International Journal of Computer Information Systems and Industrial Management Applications
ISSN 2150-7988 Volume 18(16s) 2026 pp. 1671-1685
https://doi.org/10.70917/ijcisim-2026-4665
Article

Effectiveness of Tax Collection, Tax Equity, and Business Competitiveness: A Comparative Analysis of Tax Systems in Latin America

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Abstract: Latin American tax systems are simultaneously asked to do three things that often pull in opposite directions: raise adequate and stable revenue, redistribute income in the most unequal region in the world, and remain attractive to firms and investors. This paper develops an integrated, indicator-based framework to compare how fourteen Latin American countries perform along these three dimensions—collection effectiveness, tax equity, and business competitiveness—using harmonised data compiled from OECD/ECLAC/CIAT/IDB Revenue Statistics, ECLAC fiscal-panorama estimates, and firm-level tax-administration indicators for a common 2023–2024 benchmark. We construct three composite indices through min–max normalisation, examine their pairwise associations, and derive a country typology using Ward hierarchical clustering. Three findings stand out. First, collection effectiveness and tax equity are strong complements ($r = 0.78$): countries that mobilise more revenue also redistribute more, because both depend on the same under-developed direct-tax capacity. Second, business competitiveness—proxied by compliance time and the total tax-and-contribution rate on firms—is mildly and negatively associated with the other two pillars ($r = -0.36$ and -0.22), indicating a real but moderate policy tension rather than an insurmountable trade-off. Third, the region splits into four archetypes—low-mobilisation/business-light systems, a high-burden low-yield outlier, high-mobilisation/high-burden systems, and a balanced-competitive group led by Uruguay, Chile and Costa Rica—each facing a distinct reform frontier. The results imply that the region's central fiscal problem is not an equity–efficiency trade-off per se but a shared deficit in progressive direct taxation, high informality, and administrative complexity that erodes all three objectives at once. We discuss reform priorities, including Brazil's 2023 consumption-tax overhaul, and the conditions under which broadening the personal-income-tax base can advance effectiveness and equity without undermining competitiveness.

Keywords: tax systems; tax collection; fiscal equity; redistribution; business competitiveness; tax compliance; Latin America; comparative fiscal policy

1. Introduction

Taxation sits at the centre of the development problem in Latin America. It is the principal instrument through which states finance public goods, the most powerful lever they hold to correct a historically extreme distribution of income, and one of the institutional conditions that firms weigh when they decide where to invest, hire, and formalise. Yet these three purposes—raising revenue efficiently, distributing the burden fairly, and preserving a competitive environment for enterprise—are frequently framed as competing ends, forcing governments into uncomfortable trade-offs. The region's persistent combination of comparatively low revenue, stubbornly high inequality, and a business climate weighed down by administrative complexity suggests that the trade-offs are real. Whether they are as binding as they are usually assumed to be is an empirical question that this paper takes up directly.

The starting point is a set of stylised facts. The unweighted average tax-to-GDP ratio in Latin America and the Caribbean stood at 21.3% in 2023 and 21.7% in 2024, roughly twelve percentage points below the OECD average of 33.9% (OECD et al., 2025, 2026). Within the region, revenue effort ranges from close to 12% of GDP in parts of Central America to 32% in Brazil, a dispersion wider than in any comparable grouping of economies. At the same time, the region remains the most unequal in the world, and its tax-and-transfer systems do strikingly little to change that: direct taxes and cash transfers reduce the Gini coefficient by only about three points on average, against roughly seventeen points in the European Union, and most of even that modest effect comes from transfers rather than taxes (Hanni, Martner & Podestá, 2015; Lustig, 2018). Firms, meanwhile, confront some of the world's heaviest compliance burdens; a Brazilian company spends on the order of 1,500 hours a year meeting its tax obligations, roughly nine times the OECD norm.

These facts are individually well documented, but they are rarely analysed together within a single comparative framework. The literature has tended to specialise: one strand studies revenue mobilisation and tax effort; a second studies the incidence and redistributive impact of taxes and transfers; a third studies the effect of tax burdens and compliance costs on investment and firm behaviour. Each strand has produced valuable country and regional evidence, but the compartmentalisation obscures precisely the question that most concerns finance ministries—how the three objectives move together, where they genuinely conflict, and where a single reform could advance more than one of them at once.

This paper addresses that gap. We ask three questions. (i) How do Latin American tax systems perform, comparatively, along the dimensions of collection effectiveness, tax equity, and business competitiveness? (ii) Are these dimensions substitutes, as the conventional efficiency–equity framing implies, or are some of them complements? (iii) Do countries cluster into distinct fiscal archetypes with shared reform frontiers, and if so, what does the typology imply for policy sequencing?

To answer them we assemble a harmonised, multi-source dataset for fourteen Latin American economies for a common 2023–2024 benchmark and build three composite indices—a Collection Effectiveness Index, a Tax Equity Index, and a Business Competitiveness Index—through transparent min–max normalisation of underlying indicators. We then examine the pairwise associations among the pillars and use Ward hierarchical clustering to derive a country typology. The approach is deliberately transparent and reproducible rather than reliant on a single opaque summary measure.

The paper makes three contributions. Conceptually, it integrates three usually-separate evaluative criteria into one comparative structure and shows that the region's core difficulty is better described as a shared capacity deficit than as a simple equity–efficiency trade-off. Empirically, it documents that effectiveness and equity are strong complements in Latin America—both anchored in the same weak direct-tax base—while competitiveness is only mildly in tension with them. Practically, it offers a policy-relevant taxonomy that maps each group of countries to a differentiated reform agenda, and situates recent reforms, notably Brazil's 2023 consumption-tax overhaul, within that map.

The remainder of the paper is organised as follows. Section 2 reviews the theoretical and empirical literature and states the hypotheses. Section 3 describes the data, indicators, and analytical strategy. Section 4 presents the comparative results, the composite indices, and the country typology. Section 5 discusses the findings and their policy implications, and Section 6 concludes with limitations and avenues for future research.

2. Theoretical framework and literature review

Public-finance theory has long organised the evaluation of tax systems around a small number of criteria: adequacy and stability of revenue, efficiency, equity, and administrative feasibility (Musgrave, 1959; Tanzi & Zee, 2000). We group these into the three dimensions that structure our analysis and that most directly capture the tensions facing Latin American policymakers.

2.1 Collection effectiveness and fiscal capacity

Collection effectiveness refers to a state's ability to convert its economic base into public revenue reliably and at reasonable cost. The dominant explanation for why developing countries 'tax so little' emphasises the joint evolution of fiscal capacity and economic structure: informality, a large agricultural or subsistence sector, and weak enforcement institutions all shrink the effectively taxable base (Kaldor, 1963; Besley & Persson, 2014). In Latin America this manifests as heavy reliance on indirect taxes—value-added and other taxes on goods and services—which are administratively easier to collect than personal income taxes but tie revenue to consumption cycles and commodity prices (Cornia, Gómez-Sabaíni & Martorano, 2011; Corbacho, Fretes Cibils & Lora, 2013).

A central obstacle is non-compliance. ECLAC estimates that revenue lost to tax evasion and avoidance reached roughly 6.7% of regional GDP (about USD 433 billion) in 2023, of which income taxes account for some 4.6 points and VAT for around 2.1 points (OECD et al., 2026; Gómez Sabaíni & Morán, 2016). Informal employment, which exceeds half of the workforce in most of the region, both reflects and reinforces this weak base, because it removes labour income from the reach of withholding and self-assessment (Bird & Zolt, 2005). Effectiveness, then, is not merely a function of statutory rates; it depends on base breadth, enforcement quality, and the structural share of activity that administrations can actually observe.

2.2 Tax equity and redistribution

Equity has two classical dimensions—horizontal (equal treatment of equals) and vertical (heavier burdens on those with greater ability to pay)—and its ultimate expression is the redistributive effect of the fiscal system, measured as the gap between pre-fiscal and post-fiscal inequality (Lambert, 2001; Lustig, 2018). Latin America is an outlier on this criterion. Comparable incidence studies using the Commitment to Equity methodology find that the combined effect of direct taxes and cash transfers reduces the Gini coefficient by only about three points on average, with the bulk of the reduction attributable to transfers rather than to taxes (Hanni et al., 2015; Goñi, López & Servén, 2011).

The structural cause is the weakness of the personal income tax. Across the region, personal income tax raises on average under 2% of GDP, and effective rates at the top of the distribution are strikingly low—in several countries the richest decile pays only 1–3% of gross income in personal income tax, far below the rates borne by wage earners subject to withholding (ECLAC & Oxfam, 2016; Barreix, Benítez & Pecho, 2017). Because so much revenue is raised from consumption, the overall system is at best mildly progressive and in some cases regressive once indirect taxes are accounted for (Jiménez, 2015). Strengthening equity therefore points back to the same instrument—direct taxation—whose weakness also constrains effectiveness, a linkage central to our analysis.

2.3 Business competitiveness and the tax environment

From the firm's perspective, what matters is not only the statutory rate but the total burden and the cost of complying with it. The relevant margins are the total tax-and-contribution rate on business profits, the time and resources absorbed by filing and payment, and the complexity and predictability of the rules (Djankov et al., 2010;

Slemrod, 2019). High compliance costs fall disproportionately on smaller firms, discourage formalisation, and can blunt investment and entrepreneurship even when headline rates are moderate.

Latin America performs poorly on these margins. Compliance-time indicators place several economies far above global norms—most dramatically Brazil, whose multi-layered indirect-tax system generated a compliance burden of around 1,500 hours per year and motivated the landmark 2023 reform that replaces a thicket of federal and sub-national levies with a dual value-added tax (RSM, 2025). Total tax-and-contribution rates on firms also vary widely, exceeding 100% of commercial profit in the most burdensome cases. Competitiveness, however, is not simply the inverse of the tax level: well-designed systems can raise substantial revenue with low compliance costs, which is precisely why the relationship between this pillar and the other two is an empirical rather than a definitional matter.

2.4 The three-way nexus and hypotheses

The conventional framing treats equity and efficiency (here, competitiveness) as substitutes: more redistribution requires higher and more distorting taxes, which harm the business environment. But a capacity-centred reading suggests a different structure. If the binding constraint is under-developed direct-tax capacity, then the instrument that would raise effectiveness (a broader, better-enforced income tax) is also the instrument that would raise equity—making the two complements rather than substitutes. Competitiveness may be in tension with both, but the tension is mediated by administrative design; complexity, not the tax level alone, is what damages the business climate.

We therefore test three hypotheses. **H1**: collection effectiveness and tax equity are positively associated across Latin American countries, because both depend on direct-tax capacity. **H2**: business competitiveness is negatively but only moderately associated with effectiveness and equity, reflecting a design-mediated rather than mechanical trade-off. **H3**: countries form a small number of distinct fiscal archetypes, each with a characteristic profile across the three pillars and hence a differentiated reform frontier.

3. Data and methodology

3.1 Sample and sources

The sample comprises fourteen Latin American economies—Argentina, Bolivia, Brazil, Chile, Colombia, Costa Rica, the Dominican Republic, Ecuador, Guatemala, Mexico, Panama, Paraguay, Peru, and Uruguay—selected for data availability across all three pillars and to span the region's sub-regional and structural diversity. Together they account for the large majority of regional GDP and population. Indicators are compiled for a common 2023–2024 benchmark; where an indicator is only available with a lag, the latest comparable observation is used, following standard practice in cross-country fiscal comparisons. Revenue and tax-structure data draw on the OECD/ECLAC/CIAT/IDB Revenue Statistics in Latin America and the Caribbean (2025, 2026); equity and redistribution indicators draw on ECLAC fiscal-panorama and Commitment-to-Equity–type studies; and business-environment indicators draw on World Bank firm-level tax-administration data and statutory rate sources.

3.2 Variables and indicators

Table 1 reports the underlying indicators for each country. Table 2 defines each variable, its expected direction of effect on the corresponding pillar, and its source family. The indicators were chosen to be conceptually clean proxies for each pillar and to be available on a comparable basis across the sample.

Table 1. Comparative indicators of Latin American tax systems, 2023–2024 benchmark

Country	Tax/GDP (%)	VAT (%)	CIT (%)	Goods & serv. (% of total)	Total tax rate (% profit)	Compliance (hrs/yr)	PIT/GDP (%)	Informality (%)
Argentina	27.8	21	35.0	42	106	312	2.0	42

Bolivia	24.7	13	25.0	55	84	1,017	0.3	80
Brazil	32.0	17*	34.0	44	65	1,501	2.9	39
Chile	20.7	19	27.0	53	34	296	2.3	27
Colombia	19.9	19	35.0	40	72	256	1.4	58
Costa Rica	24.9	13	30.0	48	58	151	1.6	37
Dominican Rep.	13.9	18	27.0	54	47	317	1.5	55
Ecuador	19.6	15	25.0	52	34	664	1.3	65
Guatemala	12.4	12	25.0	56	35	248	0.4	71
Mexico	17.7	16	30.0	47	55	241	3.9	55
Panama	12.7	7	25.0	40	37	408	1.9	46
Paraguay	13.9	10	10.0	58	35	378	0.3	63
Peru	17.0	18	29.5	50	37	260	2.2	71
Uruguay	27.0	22	25.0	49	42	163	3.3	24

Note. *VAT = standard value-added-tax rate; CIT = statutory corporate income tax rate; PIT = personal income tax. *Brazil's principal consumption tax (ICMS) is levied at the state level with varying rates; an approximate representative rate is shown pending the 2026–2033 transition to the dual VAT (IBS/CBS). Total tax rate = total tax-and-contribution rate on commercial profit. Compiled by the authors from OECD et al. (2025, 2026), ECLAC, World Bank, and statutory sources; several rate figures are representative and may differ across regimes and firm types.*

Table 2. Variables, pillar mapping, expected direction, and sources

Variable	Pillar	Direction	Source family
Tax revenue (% GDP)	Effectiveness	+	OECD/ECLAC/CIAT/IDB Revenue Statistics
Informal employment (%)	Effectiveness	–	ILO/ECLAC labour statistics
Redistribution (Gini points)	Equity	+	ECLAC; CEQ incidence studies
Personal income tax (% GDP)	Equity	+	OECD/ECLAC Revenue Statistics
Goods & services tax share (%)	Equity	–	OECD/ECLAC Revenue Statistics
Compliance time (hrs/year)	Competitiveness	–	World Bank firm tax indicators
Total tax & contribution rate (%)	Competitiveness	–	World Bank firm tax indicators
Household-income Gini	Context	n.a.	World Bank / ECLAC (BADEHOG)

Note. *Direction indicates the sign with which each indicator enters its pillar index (higher raw value improves the pillar when '+', worsens it when '–'). The household-income Gini is used as context and for the equity scatter, not as a pillar component, to avoid double-counting the redistribution outcome.*

3.3 Analytical strategy

We proceed in three steps. First, we construct three composite indices. Each underlying indicator is rescaled to a 0–100 range by min–max normalisation, $x' = 100 \cdot (x - \min)/(\max - \min)$, reversing the sign for indicators that worsen a pillar (informality, goods-and-services share, compliance time, and the total tax rate). The Collection Effectiveness Index (CEI) averages the normalised tax-to-GDP ratio and (inverted) informality; the Tax Equity Index (TEI) averages normalised redistribution, personal-income-tax revenue, and the inverted goods-and-services share; the Business Competitiveness Index (BCI) averages the inverted compliance time and inverted total tax rate. Equal weighting within each pillar is used for transparency and to avoid imposing contestable a-priori importance weights; the composite score is the simple mean of the three pillar indices.

Second, we assess the associations among the pillars using Pearson correlations, which speak directly to the substitute-versus-complement question in hypotheses H1 and H2. Third, we derive a country typology using Ward's agglomerative hierarchical clustering on the three standardised pillar scores, choosing a four-cluster solution on the basis of the dendrogram's linkage structure and interpretability. Clustering is well suited to H3 because it groups countries by their full three-dimensional profile rather than by any single ranking.

Two features of the design merit emphasis. The framework is intentionally transparent and reproducible: every transformation is explicit and the indices can be recomputed from Table 1. And it is descriptive-comparative rather than causal; the correlations and clusters characterise the region's structure of fiscal outcomes, they do not identify treatment effects. Section 5 returns to this limitation.

4. Results

4.1 Collection effectiveness

Figure 1 displays the revenue effort of the fourteen economies against the regional and OECD benchmarks. The dispersion is the dominant feature: Brazil (32.0%), Argentina (27.8%) and Uruguay (27.0%) mobilise revenue at levels approaching the lower end of the OECD range, whereas Guatemala (12.4%), Panama (12.7%), Paraguay and the Dominican Republic (both 13.9%) collect barely more than a third as much relative to the size of their economies. The sample mean of 20.3% sits just below the regional average of 21.3%, and every country in the sample falls short of the 33.9% OECD benchmark.

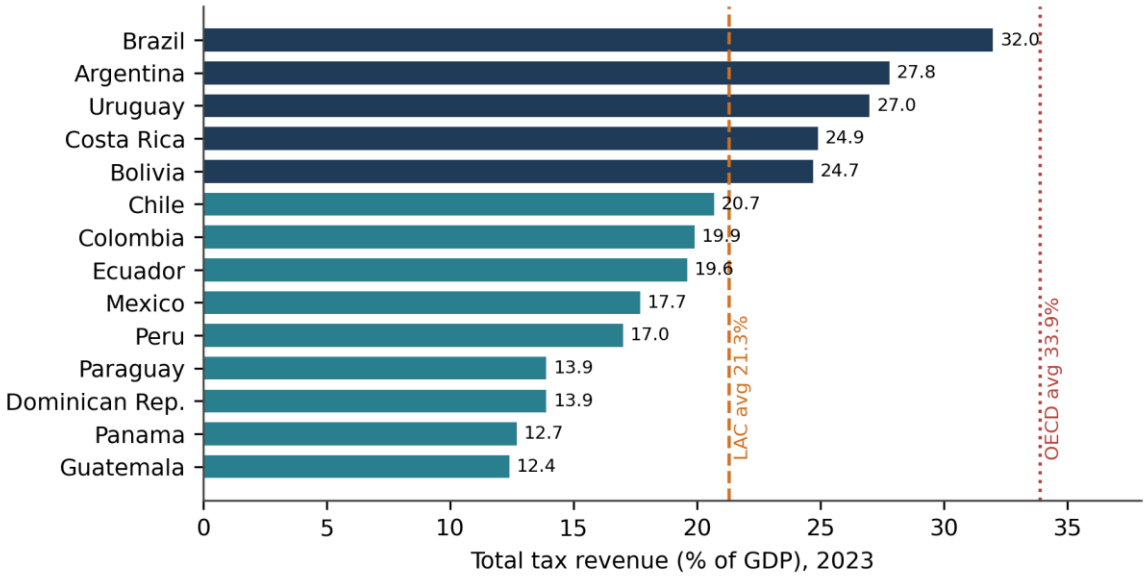

Figure 1. *Total tax revenue as a share of GDP, 2023, against the LAC (21.3%) and OECD (33.9%) averages. Countries above the regional average are shaded darker. Source: authors' elaboration from OECD et al. (2025).*

The composition of that revenue is as telling as its level. Figure 2 decomposes tax revenue into taxes on goods and services and all other taxes. Across the sample, indirect taxes account for roughly half of total revenue on average (mean goods-and-services share of 49%), rising to 55–58% in Bolivia, Guatemala and Paraguay. This dependence on consumption taxation is the structural signature of the region's effectiveness problem: it is administratively convenient but base-narrow, procyclical, and—because personal income taxation is correspondingly thin—closely tied to the equity deficit examined next.

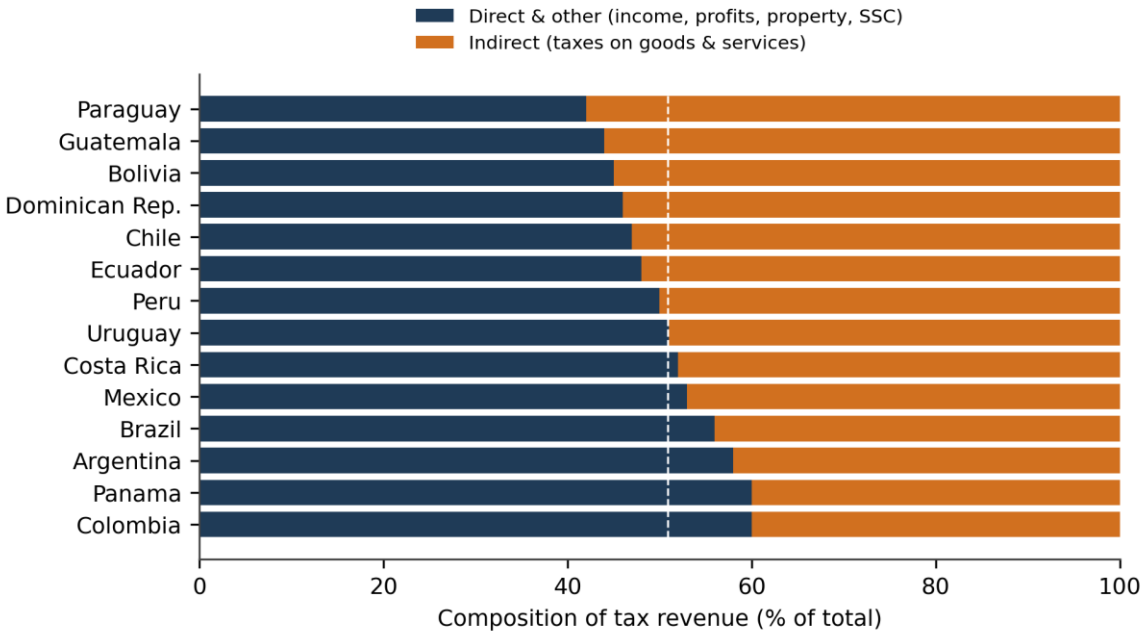

Figure 2. *Composition of tax revenue: direct and other taxes versus taxes on goods and services (% of total). The dashed line marks the sample mean. Source: authors' elaboration from OECD et al. (2025).*

4.2 Tax equity

Figure 3 places countries in the space defined by personal-income-tax capacity (horizontal axis) and the redistributive effect of direct taxes and transfers (vertical axis), with bubble size proportional to overall revenue effort and colour indicating the household-income Gini. The positive slope is clear: countries that raise more from the personal income tax also achieve larger reductions in inequality. Uruguay, Brazil and Argentina occupy the upper-right region, combining relatively strong direct-tax capacity with redistributive effects of 4.5–6.0 Gini points. Guatemala and Paraguay sit in the lower-left corner, raising virtually no personal income tax (0.3–0.4% of GDP) and reducing inequality by barely one point.

The magnitudes are sobering. The sample-average redistributive effect is under three Gini points, an order of magnitude below the roughly seventeen-point reduction achieved in advanced European systems. The region's fiscal systems are, in the aggregate, weak equalisers, and the reason is visible on the horizontal axis: personal income taxation averages 1.8% of GDP and only two countries exceed 3%. Equity in Latin America is constrained less by insufficient statutory progressivity than by the small size and narrow base of the progressive instrument itself.

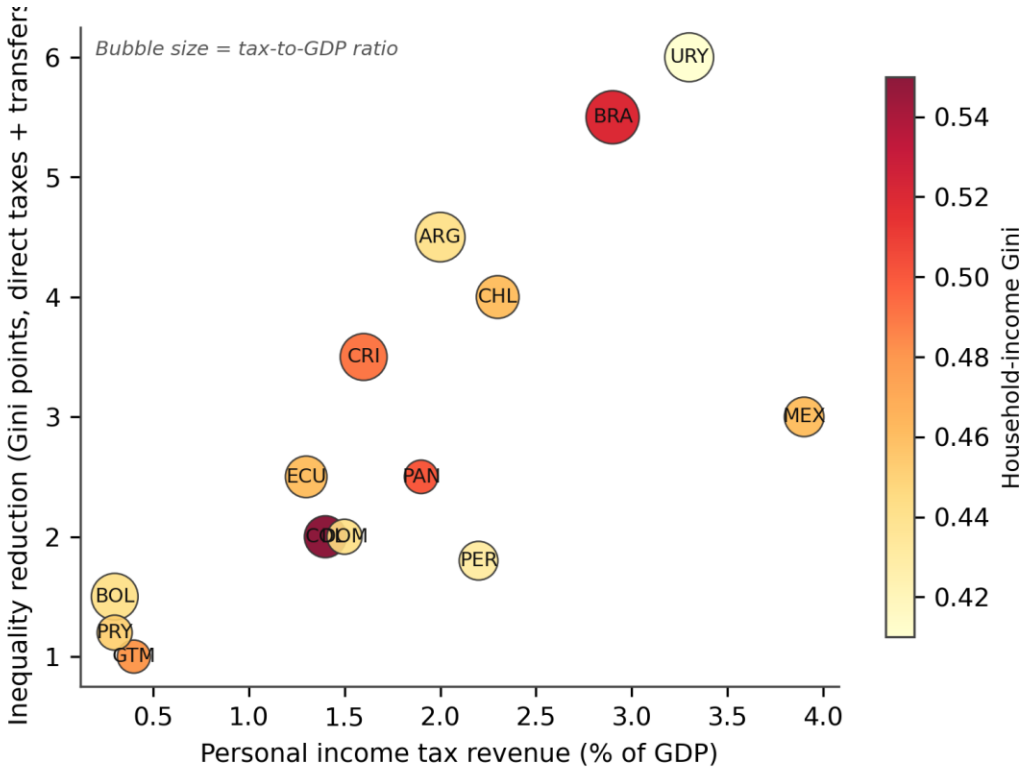

Figure 3. *The equity nexus: personal-income-tax capacity versus inequality reduction. Bubble size = tax-to-GDP ratio; colour = household-income Gini. Country codes are ISO-3. Source: authors' elaboration from ECLAC and OECD et al. (2025).*

4.3 Business competitiveness

Figure 4 combines the two competitiveness margins: the bars show the annual compliance time borne by a representative firm and the line shows the total tax-and-contribution rate on commercial profit. The two do not move in lockstep, which is itself informative. Brazil and Bolivia are extreme on compliance time (1,501 and 1,017 hours), reflecting layered, cumulative indirect-tax systems, while Argentina is extreme on the total tax rate (106% of profit) without the same compliance-time penalty. At the favourable end, Costa Rica (151 hours) and Uruguay (163 hours) combine low compliance time with moderate total rates, demonstrating that administrative simplicity and adequate revenue are not mutually exclusive.

The policy reading is that competitiveness problems in the region are, to a substantial degree, problems of design and administration rather than of the tax level as such. This is precisely the diagnosis behind Brazil's 2023 constitutional tax reform, which replaces multiple federal and sub-national consumption taxes with a dual value-added tax (IBS and CBS) phased in through 2033, with the explicit aim of collapsing compliance costs while broadly preserving revenue.

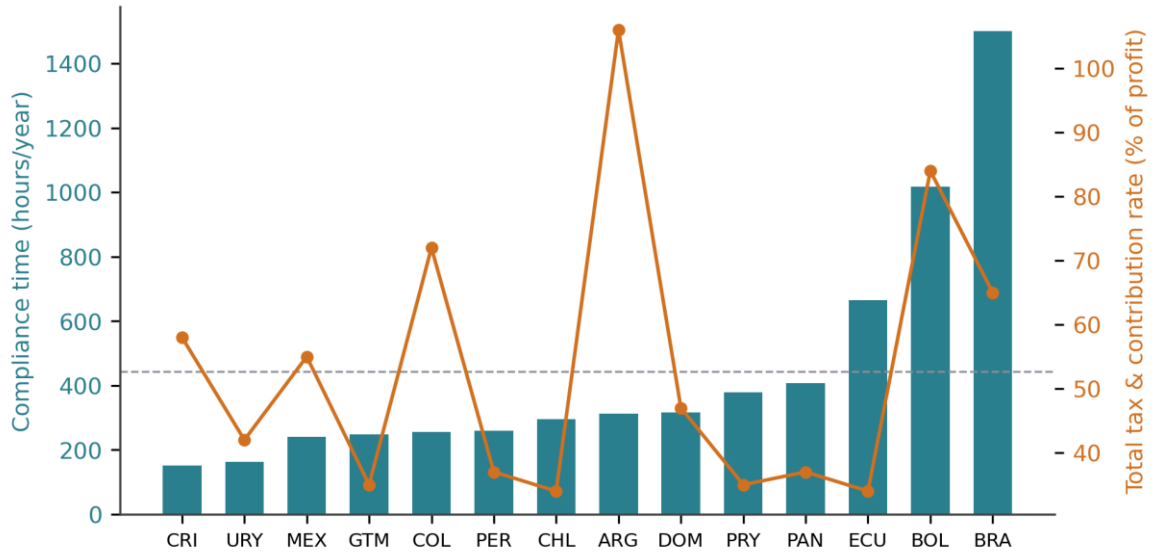

Figure 4. *Business tax environment: compliance time (bars, left axis) and total tax-and-contribution rate on profit (line, right axis). The dashed line marks mean compliance time. Source: authors' elaboration from World Bank firm-level indicators.*

4.4 Composite indices and the effectiveness–equity–competitiveness nexus

Table 3 reports descriptive statistics for the underlying indicators, and Table 4 the composite index scores and overall ranking. Table 5 reports the correlations among the three pillars.

Table 3. Descriptive statistics of underlying indicators (n = 14)

Indicator	Mean	SD	Min	Max
Tax revenue (% GDP)	20.30	6.20	12.40	32.00
Goods & services share (% total)	49.14	5.93	40.00	58.00
Personal income tax (% GDP)	1.81	1.09	0.30	3.90
Redistribution (Gini points)	2.93	1.57	1.00	6.00
Household-income Gini	0.47	0.04	0.41	0.55
Informal employment (%)	52.36	17.07	24.00	80.00
Compliance time (hrs/year)	443.71	379.14	151.00	1501.00
Total tax & contribution rate (%)	52.93	22.09	34.00	106.00
Corporate income tax rate (%)	27.32	6.26	10.00	35.00

Standard VAT rate (%)	15.71	4.29	7.00	22.00

Note. *Authors' calculations from the data in Table 1. SD = standard deviation.*

Table 4. Composite index scores and ranking

Rank	Country	CEI	TEI	BCI	Composite	Cluster
1	Uruguay	87.2	77.8	94.0	86.3	C4
2	Chile	68.5	47.8	94.6	70.3	C4
3	Costa Rica	70.3	47.2	83.3	66.9	C4
4	Brazil	86.6	80.0	28.5	65.0	C3
5	Argentina	73.2	68.7	44.0	62.0	C3
6	Mexico	35.8	67.0	82.1	61.6	C4
7	Panama	31.1	58.1	88.4	59.2	C4
8	Colombia	38.8	50.2	69.7	52.9	C4
9	Peru	19.8	37.7	93.9	50.5	C1
10	Ecuador	31.8	30.4	81.0	47.7	C1
11	Dominican Rep.	26.1	25.2	84.8	45.4	C1
12	Paraguay	19.0	1.3	90.9	37.1	C1
13	Guatemala	8.0	4.6	95.7	36.1	C1
14	Bolivia	31.4	8.9	33.2	24.5	C2

Note. *CEI = Collection Effectiveness Index; TEI = Tax Equity Index; BCI = Business Competitiveness Index; each on a 0–100 scale. Composite = simple mean of the three pillars. Cluster labels correspond to the typology in Section 4.5. Authors' calculations.*

Table 5. Pearson correlations among the three pillars

	CEI	TEI	BCI
CEI	1.00	0.78	−0.36
TEI	0.78	1.00	−0.22
BCI	−0.36	−0.22	1.00

Note. *Correlations computed across the fourteen countries on the pillar index scores. Authors' calculations.*

The pattern in Table 5 is the paper's central empirical result. Effectiveness and equity are strongly and positively correlated (r = 0.78), confirming hypothesis H1: the countries that mobilise more revenue are the same ones that redistribute more, because both capacities rest on the same foundation—a broad, well-enforced direct-tax system. This is not the substitutive relationship that the textbook equity–efficiency framing would predict; it is a complementary one. By contrast, business competitiveness is negatively but only moderately correlated with effectiveness (r = −0.36) and equity (r = −0.22), consistent with hypothesis H2: there is a genuine tension between raising more revenue and lightening the burden on firms, but it is far from mechanical, and its moderate size leaves room for design improvements that ease the trade-off.

Figure 5 visualises the nexus directly, plotting effectiveness against equity with competitiveness encoded in bubble size and the four clusters in colour. The strong positive effectiveness–equity relationship appears as the upward

drift from the lower-left to the upper-right, while the largest bubbles—the most business-friendly systems—cluster in the mid-range of effectiveness rather than at its top, illustrating the moderate competitiveness tension. Uruguay is the notable exception that anchors the upper-right with a large bubble: it achieves high effectiveness, high equity, and high competitiveness simultaneously, defining a regional efficiency frontier.

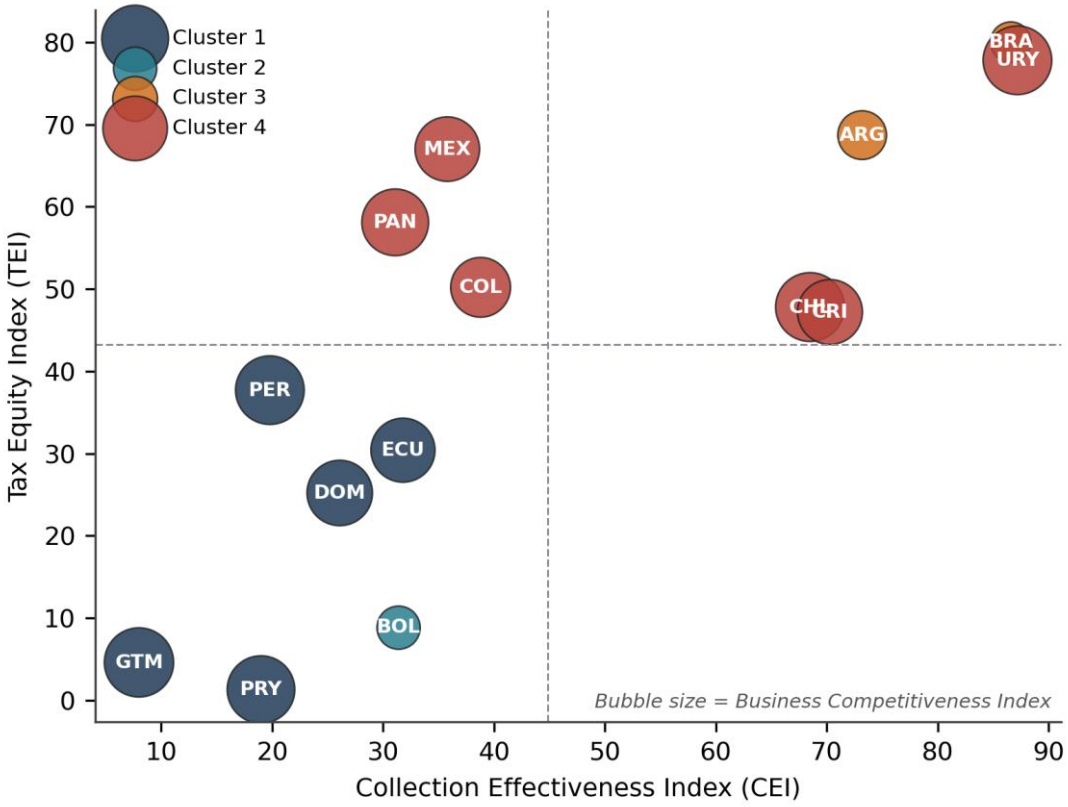

Figure 5. *The effectiveness–equity–competitiveness nexus. Horizontal axis = CEI; vertical axis = TEI; bubble size = BCI; colour = cluster. Dashed lines mark sample means. Source: authors' calculations.*

4.5 A typology of Latin American tax systems

Ward hierarchical clustering on the three pillar scores yields the four-group structure shown in the dendrogram (Figure 6), with the mean profiles reported in Table 6. The groups are readily interpretable and each maps to a distinct reform frontier.

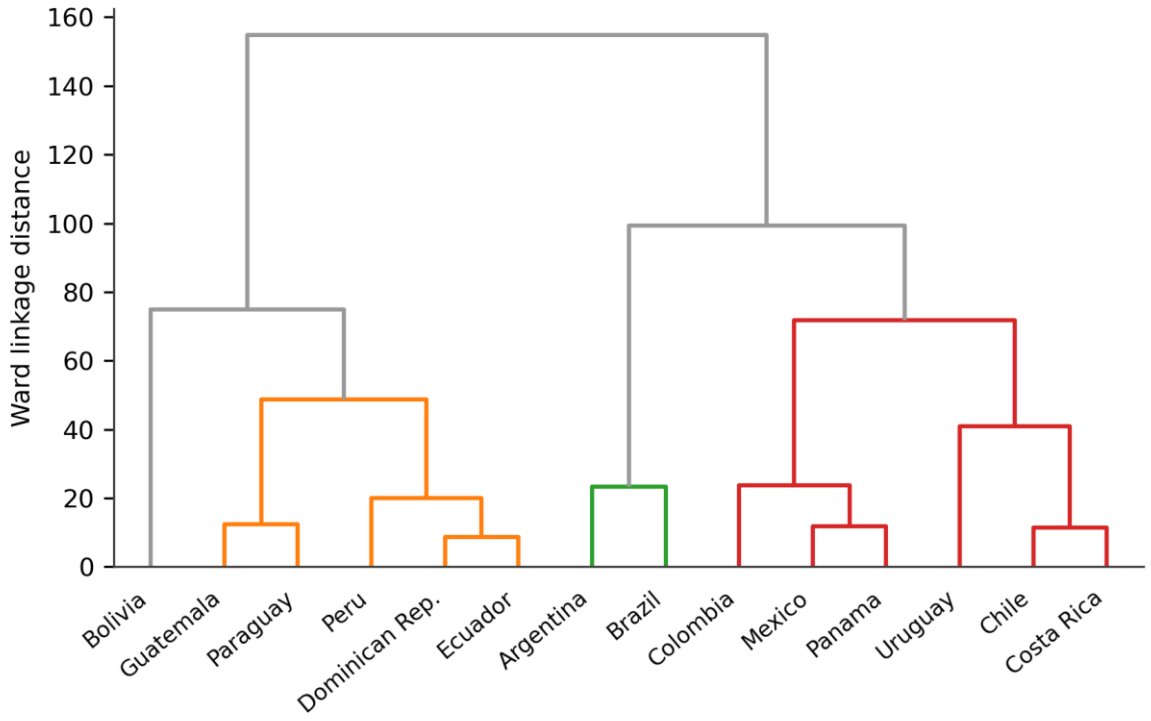

Figure 6. *Dendrogram of the country typology (Ward linkage on the three pillar indices). The colour cut corresponds to the four-cluster solution. Source: authors' calculations.*

Table 6. Cluster profiles (group means)

Cluster	Members	CEI	TEI	BCI	Tax/GDP	Informality	Compliance (hrs)
C1 — Low-mobilisation, business-light	DOM, ECU, GTM, PRY, PER	20.9	19.8	89.3	15.4	65.0	373
C2 — High-burden, low-yield (outlier)	BOL	31.4	8.9	33.2	24.7	80.0	1,017
C3 — High-mobilisation, high-burden	ARG, BRA	79.9	74.4	36.2	29.9	40.5	907
C4 — Balanced, competitive-leaning	CHL, COL, CRI, MEX, PAN, URY	55.3	58.0	85.4	20.5	41.2	253

Note. *Group means of the pillar indices and selected raw indicators. Members shown as ISO-3 codes. Authors' calculations.*

Cluster 1 — low-mobilisation, business-light systems (Dominican Republic, Ecuador, Guatemala, Paraguay, Peru). These economies keep the burden on firms comparatively light (high BCI) but collect little revenue (mean tax-to-GDP of 15.4%) and redistribute almost nothing, against a backdrop of very high informality (65%). Their reform

frontier runs through the base: broadening it, formalising activity, and building direct-tax capacity, rather than raising statutory rates on an already narrow base.

Cluster 2 — high-burden, low-yield outlier (Bolivia). Bolivia combines a heavy compliance burden and high informality with weak equity outcomes: it taxes firms hard yet redistributes little and scores poorly on competitiveness. Its frontier is administrative simplification and enforcement reform, to convert effort into yield and equity.

Cluster 3 — high-mobilisation, high-burden systems (Argentina, Brazil). These are the region's strongest revenue-raisers and redistributors (high CEI and TEI) but its weakest business environments (low BCI), weighed down by complexity and, in Argentina's case, an exceptionally high total tax rate. Their frontier is competitiveness-enhancing simplification that protects revenue—exactly the logic of Brazil's 2023 dual-VAT reform.

Cluster 4 — balanced, competitive-leaning systems (Chile, Colombia, Costa Rica, Mexico, Panama, Uruguay). This is the largest and most heterogeneous group, characterised by moderate-to-high scores across all three pillars and, on average, the lowest compliance time in the sample. Uruguay defines its upper edge and the regional frontier. The reform frontier here is incremental: deepening progressive direct taxation (notably in the lower-effectiveness members such as Panama and Colombia) while preserving the administrative quality that already underpins competitiveness.

5. Discussion

The results reframe the region's fiscal problem. The dominant narrative pits equity against competitiveness, implying that Latin America must choose between fairer and more business-friendly tax systems. Our evidence complicates that story in two ways. First, the strongest relationship in the data is not a trade-off but a complementarity: effectiveness and equity rise together ($r = 0.78$) because both are built on the same scarce foundation of direct-tax capacity. Where that foundation is thin—Guatemala, Paraguay, the Dominican Republic—both revenue and redistribution collapse simultaneously. The region's core deficit is therefore shared rather than distributed across competing objectives.

Second, the competitiveness tension is real but moderate and, crucially, design-mediated. The negative correlations between competitiveness and the other two pillars are far from perfect, and the position of Uruguay, Costa Rica and Chile shows that adequate revenue and light compliance burdens can coexist. What damages the business climate in the worst cases is not the tax level per se but administrative complexity—overlapping consumption taxes, cumulative levies, and unpredictable rules—as the extreme compliance-time figures for Brazil and Bolivia attest. This distinction matters for sequencing: reforms that simplify administration can improve competitiveness with little or no revenue cost, relaxing the apparent trade-off before any rate change is contemplated.

These two observations point to a common lever. Strengthening the personal income tax—broadening its base, lifting effective rates at the top, and improving enforcement against evasion that costs the region on the order of 6–7% of GDP—would advance effectiveness and equity together, addressing the H1 complementarity. If that revenue is raised through well-designed, low-complexity instruments and paired with consumption-tax simplification of the Brazilian type, the competitiveness cost implied by H2 can be contained. The typology in Section 4.5 indicates that the appropriate emphasis differs by group: base-building and formalisation for Cluster 1, administrative reform for Cluster 2, competitiveness-preserving simplification for Cluster 3, and incremental progressivity for Cluster 4.

Brazil's 2023 reform is an instructive test case. By consolidating a notoriously fragmented indirect-tax system into a dual value-added tax phased in through 2033, it targets precisely the design-driven competitiveness deficit our framework isolates, aiming to cut compliance costs while preserving revenue. If successful, it would move Brazil rightward on the competitiveness axis of Figure 5 without sacrificing its high effectiveness and equity scores—demonstrating in practice that the trade-off can be eased rather than merely navigated. The reform's staged nature also underscores the political-economy reality that such changes are gradual and contested (Focanti, Hallerberg & Scartascini, 2016; Mahon, 2004).

Several caveats bound these conclusions. The analysis is comparative and descriptive: the correlations and clusters characterise the joint structure of fiscal outcomes but do not identify causal effects, and reverse causation is plausible (richer, more formal economies can both tax and redistribute more). The composite indices depend on indicator selection, normalisation, and equal weighting; alternative choices would shift scores at the margin, though the strong effectiveness–equity association is unlikely to be an artefact of weighting. Some rate and burden indicators are representative statutory figures that abstract from within-country regime heterogeneity, and a few observations are latest-available rather than strictly contemporaneous. Finally, the framework omits the expenditure side, even though transfers do most of the region's redistributive work; a fuller net-fiscal-incidence analysis would complement the tax-focused lens adopted here.

Table 7. Differentiated reform priorities by cluster

Cluster	Binding constraint	Primary reform priority	Expected pillar gains
C1 — Low-mobilisation	Narrow base; high informality	Base-broadening; formalisation incentives; PIT capacity-building	Effectiveness ↑, Equity ↑
C2 — High-burden outlier	Administrative complexity; weak enforcement	Simplification; digital administration; enforcement	Competitiveness ↑, Effectiveness ↑
C3 — High-mobilisation	Compliance complexity; high firm burden	Consumption-tax consolidation (dual VAT); rate rationalisation	Competitiveness ↑ (revenue-neutral)
C4 — Balanced	Uneven direct-tax depth	Incremental PIT progressivity; preserve admin. quality	Equity ↑, Effectiveness ↑

Note. *Reform priorities follow from each cluster's profile in Table 6 and the nexus in Figure 5. Arrows indicate the pillar(s) most likely to improve. Authors' elaboration.*

6. Conclusions

This paper set out to compare Latin American tax systems along three dimensions that are usually studied in isolation—collection effectiveness, tax equity, and business competitiveness—and to test whether they conflict or cohere. Using a transparent, indicator-based framework applied to fourteen economies, we find that effectiveness and equity are strong complements anchored in a shared direct-tax capacity, while competitiveness stands in a moderate, design-mediated tension with them. The region's fiscal challenge is thus less an equity–efficiency dilemma than a common deficit in progressive direct taxation, compounded by informality and administrative complexity that erode all three objectives at once.

The four-cluster typology translates this diagnosis into differentiated agendas: base-building for low-mobilisation systems, administrative reform for the high-burden outlier, competitiveness-preserving simplification for the high-mobilisation heavyweights, and incremental progressivity for the balanced group. Uruguay's simultaneous strength across all three pillars shows that the frontier is attainable rather than merely theoretical, and Brazil's 2023 consumption-tax reform illustrates how the competitiveness tension can be eased by design.

Future work can extend the framework in three directions: incorporating the expenditure side for full net-fiscal-incidence comparisons; exploiting the time dimension to study how reforms move countries within the nexus; and complementing the cross-country lens with firm- and household-level microdata to identify the behavioural responses that the aggregate indicators can only proxy. Even within its descriptive limits, however, the analysis offers finance ministries a clearer map of where their tax systems stand and which reforms are most likely to advance more than one objective at a time.

6.1 Declarations

Funding. The authors received no specific funding for this work. **Conflicts of interest.** The authors declare no competing interests. **Data availability.** All data used are compiled from publicly available sources cited in the text; the assembled dataset and computation code are available from the corresponding author on reasonable request.

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