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Electoral democracy, corruption, and tax evasion

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ABSTRACT

A key challenge of developing and emerging economies is establishing effective tax systems, as fiscal capacity is essential for state building and economic growth. This study examines the relationship between electoral democracy, public sector corruption, and tax evasion through trade misinvoicing, using data from 53 developing and emerging economies to explore how political and institutional factors shape tax evasion. The analysis reveals a positive relationship between corruption and tax evasion. Most strikingly, the study findings show an inverted U-shaped relationship between democracy and tax evasion, where tax evasion initially increases with democratization but declines as institutions strengthen. However, these effects are complex, as the levels of democracy and corruption interact to influence the magnitude of their impact. Furthermore, electoral cycles further amplify tax evasion due to the intense competition for political power and the opportunities for illicit activities that arise in the electoral context.

1. Introduction

Tax evasion remains a critical challenge for developing and emerging economies, depriving governments of much-needed resources to foster economic growth, deliver public goods, and address inequality. Effective tax systems are not just tools for revenue collection; they are fundamental to state-building and long-term development (Ricciuti et al., 2019). When tax evasion occurs, it undermines these objectives, exacerbating inequality and distorting economic efficiency, particularly in environments plagued by weak institutions and corruption.

Among the various forms of tax evasion, trade misinvoicing is a pervasive issue in many developing countries. Trade misinvoicing often involves falsifying the value of imports or exports to evade taxes and customs duties. This manipulation directly contributes to tax evasion by reducing declared taxable income or through bypassing tariffs, depriving governments of crucial revenue for public goods (Carbonnier and Mehrotra, 2018; Prichard, 2015). Trade misinvoicing is a significant problem, especially for developing countries that struggle with limited tax revenue and weak administrative systems. It exacerbates the challenge of raising fiscal revenues and undermines economic stability. Between 2001 and 2010, trade misinvoicing was responsible for approximately 80 % of illicit financial flows (IFFs) in developing economies, amounting to over \$1 trillion annually (Kar and Freitas, 2012).¹ In 2018, the value gap in trade misinvoicing between 134 developing economies and their trading partners was estimated to have reached \$1.6 trillion (Global

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E-mail addresses: e.merkaj@univpm.it (E. Merkaj), dimami@ubt.edu.al (D. Imami).¹ Illicit financial flows are financial movements across borders that are illegal in their source, transfer, or use (more insight is provided in section 3).<https://doi.org/10.1016/j.ejpoleco.2025.102722>

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Financial Integrity, 2021).

Corruption plays a significant role in driving tax evasion by undermining the effectiveness of tax enforcement and compliance mechanisms. When tax officials accept bribes or engage in corrupt practices, they create loopholes that allow individuals and businesses to evade taxes without facing consequences (Tanzi and Davoodi, 2000). This not only reduces government revenue but also fosters a culture of dishonesty, where tax evasion becomes an expected and normalized behavior (Friedman et al., 2000). Furthermore, corruption weakens institutional integrity, making it difficult to implement fair and transparent tax policies, which further incentivizes tax evasion (Ivanyna et al., 2016).

Beyond corruption, tax evasion is also shaped by factors such as democratization and political cycles. While democratic governance is often seen as a way to enhance transparency, reduce corruption, and improve fiscal compliance, its impact on tax evasion is not always straightforward. Transitional democracies, in particular, often lack the institutional capacity to enforce tax compliance effectively, leaving them more vulnerable to tax evasion than either autocratic regimes or established democracies with consolidated institutions. During early democratization, weak institutions may fail to deter corruption, allowing political elites to exploit these vulnerabilities for personal gain (Sung, 2004; Montinola and Jackman, 2002; Bäck and Hadenius, 2008).

Elections further complicate this dynamic. While they are a cornerstone of democracy, they can also create opportunities for increased corruption and tax evasion, especially in the context of developing and emerging economies. Pre-election periods are often marked by clientelism, reduced enforcement of tax regulations, and a tolerance for illicit activities to secure votes and political support (Lami and Imami, 2019).

While the link between corruption and tax evasion is well-documented in the literature (Tanzi, 1998; Alm et al., 2016; Banerjee et al., 2022), the interplay between democracy, corruption, elections and tax evasion (such as trade misinvoicing) remains under-explored. Previous studies have examined the impact of political/election cycles on capital flight and fiscal performance (Frantz, 2018; Ehrhart, 2013), but they focus on narrow regional contexts, and most importantly they omit key governance factors like corruption and democratization. Similarly, research on the relationship between democratization and corruption highlights its nonlinear nature, with corruption often rising during the initial stages of democratization before declining as institutions consolidate (Sung, 2004; Montinola and Jackman, 2002). However, there is a scarcity in the literature on how this dynamic translates into tax evasion.

This study aims to address these gaps by analyzing the intricate relationships between corruption, democratization, and tax evasion. Using panel data from 53 developing countries, we conduct a comprehensive analysis to shed light on how governance structures influence tax compliance. First, we estimate the impact of corruption and democracy on tax evasion, using trade misinvoicing as a proxy. Understanding these effects is crucial for designing policies that strengthen governance and improve tax collection. Second, we analyze the form of the relationships between corruption, democracy, and tax evasion. This is important for understanding how these factors interact and gaining deeper insights into their complexities in different contexts. Third, we examine the interaction between corruption and democracy in shaping tax evasion. Corruption and democracy do not operate in isolation; rather, they influence each other in ways that affect tax compliance. By analyzing this interaction, we provide a deeper understanding of governance dynamics. Lastly, we explore the impact of elections on tax evasion. Elections are crucial moments in any democracy, but they also create incentives for tax evasion. Understanding these electoral effects is important for shaping policies that promote both democratic accountability and sound economic governance.

This study makes several important contributions to the literature. To our knowledge, this is the first study to empirically explore the inverse U-shaped relationship between democracy and tax evasion, providing new insights into the complexities of governance and tax compliance. Additionally, our research expands the literature on tax evasion in developing and emerging democracies. This research adds a valuable contribution to existing studies, helping to better understand tax compliance in different political and economic contexts. Furthermore, by using trade misinvoicing as a proxy for tax evasion, we offer a reliable and objective measure that can be applied to analysis covering a large pool of countries.

The findings reveal that both corruption and democracy play a major role in tax evasion (such as trade misinvoicing), but they influence tax evasion in different ways. Moreover, their impact isn't straightforward—rather, it depends on how they interact with each other. The study also confirms that tax evasion spikes significantly during pre-election periods, suggesting that political cycles create incentives for misinvoicing. These findings shed new light on the complex relationship between governance and tax evasion through trade misinvoicing.

2. Literature review

2.1. Corruption and tax evasion

Corruption and tax evasion are closely linked because they both involve the manipulation or misuse of public systems for private gain. Corruption undermines the effectiveness of tax administration systems by enabling bribery and fraud. In terms of causality, several empirical studies show that corruption determines tax evasion (Kuraoune et al., 2021; Banerjee et al., 2022). Banerjee et al. (2022) suggests that combating corruption through enhanced monitoring and penalties reduces tax evasion, whereas deterrence efforts targeting tax evasion alone have little effect on corruption levels.

Countries with higher levels of corruption tend to have larger informal economies. Friedman et al. (2000) finds that weak enforcement and corrupt tax administration play a large role in encouraging tax evasion and informal economic activity. Research

indicates that bribery leads to a reduction in sales reported for tax purposes, resulting in tax evasion (Alm et al., 2016). Corrupt officials may accept bribes to overlook tax violations, allowing individuals and businesses to evade taxes (Tanzi, 1998; Payne and Saunoris, 2020). Higher levels of corruption are reflected in higher levels of trade misinvoicing and illicit financial outflows (Patnaik et al., 2012; Liu and Stengos, 2023). Corrupted custom officials may enable underreporting of the value of imports to reduce duties. Additionally, corrupt environments typically lack the robust monitoring systems needed to track and address discrepancies in trade data, allowing misinvoicing to go unchecked.

This direct link between corruption and tax evasion not only facilitates illegal practices but also creates a broader culture of noncompliance - corruption erodes tax morale (Jahnke and Weisser, 2019). Ivanyna et al. (2016) explore the "culture of corruption," showing that widespread government corruption fosters illegal behavior, including tax evasion by households and corrupt practices by officials. When taxpayers observe corrupt practices within public institutions, they may rationalize their own evasion of taxes, assuming that government revenues are likely to be misappropriated or wasted rather than directed toward public services or societal welfare (Litina and Palivos, 2016).

Given these interdependencies, we expect that the higher the corruption, the higher the tax evasion from trade misinvoicing (Hypothesis 1). This hypothesis is particularly relevant to our sample of developing and emerging economies that provide an ideal context for testing the relationship between corruption and tax evasion, given high and varying levels of both phenomena.

2.2. Relationship between democracy, corruption and tax evasion

Democracy, which inherently involves political competition, can both reduce and, in certain contexts, exacerbate corruption, depending on the stage of democratic development. The relationship between democracy and corruption is nonlinear (Sung, 2004; Montinola and Jackman, 2002) because democratization is linked to the maturity of institutions. During the initial stages of democratization, corruption may increase due to institutional weaknesses and transitional challenges. When countries transition from authoritarian regimes to imperfect democracies, their institutions often lack the strength to enforce accountability effectively. This creates opportunities for corruption, as officials exploit gaps in oversight and enforcement mechanisms (Bäck and Hadenius, 2008; Sung, 2004). As a result, corruption tends to rise during intermediate democratic stages. As democracies consolidate, stronger institutions, such as independent judiciaries, a free press, and higher electoral competition supported by robust electoral systems, foster accountability and transparency. These mechanisms act as deterrents to corrupt practices. Consolidated democracies with long-standing democratic traditions are better equipped to curb corruption than newly established or weak democracies (Keefer, 2007). Such systems promote public participation and trust in governance, reducing opportunities for the misuse of power (Rose-Ackerman, 1999; Huntington, 1968; Kolstad and Wiig, 2016). Furthermore, there is clear evidence that corrupt behaviour is penalized by voters in consolidated democracies (Peters and Welch, 1980; Chang and Golden, 2004), which is a deterrent for engaging in corruption.

The relationship between democracy and tax evasion is less explored in the literature, but holds significant implications for governance. While existing research has looked at tax evasion in both transitioning and mature democracies, few studies have examined how this relationship evolves. In emerging democracies, weak institutions and high corruption levels make tax enforcement challenging. During political transitions, uncertainty can lead to weaker oversight, creating more opportunities for tax evasion (Gërçhani, 2004). Political elites may take advantage of these gaps to maintain power, while businesses exploit weak enforcement to underreport income or engage in illicit financial activities (Cortés and Kairouz, 2023). At the same time, a lack of trust in government institutions can make individuals and businesses more likely to justify tax evasion, seeing it as a rational response to inefficiency and mismanagement (Litina and Palivos, 2016).

In contrast, mature democracies are typically better equipped to reduce tax evasion by fostering public trust and enforcing fair and transparent tax policies. Strong, independent institutions—such as tax authorities, customs agencies, and legal systems—help ensure compliance. Additionally, democratic safeguards like freedom of the press, civil society engagement, and transparency laws help expose corruption and hold officials accountable (Kolstad and Wiig, 2016). Because democracies depend on public support, leaders have an incentive to fight corruption and use tax revenues effectively (Persson and Tabellini, 2000). When people trust that their taxes are being spent wisely, they're more likely to comply with tax laws.

We expect trade misinvoicing and electoral democracy to be linked, following a non-linear (inverted U-shaped) pattern, similar to the relationship between corruption and democracy (Hypothesis 2). We expect tax evasion through trade misinvoicing to rise during political transitions (from autocracy to democracy) when weak institutions and low public trust create conditions for illicit activities to thrive. However, as democracy matures and institutions strengthen, tax evasion is expected to decline, forming the downward slope of the inverted U-shaped relationship.

2.3. Tax evasion, corruption and elections

Electoral cycles of tax evasion can be approached from different perspectives. One classical approach within political economy is the Political Budget Cycles (PBC) theory – the incumbent government may engage in expansionary fiscal policies (in terms of tax cuts or increased public expenditures) prior to elections to enable economic growth and please the electorate – which suggests that PBCs are more pronounced in developing and emerging economies.² Similarly, incumbent governments may adopt more lenient tax enforcement to appease voters and stimulate the economy, inadvertently enabling higher tax evasion. Policies that tolerate or even encourage informality, such as relaxed tax oversight, can be also broadly applied or selectively implemented as part of pork-barrel politics. When voters benefit from such preferential policies, they become less critical of resource misallocation and the policymakers responsible for it (Tóth et al., 2021). Thus, tax evasion can result from an opportunistic electoral attitude of the incumbent government. One explanation is that poor tax performance, such as weak tax collection or enforcement, is less visible in real time compared to expansionary fiscal policies like lowering tax rates or increasing public spending. These latter policies require consultations and approvals, making them more transparent and easier for the opposition and media to monitor. In contrast, tax collection efforts can be quietly reduced or overlooked, allowing the government to gain short-term electoral advantages without attracting significant public scrutiny (Lami and Imami, 2019).

From a rent-seeking behaviour perspective, which is more applicable in countries with relatively high levels of corruption (as in most emerging and developing economies), highly competitive elections can increase the cost of running campaigns, leading candidates to seek illicit funds. Electoral competition may encourage (rather than inhibit) politicians to abuse their position to hold on to their office (Nyblade and Reed, 2008).

Prior to elections, the incumbent may intensify the (corrupt) flow of rights and rents to its clientele to hedge the risk of electoral defeat (Tornell and Lane, 1999) and to mobilize votes (including vote buying) or control public opinion (e.g., through paid media), thereby increasing the likelihood of electoral success (Collier and Hoeffler, 2009). In these societies, politicians gain political support and financial resources, which are needed to consolidate power, by creating and distributing rents often in corrupt ways (Khan and Jomo, 2000; Uberti, 2016). Therefore, in neo-patrimonial democracies, which often characterize developing and emerging economies, the incumbent may be expected to engage in pre-election corruption based on the clientelistic nature of political competition. Consequently, before elections, higher tax evasion is likely to be observed relative to a ‘normal’ long-term pattern, due to rent-seeking as well as due to the politicization of public administration, which is common in developing countries.

Higher tax evasion or poorer fiscal performance prior to elections has been observed in both developed and developing economies. Research findings support the presence of diminished fiscal performance during election years in OECD countries, with a more pronounced electoral pattern evident in younger OECD democracies (Lami and Imami, 2019). In the United States, Young et al. (2001) discovered that Internal Revenue Service audits are adjusted in tandem with elections, showing reduced intensity in electorally sensitive districts. Conversely, in Greece, firms have been found to respond to lax monitoring by promptly underreporting actual sales, as indicated by Skouras and Christodoulakis (2014). Ehrhart (2013) focuses on the impact of elections on taxation, drawing on data for a sample of fifty-six developing countries confirming an overall negative and significant effect on pre-election tax collection. Evidence from Africa suggests that governments reduce the intensity of tax enforcement to secure greater political support (Prichard, 2015, 2018).

Previous research on African economies shows that capital flight, including specifically illicit financial flows (IFF), tends to follow the electoral cycle, becoming more pronounced during elections (Frantz, 2018). In the context of weak institutions, uncertainty is high and can increase before competitive elections (as a change of government may be associated with higher uncertainty by many businesses). Greater uncertainty prior to elections appears to incentivize those in the business sector to move their money (licitly or illicitly) elsewhere (Frantz, 2018).

Similarly, research on Albania (which is part of the panel data analysed by this study), shows that incumbents deliberately engage in lower monitoring and enforcement of tax collection before elections, leading to a significant deterioration in public finance performance (Lami et al., 2021; Imami et al., 2024), contributing to significant deficits prior to elections (Lami, 2023). While elected officials and “politicized” public service/administration officials can lower their general vigilance before elections (focusing more on politics/elections than on their duties), other public administration officials may simply lower their performance before elections, because of being subject to lower accountability from their elected superiors. Corruption is another factor that can drive an increase in tax evasion before elections. A recent empirical study (Imami et al., 2024) found that some tax inspectors were incentivized to take more bribes during this period—either to finance election campaigns or to safeguard themselves financially in case of job loss after the elections (in highly politicized public sector administrations, employment turnover is high, particularly during political transitions).

These overlapping motivations and mechanisms lead us to expect that tax evasion is more pronounced before elections (Hypothesis 3).

We summarize the key findings from the literature and our related hypotheses in Table 1, highlighting our contribution.

² PBCs are more pronounced in developing/emerging economies for several reasons such as poorer quality of institutions (for a deeper understanding about the factors influencing PBC patterns/magnitude, see Pearson and Tabellini, 2000; Akhmedov and Zhuravskaya, 2004; Shi and Svensson, 2006; Brender and Drazen, 2005).

Table 1
Summary of literature review, hypothesis and study contributions.

	Main relevant literature summary	This study hypotheses and contribution	
		Hypothesis	Contribution
Tanzi (1998); Alm et al. (2016); Banerjee et al. (2022)	Corruption is a key determinant of tax evasion. It negatively affects tax administration systems, leading to higher tax evasion.	H1: The higher the corruption, the higher the tax evasion	This paper assesses the relations between corruption and tax evasion in a large pool of emerging and developing economies. Findings show that corruption affects tax evasion (misinvoicing).
Litina and Palivos (2016); Ivanyna et al. (2016); Jahnke and Weisser (2019).	Corruption erodes tax morale.		
Sung (2004); Bäck and Hadenius (2008)	The relationship between democracy and corruption is nonlinear. Corruption is initially lower in dictatorships but during early democratization, it increases and it declines as democratic institutions consolidate.	H2: Electoral democracy and tax evasion have a nonlinear convex U-shaped relationship.	There are various studies that analyze the relations between corruption and democracy, but there is a scarcity in the literature on the relation between democracy and tax evasion. The study addresses this gap in the literature, showing the complex relation between democracy and tax evasion (misinvoicing) shown by the nonlinear convex U-shaped relationship, similar to the relation between corruption and democracy.
Rose-Ackerman (1999); Keefer (2007); Kolstad and Wiig (2016); Peters and Welch (1980)	Strong democracies curb corruption more effectively, reducing tax evasion. Mature democracies promote transparency and accountability.		
Persson and Tabellini (2002)	Democratic governments are likely to implement effective tax policies as they consolidate, reducing tax evasion.		
Nyblade and Reed (2008); Tornell and Lane (1999); Frantz (2018)	Corruption/rent-seeking and elections: corruption can increase during elections. Competitive elections in corrupt environments lead to increased corruption. That can affect tax evasion too.	H3: Tax evasion is more pronounced (higher) before elections	This study documents that there is an increase in tax evasion (misinvoicing) prior to elections in the context of emerging and developing economies.
Eibl and Lynge (2017); Lami and Imami (2019); Tóth et al. (2021)	PBC viewpoint: Government may engage in fiscal expansion before elections (PBC). PBCs are more pronounced in emerging/developing economies. In this vein, governments may tolerate higher tax evasion before elections.		
Ehrhart (2013); Skouras and Christodoulakis (2014); Prichard (2018); Lami et al. (2021).	Evidence indicates that tax enforcement before elections increases tax evasion and financial deficits, particularly in developing countries.		

3. Understanding trade misinvoicing

Illicit Financial Flows (IFFs) are financial movements across borders that are illegal in their source, transfer, or use. These flows undermine economic stability and governance in developing countries, depriving governments of crucial resources needed for investment in areas like infrastructure, healthcare, and education. IFFs encompass a wide range of activities, including tax evasion through misinvoicing, money laundering, terrorist financing etc. The main component of IFFs, particularly in the context of developing countries, is trade misinvoicing - it accounted for nearly 80% of IFFs from developing countries, exceeding \$1 trillion annually (Kar and Freitas, 2012). Through IFFs and misinvoicing specifically, governments lose critical revenue that could otherwise be used to fund public services, exacerbating inequality as ordinary taxpayers bear the fiscal burden while wealthier individuals and corporations exploit these schemes. This erosion of fiscal capacity undermines trust in public institutions and weakens the social contract between citizens and governments (UNCTAD, 2020).

Trade misinvoicing occurs when the value, quantity, or description of goods in trade transactions is deliberately falsified to evade taxes, avoid customs duties, or transfer capital illicitly. For instance, a business might under-invoice its exports to reduce taxable revenues, a behavior that is particularly prevalent in countries with weak enforcement mechanisms (Forstater, 2018). From the importing party's perspective, misinvoicing is often used to reduce import duties and tariffs. Misinvoicing can take the form of both value and quantity misinvoicing. In the latter case, the reported quantity of traded goods is manipulated while keeping the unit price unchanged.

Trade misinvoicing serves as a compelling proxy for tax evasion as it directly reflects attempts to avoid customs duties and taxes by manipulating trade documentation. Trade misinvoicing reflects systemic challenges in governance and enforcement, as it relies on loopholes and inefficiencies in customs administration. Customs officers, for instance, may be incentivized to overlook fraudulent declarations due to bribery, further weakening the state's ability to collect revenue. Similarly, in weaker or transitioning democracies, weak oversight, lack of transparency, and political influence can make it even harder to enforce trade regulations, allowing misinvoicing to continue unchecked. In these settings, policymakers may struggle with either a lack of resources or a reluctance to tighten

enforcement, further embedding a culture of tax evasion and regulatory loopholes. These practices exploit the inconsistencies in trade reporting between countries, as data discrepancies often go unnoticed or are insufficiently investigated (Global Financial Integrity [GFI], 2020).

The discrepancies observed in trade data between countries provide a measurable indication of these practices. Unlike other forms of tax evasion that might require access to company records or private transactions, trade misinvoicing leaves a traceable record in international trade statistics, making it more transparent and quantifiable for analyzing illicit activities (Fisman and Wei, 2004) and tax evasion. This is particularly valuable for cross-country analyses, where direct measures of tax evasion are often unavailable or unreliable (Kar and Freitas, 2012). Thus, misinvoicing can be a useful indicator when analyzing a large pool of countries, as it is in this study.

4. Data and methods

4.1. Data and variables

We investigate the influence of public sector corruption, electoral democracy and elections on international trade misinvoicing in 53 developing and emerging economies during 2008–2017 (this time span is conditioned by data availability). This analysis uses a dataset that integrates information on trade discrepancies, governance indicators, and control variables. The following subsections provide a detailed overview of the data sources and the variables included in the study.

Trade misinvoicing serves as the dependent variable in this study to measure tax evasion. Data on trade misinvoicing come from Global Financial Integrity (GFI), which calculates the "value gap" in trade data. This gap highlights discrepancies between a country's reported trade flows and the corresponding figures reported by its trading partners to the United Nations Trade Statistics (UN-Comtrade). The value gap is determined by comparing the imports a country reports to the exports its partners record, and vice versa. These discrepancies are typically considered as signs of intentional misreporting, tied to tax evasion (e.g. customs fraud).

GFI provides two measures of trade misinvoicing: one based on trade with all global partners and another focused on trade with 36 advanced economies. For this study, the analysis relies on the data for trade with advanced economies, as these countries generally maintain stricter regulatory frameworks and more reliable reporting mechanisms. This choice minimizes measurement error, ensuring a more accurate representation of misinvoicing practices in the developing countries under study. To standardize the data, the value gap is expressed as a percentage of total trade, accounting for differences in countries' exposure to international trade.

This study uses two key governance indicators—Public Sector Corruption and Electoral Democracy—to examine how corruption and democratization influence trade misinvoicing.

Public Sector Corruption is measured using the index provided by the V-Dem Institute at the University of Gothenburg,³ which assesses the extent to which government officials misuse their authority for personal gain. This includes practices such as bribery, embezzlement, and the exploitation of public resources. Higher values on this index indicate greater levels of corruption, typically found in environments with weak institutional safeguards and systemic governance issues. This index is particularly relevant, because corruption in public institutions has a direct impact on enforcing trade and fiscal regulations. As highlighted earlier in the paper, customs administration officials may accept bribes to ignore fraudulent trade practices or even collude with businesses to manipulate trade documentation. These corrupt practices enable trade misinvoicing, facilitating tax evasion, illicit capital flows, and other financial misconduct. The V-Dem Institute's public sector corruption index was chosen for its detailed, expert-based assessment, offering a suitable measure of public sector corruption's impact on customs enforcement and trade misinvoicing.

The level of electoral democracy is assessed using the electoral democracy index from the V-Dem Institute. This index evaluates multiple dimensions of democracy, including the fairness and competitiveness of elections, universal suffrage, freedom of expression, and the presence of elected officials. Together, these factors provide a comprehensive view of both the institutional and procedural elements of democracy. This index is particularly relevant for understanding how democratization influences tax evasion. In transitional democracies, weak institutions often struggle to deter tax evasion, and political competition can encourage rent-seeking behaviors. The electoral democracy index captures these dynamics effectively, making it well-suited for exploring the relationship between democratization and trade misinvoicing. The V-Dem electoral democracy index was selected for its detailed, multidimensional analysis, enabling the assessment of governance factors behind trade misinvoicing.

Election data are sourced from the Constituency-Level Election Archive, which provides comprehensive information on elections across most countries worldwide. Control variables are drawn from the V-Dem Institute, that offers a wide range of governance and institutional indicators for the countries included in this study. Its global coverage and rigorous methodology make the V-Dem dataset a suitable and widely used tool in political economy research (Uberti, 2022; Bernhard et al., 2017; Coppedge et al., 2016; Osei-Tutu and Weill, 2023; Janus, 2023). To enhance the reliability of our analysis, we excluded five countries due to unique circumstances—two that experienced coups and three with irregular election patterns. Such events can significantly disrupt institutional functioning and bias estimates. Irregular, non-constitutionally prescribed elections compromise the exogeneity required for unbiased estimates. By removing these cases, we also address potential endogeneity concerns related to election timing, allowing for a clearer assessment of governance quality. However, all countries are included in a robustness check. Additionally, countries with missing misinvoicing data were excluded to maintain consistency. The final dataset comprises 53 developing and emerging economies and covers 94 elections.

³ Data are publicly available at <https://www.v-dem.net/about/v-dem-project/>. Explanation of the indexes can be found here <https://www.v-dem.net/static/website/img/refs/codebookv12.pdf>.

4.2. Identification strategy

To examine the impact of corruption, democracy, and electoral cycles on trade misinvoicing, we employ a fixed-effects panel data model. The advantage of this methodology is that it accounts for country unobserved heterogeneity and, therefore, for all time invariant – and slowly changing – latent variables that are characteristics of a country, including economic, social and geographic variables. Hence, country fixed effects control for time-invariant, country-specific characteristics that influence a country's exposure to misinvoicing, often referred to as "pull" factors because they determine the country's ability to attract or facilitate misinvoicing. These factors include governance quality, regulatory frameworks, judicial independence, tax policies, economic development levels, etc. Fixed effects allow us to isolate the within-country variation in governance indicators and electoral dynamics, ensuring that our results reflect changes over time rather than cross-country differences. Moreover, the fixed effects appear as dummy variables in the estimated part of the model. Consequently, they do not appear as a fixed component of the error term, in which case potential correlation with one or more of the independent variables makes them a likely source of endogeneity bias.

The baseline model used to analyze the impact of corruption and democracy on tax evasion from trade misinvoicing is presented below:

$$y_{it} = \alpha + \beta_1 ps.corr_{it-1} + \beta_2 elect.democ_{it} + \beta_3 (ps.corr_{it-1} \times elect.democ_{it}) + \beta_4 ps.corr_{it-1}^2 + \beta_5 elect.democ_{it}^2 + \beta_6 preElectYr_{it} + \beta_7 X_{it} + \mu_i + u_{it} \quad (1)$$

The dependent variable, serving as a proxy for tax evasion, is the value of misinvoicing estimated for country i in year t , expressed as a percentage of the country's total trade. The primary explanatory variable, $ps.corr_{it-1}$, represents the public sector corruption index, which captures the extent of corruption within government institutions from the previous year ($t-1$). If β_1 is positive and significant, it would confirm that higher levels of corruption lead to increased trade misinvoicing, thereby supporting Hypothesis 1. To explore the potential intricacies of this relationship, the model includes the squared term of the corruption index ($ps.corr_{it-1}^2$), which allows us to test whether the relationship between corruption and trade misinvoicing is non-linear, providing a more comprehensive understanding of corruption's role.

Similarly, $elect.democ_{it}$ represents the electoral democracy index, which reflects the degree of electoral competition and democratization. To test Hypothesis 2, which posits that electoral democracy has an inverted U-shaped relationship with trade misinvoicing, the model includes its squared term ($elect.democ_{it}^2$). The coefficient β_2 reflects the linear relationship between the electoral democracy and trade misinvoicing, while the coefficient of the squared term β_5 shows whether this relationship is non-linear. A significant and positive β_2 and significant and negative β_5 would confirm the inverted U-shaped relationship posited under Hypothesis 2, indicating that trade misinvoicing increases at lower levels of democracy but declines as democratization advances.

To further enrich the analysis and explore the interaction between corruption and democracy, the model includes the interaction term ($ps.corr_{it-1} \times elect.democ_{it}$). This term captures how the impact of corruption on trade misinvoicing changes across different levels of democracy and vice versa. A significant β_3 would suggest that corruption and democracy jointly influence trade misinvoicing, revealing the complex interplay between these institutional factors and their combined effects on tax evasion through trade misinvoicing.

To test Hypothesis 3 we include a dummy variable ($preElectYr_{it}$) that indicates the year before an election. If its estimated coefficient (β_6) is positive and significant, it would indicate that trade misinvoicing tends to increase during pre-election years.

The vector X_{it} represents control variables, such as GDP per capita, which accounts for fluctuations in domestic demand and overall economic well-being. Finally, μ_i represents country fixed effects, capturing unobserved time-invariant characteristics while u_{it} is the error term.

To address the potential issue of reverse causality—where trade misinvoicing might influence corruption rather than corruption driving misinvoicing—the study uses lagged corruption variables in every specification. By incorporating corruption levels from previous years (one year time lag), the analysis ensures that the observed relationships reflect how past corruption influences current trade misinvoicing, rather than the reverse. In addition, this approach reduces the risk of endogeneity arising from some unobserved omitted variable(s) that might influence both current corruption and current misinvoicing. For, although current corruption levels and current misinvoicing may both be shaped by the same economic and political factors, it is less likely that such factors will influence past corruption and current misinvoicing. Moreover, should such factors be time-invariant or slowly moving then they are fully accounted for in the estimated part of the model by the country fixed effects (as previously noted) and thus – by definition – excluded as potential sources of omitted variables bias.

We report Driscoll and Kraay (1998) standard errors in our models to account for cross-sectional and temporal dependence (Hoechle, 2018). The Pesaran test confirms the presence of cross-sectional dependence in our data. Cross-section dependence refers to the correlation of error terms across different cross-sectional units. Shocks in one country often affect others because trade misinvoicing behaviors are interconnected. This may happen through shared trade routes, regional economic ties, similar regulations, and geographic proximity. Countries that interact economically may adopt similar misinvoicing practices, potentially spreading these behaviors across borders and breaking the assumption of independent observations needed for traditional standard error methods. Relevant studies use clustered standard errors when dealing with indexes (Goodspeed et al., 2011). However, traditional or clustered standard errors assume independence across entities, but failing to adjust for cross-sectional dependence may lead to biased results (Cameron and Trivedi, 2010). Driscoll-Kraay standard errors correct for cross-sectional dependence, heteroskedasticity, and serial correlation, making them more suitable for our data. Clustered standard errors are included as a robustness check.

5. Results

Table A1 in the appendix provides an overview of the average trade misinvoicing values across countries in the sample. These values, expressed as percentages of total trade, highlight the widespread nature of trade misinvoicing in developing economies. On average, misinvoicing accounts for nearly 20% of total trade, with notable variation across countries. For instance, Chile exhibits a lower misinvoicing rate of 12%, while Togo reaches a high of 30%. These figures illustrate the diversity of trade misinvoicing behaviors, reflecting differences in institutional quality, governance, and economic structures among the countries studied.

Table 2 presents the parameter estimates for equation (1). To account for potential observable and unobservable confounders, we conducted alternative model specifications. In Column 2, we introduce the dummy variable for the pre-election year to capture the role of the electoral cycle in tax evasion. This isolates the short-term electoral influence on tax evasion. In Model 3, we incorporate year fixed effects to control for time-specific shocks or global trends that could affect all countries simultaneously. Year fixed effects are important (i) to attenuate cross-group residual correlation arising from common shocks in particular periods; (ii) to ensure that otherwise unmodelled dynamics (such as deterministic trends) are included in the estimated part of the model rather than relegated to the error term (where they tend to invalidate standard errors); and (iii) as well as fulfilling a control function, year dummies can be informative about otherwise unmodelled trends or period events in the data. Year fixed effects serve as proxies for "push" factors, which represent external pressures or global conditions that drive misinvoicing. These factors may include global financial crises, international regulatory shifts, fluctuations in interest rates of major economies, commodity price volatility, and changes in international enforcement against money laundering and tax evasion. By including year fixed effects, we ensure that the estimated relationships between tax evasion, democracy, and corruption are not biased by unobserved global events that impact all countries in the sample. Model 4 incorporates all control variables simultaneously.

5.1. Corruption and democracy in tax evasion

Results from Table 2 indicate that both public sector corruption (*ps_corr*) and electoral democracy (*elect_democ*) significantly influence tax evasion through trade misinvoicing, with their coefficients being statistically significant at the 1% and 5% levels. However, the relationship between corruption, electoral democracy and trade misinvoicing is not straightforward, as evidenced by the significance of their interaction term (*ps_corr#democracy*) that suggests that the impact of corruption on tax evasion is conditional on the level of democracy, and vice versa. Since the relationship between corruption, democracy, and tax evasion is complex, in the following sections, we calculate the marginal effects of democracy and corruption separately, followed by the marginal effects of their interaction. By analyzing these marginal effects, we can gain a clearer understanding of how corruption and democracy individually influence tax evasion and how their interaction modifies these effects in the context of trade misinvoicing.

5.1.1. Role of corruption on trade misinvoicing

The positive and significant coefficients of public sector corruption (*ps_corr*) indicate that higher levels of corruption result in higher values of misinvoicing (in line with Hypothesis 1). The fact that the squared term of corruption (*ps_corr*²) is not significant in any model suggests that the relationship between corruption and trade misinvoicing remains consistently positive.

However, the interaction term between bureaucratic corruption and electoral democracy is negative and significant (*ps_corr#democracy*), indicating that democracy mitigates the impact of corruption on tax evasion. The higher the level of democracy, the greater the mitigation of corruption. Increased level of democracy significantly reduces the extent to which corruption drives trade misinvoicing, as stronger democratic institutions enhance oversight, transparency, and regulatory enforcement, thereby limiting corrupt

Table 2
Impact of corruption, democracy on trade misinvoicing.

Dependent variable	Unconditional	Baseline	Years FE	All
Trade misinvoicing	(1)	(2)	(3)	(4)
<i>ps_corr</i>	35.550** (12.127)	39.197** -14.292	34.472** (12.639)	38.155** -14.569
<i>elect_democ</i>	35.973*** (5.985)	28.032*** -6.987	38.504*** (6.486)	30.365*** -7.75
<i>ps_corr #elect_democ</i>	-45.819** (17.097)	-54.599** -19.589	-46.119** (17.630)	-54.110** -20.107
<i>elect_democ</i> ²	-18.812*** (3.945)	-11.137 -6.089	-20.720*** (3.788)	-12.896* -6.128
<i>ps_corr</i> ²	-5.543 (5.663)	-7.879 -6.924	-4.722 (5.951)	-6.929 -7.187
<i>preElectYr</i>		0.912*** -0.181		0.949*** -0.17
Year fixed effects	No	No	Yes	Yes
Control variables	Yes	Yes	Yes	Yes
Observations	468	416	468	416
R ²	0.075	0.074	0.085	0.081

Driscoll-Kraay standard errors in parentheses; **p* < 0.1, ***p* < 0.05, ****p* < 0.01.

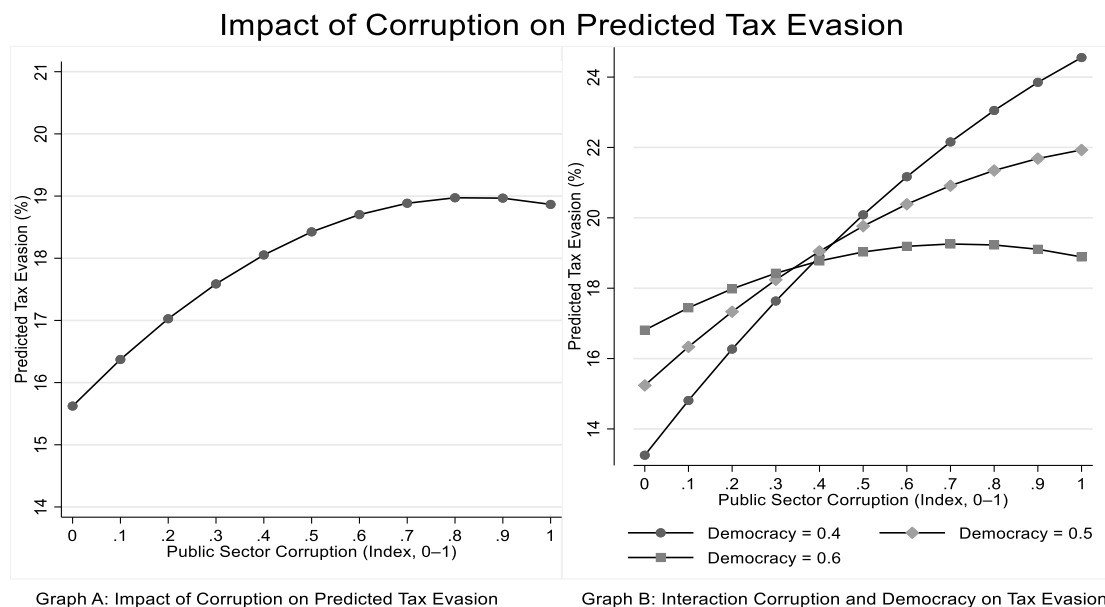


Fig. 1. Impact of public sector corruption on tax evasion across democracy levels.⁴

⁴ Marginal effects are calculated using Model 3 from Table 2, as it has the largest sample size and the highest R^2 value. Detailed data including confidence intervals are presented in Tables A2 and A3 in the Appendix.

officials' ability to facilitate tax evasion.

To better illustrate the effect of corruption on trade misinvoicing, we calculate the marginal effects, which are presented in Fig. 1. By examining these marginal effects, we can observe how changes in corruption impact tax evasion.

Graph A in Fig. 1 illustrates the relationship between tax evasion and bureaucratic corruption (ps_corr), while holding electoral democracy and other variables constant at their average level. The graph shows that higher levels of corruption are associated with increased tax evasion. At low corruption levels (e.g., $ps_corr = 0.1$), predicted trade misinvoicing is around 16%.⁵ As corruption increases to moderate levels (e.g., $ps_corr = 0.5$), trade misinvoicing rises to approximately 18%. This trend reflects a clear positive relationship between corruption and tax evasion. However, at high corruption levels (e.g., $ps_corr = 0.9$), the increase in trade misinvoicing slows down and stabilizes at around 19%. When corruption reaches high levels, the rate at which tax evasion increases begins to diminish. This suggests that in environments where corruption is already widespread, opportunities for further tax evasion become more saturated, leaving less room for additional increases. On average, a one-point increase in corruption leads to a 0.6 percentage point rise in trade misinvoicing, but only up to a corruption level of 6. Beyond this threshold, the effect diminishes, with trade misinvoicing increasing on average by just 0.1 percentage point for each additional point of corruption.

These patterns are observable also by looking at descriptive statistics from our sample. In countries such as Botswana, Belarus, Chile, Fiji, Jamaica, and Namibia, where corruption levels are between 0.11 and 0.30, trade misinvoicing ranges between 11% and 17%. In contrast, countries such as Bahrain, Bolivia, Brazil, Sri Lanka, Colombia, Benin, Ecuador, El Salvador, Guyana, India, Malaysia, Mauritius, Romania, Senegal, Suriname, Turkey, and North Macedonia exhibit corruption levels between 0.31 and 0.6, and trade misinvoicing is 17%–20%. Lastly, in countries such as Azerbaijan, Armenia, Cameroon, Benin, Kazakhstan, Lebanon, Malawi, Malaysia, Pakistan, Philippines, Russia, South Africa, Zimbabwe, Togo, Uganda, and Burkina Faso, corruption exceeds 0.6, and trade misinvoicing surpasses 20%, with some cases approaching 50%.

Graph B in Fig. 1 explores the interaction between democracy and corruption, showing how different levels of democracy alter the impact of corruption on tax evasion. The graph presents the marginal effects, showing how the predicted levels of trade misinvoicing vary depending on the interaction between these two factors. It shows how trade misinvoicing changes as the public sector corruption index increases from 0 to 1, while also comparing these effects at three fixed levels of the democracy index: 0.4, 0.5, and 0.6. Rather than referring to an actual country, it provides a scenario where democracy remains constant at 0.4, 0.5 and 0.6 helping to isolate the effects of corruption. This provides a clear visual representation of how corruption and democracy interact in influencing trade misinvoicing.

A key observation is that higher levels of democracy mitigate the impact of corruption on tax evasion. For instance, in a scenario

⁵ See Table A2 in the Appendix for detailed data.

where democracy remains constant at 0.6 points, the effect of corruption on tax evasion is significantly lower compared to countries with weaker institutions (democracy = 0.4).⁶ In these lower-democracy settings, corruption has a much stronger and more damaging effect on tax evasion, as weak institutions fail to regulate and enforce compliance effectively.

5.1.2. Role of democracy on trade misinvoicing

The coefficients of electoral democracy (*elect_democ*) and its square term in Table 2 (*elect_democ*²) suggest a nonlinear (inverted U-shaped) relationship between democracy and trade misinvoicing. The positive and significant coefficient of electoral democracy indicates that at lower levels of democracy, an increase in electoral democracy is associated with higher trade misinvoicing. The negative and significant coefficient of the square term of electoral democracy (*elect_democ*²) suggests that the relationship is nonlinear: as democracy further strengthens, the effect on trade misinvoicing reverses, meaning that at higher levels of democracy, trade misinvoicing starts to decline. We can observe the inverted U shape in Graph A of Fig. 2, where the marginal effects of electoral democracy on trade misinvoicing are calculated. On average, a one percentage point increase in the democracy index is associated with an increase of the trade misinvoicing by approximately 0.7 percentage points in the upward trend of the U-curve, and with a decrease by 1.4 percentage points in the downward trend. This aligns with Hypothesis 2.

However, as discussed earlier, the relationship between corruption, electoral democracy and trade misinvoicing is not straightforward, as evidenced by the significance of their interaction term (*ps_corr#democracy*). The interaction term between corruption and democracy reveals that corruption acts as a moderating force in the relationship between democracy and tax evasion. Specifically, the negative interaction term implies that corruption reduces the increasing effect of democracy on tax evasion in the rising phase of the U-curve while enhancing the decreasing effect in the declining phase. This dual role of corruption significantly shapes how democracy influences misinvoicing.

In the rising part of the U-curve, where electoral democracy initially contributes to an increase in tax evasion, corruption reduces this effect. However, when corruption is already high, it limits the extent to which democratization increases tax evasion because in these environments, tax evasion is already at high levels, leaving less room for additional increases. The higher the initial level of corruption, the weaker the rising phase of democracy's effect on tax evasion. This results in a flatter upward slope in countries with high corruption compared to those with lower initial corruption. Conversely, in the declining phase of the U-curve, where stronger democratic institutions typically lead to a reduction in tax evasion, the higher the level of corruption the stronger the mitigating effect of electoral democracy, making the reduction in misinvoicing even steeper.

This pattern can be observed in the Graph B of Fig. 2 which is constructed similarly to Graph B of Fig. 1. Specifically, when comparing a scenario where public sector corruption is fixed at 0.6 to one with corruption at 0.4, we observe that the rising part of the curve, where democracy initially contributes to more trade misinvoicing, is less steep in the more corrupt country. However, the declining part of the curve—where democracy begins to reduce trade misinvoicing—is much steeper in highly corrupt countries.

5.1.3. Robustness checks

Given the presence of cross-sectional dependence in our data, our baseline model in Table 2 reports Driscoll-Kraay standard errors. However, we re-estimate Equation (1) using regional-level clustering, which allows for intra-regional dependence by accounting for similarities among countries within the same region. This approach helps mitigate some cross-sectional dependence that arises from shared economic, political, or institutional characteristics within regions. While this adjustment improves the estimation of standard errors, it does not fully eliminate cross-country dependencies. Nevertheless, the results in Table A6 in the Appendix largely confirm our findings. Another robustness check we conducted involved re-estimating Equation (1) using the full sample, including the five countries that experienced irregular elections and coups. This test allows us to assess whether excluding these cases significantly affects our results. The findings, presented in Table R2, indicate that while the coefficients are somewhat smaller compared to those in Table 2, their significance remains consistent with the baseline sample. This suggests that our main results are not driven by the exclusion of these countries and further supports the robustness of our analysis.

5.2. Corruption, democracy and trade misinvoicing during elections-Robustness checks

The significance of the coefficient for the pre-electoral year in Table 2, suggests that trade misinvoicing follows electoral cycle, increasing before elections in line with Hypotheses 3. Specifically, during the pre-electoral year, trade misinvoicing tends to increase by approximately 1 percentage point compared to other years.

Even though the literature widely employs the pre-electoral year as a variable to measure the impact of elections on various economic and fiscal outcomes as highlighted earlier, one potential drawback of using the pre-electoral year in a fixed-effects model with year fixed effects is that the program automatically drops one year due to collinearity. This can complicate the interpretation of the pre-electoral year coefficient, as it becomes more challenging to isolate the specific effect of the pre-electoral year from the broader time fixed effects. This concern could be significant if all countries held elections in the same year, potentially magnifying the issue. However, we argue that this is unlikely to affect our analysis meaningfully, as elections occur in different years across countries, reducing the overlap of dropped years and minimizing potential bias. Additionally, model 2 in Table 2 does not include fixed effects yet

⁶ For example, in our sample, in Georgia corruption levels remained relatively constant from 2008 to 2011, while democracy and trade misinvoicing vary across the same period. Specifically, democracy scores increase from 0.5 to 0.6, while trade misinvoicing decreases notably from 25 % in 2008 to 20 % in 2011.

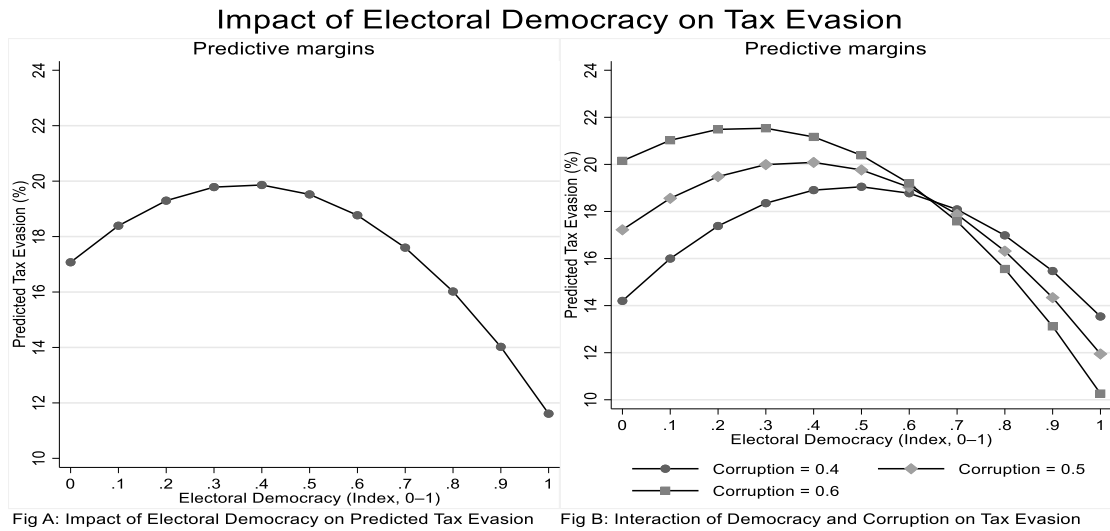


Fig. 2. Impact of electoral democracy on tax evasion at varying corruption levels.⁷

⁷ Detailed data including confidence intervals are presented in Tables A4 and A5 in the Appendix.

the pre-electoral dummy is still significant at 1 %. To strengthen our findings and address any lingering concerns, we conduct additional robustness checks.

Table R2
Impact of corruption, democracy and trade misinvoicing using full sample (including all countries).

Dependent variable	Unconditional	Baseline	Years FE	All
Trade misinvoicing	(1)	(2)	(3)	(4)
ps_corr	28.791** (10.829)	33.309** (12.114)	26.779** (11.238)	31.358** (12.473)
elect_democ	28.598*** (5.329)	23.468*** (6.143)	29.225*** (5.748)	23.439*** (6.637)
ps_corr #elect_democ	-38.447** (11.492)	-39.873** (12.541)	-38.277** (11.967)	-39.541** (12.987)
elect_democ ²	-12.402*** (2.976)	-10.147** (4.217)	-13.121*** (2.996)	-10.016** (4.130)
ps_corr ²	-1.662 (6.107)	-8.592 (5.991)	0.010 (6.363)	-6.593 (6.207)
Year fixed effects	No	No	Yes	Yes
Control variables	Yes	Yes	Yes	Yes
Electoral cycle	no	yes	no	yes
Observations	522	464	522	464
R ²	0.075	0.071	0.082	0.076

Driscoll-Kraay standard errors in parentheses; *p < 0.1, **p < 0.05, ***p < 0.01.

Table R3
Election dates spuriously shifted forward by 1 year.

	Unconditional	Years FE
	(1)	(2)
preElectYr	0.171 (0.405)	0.212 (0.397)
Year fixed effect	No	Yes
Observations	364	364
R ²	0.053	0.062

Driscoll-Kraay standard errors in parentheses; *p < 0.1, **p < 0.05, ***p < 0.01.

Table R4
Robustness check using trend and trend square.

	Trend	Trendsq
	(1)	(2)
preElectYr	0.9447*** (0.405)	0.964*** (0.397)
Year fixed effect	No	No
Trend	Yes	Yes
Trend sq	No	Yes
Observations	416	416
R ²	0.077	0.077

Driscoll-Kraay standard errors in parentheses; *p < 0.1, **p < 0.05, ***p < 0.01.

First, we conduct a placebo test by shifting the electoral year forward by one year, effectively examining the period two years before the election. This approach helps us determine whether the observed patterns in trade misinvoicing are genuinely driven by electoral cycles or merely reflect unrelated temporal fluctuations. Table R3 presents the results for the pre-electoral year coefficient, obtained by re-estimating Equation (1) with and without fixed effects for the adjusted timeline. The results indicate that the coefficient for the variable representing two years before the election is statistically insignificant. This confirms that our observed results are tied specifically to the electoral year and not to broader time-related trends.

Second, we re-estimated Equation (1) by replacing year fixed effects with a linear trend variable and its square to account for potential underlying time trends, instead of relying on fixed effects by year. This alternative specification helps to address potential limitations of year fixed effects while controlling for gradual global or regional changes over time that might coincide with the electoral cycle but are not causally related to it. By incorporating both a linear trend and its square, we effectively capture both straight-line and curved patterns in temporal changes, ensuring that our results are not influenced by unobserved time-related dynamics. The findings, presented in Table R4, remain consistent across this specification, further strengthening the robustness of our results.

6. Discussion of the results

This study offers significant insights into the complex relationship between corruption, democracy, and tax evasion, with key implications for emerging and developing economies. Our findings confirm Hypothesis 1 that higher levels of corruption are linked to greater tax evasion, supporting previous research (Tanzi, 1998; Alm et al., 2016; Banerjee et al., 2022). Further, the analysis reveals that while increased corruption leads to more tax evasion, the effect diminishes as corruption reaches high levels. This suggests that once corruption saturates the system, there is limited potential for further growth in misinvoicing, resulting in a flattening of the curve – that can be explained by the necessity for the government to generate a certain level of income from taxation to maintain the core/basic functions and services.

Various studies analyze the relationship between corruption and democracy, indicating a nonlinear connection (Sung, 2004; Bäck and Hadenius, 2008). However, there is a scarcity of literature on the relationship between democracy and tax evasion. This study addresses that gap by demonstrating an inverted U-shaped relationship between democracy and tax evasion (misinvoicing). In the early stages of democratization, weak institutions, political instability, and electoral competition foster environments conducive to fiscal evasion. Newly democratizing countries often lack robust regulatory frameworks, allowing political elites to exploit these weaknesses for rent-seeking behavior. Additionally, the need for electoral financing may incentivize tolerance of trade misinvoicing. However, as democratic institutions strengthen, transparency and accountability increase, leading to a decline in trade misinvoicing.

The interaction between bureaucratic corruption and electoral democracy was found to be negative and significant, indicating that democracy mitigates the effect of corruption on tax evasion. The stronger the democracy, the more effectively it reduces corruption's impact on trade misinvoicing. Conversely, in low-democracy environments, weak institutions fail to restrain corruption, amplifying misinvoicing. This highlights the crucial role of institutional strength in curbing tax evasion.

Not only does the level of democracy influence corruption, but corruption also affects how democracy impacts tax evasion. During the upward phase of the inverted U-curve, tax evasion rises in new or weak democracies due to political instability and regulatory inefficiencies. However, when corruption is already high, this rise is limited, as the system is already saturated with illicit financial activity, which prevents further escalation. As democratic institutions mature, they tend to more aggressively target corruption, leading to stronger anti-corruption reforms, stricter financial regulations, and improved enforcement. In highly corrupt countries, this transformation results in a significant decline in tax evasion as corrupt practices are dismantled. In contrast, low-corruption countries do not need as aggressive measures, resulting in a more gradual reduction in tax evasion. Here, democracy fine-tunes existing strong institutions rather than radically transforming them, leading to a smoother decline in trade misinvoicing.

The hypothesis that tax evasion increases before elections is supported by our findings, aligning with previous studies (Ehrhart, 2013; Skouras and Christodoulakis, 2014; Frantz, 2018; Prichard, 2018; Lami et al., 2021). Our results document that in emerging and developing economies, tax evasion tends to be more pronounced in the lead-up to elections. Before elections, elected officials and politicized public servants may lower their vigilance, focusing more on politics than their duties, while other public administration officials may reduce performance due to decreased accountability. Furthermore, increased corruption prior to elections can also increase tax evasion during this period - some tax inspectors can be incentivized to accept more bribes to finance campaigns or safeguard against job loss amid high turnover in politicized administrations (Imami et al., 2024).

7. Conclusions

This study enhances our understanding of the interplay between democracy, corruption, and trade misinvoicing in developing economies. From a policy standpoint, strengthening institutional capacity is crucial, especially in countries undergoing democratization. Prioritizing the establishment of independent anti-corruption bodies, enhancing judicial autonomy, and deploying digital tools such as blockchain and electronic invoicing can improve transparency in trade transactions. Additionally, reinforcing customs enforcement and increasing penalties for fraudulent activities can serve as deterrents against tax evasion.

The interaction between corruption and democracy has significant policy implications, especially for governance, anti-corruption efforts, and tax enforcement. Since corruption shapes how democracy impacts tax evasion—and vice versa—policymakers must adapt their strategies to a country's specific corruption levels and institutional strength.

Mitigating the fiscal disruptions caused by electoral cycles requires depoliticizing tax enforcement agencies and ensuring their operational independence. Public engagement through awareness campaigns can also help cultivate a culture of tax compliance, reducing societal tolerance for corrupt practices. At an international level, enhancing cooperation to reconcile trade data discrepancies and promote greater transparency in cross-border transactions remains essential.

While this study makes significant contributions, several limitations warrant further exploration. By concentrating on trade with developed economies, we may overlook the extent of trade misinvoicing with other partners, such as developing countries, which could result in an underestimation of the overall issue. Additionally, by focusing exclusively on trade misinvoicing, we risk overlooking other forms of illicit financial flows, further underestimating the true scale of the problem. Additionally, the use of annual data restricts the analysis of short-term fluctuations, such as spikes in tax evasion during election months. Future research could address these gaps by incorporating more granular datasets and expanding the analysis to include additional forms of illicit financial flows.

CRedit authorship contribution statement

Elvina Merkaj: Conceptualization, Methodology, Data curation, Software, Formal analysis, Writing – original draft, Writing – review & editing. **Drini Imami:** Conceptualization, Investigation, Validation, Writing – original draft, Writing – review & editing.

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Declaration of competing interest

The authors do not have any conflict of interest.

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Appendix

Table A1
Elections and average trade related misinvoicing during 2008–2017 by country

Country	Subregion	Region	Average Trade misinvoicing with all partners (% of total trade)	Average Trade misinvoicing with 36 advanced economies (% of total trade)	Public sector index	Electoral democracy index
Cameroon	Central Africa	Africa	21.98	24.24	0.91	0.34
Malawi	East Africa	Africa	24.92	26.82	0.73	0.54
Mauritius	East Africa	Africa	19.67	17.99	0.32	0.82
Tanzania	East Africa	Africa	25.16	23.28	0.44	0.51

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Table A1 (continued)

Country	Subregion	Region	Average Trade misinvoicing with all partners (% of total trade)	Average Trade misinvoicing with 36 advanced economies (% of total trade)	Public sector index	Electoral democracy index
Uganda	East Africa	Africa	20.85	22.66	0.73	0.36
Zimbabwe	East Africa	Africa	22.62	20.58	0.87	0.27
Botswana	South Africa	Africa	16.96	19.67	0.19	0.72
Namibia	South Africa	Africa	19.46	19.52	0.24	0.69
South Africa	South Africa	Africa	18.56	19.06	0.63	0.75
Benin	West Africa	Africa	23.07	22.89	0.65	0.67
Burkina Faso	West Africa	Africa	22.23	16.64	0.67	0.60
Senegal	West Africa	Africa	22.44	22.14	0.39	0.67
Togo	West Africa	Africa	28.84	30.19	0.78	0.49
Kazakhstan	Central Asia	Asia	17.35	17.78	0.71	0.25
India	South Asia	Asia	19.50	19.50	0.35	0.66
Malaysia	South Asia	Asia	20.51	20.70	0.60	0.31
Maldives	South Asia	Asia	23.63	27.36	0.39	0.48
Pakistan	South Asia	Asia	17.88	19.32	0.78	0.44
Sri Lanka	South Asia	Asia	19.41	17.86	0.41	0.49
Indonesia	South East Asia	Asia	18.55	17.22	0.67	0.68
Philippines	South East Asia	Asia	27.08	25.44	0.61	0.55
Bahrain	West Asia	Asia	20.41	20.37	0.53	0.18
Georgia	West Asia	Asia	19.44	21.36	0.08	0.61
Lebanon	West Asia	Asia	21.29	21.18	0.70	0.51
Turkey	West Asia	Asia	18.36	17.34	0.52	0.52
Barbados	Caribbean	Caribbean	19.94	20.01	0.13	0.78
Guyana	Caribbean	Caribbean	19.26	17.96	0.62	0.62
Jamaica	Caribbean	Caribbean	17.68	16.83	0.15	0.81
Hungary	East Europe	Eastern Europe	18.13	18.66	0.20	0.73
Poland	East Europe	Eastern Europe	18.87	19.06	0.13	0.86
Romania	East Europe	Eastern Europe	17.31	17.75	0.59	0.68
Armenia	East Europe	Eastern Europe	18.52	19.49	0.75	0.36
Azerbaijan	East Europe	Eastern Europe	22.27	21.58	0.95	0.20
Belarus	East Europe	Eastern Europe	15.63	15.73	0.29	0.23
Russia	East Europe	Eastern Europe	19.94	21.77	0.80	0.30
Albania	South Europe	Eastern Europe	20.55	18.71	0.66	0.54
North Macedonia	South Europe	Eastern Europe	15.60	15.77	0.46	0.52
Costa Rica	Central America	Latin America	20.78	22.64	0.17	0.90
El Salvador	Central America	Latin America	15.01	16.09	0.58	0.63
Guatemala	Central America	Latin America	16.39	17.45	0.73	0.60
Mexico	Central America	Latin America	14.89	13.66	0.49	0.67
Nicaragua	Central America	Latin America	14.97	14.45	0.70	0.40
Bolivia	South America	Latin America	15.96	22.76	0.54	0.68
Brazil	South America	Latin America	16.50	18.29	0.43	0.86
Chile	South America	Latin America	12.12	12.18	0.09	0.89
Colombia	South America	Latin America	16.40	16.51	0.51	0.63
Ecuador	South America	Latin America	14.78	14.49	0.41	0.60

(continued on next page)

Table A1 (continued)

Country	Subregion	Region	Average Trade misinvoicing with all partners (% of total trade)	Average Trade misinvoicing with 36 advanced economies (% of total trade)	Public sector index	Electoral democracy index
Paraguay	South America	Latin America	14.08	16.52	0.66	0.62
Peru	South America	Latin America	14.13	13.80	0.48	0.78
Suriname	South America	Latin America	22.51	23.42	0.46	0.78
Uruguay	South America	Latin America	16.65	21.11	0.08	0.89
Fiji	Oceania	Oceania	17.82	16.85	0.19	0.24

Table A2

Predicted Values of Trade Misinvoicing Across Different Levels of Corruption

ps_corr	Predicted values of trade misinvoicing	std. err.	z	P> z	[95 % conf. interval]
0	15.62	1.41	11.04	0.00	12.85 18.40
1	16.37	0.91	17.96	0.00	14.58 18.16
2	17.03	0.54	31.36	0.00	15.96 18.09
3	17.59	0.35	50.54	0.00	16.91 18.27
4	18.05	0.35	51.18	0.00	17.36 18.74
5	18.42	0.45	40.80	0.00	17.54 19.31
6	18.70	0.59	31.89	0.00	17.55 19.85
7	18.88	0.78	24.11	0.00	17.35 20.42
8	18.97	1.08	17.56	0.00	16.86 21.09
9	18.97	1.50	12.66	0.00	16.03 21.90
10	18.87	2.04	9.24	0.00	14.87 22.87

Table A3

Predicted Values of Trade Misinvoicing Across Different Levels of Corruption with Democracy Fixed at 0.4, 0.5, and 0.6

ps_corr	democracy	Predicted values of trade misinvoicing	std. err.	z	P> z	[95 % conf. interval]
0	0.4	13.25	1.84	7.19	0.00	9.64 16.86
1	0.4	15.24	1.48	10.27	0.00	12.33 18.15
2	0.4	16.81	1.30	12.97	0.00	14.27 19.35
3	0.4	14.81	1.22	12.12	0.00	12.41 17.20
4	0.4	16.33	0.94	17.36	0.00	14.49 18.18
5	0.4	17.44	0.79	22.04	0.00	15.89 18.99
6	0.4	16.27	0.74	22.00	0.00	14.82 17.72
7	0.4	17.33	0.54	32.28	0.00	16.28 18.39
8	0.4	17.98	0.43	41.99	0.00	17.14 18.82
9	0.4	17.64	0.44	39.85	0.00	16.77 18.50
10	0.4	18.24	0.32	57.48	0.00	17.62 18.86
0	0.5	18.43	0.30	60.43	0.00	17.83 19.02
1	0.5	18.91	0.40	47.00	0.00	18.12 19.70
2	0.5	19.05	0.31	60.98	0.00	18.44 19.66
3	0.5	18.78	0.43	43.93	0.00	17.94 19.61
4	0.5	20.09	0.50	39.98	0.00	19.10 21.07
5	0.5	19.77	0.37	53.03	0.00	19.03 20.50
6	0.5	19.03	0.60	31.50	0.00	17.85 20.21
7	0.5	21.17	0.60	35.29	0.00	19.99 22.34
8	0.5	20.39	0.41	49.50	0.00	19.58 21.19
9	0.5	19.19	0.80	24.04	0.00	17.63 20.76
10	0.5	22.16	0.68	32.60	0.00	20.82 23.49
0	0.6	20.91	0.47	44.62	0.00	20.00 21.83
1	0.6	19.26	1.04	18.51	0.00	17.22 21.30
2	0.6	23.05	0.79	29.25	0.00	21.51 24.60
3	0.6	21.35	0.64	33.58	0.00	20.10 22.59
4	0.6	19.23	1.37	14.07	0.00	16.55 21.91
5	0.6	23.85	0.99	24.03	0.00	21.91 25.80
6	0.6	21.69	0.96	22.58	0.00	19.80 23.57
7	0.6	19.11	1.80	10.61	0.00	15.58 22.64
8	0.6	24.56	1.34	18.38	0.00	21.94 27.18
9	0.6	21.93	1.44	15.28	0.00	19.12 24.74
10	0.6	18.89	2.36	8.02	0.00	14.27 23.51

Table A4
Predicted Values of Trade Misinvoicing Across Different Levels of Democracy

democracy	Predicted values of trade misinvoicing	std. err.	z	P> z	[95 % conf.	interval]
0	17.07	2.55	6.69	0.00	12.07	22.08
1	18.39	1.90	9.67	0.00	14.66	22.12
2	19.30	1.31	14.73	0.00	16.73	21.86
3	19.79	0.78	25.46	0.00	18.26	21.31
4	19.86	0.32	62.28	0.00	19.24	20.49
5	19.52	0.26	74.83	0.00	19.01	20.03
6	18.77	0.63	29.84	0.00	17.54	20.00
7	17.60	1.01	17.50	0.00	15.63	19.57
8	16.02	1.37	11.69	0.00	13.33	18.70
9	14.02	1.73	8.11	0.00	10.63	17.41
10	11.61	2.09	5.55	0.00	7.51	15.71

Table A5
Predicted Values of Trade Misinvoicing Across Different Levels of Democracy with Corruption Fixed at 0.4, 0.5, and 0.6

democracy	ps_corr	Predicted values of trade misinvoicing	std. err.	z	P> z	[95 % conf.	interval]
0	0.4	14.20	2.05	6.93	0.00	10.18	18.22
1	0.4	16.00	1.52	10.53	0.00	13.02	18.98
2	0.4	17.38	1.06	16.37	0.00	15.30	19.46
3	0.4	18.35	0.68	26.94	0.00	17.02	19.69
4	0.4	18.91	0.40	47.00	0.00	18.12	19.70
5	0.4	19.05	0.31	60.98	0.00	18.44	19.66
6	0.4	18.78	0.43	43.93	0.00	17.94	19.61
7	0.4	18.09	0.60	30.03	0.00	16.91	19.27
8	0.4	16.99	0.79	21.60	0.00	15.44	18.53
9	0.4	15.47	0.98	15.76	0.00	13.54	17.39
10	0.4	13.54	1.20	11.25	0.00	11.18	15.90
0	0.5	17.22	2.60	6.63	0.00	12.13	22.32
1	0.5	18.56	1.97	9.44	0.00	14.71	22.41
2	0.5	19.48	1.40	13.92	0.00	16.74	22.23
3	0.5	19.99	0.90	22.19	0.00	18.23	21.76
4	0.5	20.09	0.50	39.98	0.00	19.10	21.07
5	0.5	19.77	0.37	53.03	0.00	19.03	20.50
6	0.5	19.03	0.60	31.50	0.00	17.85	20.21
7	0.5	17.88	0.93	19.30	0.00	16.07	19.70
8	0.5	16.32	1.26	12.98	0.00	13.85	18.78
9	0.5	14.34	1.59	9.02	0.00	11.22	17.46
10	0.5	11.95	1.93	6.18	0.00	8.16	15.74
0	0.6	20.15	3.27	6.16	0.00	13.74	26.57
1	0.6	21.03	2.51	8.38	0.00	16.11	25.95
2	0.6	21.49	1.80	11.92	0.00	17.96	25.02
3	0.6	21.54	1.15	18.65	0.00	19.27	23.80
4	0.6	21.17	0.60	35.29	0.00	19.99	22.34
5	0.6	20.39	0.41	49.50	0.00	19.58	21.19
6	0.6	19.19	0.80	24.04	0.00	17.63	20.76
7	0.6	17.58	1.29	13.59	0.00	15.05	20.12
8	0.6	15.56	1.79	8.67	0.00	12.04	19.07
9	0.6	13.12	2.29	5.72	0.00	8.62	17.61
10	0.6	10.26	2.79	3.68	0.00	4.79	15.74

Table A6
Impact of corruption, democracy and trade misinvoicing using fixed effect with clustered errors

Dependent variable	Baseline	Controls	Years FE	All
Trade misinvoicing	(1)	(2)	(3)	(4)
ps_corr	35.550** (10.772)	39.197* (16.873)	34.472* (14.441)	38.441 (21.001)
elect_democ	35.973** (10.766)	28.032* (12.808)	38.504** (13.464)	30.050* (13.476)
ps_corr #elect_democ	-45.819* (19.439)	-54.599* (23.679)	-46.119* (21.567)	-54.497* (26.327)
elect_democ ²	-18.812* (7.334)	-11.137 (9.390)	-20.720* (8.505)	-13.017 (8.363)
ps_corr ²	-5.543 (7.091)	-7.879 (9.291)	-4.722 (4.304)	-6.882 (9.054)
Year fixed effects	No	No	Yes	Yes

(continued on next page)

Table A6 (continued)

Dependent variable	Baseline	Controls	Years FE	All
Trade misinvoicing	(1)	(2)	(3)	(4)
Control variables	Yes	Yes	Yes	Yes
Electoral cycle	no	yes	no	yes
Observations	468	416	468	416
R ² within	0.075	0.074	0.085	0.087
R ² between	0.196	0.230	0.191	0.223
R ² overall	0.107	0.136	0.103	0.131

Cluster standard errors at the sub-regional level are shown in parentheses; * $p < 0.1$, ** $p < 0.05$, *** $p < 0.01$.

Data availability

Data will be made available upon request.

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