	543	2.5	2
Actual secondary schools	6-point scale	business-related	543	3.5	4
Actual vocational schools	6-point scale	business-related	543	4.3	6
Actual recreational areas	6-point scale	personal-related	543	2.1	2
Actual police stations	6-point scale	personal-related	543	3.1	3
Actual hospitals	6-point scale	personal-related	543	4.1	4
Actual efficient municipal administration	6-point scale	-	543	4.2	5
Actual motorway connection	6-point scale	business-related	543	2.3	2
Actual railway stations	6-point scale	business-related	543	2.4	1
Actual public transportation	6-point scale	business-related	543	2.1	2
<u>Actual personal- and business-related public goods</u>					
Actual personal-related public goods	6-point scale		543	3.2	3.3
Actual business-related public goods	6-point scale		543	2.9	2.8
<u>Salience of public goods</u>					
Kindergartens/daycare _{salient}	= Difference perceived – actual public goods	personal-related	543	0.8	1
Primary schools _{salient}	= Difference perceived – actual public goods	personal-related	543	1.8	2
Secondary schools _{salient}	= Difference perceived – actual public goods	business-related	543	0.5	1
Vocational schools _{salient}	= Difference perceived – actual public goods	business-related	543	-0.8	-1
Recreational areas _{salient}	= Difference perceived – actual public goods	personal-related	543	2.2	2
Police stations _{salient}	= Difference perceived – actual public goods	personal-related	543	0.7	1
Hospitals _{salient}	= Difference perceived – actual public goods	personal-related	543	-0.4	-1
Efficient municipal administration _{salient}	= Difference perceived – actual public goods	-	543	-1.1	-1
Motorway connection _{salient}	= Difference perceived – actual public goods	business-related	543	2.3	3
Railway stations _{salient}	= Difference perceived – actual public goods	business-related	543	1.8	2
Public transportation _{salient}	= Difference perceived – actual public goods	business-related	543	1.5	2
<u>Salience of personal- and business-related public goods</u>					
Salience personal-related public goods	= Difference perceived – actual public goods		543	0.8	0.833
Salience business-related public goods	= Difference perceived – actual public goods		543	1.1	1.200

Notes: This table lists the actual provided public goods and salient provision of all and personal- and business-related public goods.

Table 5: Extent of the tax differential.

	N	Statutory tax rate	Perceived fair tax rate	Tax differential
Non-corporations	411	14.3%	8.9%	5.5%-points
Corporations	132	14.4%	9.3%	5.1%-points

Notes: This table shows the average deviation of the statutory and the perceived fair tax rate resulting in the tax differential by legal form. Non-Corporations also include mixed forms such as GmbH & Co. KG.

Table 6: Baseline Regression.

	(1)	(2)	(3)	(4)	(5)	(6)
	Perceived fair tax rate	Tax differential	Statutory tax rate	Perceived fair tax rate	Tax differential	Statutory tax rate
Satisfaction average public goods	0.2970 (0.93)	−0.2388 (−0.73)	0.0582 (0.92)			
Satisfaction personal-related public goods				0.5803* (1.87)	−0.5626* (−1.78)	0.0177 (0.29)
Satisfaction business-related public goods				−0.2546 (−0.88)	0.2979 (1.01)	0.0433 (0.70)
Trust	0.7961*** (3.53)	−0.9128*** (−3.97)	−0.1167*** (−2.86)	0.7692*** (3.58)	−0.8840*** (−4.04)	−0.1148*** (−2.88)
Population	−0.0000 (−0.64)	0.0000* (1.94)	0.0000*** (4.05)	−0.0000 (−0.55)	0.0000* (1.82)	0.0000*** (4.03)
Ground area (km ²)	0.0034 (0.75)	0.0001 (0.03)	0.0036** (2.56)	0.0022 (0.49)	0.0014 (0.32)	0.0036** (2.58)
District debt	−0.0001 (−0.26)	0.0002 (0.84)	0.0001* (1.72)	−0.0000 (−0.16)	0.0002 (0.73)	0.0001* (1.70)
Local business tax revenue (€per capita)	−0.0004 (−0.97)	−0.0001 (−0.17)	−0.0005*** (−3.04)	−0.0004 (−0.97)	−0.0001 (−0.20)	−0.0005*** (−3.04)
Investment promotion measures	0.0000 (0.00)	0.0011 (0.51)	0.0011 (1.53)	−0.0002 (−0.07)	0.0013 (0.58)	0.0011 (1.52)
Unemployment rate	0.1671 (0.87)	0.1879 (0.99)	0.3550*** (5.40)	0.1551 (0.81)	0.2008 (1.06)	0.3560*** (5.41)
Constant	4.4780*** (3.04)	7.4149*** (4.96)	11.8928*** (27.51)	4.5564*** (3.06)	7.3059*** (4.84)	11.8624*** (27.17)
Municipality-Size & Legal Form FE	Yes	Yes	Yes	Yes	Yes	Yes
Observations	543	543	543	543	543	543
Adj. R-sq	0.0442	0.0829	0.5726	0.0468	0.0856	0.5720

Notes: This table shows the OLS regression results for the perceived fair tax rate, the tax differential and the statutory tax rate. The dependent variables in columns (1)-(3) represent the case with only the average satisfaction with public goods and trust, columns (4)-(6) represent the case where we divide by personal- and business-related public goods. t-statistics are given in parentheses, and standard errors are heteroscedasticity-robust and clustered at the municipality level. ***, ** and * label statistical significance at 1%, 5% and 10% level, respectively.

Table 7: OLS-Regression – Actual and Salient Public Goods.

	(1)	(2)	(3)	(4)	(5)	(6)
	Perceived fair tax rate	Tax differential	Statutory tax rate	Perceived fair tax rate	Tax differential	Statutory tax rate
Panel A						
Actual average public goods	0.1386 (0.31)	0.0583 (0.13)	0.1969 (1.41)			
Actual personal-related public goods				−0.1668 (−0.50)	0.1802 (0.52)	0.0135 (0.15)
Actual business-related public goods				0.3602 (0.85)	−0.1587 (−0.38)	0.2015 (1.55)
Trust	0.9030*** (4.91)	−0.993*** (−5.39)	−0.0963** (−2.70)	0.8885*** (4.75)	−0.9896*** (−5.23)	−0.1011** (−2.79)
Constant	5.0895*** (3.18)	6.5048*** (4.02)	11.5943*** (23.90)	5.0979*** (3.17)	6.4492*** (4.00)	11.5970*** (23.86)
Controls	Yes	Yes	Yes	Yes	Yes	Yes
Municipality-Size & Legal Form FE	Yes	Yes	Yes	Yes	Yes	Yes
Observations	543	543	543	543	543	543
Adj. R-sq	0.0433	0.0828	0.5720	0.0426	0.0826	0.5717
Panel B						
Salient average public goods	0.1789 (0.69)	−0.1949 (−0.74)	−0.0160 (−0.26)			
Salient personal-related public goods				0.2594 (1.03)	−0.3049 (−1.19)	−0.0455 (−0.77)
Salient business-related public goods				−0.0358 (−0.18)	0.0676 (0.33)	0.0318 (0.63)
Trust	0.8393*** (3.95)	−0.9293*** (−4.33)	−0.0900** (−2.37)	0.8289*** (4.02)	−0.9198*** (−4.42)	−0.0908** (−2.44)
Constant	5.2979*** (4.25)	6.7936*** (5.73)	12.0914*** (31.13)	5.2231*** (4.13)	6.8685*** (5.72)	12.0916*** (31.22)
Controls	Yes	Yes	Yes	Yes	Yes	Yes
Municipality-Size & Legal Form FE	Yes	Yes	Yes	Yes	Yes	Yes
Observations	543	543	543	543	543	543
Adj. R-sq	0.0433	0.0828	0.5720	0.0426	0.0826	0.5717

Notes: This table shows the OLS regression results for the perceived fair tax rate, the tax differential and the statutory tax rate. Panel A displays results for the actual provision of public goods, Panel B for the salient provision of public goods. t-statistics are given in parentheses, and standard errors are heteroscedasticity-robust and clustered at the municipality level. ***, ** and * label statistical significance at 1%, 5% and 10% level, respectively.

Table 8: Robustness OLS-Regression – Relative Measure.

	(1)	(2)
	Relative tax differential	Relative tax differential
Satisfaction average public goods	−0.0118 (−0.52)	
Satisfaction personal-related public goods		−0.0399* (−1.81)
Satisfaction business-related public goods		0.0258 (1.26)
Trust	−0.0633*** (−4.01)	0.0608*** (−4.02)
Constant	0.5685*** (5.46)	0.5599*** (5.33)
Controls	Yes	Yes
Municipality-Size & Legal Form FE	Yes	Yes
Observations	543	543
Adj. R-sq	0.0542	0.0577

Notes: This table shows the OLS regression results of the relative tax differential. The dependent variables in column (1) represent the case with only the average satisfaction with public goods and trust, (2) represents the case where we divide public goods into personal- and business-related public goods. t-statistics are given in parentheses, and standard errors are heteroscedasticity-robust and clustered at the municipality level. ***, ** and * label statistical significance at 1%, 5% and 10% level, respectively.

Table 9: OLS-Regression – Tax Avoidance (One-Year ETR) and Firms' Perceived Fair Tax Rate.

	(1)	(2)	(3)	(4)
	One-year ETR	One-year ETR	One-year ETR	One-year ETR
Perceived fair tax rate _m	0.0094*** (2.67)			
Tax differential _m		−0.0077** (−2.19)		
Relative tax differential _m			0.1273** (2.51)	
Statutory tax rate _m				0.0294* (1.92)
Trust _m	−0.0349** (−2.24)	−0.0353** (−2.35)	−0.0347** (−2.29)	−0.0199 (−1.26)
Constant	0.3270 (0.81)	0.4509 (1.12)	0.3301 (0.82)	−0.0428 (−0.10)
Controls	Yes	Yes	Yes	Yes
Municipality-Size & Industry FE	Yes	Yes	Yes	Yes
Observations	159	159	159	159
Adj. R-sq	0.4979	0.4885	0.4919	0.4929

Notes: This table shows the OLS regression results for the dependent variable one-year ETR. The independent variable in column (1) represents the perceived fair tax rate within the municipality, in column (2) average absolute tax differential within the municipality. Columns (3) and (4) show the results for the average relative tax differential in the municipality and the statutory tax rate in the municipality. t-statistics are given in parentheses, and standard errors are heteroscedasticity-robust and clustered at the municipality level. ***, ** and * label statistical significance at 1%, 5% and 10% level, respectively.

APPENDIX

A1 Survey Questionnaire

The structure of the survey is explained in Section 3. The survey is divided into three parts and includes all questions relevant for the analysis.

Part I: Firm Characteristics

1. What is the legal form of your firm?
2. In which craft do you operate?
3. How many employees do you have who are subject to social insurance contributions (in full-time positions)? Please provide the exact number.
4. Which of the following intervals most closely corresponds to your turnover (in €) in the 2022 financial year?

Part II: Local Business Taxation

1. Please enter the municipality in which your firm is based.
2. What local business tax multiplier (in %) would you consider appropriate in the municipality in which your firm is based?

Part III: Satisfaction with Public Goods

1. Regarding the municipality in which your firm is based, how do you rate the provision of:
 - Kindergartens/daycare
 - Primary schools
 - Secondary schools
 - Vocational schools
 - Recreational areas
 - Police stations
 - Hospitals
 - Effectiveness of municipal administration
 - Motorway connection
 - Railway stations
 - Public transportation
2. To what extent do you agree with the following statement? *“The municipality in which my firm is based handles the local business tax revenue responsibly.”*

A2 Implementation of Local Business Tax

Table 10: Local Business Tax in OECD-Countries

OECD-country	Local Business Tax	Details
Australia	No	-
Austria	No	-
Belgium	No	-
Canada	Yes	All provinces and territories impose income tax on income attributable to a permanent establishment in the province or territory, ranging from 2.5% to 16%.
Chile	No	-
Columbia	Yes	All municipalities levy an Industry and Commerce Tax on income derived from the exercise of industrial, commercial, or service activities. The rate ranges from 0.2% to 1%.
Costa Rica	Yes	Municipalities levy a local tax. The rate depends on the municipality, but the most common method of calculation is to apply a percentage to net income or sales.
Czech Republic	No	-
Denmark	No	-
Estonia	No	-
Finland	No	-
France	No	-
Germany	Yes	The local business tax rate is a combination of a uniform tax rate of 3.5% (base rate) and a municipal tax rate. The municipal tax rate varies from 200% to 650%.
Greece	No	-
Hungary	Yes	The local business tax is similar to a sales tax, the rate varies by municipality up to a maximum of 2%.
Iceland	No	-
Israel	No	-
Ireland	No	-

OECD-country	Local Business Tax	Details
Italy	Yes	The regional production tax, known as imposta regionale sulle attività produttive (IRAP), is 3.9%. Regions may increase or decrease the standard IRAP rate by up to 0.92%.
Japan	Yes	The inhabitants' tax is levied on a corporation's income allocated to each prefecture and city (or municipality), ranging from 1% to 8.4%.
Korea, Republic of	Yes	The local income tax is a separate income tax with its own tax base, exemptions and credits, and rates. Local income tax rates for corporations, ranging from 0.9% to 2.4%.
Latvia	No	-
Lithuania	No	-
Luxembourg	Yes	Municipal business tax is levied by the communes and varies from municipality to municipality, e.g., for Luxembourg City it is 6.75%.
Mexico	No	-
The Netherlands	No	-
New Zealand	No	-
Norway	No	-
Poland	No	-
Portugal	Yes	A local surtax (Derrama) of up to 1.5% of taxable income (before deduction of any available tax loss carryforwards) is levied in certain municipalities. A regional surtax (Derrama Regional) is applied in the autonomous region of Madeira and autonomous region of Azores, ranging from 2.1% to 7.2%.
Slovakia	No	-
Slovenia	No	-
Spain	Yes	The business and professional activities tax is a local tax levied annually on the exercise of business, professional or artistic activities in Spain with a tax rate of up to 15%.
Sweden	No	-
Switzerland	Yes	Each canton has its own tax law and levies cantonal and communal corporate income and capital taxes at different rates.
Turkey	No	-
The United Kingdom	No	-
The United States of America	Yes	Corporate income tax rates vary from state to state, ranging from 1% to 10%.

Notes: This table provides an overview of the implementation of local business taxes in OECD-countries and their specific characteristics. The data set utilizes information sourced from PwC Worldwide Tax Summaries, <https://taxsummaries.pwc.com/>.

A3 Variable Definition

Table 11: Variable Definition of all Variables.

Variable	Definition	Source
Perceived fair tax rate	Perceived fair tax rate	Survey data
Statutory tax rate	Statutory tax rate	Administrative data
Satisfaction with provision of public goods	Perceived provision of public goods within the municipality the firm is located	Survey data
Actual provision of public goods	Actual provision of public goods within the municipality the firm is located	INKAR data
Trust	Trust in municipality's handling of tax revenues	Survey data
Population	Municipality population in 2022	INKAR data
Ground area	Municipality ground area in km ²	INKAR data
District debt	Scaled district debt the municipality is located in	INKAR data
Local business tax revenue	Tax revenue of the municipality in € per capita	INKAR data
Investment promotion measures	Scaled investment promotion measures of the municipality	INKAR data
Unemployment rate	Scaled unemployment rate within the municipality	INKAR data
Three-year ETR	Average three-year ETR of firms in a municipality	DAFNE data
One-year ETR	Average one-year ETR of firms in a municipality	DAFNE data
Total assets	Average three-year ETR of firms in a municipality	DAFNE data
ROA	Return on assets of a firm	DAFNE data
Leverage	Leverage of a firm	DAFNE data
Intangible intensity	Intangible intensity of a firm	DAFNE data
Employees	Number of employees in a firm	DAFNE data

Notes: The table shows variable definition for all variables used. For public goods the definition applies to all public goods examined within the study.

A4 Matching of Public Goods

Table 12: Matching Survey and Archival data – Public Goods.

Survey data	INKAR-database
Kindergartens/daycare	Childcare rate for small children
Primary schools	Primary schools
Secondary schools	Secondary schools
Vocational schools	Vocational schools
Recreational areas	Recreational areas
Police stations	Police stations
Hospitals	Hospital beds
Efficient municipal administration	Municipal Staff
Motorway connection	Motorway connection
Railway stations	Accessibility of Railway stations (IC/ICE)
Public transportation	Public Transportation Stops

Notes: This table shows the corresponding INKAR-database items for the public goods from the survey.

A5 Provision of Public Goods

Table 13: Archival Data – Summary Statistics of Data & Variable Definition.

Name	Definition / Measurement	Group	N	Mean	Median
<u>Local business tax rate</u>					
Statutory tax rate	= Statutory tax rate	-	543	14.3%	14%
<u>Actual public good</u>					
Actual kindergartens/daycare	6-point Scale	personal-related	543	3.1	3
Actual primary schools	6-point Scale	personal-related	543	2.5	2
Actual secondary schools	6-point Scale	business-related	543	3.5	4
Actual vocational schools	6-point Scale	business-related	543	4.3	6
Actual recreational areas	6-point Scale	personal-related	543	2.1	2
Actual police stations	6-point Scale	personal-related	543	3.1	3
Actual hospitals	6-point Scale	personal-related	543	4.1	4
Actual efficient municipal administration	6-point Scale	-	543	4.2	5
Actual motorway connection	6-point Scale	business-related	543	2.3	2
Actual railway stations	6-point Scale	business-related	543	2.4	1
Actual public transportation	6-point Scale	business-related	543	2.1	2

Notes: This table lists all variables for which archival data is used in the matching process as described in Chapter 4. All 6-point Likert scales are sorted as follows: 1 = unsatisfactory to 6 = very good.

A6 Correlation Matrix

Table 14: Pairwise Correlation of Public Goods.

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
(1) Motorway connection	1									
(2) Railway stations	0.528*	1								
(3) Secondary schools	0.196*	0.355*	1							
(4) Recreational areas	0.225*	0.242*	0.297*	1						
(5) Primary schools	0.167*	0.220*	0.258*	0.430*	1					
(6) Kindergartens/daycare	0.091*	0.157*	0.172*	0.379*	0.757*	1				
(7) Hospitals	0.295*	0.362*	0.617*	0.373*	0.252*	0.175*	1			
(8) Public transportation	0.402*	0.609*	0.315*	0.187*	0.185*	0.150*	0.348*	1		
(9) Police stations	0.295*	0.358*	0.497*	0.436*	0.336*	0.252*	0.484*	0.286*	1	
(10) Vocational schools	0.280*	0.316*	0.620*	0.362*	0.524*	0.348*	0.500*	0.280*	0.518*	1

Notes: This table presents Pearson correlation coefficients for the public goods (N = 543). * represents significance at the 5% level.

A7 Summary Statistics

Table 15: Summary Statistics of Regression Variables.

Variables	N	Mean	St. Dev.	p5	p95
Perceived fair tax rate	543	8.972	5.234	0.000	17.500
Absolute tax differential	543	5.370	5.340	-1.610	14.700
Relative tax differential	543	0.370	0.369	-0.101	1
Statutory	543	14.342	1.720	10.500	17.150
Satisfaction average public goods	543	3.919	0.883	2.455	5.273
Satisfaction personal-related public goods	543	4.011	0.970	2.400	5.600
Satisfaction business-related public goods	543	3.987	1.053	2	5.600
Trust	543	3.245	1.267	1	5
Actual average public goods	543	3.068	0.566	2.000	5.600
Actual personal-related public goods	543	3.195	0.665	2.000	4.167
Actual business-related public goods	543	2.916	0.770	1.600	4.200
Salient average public goods	543	0.851	1.043	-1.000	2.636
Salient personal-related public goods	543	0.817	1.134	-1.033	2.600
Salient business-related public goods	543	1.072	1.354	-1.400	3.200
Population	543	153,741	288,988	3,798	770,112
Ground area (km ²)	543	109.5	79.97	19	248
District debt	543	1,694	1,090	398.5	3,625
Local business tax revenue (€ per capita)	543	639.3	485.0	193.1	1,978
Investment promotion measures	543	95.31	89.33	7.560	244.7
Unemployment rate	543	5.477	1.793	3.070	9.050

Notes: This table lists all variables and provides sample size, mean and median values, as well as standard deviation and 5%- and 95%-percentile.

A8 Summary Statistics Tax Avoidance

Table 16: Summary Statistics of DAFNE Sample (Three-Year ETR).

Variables	N	Mean	St. Dev.	p5	p95
Three-year ETR	165	0.165	0.196	0.00308	0.488
One-year ETR	165	0.162	0.216	0	0.512
Perceived fair tax rate _m	165	9.730	3.807	3.500	15.750
Tax differential _m	165	5.797	3.872	-0.175	11.97
Relative tax differential _m	165	0.371	0.250	-0.0112	0.720
Statutory tax rate	165	15.530	1.479	12.600	17.150
Trust _m	165	2.976	1.063	1	5
Total assets	165	10.11	0.812	8.556	10.96
ROA	165	0.192	0.271	0.0204	0.636
Leverage	165	0.561	0.219	0.186	0.899
Intangible intensity	165	0.00761	0.0277	4.20e-08	0.0371
Employees	165	8.387	1.436	5.921	10.53
Population _m	165	368,929	380,139	24,919	1.509e+06
Ground area _m (km ²)	165	177.1	92.99	45	311
District debt _m	165	1,914	1,421	330.2	5,169
Investment promotion measures _m	165	125.4	101.8	26.45	379.4
Unemployment rate _m	165	6.738	2.157	3.990	11.11

Notes: This table lists all variables and provides sample size, mean and median values, as well as standard deviation and the 5%- and 95%-percentile.

A9 Robustness Test: Within Municipality Fixed Effects

Table 17: Baseline OLS-regression – Municipality Fixed Effects.

	(1)	(2)
	Perceived fair tax rate	Tax differential
Satisfaction personal-related public goods	1.0819** (2.06)	−1.0819** (−2.06)
Satisfaction business-related public goods	0.3037 (0.56)	−0.3037 (−0.56)
Trust	0.3474 (0.88)	−0.3474 (−0.88)
Constant	2.1291 (1.29)	−12.7261*** (7.69)
Controls	Yes	Yes
Industry FE	Yes	Yes
Observations	270	270
Adj. R-sq	0.0791	0.0988

Notes: This table shows the OLS regression results for the dependent variables Perceived fair tax rate and absolute tax differential with municipality fixed effects. t-statistics are given in parentheses, and standard errors are heteroscedasticity-robust and clustered at the municipality level. ***, ** and * label statistical significance at 1%, 5% and 10% level, respectively.

A10 Robustness Test: Three-Year ETR

Table 18: OLS-Regression – Tax Avoidance (Three-Year ETR) and Firms' perceived fair tax rate.

	(1)	(2)	(3)	(4)
	Three-year ETR	Three-year ETR	Three-year ETR	Three-year ETR
Perceived fair tax rate _m	0.0056* (1.80)			
Tax differential _m		−0.0044 (−1.39)		
Relative tax differential _m			0.0773* (−1.73)	
Statutory tax rate _m				0.0212 (1.60)
Trust _m	−0.0261**	−0.0257**	−0.0258**	−0.0159
Constant	0.1852 (0.68)	0.2534 (0.95)	0.1853 (0.69)	−0.0918 (−0.28)
Controls	Yes	Yes	Yes	Yes
Municipality-Size & Industry FE	Yes	Yes	Yes	Yes
Observations	165	165	165	165
Adj. R-sq	0.6442	0.6393	0.6417	0.6455

Notes: This table shows the OLS regression results for the three-year ETR. The dependent variables in column (1) represent the results for the Perceived fair tax rate within the municipality, column (2) for the average absolute tax differential within the municipality. Columns (3) and (4) show the results for the relative absolute tax differential in the municipality and the statutory tax rate in the municipality. t-statistics are given in parentheses, and standard errors are heteroscedasticity-robust and clustered at the municipality level. ***, ** and * label statistical significance at 1%, 5% and 10% level, respectively.