GSMA

Taxing mobile connectivity in Latin America

Impact on connectivity and tax revenues

GSMA

The GSMA is a global organisation unifying the mobile ecosystem to discover, develop and deliver innovation foundational to positive business environments and societal change. Our vision is to unlock the full power of connectivity so that people, industry, and society thrive. Representing mobile operators and organisations across the mobile ecosystem and adjacent industries, the GSMA delivers for its members across three broad pillars: Connectivity for Good, Industry Services and Solutions, and Outreach. This activity includes advancing policy, tackling today's biggest societal challenges, underpinning the technology and interoperability that make mobile work, and providing the world's largest platform to convene the mobile ecosystem at the MWC and M360 series of events.

GSMA Latin America is the branch of the GSMA in the region. For more information in English, Spanish and Portuguese, please visit www.gsma.com/latinamerica.

Follow the GSMA Latin America on Twitter/X @GSMALatam and LinkedIn GSMA Latin America.

GSMA
Intelligence

GSMA Intelligence is the definitive source of global mobile operator data, analysis and forecasts, and publisher of authoritative industry reports and research. Our data covers every operator group, network and MVNO in every country worldwide — from Afghanistan to Zimbabwe. It is the most accurate and complete set of industry metrics available, comprising tens of millions of individual data points, updated daily.

GSMA Intelligence is relied on by leading operators, vendors, regulators, financial institutions and third-party industry players, to support strategic decision-making and long-term investment planning. The data is used as an industry reference point and is frequently cited by the media and by the industry itself.

Our team of analysts and experts produce regular thought-leading research reports across a range of industry topics.

info@gsmaintelligence.com

www.gsmaintelligence.com

Authors:
Facundo Rattel
Pau Castells
Lucrecia Corvalan

Contents


GSMA

Executive Summary

Sector-specific taxes on mobile connectivity were introduced based on a rationale that no longer applies

Mobile services in Latin America have evolved significantly since the deployment of 2G services at the beginning of the 2000s. Mobile was initially perceived as a luxury service for the region's highest income groups. However, the declining cost of devices and tariffs, as well as technology improvements with 4G and 5G, have significantly widened access. Mobile services are now an essential tool for individuals and businesses, providing access to key services such as healthcare and financial services, as well as employment opportunities.

When mobile access and its societal impact were more limited, many governments in Latin America introduced sector-specific taxes on mobile services, as an efficient way to generate tax revenues. This has resulted in a strong imbalance between the direct economic contribution from mobile services and the taxation levels the services are subject to. Comparing the tax contribution[1] of mobile services to their direct economic contribution[2], this analysis find that the tax contribution was more than double the direct economic contribution to GDP in Latin America in 2023[3].

1. The tax contribution of a specific sector is measured by its share of total tax revenues for the country.
2. The economic value of a specific sector is measured by its contribution to the country´s GDP.
3. The review of mobile sector taxation in the region includes the following countries: Argentina, Bolivia, Brazil, Chile, Colombia, Costa Rica, Dominican Republic, Ecuador, El Salvador, Guatemala, Honduras, Mexico, Nicaragua, Panama, Peru, Paraguay, Uruguay and Venezuela.

   Venezuela is excluded from specific analyses due to the lack of availability of key economic and financial metrics, such as CPI or exchange rates. Each section of this report specifies where information on Venezuela was not available.

   The econometric analysis includes countries from the Caribbean to improve the quality of the sample and robustness of the results.

Despite mobile´s new role, taxes on connectivity remain widespread across the region

In 2023, mobile sector-specific taxes and fees in Latin America amounted to around $4.65 billion[4], representing 6.5% of the total cost of connectivity[5]. Significant differences exist between countries. In Uruguay, El Salvador and Guatemala, sector-specific taxes account for less than 2% of the cost of connectivity. Meanwhile, Dominican Republic, Venezuela, Brazil, Argentina and Bolivia impose sector-specific taxes exceeding 10% of the cost of connectivity and undermining affordability for lower-income population groups[6].

For consumers, sector-specific taxes are applied when purchasing devices, activating services and using mobile services (e.g. higher VAT, specific customs duties on devices, and activation/numbering fees). Fourteen of the 18 Latin American countries studied impose some form of sector-specific tax on consumers. These fees have the most regressive effect. While some countries have taken steps to remove sector-specific taxes on consumers to improve affordability (e.g. Colombia in 2016, Ecuador in 2022 and Argentina in 2025)[7], most countries in the region continue to impose a tax burden on consumers similar to the level nearly a decade ago.

Providers of mobile connectivity services are also subject to sector-specific taxes. These include recurring payments for licences and spectrum usage, revenue-based levies, and customs duties on network equipment. In recent years, there has been no clear trend of improvement at the regional level in this regard. For example, while Mexico eliminated customs duties on network equipment, El Salvador opted to increase them; Honduras increased the universal service fund (USF) fee from 1.0% to 1.5%, and Panama will gradually increase its regulatory fee from the current 0.5% to 1% of operator revenues by 2032.

4. In this report, $ refers to US dollars.
5. The total cost of connectivity in Latin America is the sum of mobile operator revenues across all the countries in the region, including mobile services and handsets sales.
6. According to OECD estimates for 2024, poverty affected almost 27% of the population in Latin America.
7. In 2016, Colombia introduced a VAT exemption for devices priced at or below 22 UVT (equivalent to around $260 in 2025). In 2021, Ecuador eliminated an additional 10% fee (ICE) paid by consumers of mobile services. In May 2025, Argentina reduced mobile sector-specific taxes on imported devices (from 19.0% to 9.5%) and eliminated them for locally manufactured devices (from 9.5% to 0%).

Mobile sector-specific taxes are regressive and discourage investment, usage and adoption

The wide range of sector-specific taxes and fees takes resources away that could otherwise be directed towards addressing the region's key challenges, including closing the connectivity gap, expanding coverage, improving quality of service, accelerating the deployment of new technologies (5G) and making mobile service more affordable for those on the lowest incomes.

Distortive and regressive sector-specific taxes on connectivity hinder investment, increase prices and are a significant contributor to mobile services being less affordable for economically disadvantaged groups. This is clearly still the case in Latin America. The total cost of mobile ownership (TCMO[8]) for the low-income population[9] significantly exceeds the ITU´s affordability threshold[10] of 2% in most Latin American countries.

Tax authorities in Latin America are increasingly relying on digital solutions to maximise overall tax revenues

Effective tax collection is increasingly dependent on digital means, including direct and indirect channels. For example, digitalisation facilitates tax payment procedures for individuals and firms, while digital payment methods increase the likelihood of transactions taking place through digital channels, facilitating tax collection.

Although mobile sector-specific taxes generate government revenues, they also discourage the adoption of (and investment in) digital services, and hence the ability of tax authorities to take full advantage and maximise collection overall.

This raises a key question that is the focus of this report. **Is it desirable to impose sector-specific taxes on mobile connectivity when they can have a negative impact on not just connectivity itself but also the extent to which tax authorities can be effective in mobilising tax revenues more generally?**

8. TCMO is calculated on a monthly basis and includes the handset cost split over its lifecycle (36 months), plus the activation/connection fees and monthly usage cost.
9. The lowest-income population comprises the bottom 20% and 40% of earners in Latin America. This classification is used by the United Nations to analyse income inequality globally.
10. The affordability threshold was defined by the Broadband Commission for Sustainable Development, led by the ITU and UNESCO. It establishes that, for a service to be considered affordable in developing countries, its cost should not exceed 2% of average monthly income. The Affordability of ICT Services 2024, ITU.

New econometric results show tax reductions would have a positive impact on both mobile connectivity outcomes and overall tax revenues

The GSMA developed original econometric analysis to quantify the net effect of sector-specific taxes on tax revenues. The quantitative results confirm positive direct and indirect effects on public sector tax revenues from the growth of mobile internet adoption and usage.

More importantly, the results show that had mobile sector-specific taxes been reduced or removed, the net fiscal effect of this in 2023 would have been either neutral or an increase in overall tax revenues. The analysis also shows that while a sector-specific tax reduction in 2016 would have created a fiscal gap, this effect would have reversed in subsequent years, confirming the growing importance of digitalisation for effective tax collection.

In other words, in most of Latin America today, the higher tax revenues from the increased use and adoption of mobile services generally outweigh the additional tax revenues that could be collected from sector-specific taxes.

From consensus to action: implementing evidence-based reform to modernise an outdated fiscal policy framework in Latin America

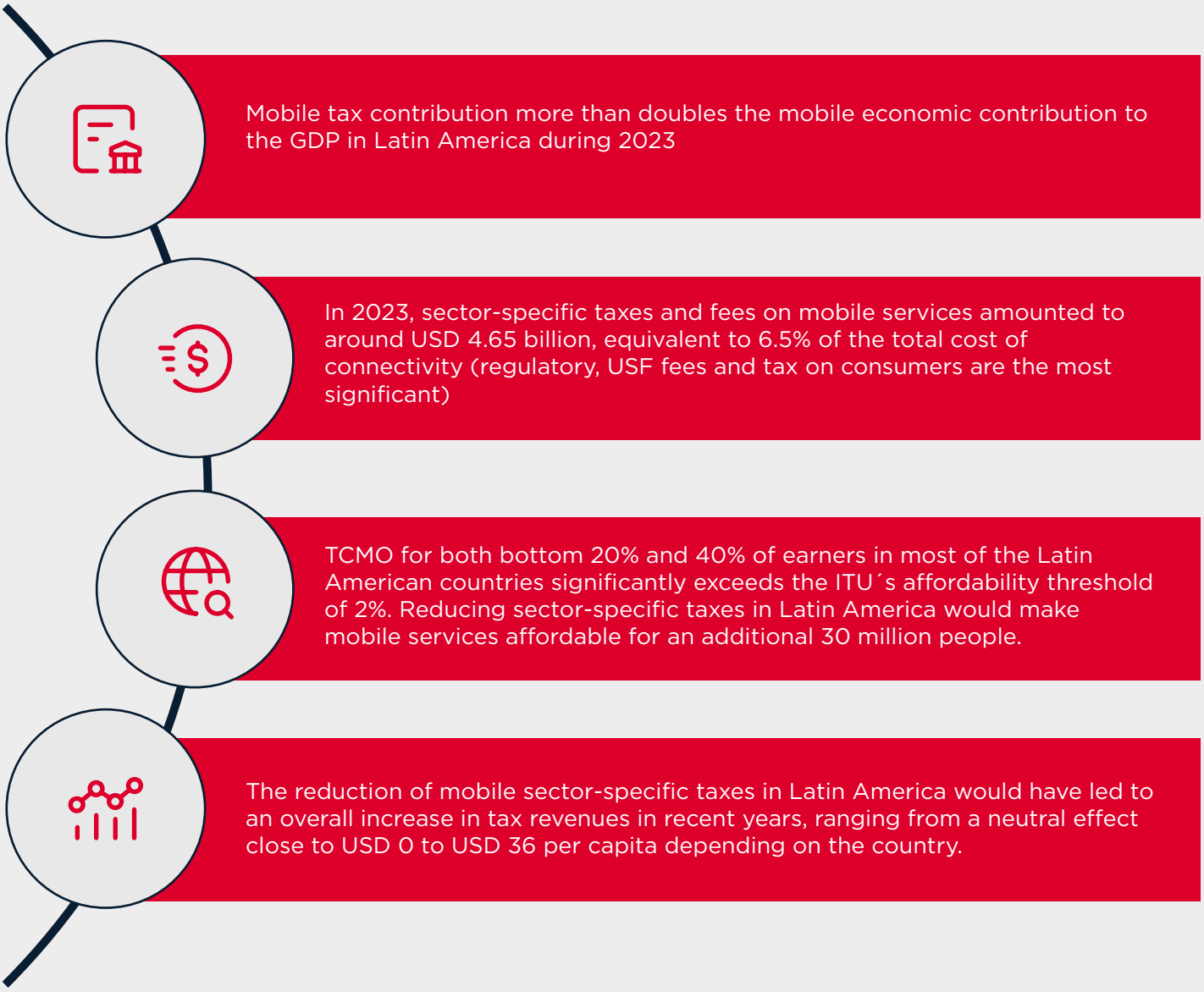
The findings of this research have key implications for policymakers, particularly tax, telecoms and trade authorities. They highlight the large opportunity cost of mobile sector-specific taxes in the region – not just in terms of connectivity and economic growth but also foregone tax revenues.

The evidence shows that the current fiscal policy framework for mobile connectivity is outdated – a finding that aligns with the position of many ICT ministries and regulators that support the need for reform.

Reducing mobile sector-specific taxes would accelerate digitalisation and economic growth, and help close the connectivity gap, making mobile service affordable for more than 30 million people in Latin America. At the same time, as shown in this analysis, it would not have a negative impact on tax mobilisation. If anything, it is likely to increase net tax collection.

This serves as a call to action among international and regional institutions, such as the ITU, World Bank, OECD and CITEL, to support forthcoming reforms to the fiscal and regulatory framework for mobile connectivity and to actively contribute to bridging the knowledge gap between ICT and tax authorities.

Key datapoints



11. The International Telecommunication Union (ITU) is the United Nations specialized agency for information and communication technologies.

01

A review of mobile sector taxation in Latin America

GSMA

Mobile services in Latin America have evolved significantly since their introduction at the beginning of the 2000s. They were initially regarded as a luxury service, available to only the region's highest income groups. During that period, sector-specific taxes were imposed as their impact was limited. However, in recent years, adoption has become widespread and the impact of sector-specific taxes is now significant on tax collection.

Sector-specific taxes on connectivity in addition to general taxes have significant implications for stakeholders across the ecosystem. Mobile taxation discourages investment in connectivity infrastructure to enhance service quality, expand coverage and deploy innovative technologies such as 5G. It also reduces returns on investment for mobile services.

Moreover, taxes can make devices and services less affordable, discouraging adoption and use among price-sensitive consumers. Sector-specific taxes are a direct contributor to the connectivity gap[12], leaving some communities further behind in the digital era.

This section sets out an overview of mobile taxes and fees in Latin America, which is the basis for the subsequent econometric analysis to quantify the net effect of sector-specific taxes on tax revenues.

1.1
An overview of mobile taxes and fees in Latin America

Governments impose additional taxes on specific goods and services primarily to generate revenue and, in some cases, influence consumer behaviour. While most goods are taxed at standard rates, products and services deemed exceptional for a variety of reasons are subject to higher taxes.

Mobile services in Latin America – despite their profound societal and economic benefits (such as fostering productivity, innovation and digital inclusion) – are subject to significant sector-specific taxation. The taxes originally arose from mobile being perceived as a luxury service. However, connectivity has since become a key driver of socioeconomic development. In terms of tax collection, connectivity not only facilitates tax payments among citizens; it also reduces the opportunity for corruption and evasion and enhances the skills and tools of tax officers. Given the direct, positive effects, the question emerges whether it is desirable to impose (on connectivity) sector-specific taxes that discourage the process of digitalisation.

Mobile connectivity in Latin America is subject to several sector-specific taxes at different points of the value chain. For consumers, they are applied when purchasing devices, activating services and using mobile services (including additional VAT, specific customs duties on devices, and activation/numbering fees).

12. The connectivity gap in Latin America affects almost 40% of the population who are not connected to mobile services, amounting to 260 million people. Around 6% (40 million) do not have mobile internet coverage (the coverage gap), compared to 1% in most advanced economies (North America, Europe, Central Asia, East Asia and the Pacific). Around 33% of the population (220 million) have coverage but do not use mobile internet (the usage gap) for several reasons, including a lack of skills, affordability and relevant content. This compares to 19% in North America, 24% in Europe and Central Asia, and 27% in East Asia and the Pacific (according to the GSMA report, *The State of Mobile Internet Connectivity 2024*).

Table 1
Overview of taxes and fees in the region

Consumers		Operators		
Tax base	**Tax type**		**Tax base**	**Tax type**
Handsets	VAT	**General taxes**	Profits	Corporation tax
	Customs duties**		Revenues	Turnover tax
	Special VAT*			Other revenue taxes
	Sector-specific taxes		Network equipment	Customs duties**
Activation	VAT	**Regulatory fees and other payments**	Revenue or fixed amounts	Spectrum fees*
	Activation fees*			Licence and regulatory fees*
	Connection fees*			
Usage	VAT			Universal service contributions*
	Sector-specific taxes*			

* Sector-specific

** Also considered as sector-specific because several countries have introduced reduced custom duties or specific exemptions for devices or network equipment

Aside from general taxes, mobile operators are required to pay additional fees and taxes unique to the service. These include recurring payments for licences and spectrum usage, and revenue-based levies imposed in certain markets. Universal service funds (USFs) require operators to contribute a percentage of their revenues to funds that were initially focused on expanding basic connectivity to underserved or rural areas but now involve a much larger ecosystem (e.g. digital service providers) and have started to lose sight of their original objective. Spectrum fees are payments for the right to use the radio frequencies needed for mobile services. Such sector-specific taxes collectively limit the post-tax funds available, discouraging investment in technology upgrades and network expansion.

The effect of these additional taxes is to undermine the affordability and adoption of mobile services, limiting their potential to drive widespread social and economic benefits. **Higher taxation risks perpetuating the connectivity gap by making mobile unaffordable to low-income groups,** exacerbating inequality. Additionally, discouraging network investment can hinder network expansion and innovation, curbing the potential of mobile services to contribute to regional development.

USFs (universal service funds) in Latin America require urgent reform

In most cases, USFs were established after markets were deregulated and opened up to competition in the early 2000s. USF contributors are exclusively telecoms operators, and they contribute around 1% of their revenues as fees.

The objectives established in the original regulations were primarily to close the coverage gap, initially for telephony services but more recently for internet services. They focused on rural and remote areas. Latter reforms included the concept of universal access and demand stimulation.

The performance of USFs has been questioned by stakeholders in the sector. There are strong evidence of insufficient disbursement levels and a lack of transparency across Latin America due to difficulties accessing detailed information on the use of funds. Governments in the region do not apply mechanisms such as ex-post evaluations, accountability and public policy impact analysis, making it impossible to measure efficiency and effectiveness.

The current USF funding model is outdated and requires urgent reform. Connectivity objectives are now focused on broadband, which involves a much larger ecosystem. The balance of revenues between players in the internet ecosystem has changed dramatically in the region. Since 2015, telecoms operator revenues have been flat, but the revenues of digital service providers have increased by more than 250%.

The main beneficiaries of additional revenues from connectivity are no longer telecoms operators. Failing to reform the USF leads to an unsustainable funding model, disincentivises investments and increases the cost of connectivity, particularly for unconnected, low- and middle-income groups.

Source: Connectivity gaps in Latin America, GSMA 2023

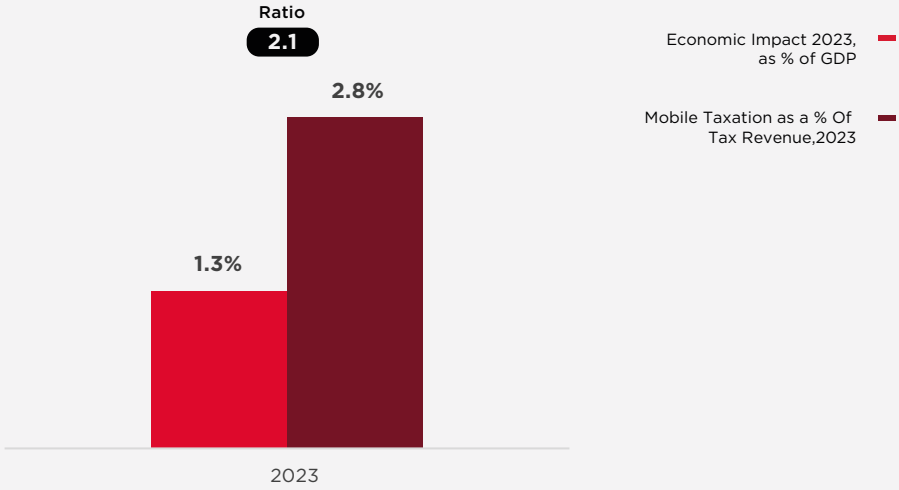
1.2

The tax contribution of the mobile sector in Latin America

An alternative point of view is given by the comparison of the tax contribution[13] to the economic value[14] of mobile services. Figure 1 shows that mobile taxation is more than double the economic contribution for 2023, mostly due to sector-specific taxes. The most significant impacts of sector-specific taxes are seen in Colombia, Costa Rica, Dominican Republic and Argentina[15] in 2023.

Figure 1

Latin America Mobile tax contribution (as % of tax revenues) vs Economic impact (as % of GDP), 2023



Source: IMF (GDP and Tax revenues); GSMA Intelligence (The Mobile Economy in Latin America).

The imbalance between the economic and fiscal contribution of the mobile sector in the region distorts market dynamics and contradicts the principle of equity imposed by best practices. Sector-specific taxes on mobile connectivity add complexities with additional fiscal layers that affect the transparency, stability, and predictability.

This uncertainty and the incremental cost negatively affect investment and increase consumer costs, limiting the positive aspects of digital inclusion and primarily affecting lower-income users. These arguments highlight the existing need in Latin America to balance the tax burden with the economic role of mobile connectivity.

13. The tax contribution of a specific sector is measured by its share of total tax revenues in the country.
14. The economic value of a specific sector is measured by its contribution to the country´s GDP.
15. The mobile sector tax contribution in Argentina changed from May 2025, as the government implemented a tax and customs duty reduction, which is further detailed in Recent changes in consumer taxes.

1.3

Mobile sector-specific taxes are not aligned with best practices for taxation

Effective tax policy requires a balancing of several objectives, including generating revenue, supporting key sectors and minimising economic distortions. Mobile sector-specific taxes often fail to align with the international best-practice principles established by organisations such as the World Bank[16], IMF[17], ITU[18] and OECD[19]. These advocate efficiency, equity, simplicity, transparency and appropriate incidence in tax systems. By harming investment and raising the cost of services, mobile sector-specific taxes reduce both supply and demand, ultimately impacting the economy. Over time, this diminishes rather than enhances government tax revenues. Additionally, such taxes distort mobile market dynamics by making them less competitive than other markets, discouraging investment and leading to inefficient allocation of capital.

Mobile services generate substantial benefits for society, including productivity improvements, enhanced access to information and a platform for accessing a range of services. However, sector-specific taxes fail to consider these benefits. In most cases, they were introduced in a different global context, with connectivity considered a luxury service rather than a key driver of socioeconomic development. By increasing prices for consumers and costs for firms, the taxes reduce investment, the adoption of mobile services and their broader economic contribution. International organisations such as the OECD have recognised this issue in Mexico and called for the removal of such taxes in sectors including telecoms, where the positive impacts are significant[20].

Equity is another critical area where sector-specific taxes fall short. Unlike income taxes, which are typically progressive and designed to ensure that higher-income individuals contribute more, mobile-specific taxes disproportionately burden lower-income households and populations. For those on lower incomes, taxes on connectivity represent a larger share of their income, making the taxes regressive. Fixed fees, such as connection charges, are particularly problematic as they impose a uniform cost regardless of income level. Even percentage-based taxes on services are inequitable, as mobile use does not increase proportionately with income, meaning lower-income individuals incur a greater relative cost. This regressive nature of mobile-specific taxes undermines efforts to promote digital inclusion and can exacerbate inequalities in society (see *Mobile sector taxation and its impact on connectivity for more detailed analysis*).

16. Introduction to Tax Policy Design and Development, Bird and Zolt, 2003
17. Taxing Principles, IMF, 2014
18. Taxing telecommunication/ICT services: an overview, ITU, 2013
19. Fundamental principles of taxation in Addressing the Tax Challenges of the Digital Economy, OECD, 2014
20. OECD Telecommunications and Broadcasting Review of Mexico, OECD, 2017 (page 44).

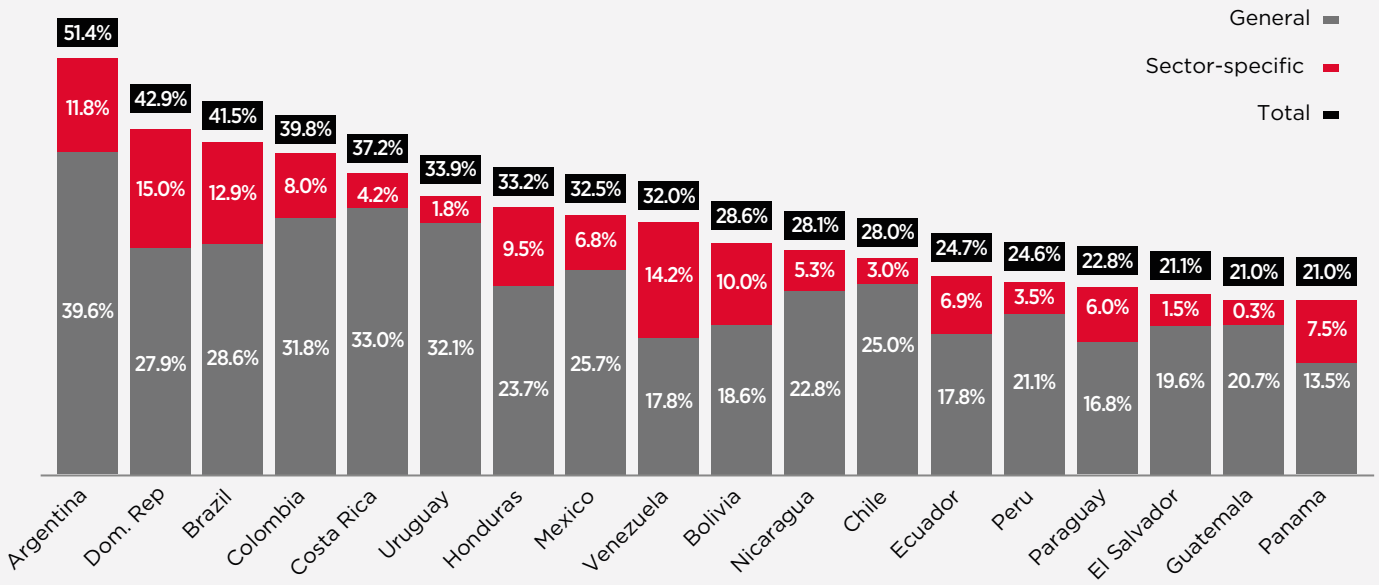
1.4

Sector-specific tax payments are a significant part of overall tax payments by the mobile sector

GSMA collected and analysed data on tax and fee payments from mobile services in 18 countries across Latin America in 2023. Analysing the percentage of total tax payments, including both general and sector-specific taxes, reveals significant disparities between countries in terms of total tax burden and composition. In 2023, Argentina[21], Dominican Republic, Brazil, Colombia and Costa Rica imposed total taxes above 35% of the total cost of connectivity. Paraguay, El Salvador, Guatemala and Panama were below 25%[22].

Figure 2

Total tax payments and fees (as a % of total cost of connectivity), 2023



Source: GSMA Intelligence

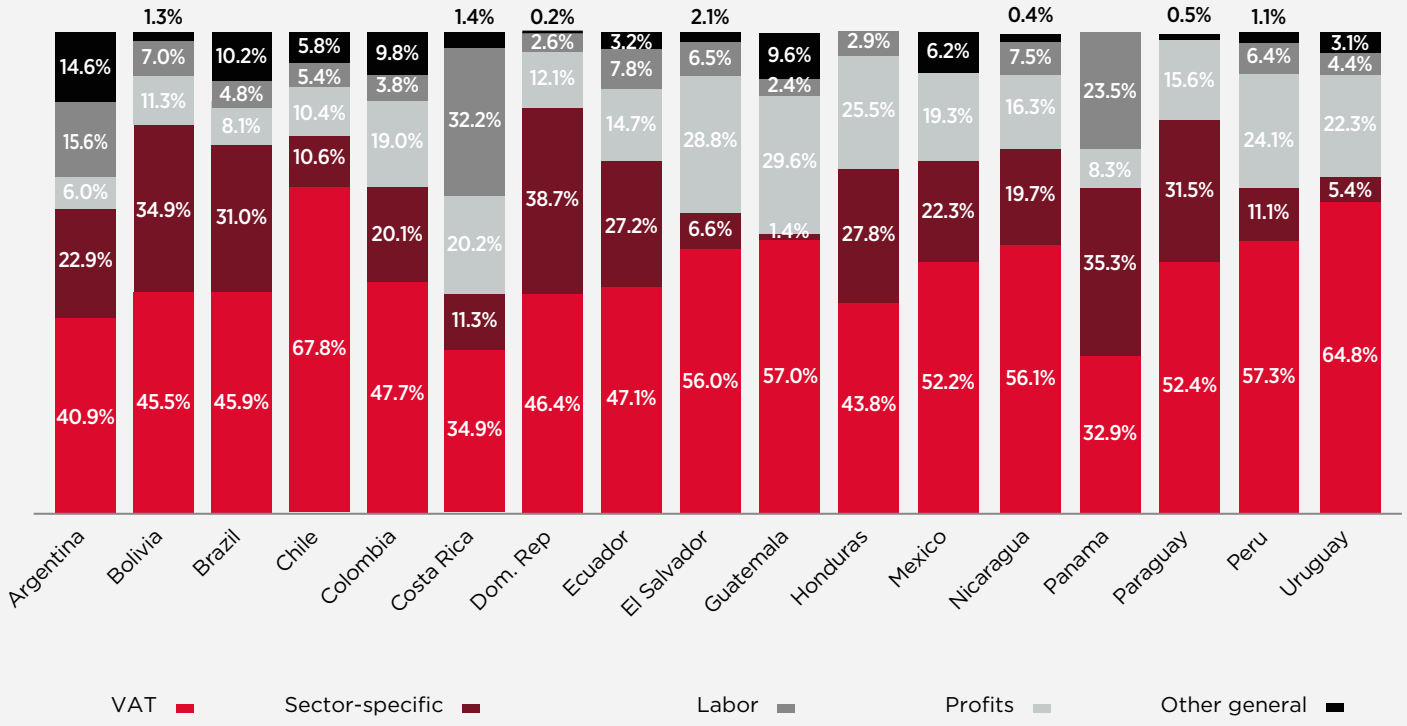
A more detailed analysis of tax structures reveals countries across the region are adopting different approaches to the taxation of mobile services. However, VAT, taxes on profits and sector-specific fees represent a significant share of total tax payments in most countries.

21. Mobile sector payments in Argentina change from 2026 due to the reduction of internal taxes and customs duties on devices (see Recent changes in consumer taxes). In the coming months, Congress may consider reinstating a 1% consumption tax that remained in force until 2017, which would undermine the positive impact of this measure.

22. The total cost of connectivity in Ecuador increased from April 2024 following a rise in VAT from 12% to 15%, introduced by the government to help finance efforts to combat organised crime.

Figure 3

Total tax payments, breakdown by tax type (as a % of total tax payments), 2023



Source: GSMA Intelligence

Sector-specific taxes and fees

In 2023, mobile services contributed an estimated $4.65 billion in sector-specific taxes and fees, representing 6.5% of the total cost of connectivity.

All countries impose some form of sector-specific fees on operators, ranging from recurring spectrum usage fees to contributions to USF and various types of regulatory fees.

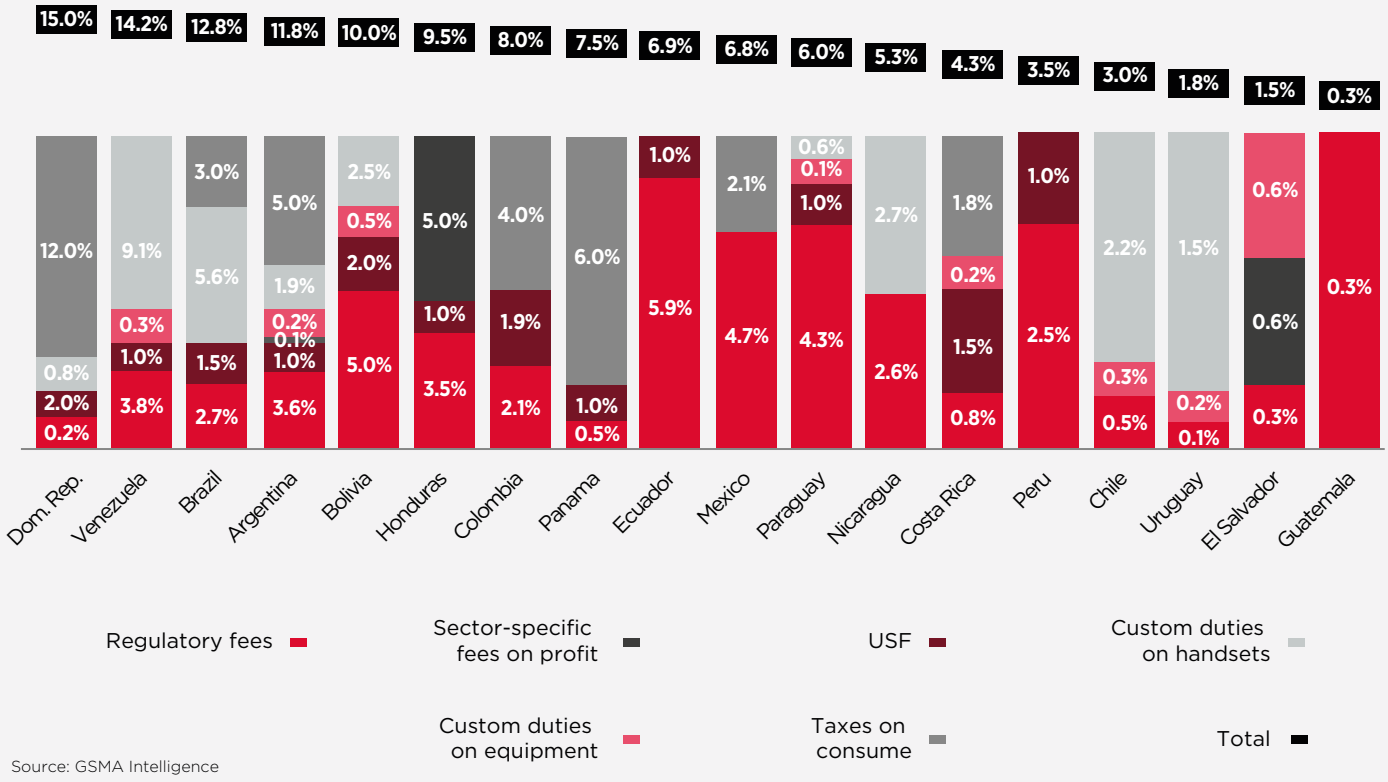
Figure 4

Sector-specific types of tax by country, 2023

Country	Consumers				Operators		
	Activation	Usage	Devices		USF	Recurring spectrum fees	Other regulatory fees
			Special VAT	Customs duties			
Argentina		✓		✓	✓	✓	✓
Bolivia				✓	✓	✓	✓
Brazil		✓	✓	✓	✓	✓	✓
Chile				✓		✓	
Colombia		✓			✓	✓	✓
Costa Rica		✓			✓	✓	✓
Dom. Rep.		✓		✓	✓		✓
Ecuador					✓	✓	✓
El Salvador							✓
Guatemala							✓
Honduras	✓				✓	✓	✓
Mexico		✓				✓	
Nicaragua				✓		✓	✓
Panama	✓	✓			✓		✓
Paraguay				✓	✓	✓	✓
Peru					✓	✓	✓
Uruguay				✓			✓
Venezuela				✓	✓	✓	✓
Total	**2**	**7**	**1**	**9**	**12**	**13**	**16**

Figure 5

Sector-specific tax payments, breakdown by tax type (as a % of the total cost of connectivity), 2023



Source: GSMA Intelligence

Fourteen countries imposed some form of sector-specific tax on consumers as of 2023. Argentina, Brazil, Colombia, Costa Rica, Mexico, Dominican Republic and Panama applied mobile-specific taxes on consumer usage, while nine countries applied customs duties on devices. Only a few countries applied excise taxes on mobile activation (Honduras and Panama). Only a few countries do not impose taxes on consumers (Ecuador, El Salvador, Guatemala and Peru).

Overall, there were significant differences between countries as of 2023. In Uruguay, El Salvador and Guatemala, additional taxes accounted for less than 2% of the total cost of connectivity. In contrast, Dominican Republic, Venezuela, Brazil, Argentina and Bolivia imposed sector-specific taxes above 10% of the total cost of connectivity. Regulatory and USF fees are the most significant of the sector-specific taxes. In terms of regulatory fees, Ecuador[23], Bolivia, Mexico and Paraguay[24] registered the highest rates (between 4% and 6%). USF fees typically accounted for 1%.

23. At the end of 2021, Ecuador began a gradual reduction in the spectrum usage fees paid by operators. This resulted in savings of 47% in 2023, 58% in 2024, 69% in 2025 and 80% in 2026. This change will affect Ecuador's regional positioning in terms of the incidence of sector-specific taxation. Link: Spectrum price reductions: positive decisions for the digital future of Latin America, GSMA.

24. It includes the renewal fee paid by operators, which is calculated as a percentage of the investment plans submitted to the regulator.

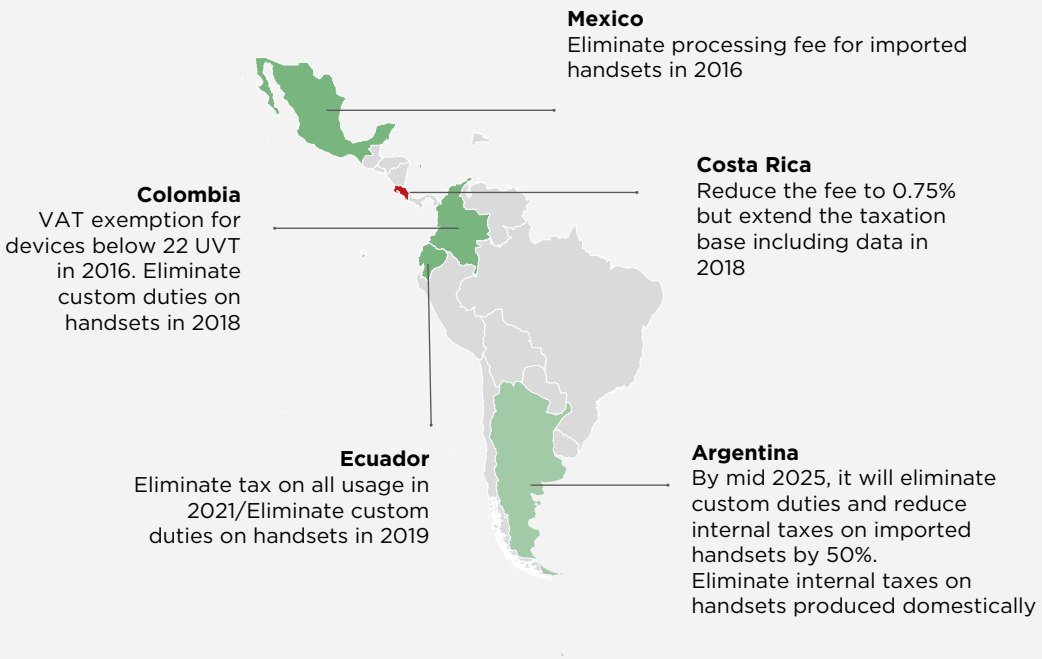
Mobile sector-specific taxes are a characteristic that is more prevalent in Latin America and other low- and middle-income countries compared with regions that have more advanced connectivity levels, where the sector-specific tax burden is comparatively lighter (Europe, developed parts of Oceania -Australia, New Zealand- and Asia (China, Japan, South Korea)

1.5
Changes in consumer taxes between 2015 and 2025

Over the past decade, most Latin American countries have not taken steps to reduce sector-specific taxes on consumers to make services more affordable. Only four countries focused on removing these types of charges.

Figure 6

Changes in consumer taxes applied to the mobile services by country since 2015



Source: GSMA Intelligence

Colombia and Ecuador eliminated customs duties on devices in 2018 and 2019, respectively. In May 2025, Argentina implemented reductions in customs duties on imported devices and lowered internal taxes on domestically manufactured handsets (as part of its special industrial promotion scheme)[25]; meanwhile, Congress may consider, over the coming months in 2025 and 2026, reinstating a 1% consumption tax that remained in force until 2017, which would undermine the positive impact of this measure. Ecuador also reduced additional fees on the use of mobile services. Mexico opted to reduce specific fees on imported devices.

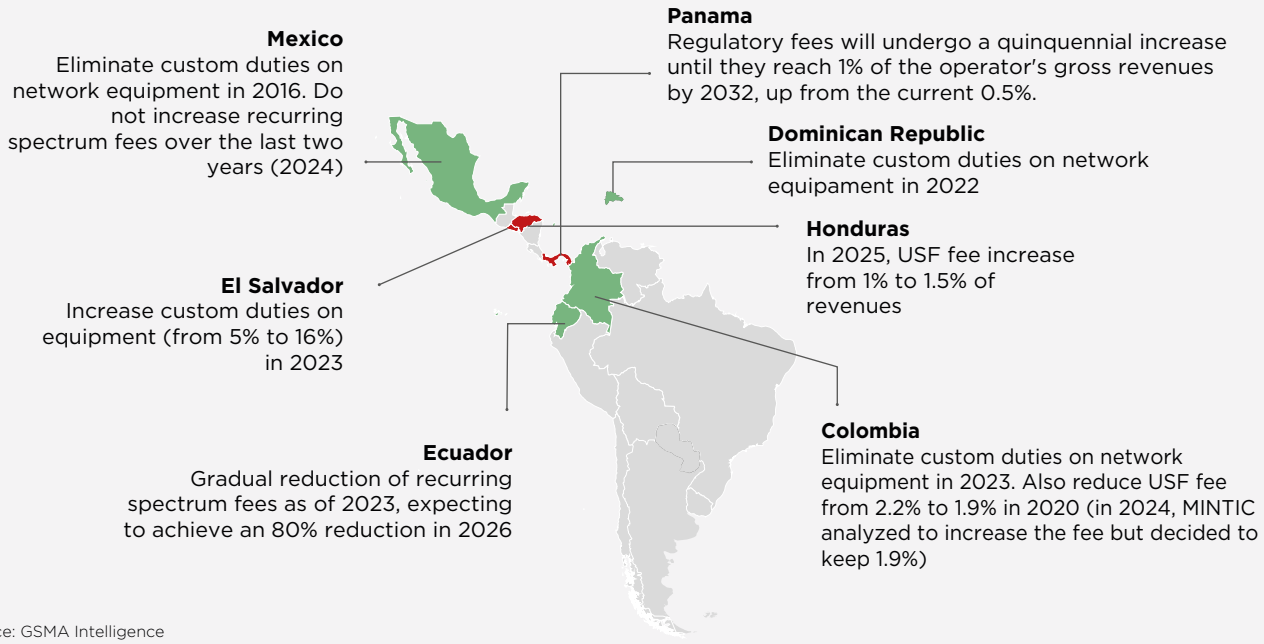
Contrary to this trend, in 2018, Costa Rica extended the taxation base to include data services (only voice was originally included) but reduced the fee to 0.75%; it focused on recovering the tax revenues that had fallen due to the migration from voice to data. It is worth also noting that El Salvador imposed a 5% special fee on mobile services for five years between 2016 and 2021.

1.6
Changes in operator taxes between 2015 and 2025

Eight of the 18 countries studied introduced changes to sector-specific taxes on mobile operators. Changes were focused on customs duties on network equipment and regulatory/spectrum fees. Mexico, Dominican Republic and Colombia eliminated customs duties to reduce network equipment costs and help accelerate the deployment of new technologies.

Figure 7

Changes in mobile operators' taxes applied to mobile services by country since 2015



Source: GSMA Intelligence

25. Argentina to eliminate device import taxes, DPL 2025

In 2022, Ecuador committed to reduce recurring spectrum fees by 80%. Colombia reduced the USF fee from 2.2% to 1.9% of revenues but in 2024 discussed the possibility of increasing the fee to 2%; although it was not approved, it introduced uncertainty around potential adjustments in the future[26]. Mexico committed to not increasing recurring spectrum fees in 2024 and 2025; however, since the fees are inflation-adjusted annually under National Law, the government could revoke that at any time[27]. In the opposite direction, Honduras increased the USF fee in 2025 from 1.0% to 1.5% of revenues[28] and Panama will gradually increase the regulatory fee from the current 0.5%, reaching 1% by 2032.

26. Colombia: Aumentar el aporte de los operadores al FUTIC es contraproducente para la inclusión digital, GSMA, December 2024
27. This fee was annually adjusted for inflation in accordance with National Law. However, since 2024, the Mexican regulator has decided to keep it fixed following numerous complaints from mobile network operators. These concerns ultimately led one operator to return all its spectrum holdings and transition into a mobile virtual network operator (MVNO).
28. "Honduras eleva tasa de aportación de operadores al fondo de servicio universal", DPL, March 2025

02

Mobile sector taxation and its impact on connectivity

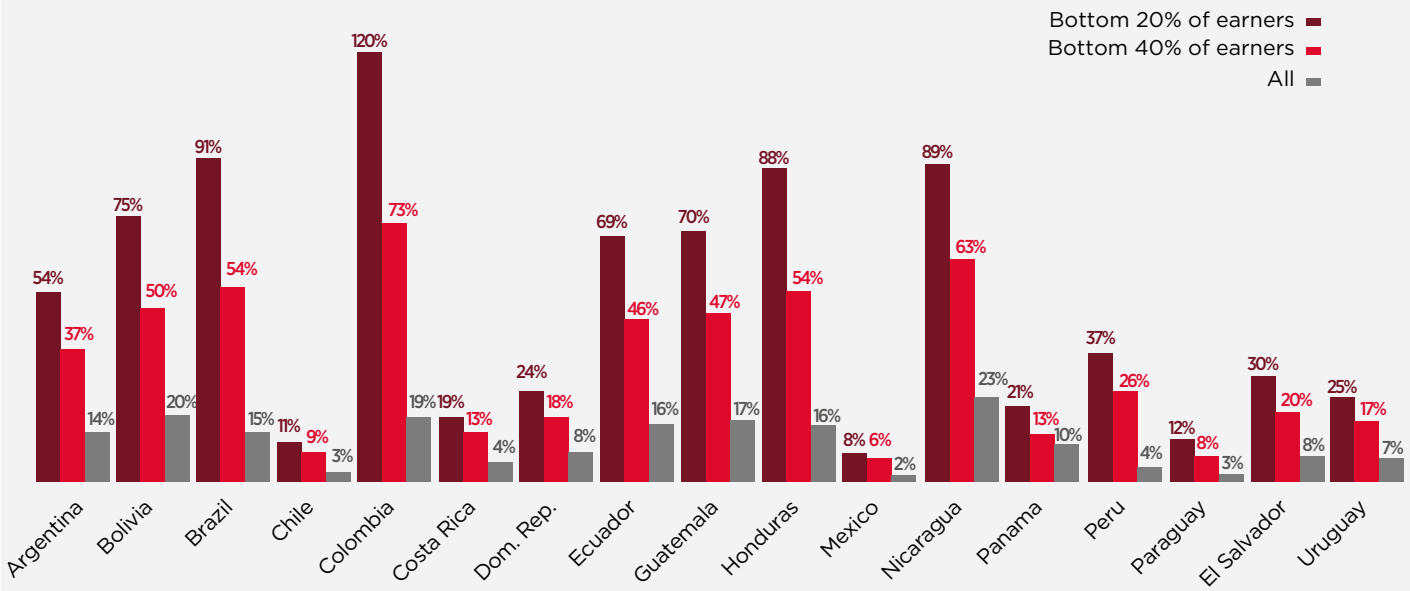
2.1
Devices and the cost of usage

The cost of purchasing a mobile phone, which includes activation and usage fees, impacts consumer demand. When prices for consumers are lower, adoption rates increase, but affordability remains a significant barrier for low-income and underserved populations. This highlights the importance of addressing the impact of taxation on mobile affordability.

The cost of a device as a percentage of monthly income highlights how handset cost is the main barrier to mobile internet adoption in Latin America, and that sector-specific taxes exacerbate this. In most countries, the cost of a device as a percentage of monthly income exceeds 50% for lower-income groups, indicating that individuals may need to spend half or more of their monthly income to afford an entry-level device.

Figure 8

Basic internet-enabled handset price as a proportion of monthly income in Latin America, 2023

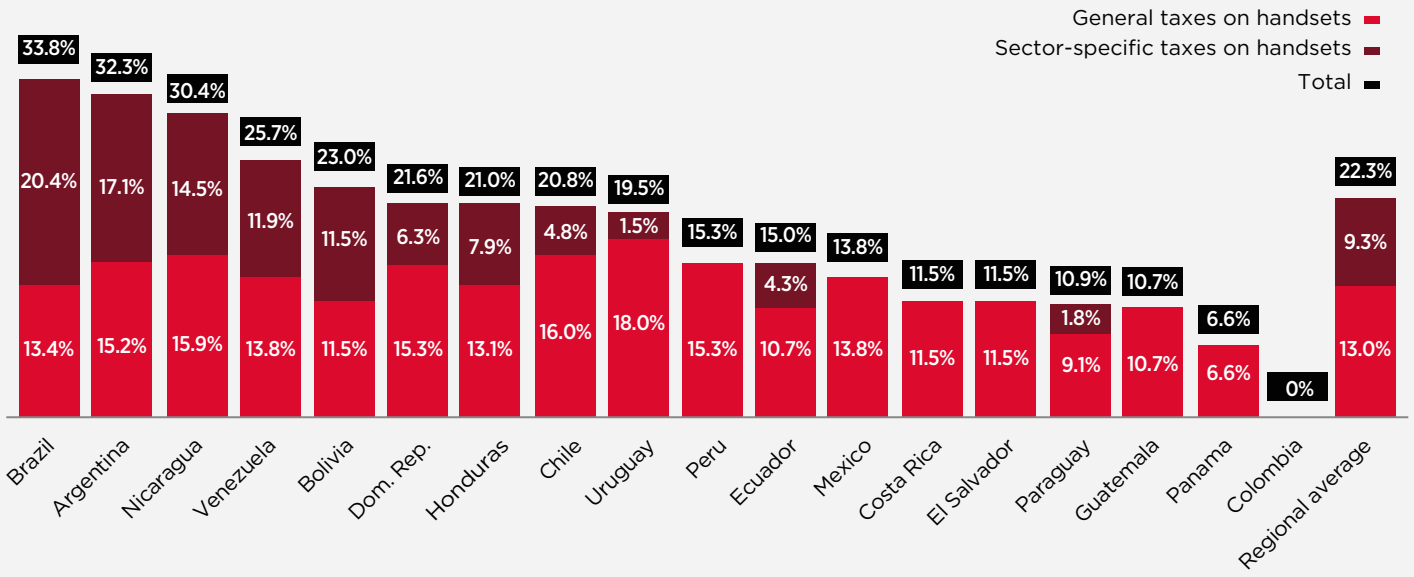


Source: GSMA Intelligence

In 2023, Brazil, Argentina[29] and Nicaragua imposed general and sector-specific taxes that represent a significant share of the device cost faced by consumers – between 30% and 35%. Meanwhile, Colombia recorded a tax share of 0% for mobile handsets due to a VAT exemption for devices priced at or below 22 UVT in 2022 (equivalent to around $175[30]).[31] Based on analysis of 18 countries in Latin America, the average general tax on handsets in 2023 was 13%, while sector-specific taxes represented 9%.

Figure 9

Tax as a proportion of cost of a basic internet-enabled handset, 2023



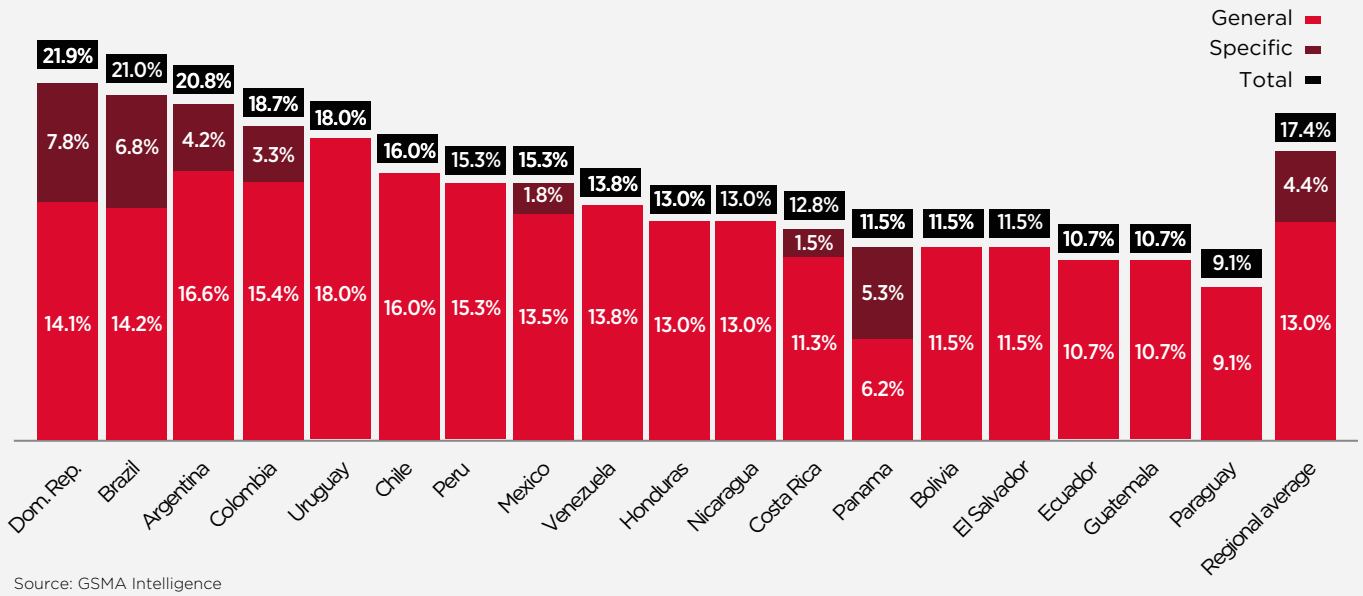
Source: GSMA Intelligence

A further factor affecting affordability is the cost of usage. For this analysis, we chose an "entry basket" of 1 GB of data consumption per month, in line with the Methodology Annex of the GSMA Mobile Connectivity Index. This basket represents the minimum current consumption pattern across the region. Imposing taxes and fees on this basket can significantly impact lower-income populations and their access to connectivity.

29. The tax as a proportion of the cost of a handset will be modified in Argentina since 2026 due to the aforementioned elimination of custom duties and internal taxes on devices.
30. Conversion rate from 31 December 2022 was considered.
31. This exception applies only to extremely basic devices. It was stated in Article 424 of the Tax Statute in Colombia.

Figure 10

Tax as a proportion of the cost of 1 GB data basket, 2023

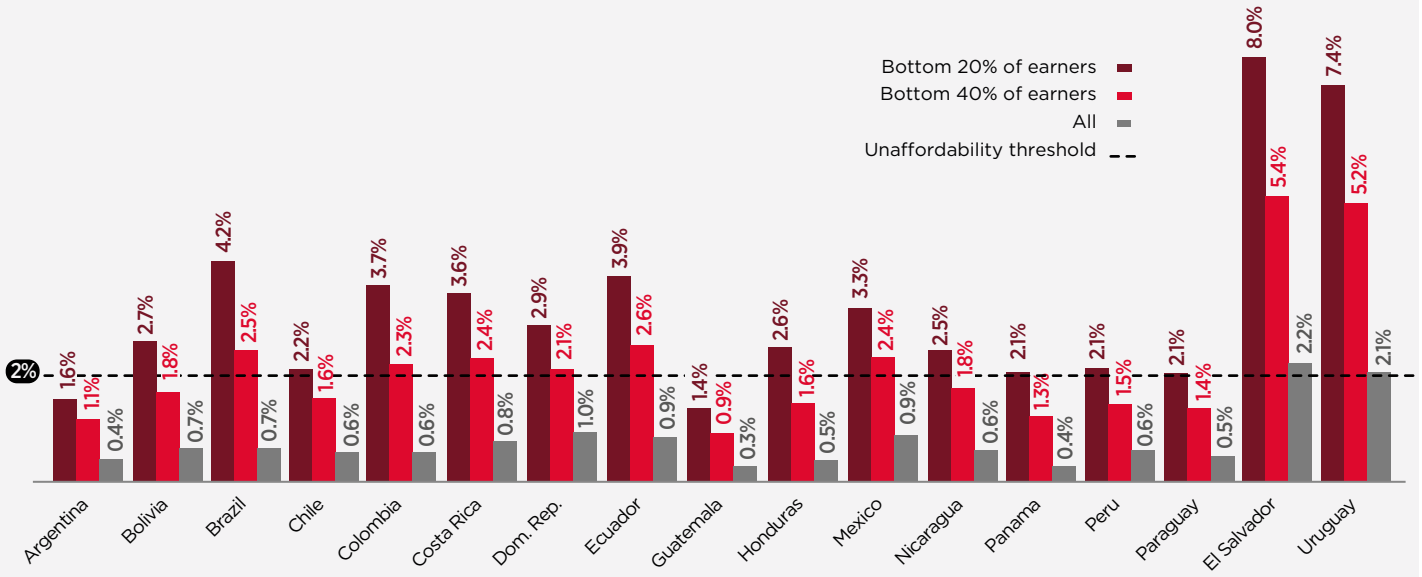


Source: GSMA Intelligence

Analysis of the 18 Latin American countries shows that tax payments represented, on average, 17% of the cost of a 1 GB data basket in 2023. Dominican Republic, Brazil and Argentina had the highest proportions, at more than 20%. Paraguay had the lowest proportion, at 9%.

Figure 11

1 GB data basket cost as a proportion of monthly income in Latin America, 2023



Source: GSMA Intelligence

In 2023, the cost of a 1 GB basket of data for both the bottom earners significantly exceeded the unaffordability threshold of 2% in the majority of countries analysed in Latin America. This highlights that the affordability gap not only involves the handset cost but also monthly access to a basic mobile broadband service.

2.2
Total cost of mobile ownership

Another approach to assessing the affordability of mobile services is to examine the total cost of mobile ownership (TCMO). This is calculated in monthly terms, according to the following:

1. The handset price. This represents a one-off cost that can be spread over the lifecycle of the device (it is then assumed to be replaced). For this analysis, the handset lifecycle is assumed to be three years, with prices converted to monthly amounts.

2. The activation and connection price or any other charges incurred to connect to the network operator. For prepaid users, this typically includes an initial fee to activate the SIM card. In the case of contract customers, there may be additional upfront expenses such as a one-time charge for number activation. These are also expressed as monthly amounts and considered over a three-year lifespan.

3. The usage price. This includes costs related to use, including voice, SMS and data charges. Prices are already expressed as monthly amounts.

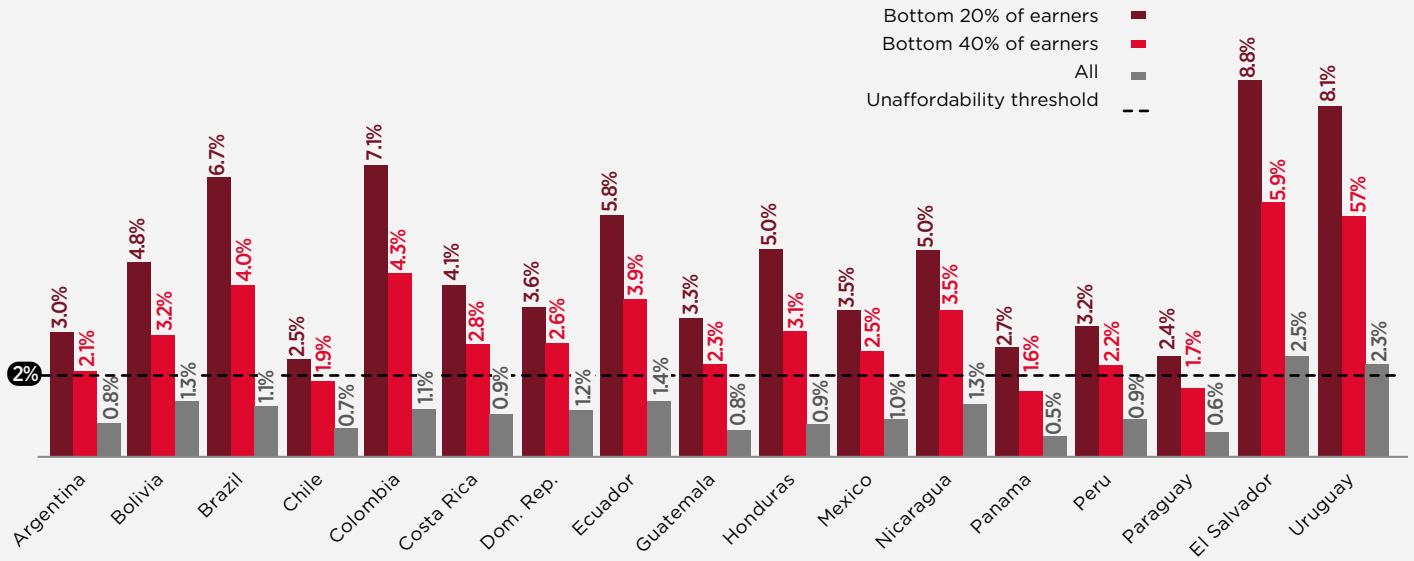
The calculation of the TCMO is therefore as follows:

$$\text{TCMO} = \frac{\text{Handset price}}{\text{Handset lifecyle}} + \frac{\text{Activation and connection price}}{\text{Handset lifecyle}} + \text{Usage price}$$

To account for income differences between countries, the TCMO is expressed as a percentage of income per capita across the two poorest income quintiles.

Figure 12

Total Cost of Mobile Ownership (TCMO) as a proportion of monthly income in Latin America, 2023

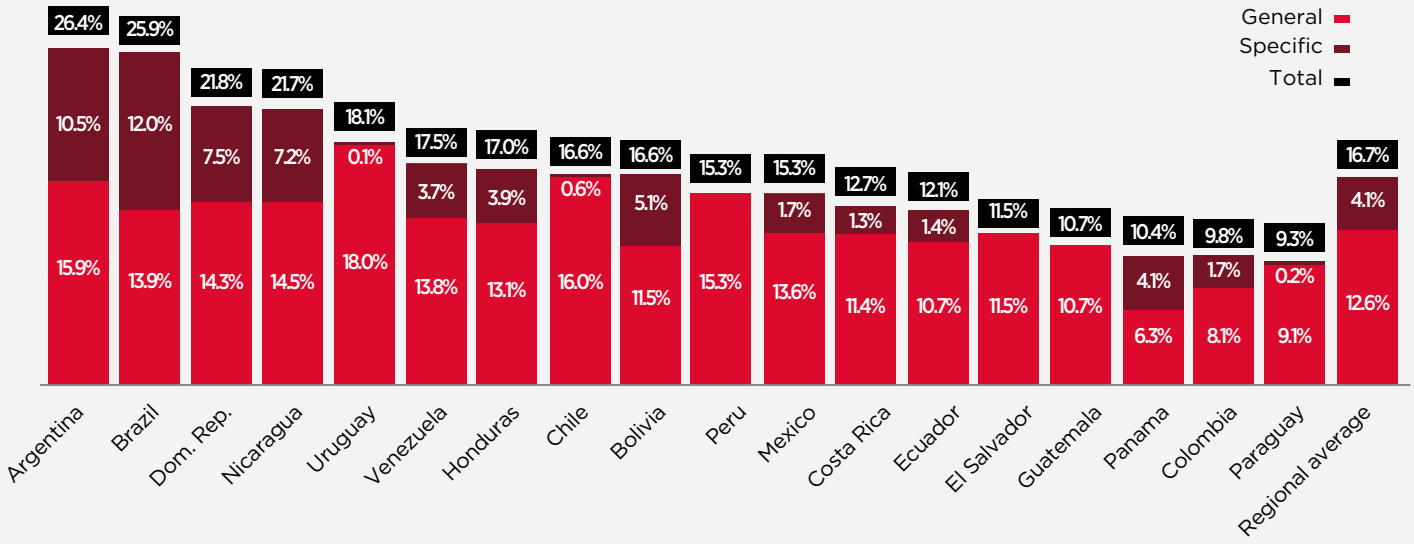


Source: GSMA Intelligence

In 2023, the TCMO for both the bottom 20% and 40% of earners significantly exceeded the unaffordability threshold of 2% in the majority of countries analysed in Latin America, highlighting the affordability gap between the lowest income groups and the rest of the population in the region. There were only three countries where the TCMO was affordable for the bottom 40% of earners (Chile, Panama and Paraguay), though it remained unaffordable for the bottom 20% of earners.

Figure 13

Proportion of taxes in Total Cost of Mobile Ownership (TCMO), 2023



Source: GSMA Intelligence

In 2023, Argentina[32], Brazil, Dominican Republic and Nicaragua faced the highest combined tax rates on mobile services. Removing sector-specific taxes on consumers would make the TCMO affordable for a significant number of users in Latin America.

32. TCMO in Argentina will be reduced from 2026 due to the elimination of customs duties and internal taxes on devices.

03

The impact of mobile taxes on overall tax revenues in Latin America

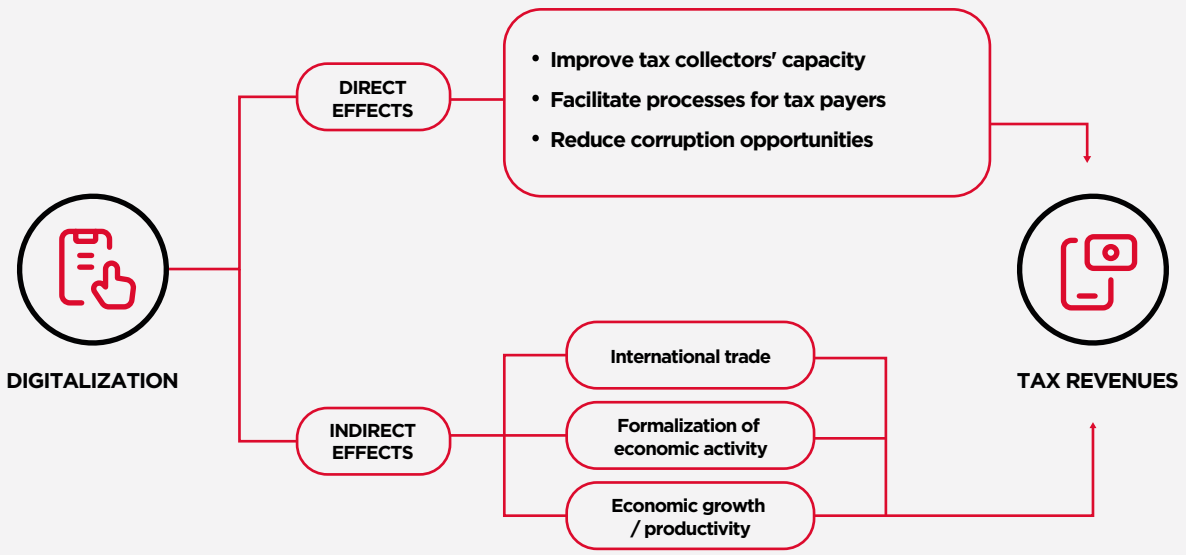
3.1

The effects of digitalisation on tax collection

The widespread adoption of mobile services has significantly contributed to the digitalisation of society, benefiting individuals, companies and the public sector. Several economic papers on public finance[33] analyse the extent to which the wider diffusion of digitalisation can positively generate a range of socioeconomic effects, including increased tax revenues through both direct and indirect effects.

Figure 14

Mechanisms for digitalization impact on tax revenues



Source: GSMA Intelligence

The first direct effect is the potential role of digitalisation to improve the capabilities of tax administration offices. Digital payment systems make more information available to governments to accurately determine the taxable base and the tax burden that citizens and companies face.

Digitalisation also facilitates tax payment procedures for individuals and firms. Tax declarations and payments are now generally made online. Digital payment methods also facilitate the tax collection process. Additionally, digitalisation can help enhance fiscal discipline, as it reduces the need for taxpayers to visit tax administration offices, reducing opportunities for corruption.

33. Gnangnon, S. K., & Brun, J. F. (2018). Impact of bridging the Internet gap on public revenue mobilization. Information Economics and Policy, 43, 23-33. Brun, J. F., Chambas, G., Tapsoba, J., & Wandaogo, A. A. (2020). Are ICT's boosting tax revenues? Evidence from developing countries. Adegboye, A., Uwuigbe, U., Ojeka, S., Uwuigbe, O., Dahunsi, O., & Adegboye, K. (2022). Driving information communication technology for tax revenue mobilization in Sub-Saharan Africa. Telecommunications Policy, 46(7), 102329. Tinta, J. K. (2023). How does digitalization improve non-resource tax revenue mobilization? Evidence from developing countries.

Indirect effects include the following:

- Better connectivity stimulates economic growth and productivity, which should increase tax revenues.
- Internet use can accelerate tax revenues through international trade. A more connected society can have better access to cheaper goods from abroad, while enterprises can import lower cost inputs to their production process from other countries. More competitive firms due to stronger international links will contribute to increased revenues and salaries, leading to further increases in tax collection.
- The widespread adoption of mobile services has evolved alongside the expansion of mobile money services and the use of digital payment systems. This enhances the traceability of economic transactions and boosts tax collection by bringing more economic activity into the formal tax system.

3.2
The impact of mobile sector-specific taxes and fees on digitalisation and tax revenues

Digitalisation has both direct and indirect impacts on tax revenues, with the extent of digitalisation determined by the level of adoption and usage intensity that the population makes of connectivity.

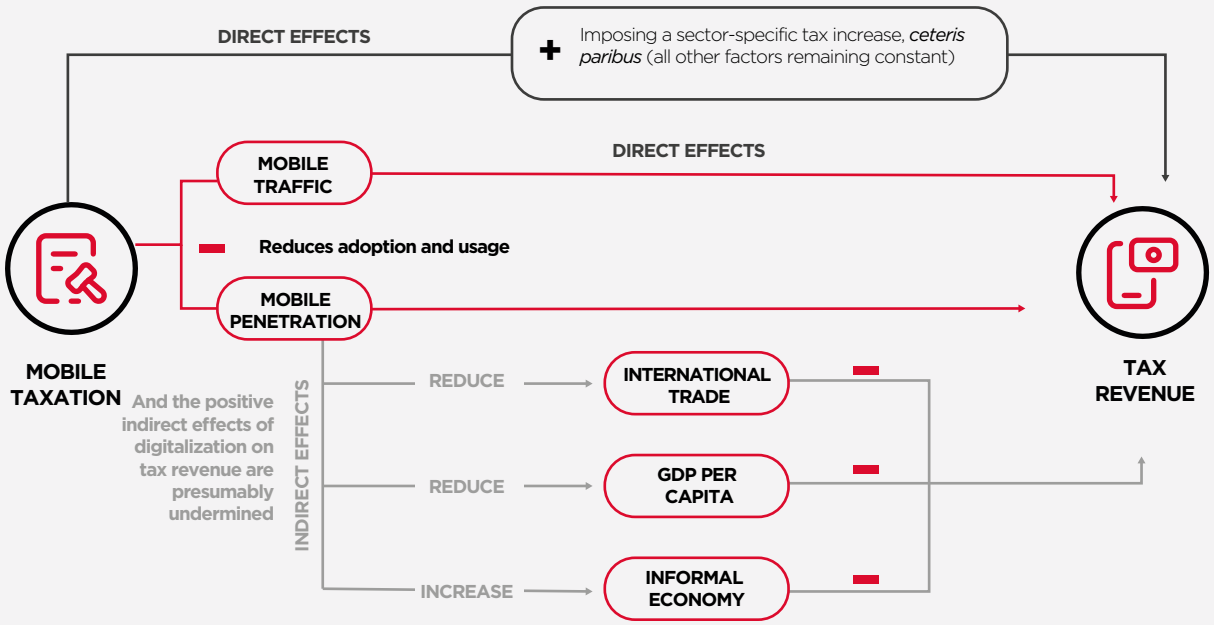
If there is a positive link between digitalisation and tax revenue, does it make sense to tax investment in connectivity infrastructure, mobile services and devices, given it can constrain the adoption and use of digital services? In theory, it depends. Taxing connectivity generates direct tax revenues. At the same time, it generates negative effects on tax revenues, both directly and indirectly.

This section analyses the overall net effect from taxation on connectivity. On the one hand, sector-specific taxes are expected to directly increase revenue collection. On the other hand, they can constrain supply and demand for digital services and reduce tax revenue.

The analysis is not purely focused on direct effects on tax revenues, but also potential indirect effects mediated through other economic indicators that typically benefit from digitalisation. The net result after considering these effects simultaneously is the main question being tested empirically.

Figure 15

Usage and economic factors linking mobile internet adoption to tax revenue



Source: GSMA Intelligence

Latin America is a suitable test region, as mobile services are highly taxed with several sector-specific taxes and fees. This analysis looks to identify if there is a positive relationship between digitalisation and tax revenues, to determine if it is reasonable to maintain sector-specific taxes that can hinder investment in connectivity infrastructure and, subsequently, the adoption of digital services.

To answer this question, we rely on econometric methods that allow us to robustly isolate the nature and size of these effects from other confounding factors. With the results of the econometric analysis, it is then possible to estimate the overall direct and indirect effects on tax revenues and establish whether the effects generate higher or lower tax revenues than those generated through sector-specific taxes.

The econometric analysis is focused on Latin America and the Caribbean, and covers 26 countries[34] between 2008 and 2023. The main variable of interest is tax revenue per capita. In our analysis, this is estimated as a function of several factors, such as trade and GDP (both measured on a per-capita basis), the extent of the informal economy (as a percentage of GDP), and the role of mobile internet adoption.

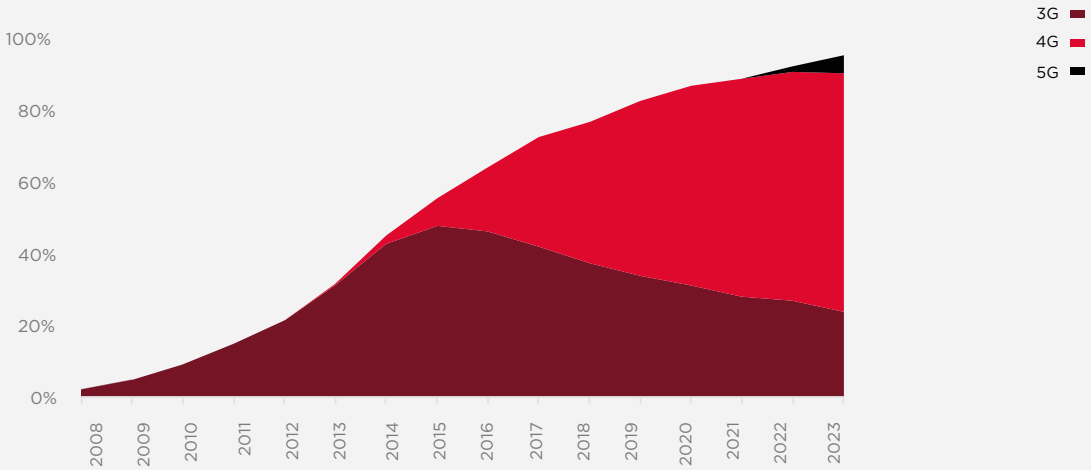
34. Antigua and Barbuda, Argentina, Bahamas, Barbados, Belize, Bolivia, Brazil, Chile, Colombia, Costa Rica, Dominican Republic, Ecuador, El Salvador, Guatemala, Guyana, Honduras, Jamaica, Mexico, Nicaragua, Panama, Paraguay, Peru, Saint Lucia, Trinidad and Tobago, Uruguay and Venezuela.

Two indicators are used to assess the extent of mobile internet adoption:

- **Mobile broadband adoption,** which is defined as the percentage of the population with connections of 3G or later technology generations (4G or 5G).
- **Average data traffic per connection** (in GB), providing a perspective on the intensity of mobile internet usage.

Figure 16

Mobile broadband penetration by technology in Latin America (as a % of connections)



Source: GSMA Intelligence

Once the econometric model is fitted, we carry out simulations of the net effect on tax revenue of removing mobile sector-specific taxes at two different points in time:

- First, we simulate a tax reduction in 2023, leveraging the econometric model´s results for the most recent period (2016–2021). This captures the current technological conditions (4G predominance), market dynamics (widespread adoption of mobile broadband) and the increasing importance of digitalisation for effective tax collection (see Figure 16).
- Second, we simulate a tax reduction in 2016, considering the econometric results during an extended period (2009–2021), including years when mobile broadband was not as widely available and when the effects of digitalisation on tax collection would not have been as strong as they are today.

This comparison allows us to identify whether increased digitalisation in the region has impacted potential tax collection, and how the evolution of mobile services in recent years has affected the determination of the tax base on which sector-specific taxes are levied

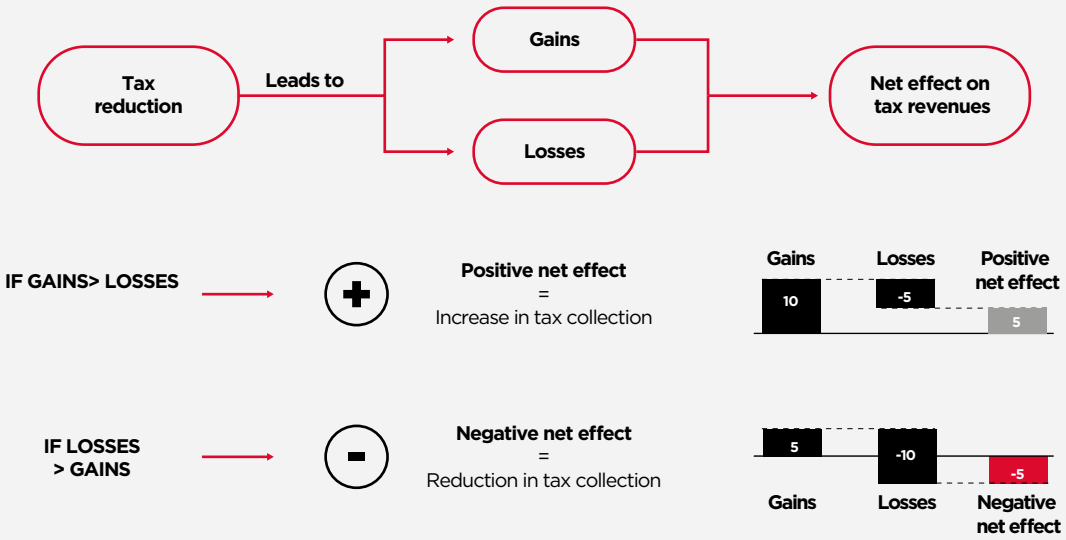
3.3

Econometric results

We simulate the scenario of a mobile sector-specific tax reduction[35] for two markedly different periods: 2016 and 2023. This is carried out for the countries that impose the highest mobile service-specific taxes and fees in Latin America– namely, Argentina, Brazil, Colombia, Costa Rica, Dominican Republic, Panama, Venezuela and Mexico. For these, we estimate the net result on tax revenues, considering gains and losses[36] to assess the overall effects, measured on a tax-revenue-per-capita basis (Figure 17) for both periods.

Figure 17

Positive and negative net effects of sector-specific tax reduction on tax collection



Source: GSMA Intelligence

35. The simulation considers the removal of mobile sector-specific taxes on consumers. On the operator side, it includes the reduction of any regulatory and USF fees to the international standards (1% imposition) and the removal of any other mobile sector-specific tax on operators. It excludes spectrum fees from the analysis. As operators usually transfer only part of the costs associated with these obligations to consumers, a 50% pass-through rate is assumed (Mobile taxation studies, GSMA and EY, 2020).

36. If sector-specific taxes are eliminated, prices will reduce, and penetration and use should grow, triggering direct and indirect effects that will increase tax collection. We should also account for the losses, as the elimination of any tax generates an immediate tax revenue reduction. This is calculated by considering the average price per GB and the share of the price that accounts for sector-specific taxes to be eliminated.

3.3.1

Net effects on tax revenues

The net impact of reducing mobile sector-specific taxes in 2016 would have been negative for overall tax collection across all the countries analysed, with annual tax revenue reductions ranging from a fall of $1.7 per capita in Venezuela to a reduction of $26.3 per capita in Panama.

The direct tax collection from devices and services – the main tax base to sector-specific taxes are applied to – was higher than the potential tax revenue gain from the direct and indirect effects of increased adoption and use of mobile services. Among other factors, the prevailing technology in 2016 (3G) did not support a digitalisation process capable of driving a profound transformation of the economy in a way that would expand the overall tax base in countries and lead to increased tax revenues.

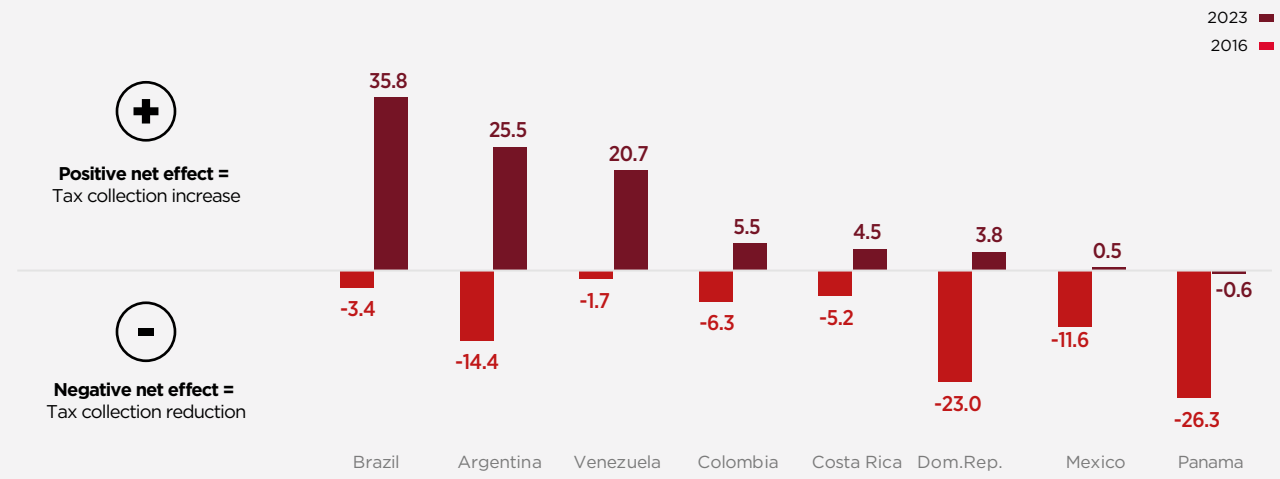
The same tax reduction in 2023 would have had a markedly different impact, with the direct tax revenue gains from digitalisation largely outweighing the loss in tax revenue from sector-specific taxes. In 2023, widespread adoption of 4G-enabled mobile broadband in the region clearly supported the positive effects of digitalisation – not only among individuals but also in companies and public sector institutions. At the same time, a reduction in the prices of plans and devices reduced the sector-specific tax base and the tax loss from the elimination of sector-specific taxes.

The positive effect on tax collection occurs through enhanced productivity, boosted economic growth, stimulated international trade and increased business formalisation through digital payment systems. These effects are larger than the negative effect on tax collection from a reduction in sector-specific taxes. The latter is smaller, in part due to the decline in recent years of the price of mobile services and devices, which reduces the tax base sector-specific taxes are applied to.

In other words, in most of Latin America today, the higher tax revenues from the increased use and adoption of mobile services generally outweigh the additional tax revenues that could be collected from sector-specific taxes.

Figure 18

Net effect on yearly tax revenue per capita generated by reducing mobile sector-specific taxes (USD per capita), 2016 vs 2023



Source: GSMA Intelligence

In Brazil, the net result of reducing mobile sector-specific taxes is very positive in terms of the tax collection increase, with revenue gains reaching $35.8 per capita. In Argentina, there is also a clear gain of $25.5 per capita, while in Venezuela the tax revenue increase is $20.7 per capita. In Colombia, Costa Rica and Dominican Republic, the gains range from $5.5 to $3.8 per capita. Finally, in Panama[37] and Mexico, the net effect is largely neutral, with the positive effects on tax revenues cancelled out by a reduction in direct tax collection from sector-specific taxes.

We expect the net positive effect of a normalisation of the fiscal treatment on mobile connectivity to further strengthen, in line with the continued process of digitalisation across Latin American societies. This should further strengthen both the direct and indirect mechanisms through which the use of mobile internet underpins positive effects on tax collection.

37. Since 2022 (a period not covered by the econometric analysis) service price levels, which are the main tax base for sector-specific taxes, have drastically reduced in Panama. This suggests that had the simulation been carried out post 2022, the net effect would likely have resembled the results observed in other countries.

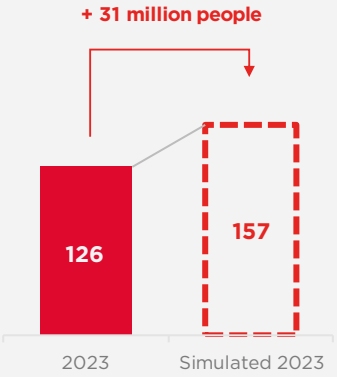
3.3.2

Effects on affordability

The TCMO in Latin America for 2023 significantly exceeded the affordability threshold of 2% for the lowest income population, highlighting a substantial affordability gap (see Total cost of mobile ownership). The average mobile sector-specific tax burden in the region represented nearly 4% of TCMO, with most affected countries between 7% and 12%.

Figure 19

Population with an affordable TCMO based on their monthly income (millions of people) in 2023



Source: GSMA Intelligence

As improving income represents a long-term challenge for Latin America, **removing mobile sector-specific taxes has become a powerful public policy alternative for boosting affordability in a timely and efficient manner. Based on the simulation for 2023, removing mobile sector-specific taxes would make the TCMO affordable for an additional 30 million people across the region.**

04

Conclusions

The role of mobile services in Latin America has evolved significantly over the last 25 years, from a niche service to a vital resource in the daily lives of citizens and businesses. It is a key driver for enabling universal access to the internet and fostering socioeconomic development across the region.

Despite this transformation, the framework for mobile sector-specific taxation has remained largely unchanged over the past decade, with no major shifts to reflect the essential contribution of mobile connectivity. In 2023, sector-specific taxes and fees on mobile connectivity in Latin America amounted to around $4.65 billion, representing 6.5% of the total cost of connectivity and resulting in a tax contribution that was more than double the sector's contribution to regional GDP.

At the same time, effective tax collection is now increasingly linked to and dependent on digital payment systems, driven by technological improvements and the widespread adoption of mobile services. These facilitate tax payment procedures and make transactions more likely to occur through digital channels, bringing more economic activity into the formal tax system to expand the overall tax base.

On the one hand, sector-specific taxes generate tax revenues. On the other hand, they also increase prices, discourage adoption, hinder investment and restrict innovation. Ultimately, this reduces the pace of the digitalisation process and therefore the ability of tax authorities to take full advantage to maximise overall tax revenues. These contrasting positions pose the question whether it is desirable to impose sector-specific taxes on connectivity when they not only discourage adoption and investment but also reduce the extent to which tax authorities can be effective in mobilising tax revenues.

The quantitative results confirm positive direct and indirect effects on public-sector tax revenues from the growth of mobile internet adoption and usage. While sector-specific taxes originally had a positive effect on net fiscal revenues, this effect has eroded over time, alongside the growing importance of digitalisation for effective tax collection:

- In 2016, the net impact of reducing mobile sector-specific taxes would have been significantly negative for tax collection across all the countries analysed.
- In 2023, the reduction of mobile sector-specific taxes would have resulted in greater overall tax revenues, in line with the increasing importance of digitalisation for effective tax collection as well as a smaller tax base due to price reductions in mobile services and devices.

The results suggest that the removal of mobile sector-specific taxes in the region would promote digital inclusion and economic growth without having a negative impact on tax collection. If anything, the net fiscal impact would likely be positive, as shown by the most recent econometric simulations.

Reducing mobile sector-specific taxes would therefore accelerate digitalisation and help close the connectivity gap, making the service affordable for an additional 30 million people in the region, with no negative impacts on tax collection.

The evidence shows that the current fiscal policy framework for mobile connectivity is outdated. This finding is aligned with the position of many ICT ministries and regulators who have supported the need for reform.

The results have important implications for policymakers, particularly tax, telecoms and trade authorities, and highlight the large opportunity cost from sector-specific taxes in the region, not just in terms of digitalisation and economic impact but also in terms of foregone tax revenues.

Moreover, this represents a call to action for international and regional institutions (such as the ITU, World Bank, OECD and CITEL) to support forthcoming reforms to the fiscal and regulatory framework for mobile connectivity and to actively contribute to bridging the knowledge gap between ICT and tax authorities.

05

Appendix

For the purposes of this analysis, we gathered data on handset and mobile service bundle prices, tax rates and payments, macroeconomic indicators, and key mobile market metrics. Table 2 summarizes the variables used.

Table 2
Summary of variables and sources

Area	Variable	Time	Source
Prices	Smartphone prices without taxes	2023	Public sources and GSMA analysis
	Handset price	2023	GSMA Intelligence
	Activation and connection price	2023	GSMA Intelligence
	Usage price	2023	GSMA Intelligence
Tax rates	General tax rates	2022	Mobile operators
	Sector-specific tax rates	2022	Mobile operators
Tax payments	Tax payments (general, sector-specific)	2022	Mobile operators/GSMA Intelligence
Macroeconomic	Nominal GDP	2023	IMF
	Population	2023	World Bank
	Income distribution	2022	World Bank
	Exchange rates	2022-2023	OANDA
	Tax revenue as a proportion of GDP	2022	OECD
Mobile market	Mobile operator revenue	2023	GSMA Intelligence
	Mobile operator profits (EBIT)		Public sources and GSMA analysis
	Market share by operator	2023	GSMA Intelligence
	Number of smartphone imports	2022-2023	GSMA Intelligence

GSMA Head Office
1 Angel Lane
London
EC4R 3AB
United Kingdom
Tel: +44 (0)20 7356 0600