

TAX COMPLIANCE METRICS IN EMERGING ECONOMIES: LESSONS FROM ECUADOR AND ITS REGIONAL NEIGHBORS

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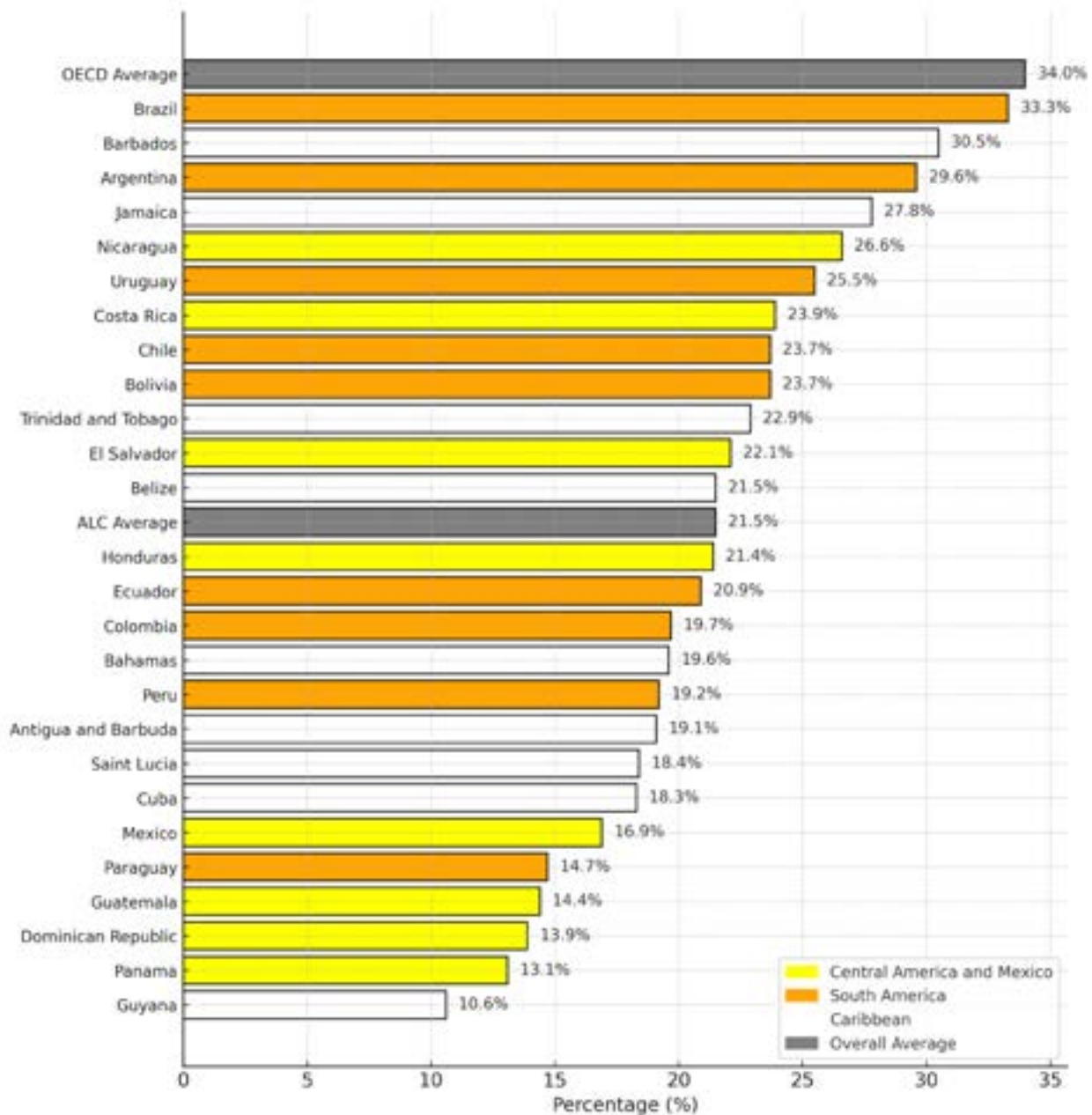
INTRODUCTION

In emerging economies, tax compliance goes beyond technical aspects: it reflects citizens' trust in their governments and serves as a cornerstone for sustainable development. Latin America, a region marked by high levels of informality and inequality, faces significant challenges in building inclusive and efficient fiscal systems. Without a robust tax base, nations struggle to finance essential services such as education, healthcare, and infrastructure, perpetuating social and economic disparities.

This article explores the fiscal advances and challenges faced by Ecuador, highlighting how the adoption of digital technologies and structural reforms have boosted revenue collection and improved transparency. Simultaneously, it examines persistent barriers such as tax evasion and the informal economy—issues that affect Ecuador and its regional neighbors alike. Through comparative analysis, the article identifies key lessons that can be applied to other emerging economies, including those in the Caribbean, where similar contexts present opportunities for mutual learning.

Beyond the numbers, the article emphasizes the transformative impact of technology, transparency, and fiscal education on the relationship between the state and taxpayers. This approach not only underscores the importance of strengthening citizen trust but also offers practical insights for building equitable tax systems that promote sustainable and inclusive development, both in Latin America and globally.





THE TAX LANDSCAPE IN EMERGING ECONOMIES

Latin America presents a complex dynamic in fiscal terms. The region grapples with structural inequalities, high levels of informality, and a disproportionate tax burden on certain sectors. According to the 2024 Tax Statistics Report for Latin America and the Caribbean, the region's average tax revenue as a percentage of GDP was 21.5% in 2022, significantly below the OECD average of 34%.¹

This disparity reflects historical challenges that have hindered countries' ability to mobilize domestic resources. These include a lack of diversification in tax bases, low progressivity in tax systems, and a heavy reliance on indirect taxes like VAT, which account for a significant share of fiscal revenues compared to direct taxes.

Region	VAT Collection Ratio	VAT Rate (%)
Central America and Mexico	0.49	13.6
Costa Rica	0.50	13.0
Dominican Republic	0.38	18.0
El Salvador	0.73	13.0
Guatemala	0.52	12.0
Honduras	0.52	15.0
Mexico	0.33	16.0
Nicaragua	0.52	15.0
Panama	0.41	7.0
South America	0.60	16.8
Argentina	0.47	21.0
Bolivia	0.71	13.0
Chile	0.42	19.0
Colombia	0.81	19.0
Ecuador	0.69	12.0
Paraguay	0.58	10.0
Peru	0.45	18.0
Uruguay	0.64	22.0
Caribbean	0.71	13.6
Antigua and Barbuda	1.26	15.0
Bahamas	0.62	10.0
Barbados	0.71	17.5
Belize	0.22	15.0
Guyana	0.73	14.0
Jamaica	0.59	12.5
Saint Lucia	0.81	15.0
Trinidad and Tobago	0.58	12.0
ALC Average	0.56	14.7
OECD Average (2020)	0.56	19.1

Ecuador, with a tax revenue equivalent to 20.9% of GDP in 2022, exemplifies the advances and challenges faced by emerging economies. One of the most notable measures implemented is the adoption of electronic invoicing, which has raised the VAT collection ratio to an impressive 0.81, significantly above the Latin American and Caribbean average of 0.58. This indicator reflects greater efficiency in revenue collection, driven by process digitization and institutional strengthening in tax administration.

Nevertheless, high economic informality, affecting 60% of workers in the region, remains a structural challenge that undermines fiscal equity. The inability to capture transactions outside the formal system not only complicates the expansion of the tax base but also perpetuates a fiscal model in which the tax burden disproportionately affects

a small segment of the formalized population. Addressing this issue requires innovative policies that combine incentives for formalization with stronger enforcement measures.

Furthermore, the perception of fiscal justice and the efficiency of public resource allocation play a crucial role in tax compliance. When citizens perceive that their taxes do not translate into quality public services or that corruption levels are high, their willingness to fulfill tax obligations decreases dramatically. Ecuador, like other countries in the region, faces the challenge of strengthening citizen trust through greater transparency and accountability.

TAX COMPLIANCE METRICS: TOOLS FOR DIAGNOSIS AND IMPROVEMENT

Among the main metrics is the voluntary compliance rate, which reflects the percentage of taxpayers who declare and pay taxes within the established deadlines. This indicator not only measures the willingness of citizens to comply with their tax obligations, but is also a reflection of the perceived fairness of the tax system and the level of trust in tax institutions.

Another important indicator is the tax gap, which measures the difference between potential tax revenues and actual collections. This data highlights inefficiencies in tax administration, evasion problems and possible deficiencies in tax legislation. Bridging this gap is essential to ensure fiscal sustainability and foster tax justice, as uncollected revenues limit the government's ability to finance public policies.

The cost of compliance is also a critical aspect. It measures the resources that taxpayers must allocate to comply with their tax obligations, including time, administrative costs and access to digital tools. A high cost of compliance can discourage compliance, especially among small taxpayers, micro-enterprises, and informal sectors.

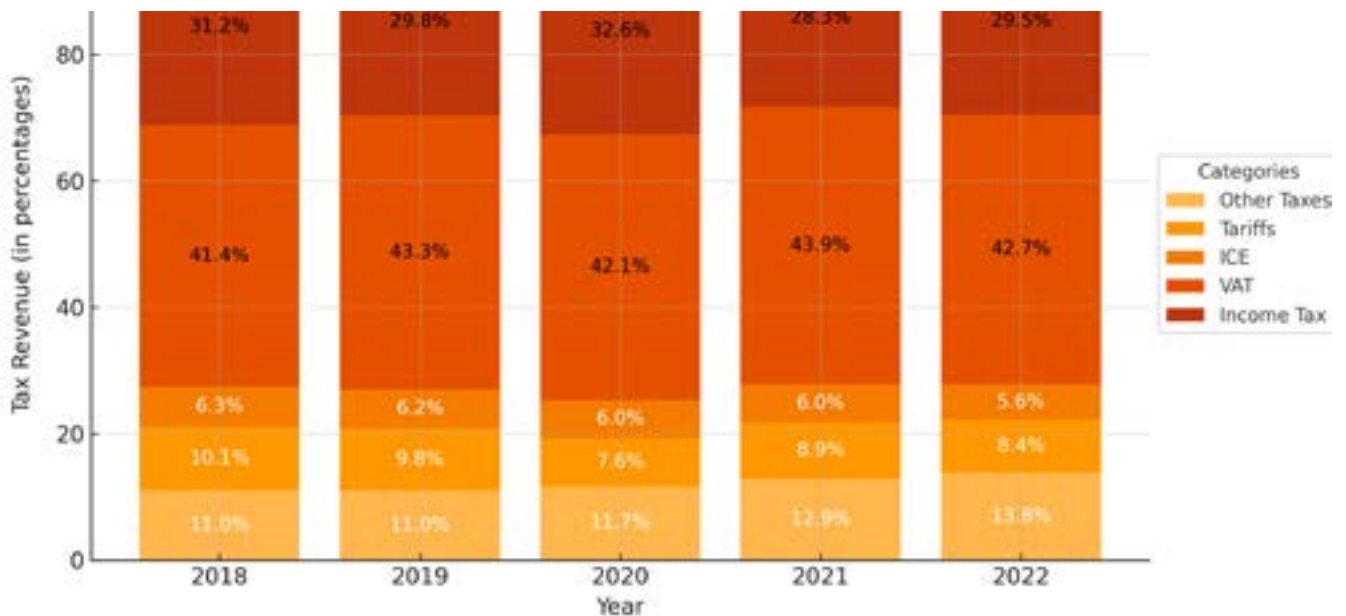
Finally, it is important to consider indicators that evaluate taxpayers' perception of the quality of tax administration services. Aspects such as the ease of use of digital platforms, the speed of responses to queries and the clarity of regulations have a significant, albeit indirect, impact on voluntary compliance and the legitimacy of the tax system. All these elements allow for a

more complete view of fiscal performance and contribute to the design of more effective and socially accepted public policies.

ECUADOR'S CASE: FACTORS BEHIND ITS HIGH VAT COLLECTION RATIO

In Ecuador, the high VAT collection ratio compared to the regional average reflects the effectiveness of several key measures. According to the 2024 Tax Statistics Report for Latin America and the Caribbean, the implementation of electronic invoicing has been a decisive factor, enabling more efficient control over commercial transactions and significantly reducing tax evasion. This technology has improved the traceability of operations and lowered compliance costs for taxpayers, facilitating their interaction with the tax system.²

On average, VAT accounted for 42.7% of Ecuador's total tax revenues between 2018 and 2022, making it the tax with the greatest weight in total revenue—12 percentage points higher than the second most important tax, income tax.³ Moreover, its share has remained relatively stable during this period. In Latin America and the Caribbean, VAT accounted for 33.4% of total tax revenues in 2019 (the last pre-pandemic year), excluding social security contributions. In Ecuador, this share was 43.3% during the same year, according to the Ministry of Economy and Finance.⁴



Until 2024, Ecuador had one of the lowest VAT rates in Latin America. Until mid-2023, Ecuador and Guatemala shared the third-lowest rate in the region (12%), surpassed only by Panama (7%) and Paraguay (10%). The rate has now been permanently raised to 13% and will progressively increase to 15% by the 2025 fiscal period.

The progressive implementation of electronic invoicing has become a fundamental pillar for the success of VAT in Ecuador. This system has allowed the Internal Revenue Service to monitor commercial transactions in real time, promoting greater traceability and transparency in the country's economic operations.

Among the most prominent benefits is the reduction of tax evasion, since the digital registration of transactions makes it difficult to under-declare income, a recurring problem in the region. In addition, e-invoicing has significantly improved the control of value chains, allowing VAT compliance to be verified at each stage of the production process and thus reducing irregularities.

In addition to these aspects, the system offers greater convenience for taxpayers. Automating processes reduces errors and the time needed to declare and pay taxes, incentivizing voluntary compliance and strengthening the relationship between citizens and the tax administration. Overall, e-invoicing represents a crucial step towards a more efficient, fair, and modern tax system.

Ecuador has significantly increased tax revenues by diversifying its tax base, introducing temporary taxes, and digitizing fiscal processes. These measures have reduced compliance costs for taxpayers and improved administrative efficiency, facilitating voluntary adherence to the tax system.⁵ Simplified procedures and integrated digital platforms have removed barriers to compliance, while data-driven targeted audits have strengthened the state's capacity to mobilize resources sustainably.

INNOVATIONS IN TAX POLICIES IN THE REGION

Latin America has witnessed significant advances in the use of technologies to enhance the efficiency and transparency of tax administrations. One notable innovation has been Colombia's adoption of artificial intelligence (AI) in its tax processes. These tools have identified inconsistencies in tax returns by analyzing data patterns, improving the government's ability to conduct targeted audits and combat tax evasion.

Colombia stands out for its use of advanced technologies in audits and fiscal controls. According to Colombia's Ministry of Finance, the implementation of analytical tools to detect tax evasion has bolstered revenue collection, although challenges related to informality persist. A report by the DIAN highlights that "AI-based audits have increased tax revenues by 15%".⁶

In Peru, the introduction of electronic invoicing has transformed how economic transactions are tracked, establishing a reference model for other countries. This system has not only improved traceability and transparency but also reduced tax evasion by approximately 2% of GDP since its implementation in 2016.⁷ These examples demonstrate how technological innovation can serve as a key catalyst for fiscal modernization in emerging economies.

Artificial intelligence has become an essential tool for improving tax collection, with applications that have demonstrated significant results in various areas. One of the most important is the detection and prevention of tax evasion. Through the analysis of large volumes of data

and the use of predictive algorithms, AI makes it possible to identify irregular patterns in tax returns, making it easier to detect fraudulent companies and suspicious transactions. Likewise, its ability to cross-reference information has optimized the recovery of evaded taxes. In addition, the automation of tax processes through intelligent systems has simplified administrative tasks and improved interaction with taxpayers, making the system more efficient and accessible.

In Ecuador, tax administrations are moving towards transformation with the implementation of the Tax and Customs Administration Improvement Program, known as "Orion". This program aims to optimize the operational efficiency of the Internal Revenue Service (SRI) and the National Customs Service of Ecuador (SENAE), the main tax administrations of the country.

Through the incorporation of artificial intelligence, Orion seeks to increase voluntary compliance with tax obligations, combat tax evasion and strengthen the relationship between citizens and tax authorities. This is achieved by implementing more efficient and effective processes that promote transparency and improve interaction with taxpayers.

However, the integration of AI into tax administrations presents significant challenges from a legal point of view, particularly with regard to the modernization of regulations. The use of AI requires legal systems to adapt to regulate the use of personal data, ensure transparency in audit processes, and prevent abuses by tax authorities.



SOCIOECONOMIC FACTORS AND THEIR IMPACT ON TAX COMPLIANCE

Tax compliance in Latin America is influenced by socioeconomic and structural factors that directly affect fiscal dynamics. Variables such as per capita income, financial education, and the perception of fairness in the tax system play a crucial role in citizens' willingness to comply with their tax obligations. In emerging economies such as Ecuador and Bolivia, economic informality represents a major barrier to efficient collection, affecting approximately 60% of workers in the region, according to the ILO. This phenomenon significantly limits the tax base and perpetuates fiscal inequality.

Tax education emerges as a key tool to improve tax compliance. According to the World Bank, strengthening tax education can increase compliance levels by up to 20%.⁸ Campaigns in this area not only inform taxpayers about their obligations, but also raise awareness about the

positive impact of taxes on public services. In countries such as Ecuador, initiatives such as fiscal transparency portals and accountability campaigns have improved trust between taxpayers and institutions, increasing citizens' willingness to comply with their tax obligations.⁹ A notable example is the Internal Revenue Service (SRI) where taxpayers can access information on the taxes assessed and paid by any individual or legal entity through the official mobile application "SRIMovil". This tool provides public access to such data without requiring login credentials, ensuring a transparent and accessible system. Additionally, the website provides public access to information on outstanding tax debts, promoting a system of accountability that encourages tax compliance.¹⁰

Similarly, all public institutions that manage state resources have fiscal transparency sections on their websites, as mandated by Ecuadorian law. These sections allow users to download detailed breakdowns of each entity's annual expenses, including information on salaries, contracts executed during the year, and specific details of each transaction. For instance, the Ministry of Finance Transparency¹¹, Ministry of Public Works¹² and Ecuadorian Institute of Social Security¹³ portals enable that information.

On the other hand, tax evasion, which represents 6.1% of regional GDP according to ECLAC, generates losses estimated at more than 300,000 million dollars per year. This phenomenon, together with high informality, limits the ability of governments to finance essential services. In addition, the cost of tax compliance can be a significant barrier, especially in low-income countries, where regulatory complexity affects small taxpayers and informal sectors. To mitigate these problems, policies such as simplified regimes for microenterprises have been designed, which facilitates the transition to formality and reduces administrative burdens.

Insufficient administrative capacities also represent a significant challenge. The IDB estimates that adequate institutional strengthening could increase tax revenues by 15%. However, the implementation of more complex tax policies requires a comprehensive modernization of tax administrations. In addition, cultural and regional differences, such as limited access to tax education and digital connectivity in rural areas, make compliance difficult.

In response, administrations such as the Internal Revenue Service in Ecuador have implemented mobile and digital programs to bring tax services closer to remote communities.

Together, these factors underscore the urgent need for comprehensive strategies that combine tax education, regulatory simplification, combating evasion, and modernizing tax institutions, with the aim of building more effective, equitable, and sustainable systems in the region.¹⁴



CONCLUSION

Tax compliance is an essential component for ensuring fiscal sustainability and promoting inclusive development in emerging economies. Latin America has made significant progress in areas such as digitization and technological innovation, but structural challenges persist, particularly in informality, tax evasion, and the administrative capacities of tax institutions.

Ecuador and its neighbors have provided valuable examples of how to tackle these challenges. These strategies have not only increased the VAT collection ratio and improved transaction traceability but also fostered greater voluntary adherence to the tax system. To replicate these successes, countries in the region must focus their efforts on strengthening institutional capacities, investing in tax education, and fostering transparency to ensure that collected resources

translate into tangible benefits for society. Ultimately, building strong tax systems will not only strengthen public finances but also enable nations in the region to advance toward greater equity, fiscal justice, and economic sustainability.



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¹ Tax Statistics in Latin America and the Caribbean, OECD 2024 - p. 14.

² Internal Revenue Service of Ecuador (SRI), Annual Report 2023, p. 45.

³ United Nations Development Programme 2023 for Latin America and the Caribbean, p. 10.

⁴ Ibid., p. 11.

⁵ Internal Revenue Service of Ecuador (SRI), Collection Report 2022, p. 35.

⁶ National Directorate of Taxes and Customs (DIAN), Results Report 2023, p. 27.

⁷ National Superintendence of Customs and Tax Administration (SUNAT), Electronic Invoicing Report 2022, p. 30.

⁸ World Bank, Tax Education Report 2022, p. 18.

⁹ Transparency International, Public Expenditure Report 2023, p. 11.

¹⁰ <https://srienlinea.sri.gob.ec/sri-en-linea/SriPagosWeb/ConsultaDeudasFirmesImpugnadas/Consultas/consultaDeudasFirmesImpugnadas>

¹¹ <https://www.finanzas.gob.ec/transparencia/>

¹² <https://www.obraspublicas.gob.ec/transparencia/>

¹³ <https://www.iess.gob.ec/transparencia/>

¹⁴ Inter-American Development Bank (IDB), Administrative Capacities Report 2023, p. 34.