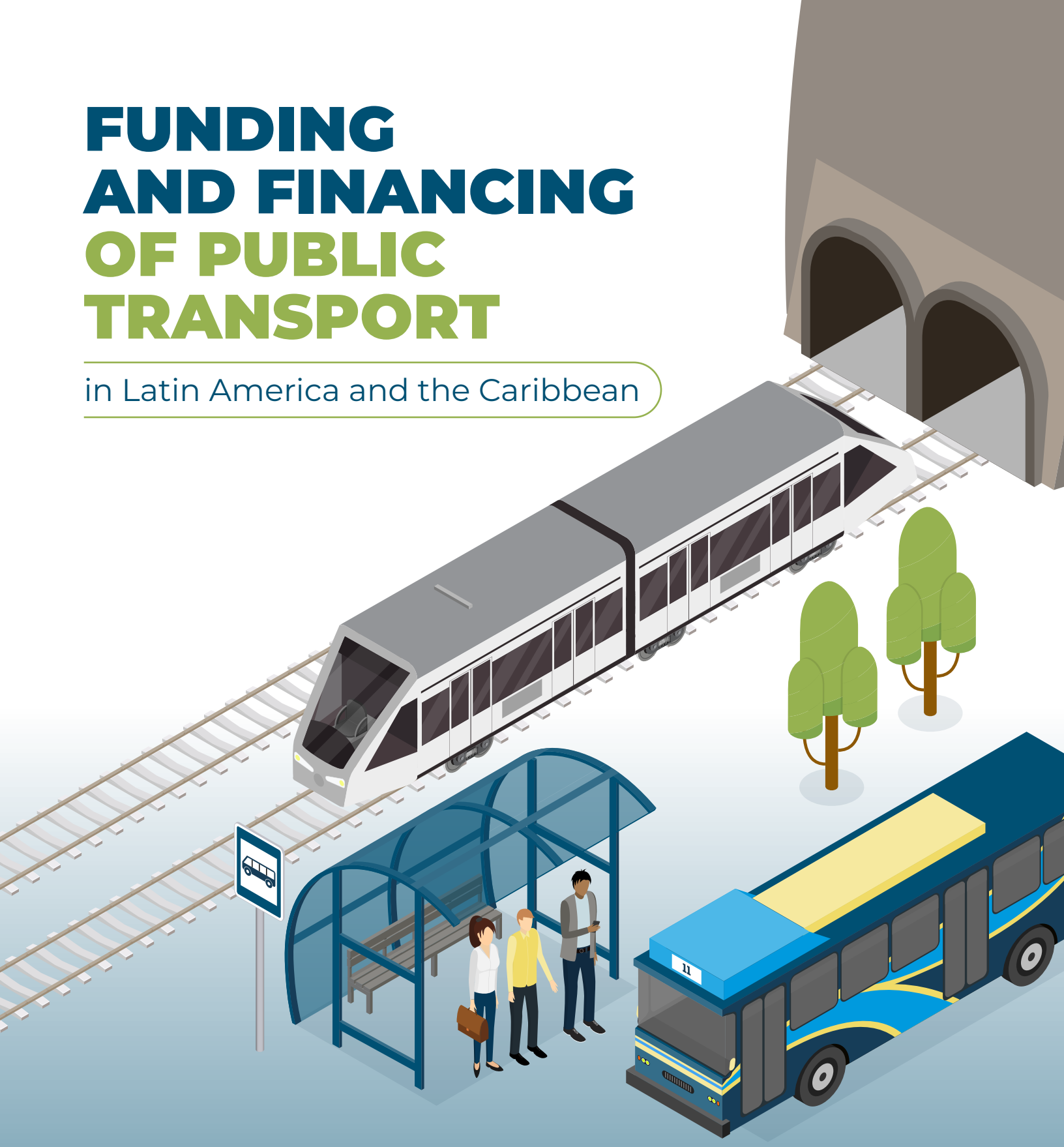
FUNDING AND FINANCING OF PUBLIC TRANSPORT

in Latin America and the Caribbean



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FUNDING AND FINANCING OF PUBLIC TRANSPORT

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ACRONYMS

AFD	French Development Agency
ANSV	Agencia Nacional de Seguridad Vial (Colombia)
ATM	Metropolitan Transportation Agency (Spain)
ATTT	Panama Land Transit and Transportation Authority
ATU	Urban Transport Authority for Lima and Callao (Peru)
Banobras	National Bank of Public Works and Services (Mexico)
BNDES	National Bank for Economic and Social Development (Brazil)
BRT	Bus Rapid transit
CAF	Development Bank of Latin America and the Caribbean
CAPEX	Capital expenditure
CBI	Climate Bonds Initiative
CEPAC	Certificado de Potencial Adicional de Construção (Brazil)
CRTM	Madrid Regional Transport Consortium
CTF	Clean Technology Fund
DPTR	Regional Public Transport Division (Chile)
DTPM	Metropolitan Public Transport Directorate (Chile)
EBITDA	Earnings before interest, taxes, depreciation, and amortization
EIB	European Investment Bank
EMB	Empresa Metro de Bogota
FDN	National Development Finance Agency (Colombia)
FESDE	Stabilization and Demand Subsidy Fund (Colombia)
FET	Fare Stabilization Fund (Colombia)
Fonadin	National Infrastructure Fund (Mexico)
GCF	Green Climate Fund
GDP	Gross domestic product
GEF	Global Environment Facility
GSSSB	Green Social and Sustainable Bond
ICFP	Frequency and Seat Compliance Index
ICMA	International Capital Market Association
IDB	Inter-American Development Bank
IFC	International Finance Corporation

IKI	International Climate Initiative
ILO	International Labour Organization
ISIC	International Standard Industrial Classification
ITDP	Institute for Transportation and Development Policy
ITF	International Transport Forum
LAC	Latin America and the Caribbean
MIGA	Multilateral Investment Guarantee Agency
MTA	Metropolitan Transportation Authority (New York)
OECD	Organization for Economic Cooperation and Development
OICA	International Organization of Motor Vehicle Manufacturers
OMSA	Metropolitan Bus Services Operator (Dominican Republic)
OODC	Outorga Onerosa do Direito de Construir (Brazil)
OPEX	Operating expenditure
PAYS	Pay as you save
PMR	Partnership for Market Readiness
PMSS	Safe and Sustainable Mobility Plan (Colombia)
PPC	Performance Payment Certificate (Colombia)
PPP	Public-private partnership
RTP	Passenger Transport Network (Mexico)
RUI	Universal Income Registry (Colombia)
RUNT	Registro Único Nacional de Tránsito (Colombia)
SDM	District Mobility Secretariat (Colombia)
SDGs	Sustainable Development Goals
SEMOVI	Mexico City Mobility Secretariat
SISBEN	System for Identifying Potential Beneficiaries of Social Programs (Colombia)
SITM	Integrated Mass Transit System (Colombia)
SPV	Special-purpose vehicle
STE	Servicio de Transportes Eléctricos de la Ciudad de México
STM	Metropolitan Transportation System (Uruguay)
TfL	Transport for London
TPE	Payment for Performance Certificate (Colombia)
UKSIP	United Kingdom Sustainable Infrastructure Program
USPP	U.S. Private Placement
UTIP	International Association of Public Transport

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The authors assume full responsibility for any errors in the information or analysis. The opinions expressed in this publication are solely those of the authors and do not necessarily reflect the position of the IDB, its board of directors, or the countries it represents.

Executive Summary

Public transport under pressure: the challenge of funding and financing

Public transport plays an essential role in promoting social inclusion, productivity, and environmental sustainability. In terms of social inclusion, it connects people more equitably with socioeconomic opportunities, reducing territorial and income gaps. In terms of productivity, by concentrating trips in high-capacity modes and freeing up roads, it shortens and makes daily commutes more reliable, increases time efficiency, improves work punctuality, and reduces urban logistics costs, strengthening the competitiveness of cities. In terms of environmental sustainability, public transport reduces greenhouse gas emissions and local pollutants by replacing higher-emission trips, discourages intensive car use, and promotes a more compact and resilient urban pattern, with direct benefits for public health and the quality of life.

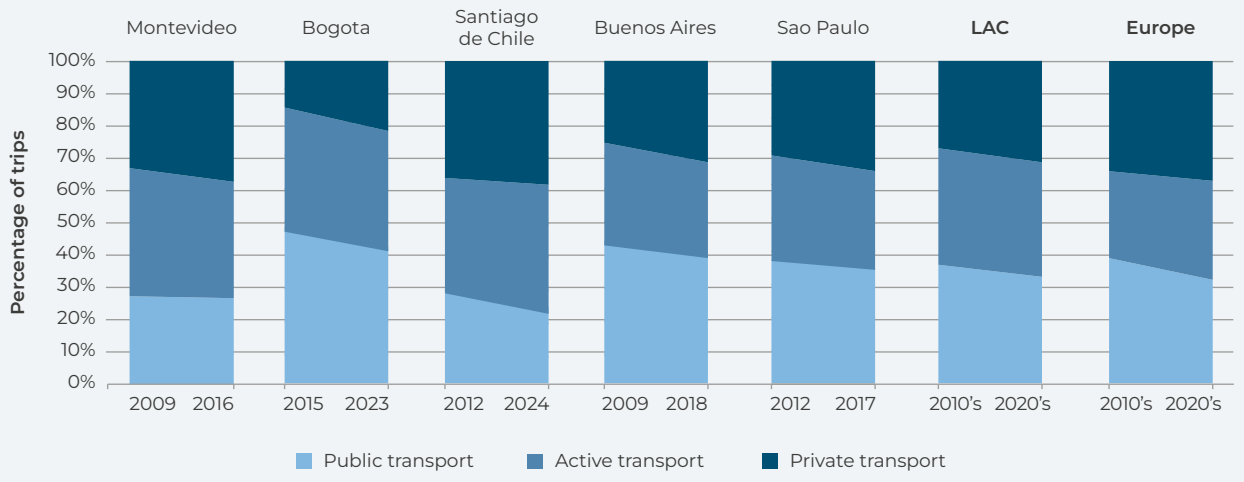
However, achieving these benefits—which materialize when public transport service is reliable, safe, and affordable—depends largely on the funding and financing capacity of transport systems. In recent decades, the sustained loss of users, the failure to update fares, and the increase in operating costs have severely affected the sector's available resources, directly impacting the financial sustainability equation of public transport (Price x Quantity - Total Costs). As a result, public transport systems in Latin America and the Caribbean face significant challenges to secure the resources necessary to provide quality services that reverse the loss of users and competitiveness compared to private transport.

The loss of users

Public transport systems have lost users because of a combination of supply and demand factors that have reduced their competitiveness compared to cars and motorcycles. Between 2010 and 2023, public transport decreased its share of daily trips in major Latin American and Caribbean cities (Figure 1), reinforcing a long-term negative trend. Public transport went from representing approximately 50 percent of these trips in the 1990s to 35 percent in the 2010s (Rivas, Suárez-Alemán and Serebrisky, 2019). In particular, to date, a large part of the public transport systems in the region have not recovered to pre-COVID-19 pandemic demand levels. In fact, post-pandemic behavioral changes—such as teleworking, distance learning, and the adoption of flexible schedules—along with the expansion of app-based transportation services, have reinforced the negative trend, consolidating an incomplete recovery in demand.

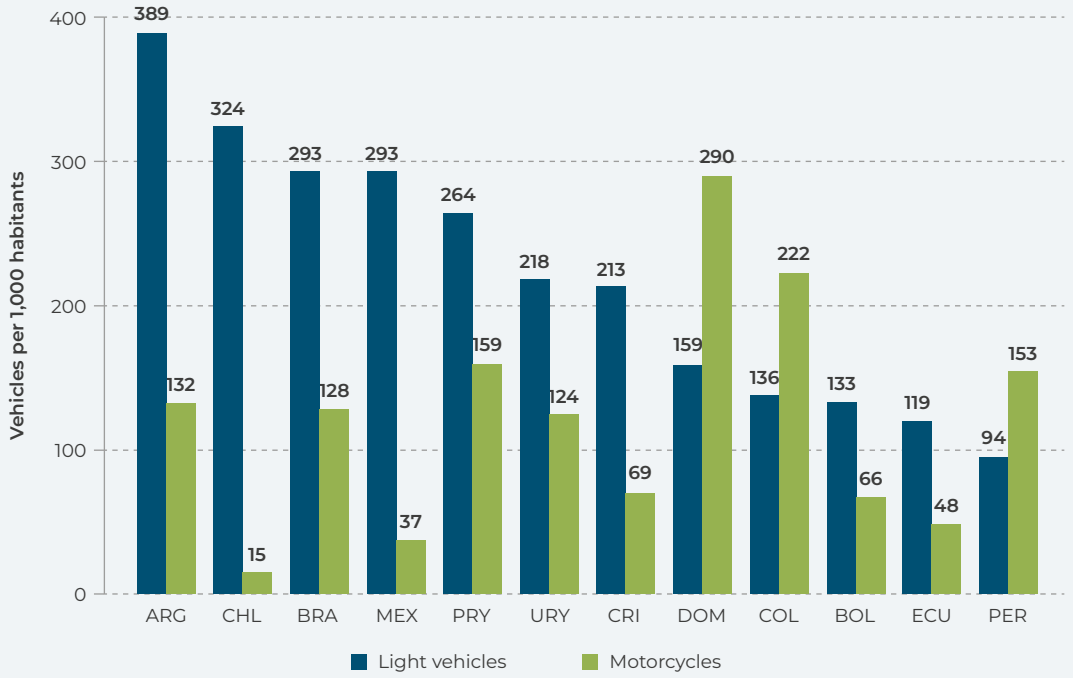
One of the main causes of the decline in public transport demand is the increase in motorization. The flip side of the loss of public transport users has been an increase in the use of private vehicles, which, combined with the increase in average income in Latin American and Caribbean countries, has led to an increase in the motorization rate (Figure 2). In turn, motorcycles are playing an increasingly significant role in mobility in the region. In some countries, such as the Dominican Republic, Colombia, and Peru, the number of motorcycles even exceeds the number of cars.

FIGURE 1. Evolution of Modal Split in Selected LAC Cities



Source: Prepared by the authors with origin-destination survey data. Latin America and the Caribbean: Bogota, 2015, 2023; Buenos Aires, 2009, 2018; Mexico City, 2007, 2017; Montevideo, 2009, 2016; Sao Paulo, 2012, 2017; and Santiago de Chile, 2012, 2024. Europe: Stockholm (National Mobility Survey 2012–2023); Copenhagen (National Mobility Survey, 2012–2022); Bern, Basel, Geneva, Zurich, Paris (Eurostat, 2012–2021); London (London Mobility Survey, 2012–2023); Vienna (Vienna Mobility Report, 2010–2019); and Berlin (Benno Bock, 2018–2022).
Note: LAC: Latin America and the Caribbean.

FIGURE 2. Motorization Rate in Selected LAC Countries, 2023



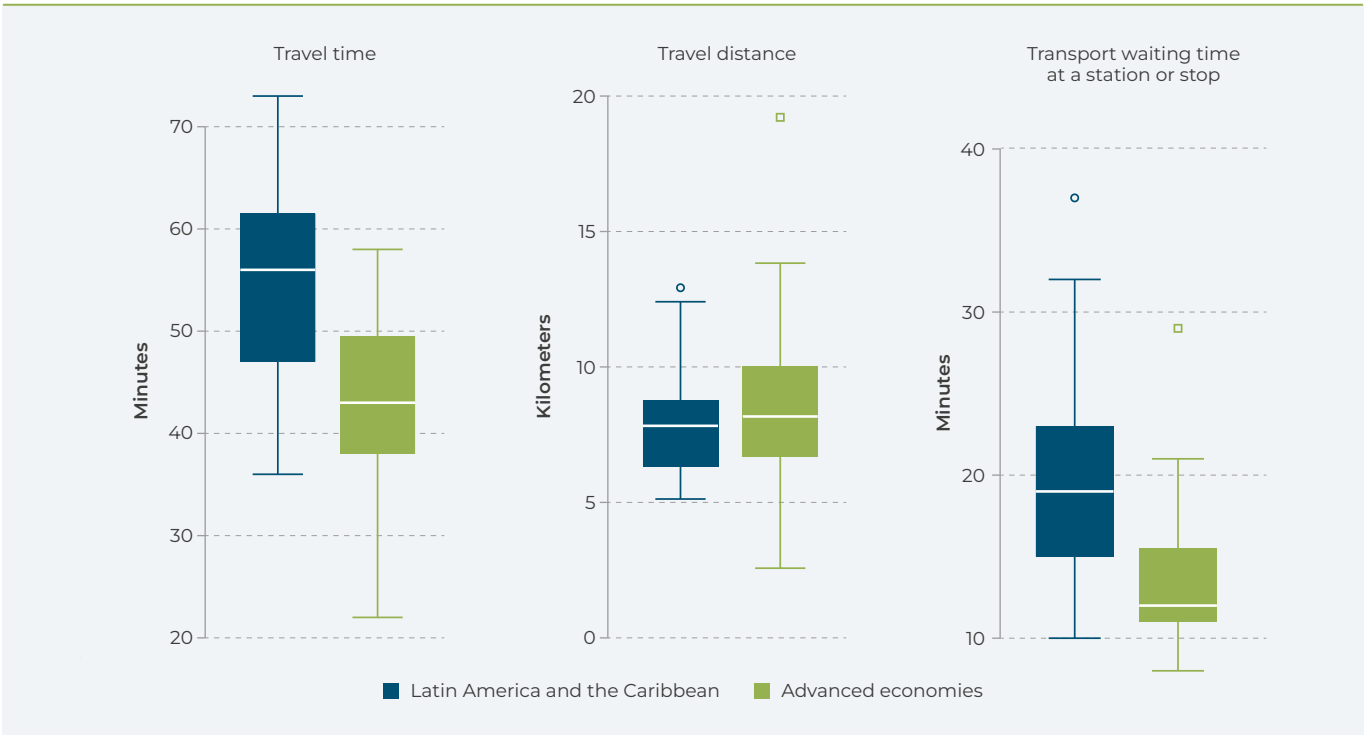
Source: Prepared by the authors based on technical reports from the entities responsible for vehicle registration in each country: Colombia (RUNT, 2023); Brazil (Ministry of Transport, 2023); Mexico (INEGI, 2023); Argentina (DNRPA, 2023); Uruguay (Ministry of Industry, Energy, and Mining, 2023); Chile (CAVEM, 2023); Peru, Bolivia, Ecuador (Andean Community, 2023); Costa Rica (INEC, 2023); Dominican Republic (DGII, 2023); and Paraguay (ANTSV, 2023).

The deterioration in service quality and asymmetry in infrastructure allocation reduces the competitiveness of public transport and exacerbates the loss of users. The quality of public transport services in Latin America and the Caribbean is significantly lower than in other regions of the world. Travel times in the region are longer than in advanced economies, while waiting times are longer and more variable (Figure 3). High levels of road congestion in several cities in the region have a severe impact on these indicators. At the same time, the accessibility provided by the region's public transport system is reduced, the interoperability of transport services is limited, and user safety remains one of the main concerns mentioned in surveys on the perceived quality of services. Similarly, road infrastructure and the allocation of priorities in its use have penalized public transport compared to individual transport. In fact, in the road systems of 16 metropolitan areas in Latin America and the Caribbean, only 0.75 percent is dedicated exclusively to public transport and 2.5 percent to cyclists. As a result, the car is much more competitive than other modes of transport.

Inadequate fares

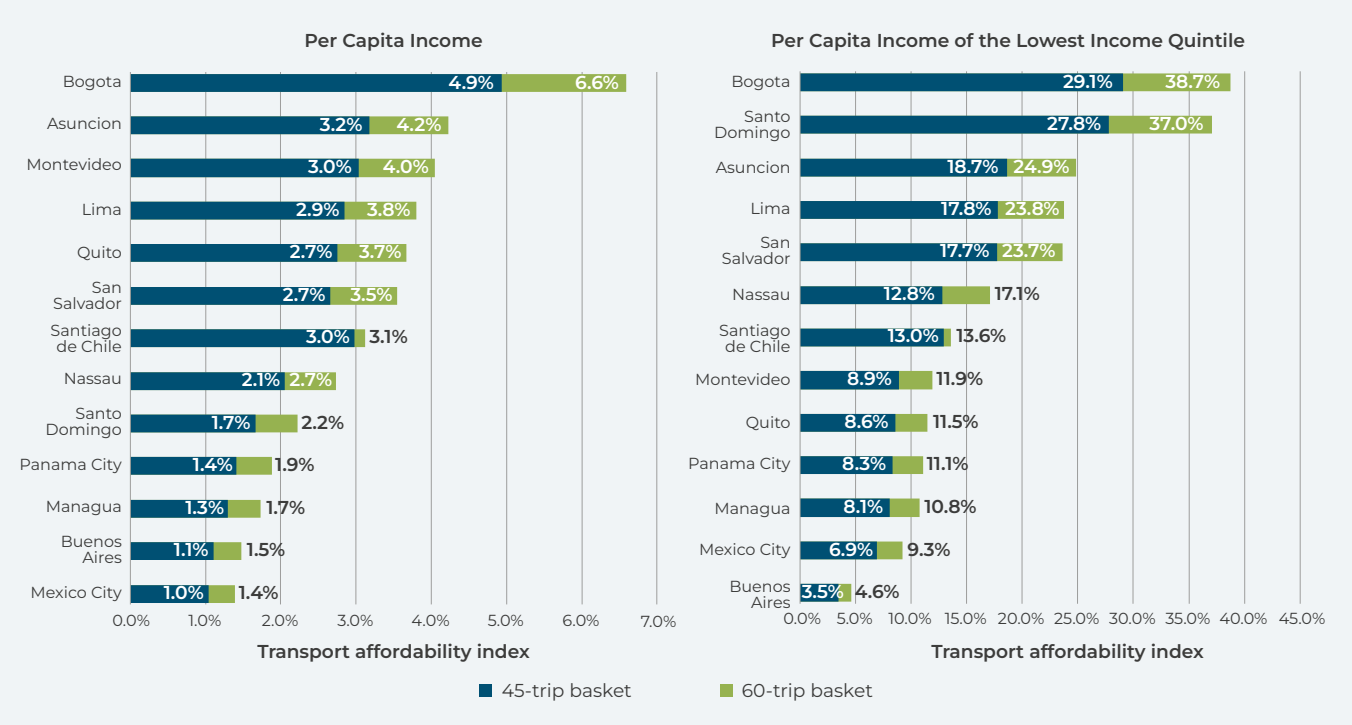
The setting of public transport fares in the region is mainly a response to political decisions, and their updating is not usually systematized. In real terms, fares have shown a downward trend, with a more marked decline since 2020, when subsidies to supply became widespread in order to sustain operations in the context of the pandemic. In several cases, fares tend to remain frozen for long periods, reflecting high social sensitivity to increases and the postponement of adjustments. On the other hand, the affordability of public transport remains a central challenge, especially for lower-income households, which allocate a significant proportion of their resources to transport or directly limit their travel. In fact, a basket of 60 monthly public transport trips can represent up to 40 percent of the per capita income of the lowest quintile of the population, restricting their mobility and access to employment opportunities (Figure 4).

FIGURE 3. Comparison of Travel Times and Distance in Public Transport in LAC vs. Advanced Economies



Source: Prepared by the authors with data from Moovit (2022).

FIGURE 4. Transportation Affordability Indicator in Selected LAC Cities, 2024



Source: Prepared by the authors with public information on public transport fares for 2024 and data from the World Bank's World Inequality Database and World Development Indicators.

Note: For the lowest income quintile indicator, the 2023 income distribution was used given the availability of data. Data were collected from governments and operators (reports and websites), as well as through contacts at IDB Country Offices. The estimate considers a basket of 45 single trips (two trips per working day) in order to simplify the analysis and facilitate comparability between cities. It is important to note that this indicator does not fully capture the particularities of fare-integrated systems, as fares were standardized to the price of a single, individual ticket, except in cases where discounted monthly passes are applied. For example, Santiago de Chile has a maximum spending system called DaleQR that allows free travel starting at around US$40. Above this value, the basket of 45 or 60 trips has a similar value. In this case, the fare for 60 trips for Santiago de Chile has been calculated using the maximum value of CLP 41,000.

Increase in costs

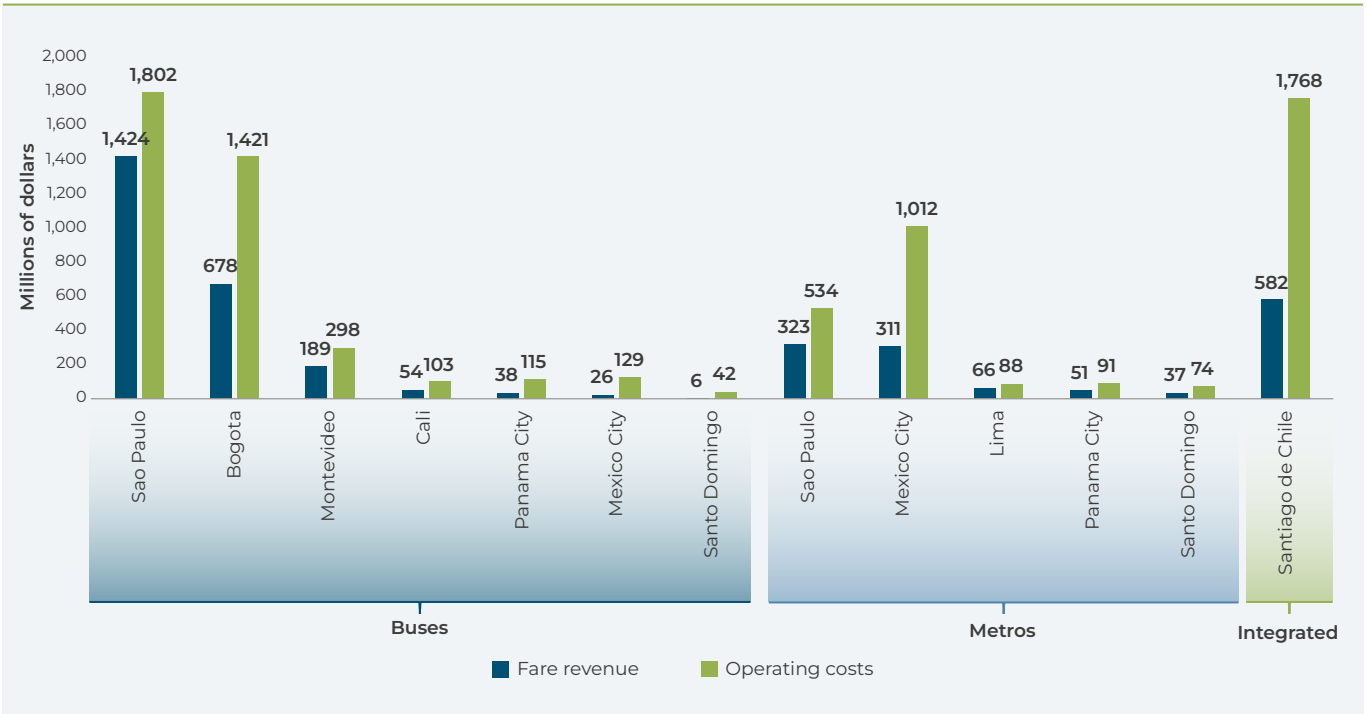
Public transport systems have experienced increased costs due to several factors, including greater congestion, rising input prices, ambitious reforms without adequate funding, and unplanned urban growth. Urban congestion generates significant economic losses: in 2019 alone, 10 of the major cities in Latin America and the Caribbean lost 3.07 billion hours and US$8.681 billion due to traffic, representing between 0.5 and 1.1 percent of each city's GDP. This phenomenon reduces the speed of bus traffic in the absence of exclusive lanes, forces an increase in fleet size and frequency to maintain service quality, and raises operating costs. At the same time, the prices of key inputs have risen steadily, especially labor, which is the largest component in the systems' cost structures. Cost pressures have been exacerbated by the implementation of reforms financed exclusively by fare revenues, which have proved insufficient to maintain service quality, leading to a drop in demand and increased financial pressure. Added to this is an accelerated process of urbanization and territorial dispersion in Latin America and the Caribbean, which hinders the efficient provision of public transport in peripheral areas. Indeed, the combination of low density and poor land-use planning raises operating costs, reduces the financial viability of the service, and encourages greater dependence on private vehicles, reinforcing the cycle of congestion and increasing the cost of the system.

The challenge of funding and finance

These three factors—a reduction in passenger numbers, limited fare policies, and increased costs—have presented public transport with a key challenge in terms of economic sustainability. Over the last decade, fare revenue per kilometer traveled has fallen dramatically, whereas costs have increased. The high dependence on fare revenue to cover operating costs has led to a funding and financing crisis in the sector. As a result, in most cities, fare revenue does not cover even half of operating costs (Figure 5), forcing an increase in subsidies to maintain operations and putting strong pressure on already-restricted public budgets.

In this context, it is important to analyze two dimensions of the sector's economic sustainability that are intrinsically related: **funding**, which guarantees the resources to pay for investments and operating costs over time; and **financing**, which refers to the process of covering the initial costs of investments in transportation infrastructure and services. Both dimensions are key to ensuring that public transport systems have the necessary resources to provide quality services and thus move toward more efficient, sustainable, and inclusive urban mobility schemes.

FIGURE 5. Comparison of Fare Revenues and Operating Costs of Public Transport in Selected LAC Cities, 2023



Source: Prepared by the authors based on a questionnaire completed by the cities analyzed and public information, including annual reports and financial statements from system operators.

Notes: (1) The results should be interpreted taking into account the particularities of each system, such as its integration, institutional framework, service quality, coverage, and level of formality. (2) Transportation systems by city: Bogota and Cali, bus systems; Mexico City, buses (RTP and Metrobus) and the metro; Lima, the metro system only; Montevideo, only urban buses (STM); Panama City, bus systems (MiBus) and the metro; Santiago de Chile, buses and the metro; Santo Domingo, buses (OMSA) and the metro; and Sao Paulo, municipal bus systems and the metro.

Public Transport Funding

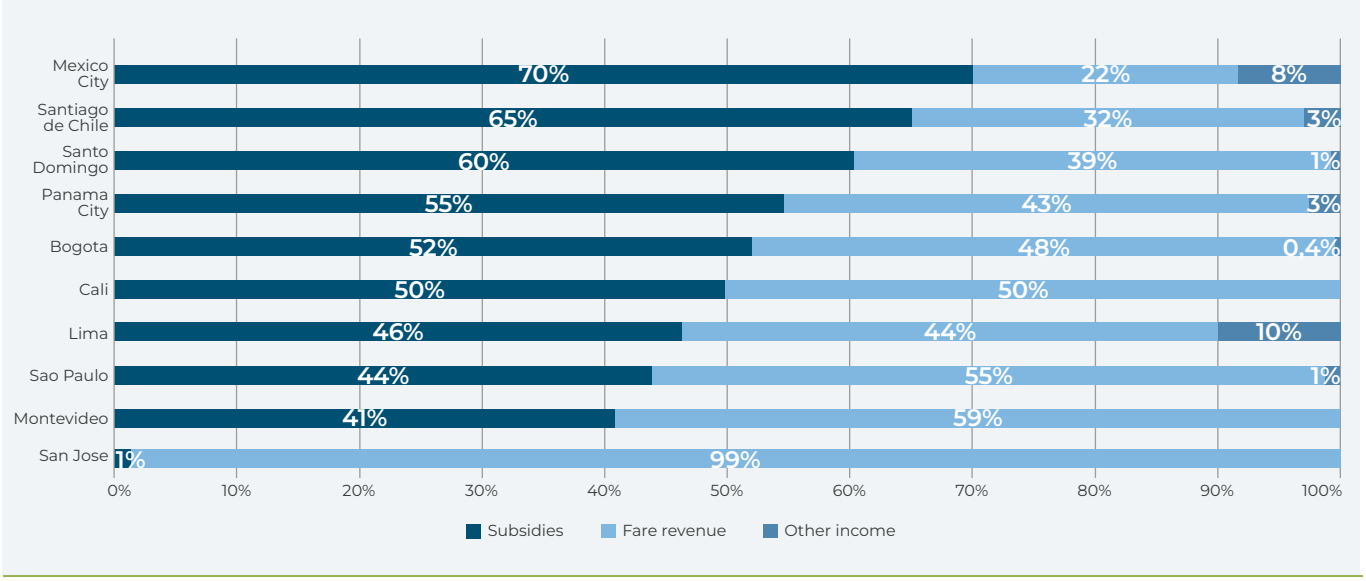
Public transport funding comes from four main sources: (i) direct beneficiaries (tolls); (ii) indirect beneficiaries (e.g., mechanisms such as value capture or property taxes); (iii) users of other modes of transportation (e.g., fuel taxes, congestion charges, or parking fees); and (iv) taxpayers (general taxes). Each source is usually earmarked for a specific use: fares mainly finance operation, maintenance, and minor investments, but are insufficient for large-scale infrastructure; contributions from indirect beneficiaries and taxpayers cover operating deficits and supplement revenues through operating subsidies; and mechanisms such as value capture are mainly geared toward capital investments. Together, these sources form the basis of the financial sustainability of public transport systems, although their effectiveness depends on how they are coordinated to balance operating and investment needs over time.

In the main cities of Latin America and the Caribbean, the operation of public transport systems depends almost exclusively on fare revenues and subsidies. Based on a survey of public transport information in 10 cities in the region, fares cover on average about half of total revenues, although with significant variations—from approximately 20 percent in Mexico City to almost 60 percent in Montevideo (Figure 6). The share of alternative sources remains incipient: Bogota has incorporated the Pico y Placa Solidario scheme, which in 2023 contributed more than 10 percent of the resources of the Fare Stabilization Fund; in Mexico City, 8 percent of revenue come from leases, advertising, and special services; and in Panama City, 3 percent or revenue is obtained from sources such as rentals and scrap metal sales. However, in many cases, revenue associated with public transport infrastructure is allocated to general budgets and not directly to the system, reflecting limited diversification of sources compared to more advanced international experiences, where specific taxes or commercial exploitation of the system are channeled more systematically to public transport funding.

Fare revenue, the main source of funding for public transport in the region, is under pressure from the sustained decline in passenger demand and, in many cases, high levels of fare evasion. The structural reduction in public transport use—accentuated by the increase in private transportation and the effects of the COVID-19 pandemic—left nearly 60 percent of the world's systems with demand levels still below pre-pandemic levels in 2024, with Latin America being the region where sector authorities are most pessimistic about the potential for revenue recovery (UITP, 2024). This trend, coupled with rising operating costs, has deepened the financial imbalance of the systems. Added to this is fare evasion, which in some cities exceeds 30 percent of revenues, directly affecting sustainability. Likewise, fare updates continue to be a highly sensitive political decision, which has led to prolonged fare freezes, reflecting the common tension between financial sustainability and social acceptance.

The use of funding sources from indirect beneficiaries of public transport remains limited in the region, despite its potential to complement fares. Although some systems have incorporated mechanisms such as value capture or the commercialization of space in stations and air rights,

FIGURE 6. Sources of Revenue for Public Transport Operations in Selected LAC Cities, 2023



Source: Prepared by the authors based on a questionnaire completed by the cities analyzed and public information, including annual reports and financial statements from system operators.

Notes: (1) The results should be read taking into account the particularities of each system, such as its level of integration, institutional framework, service quality, coverage, and level of formality. (2) Transportation systems by city: Bogota and Cali, bus and cable car systems; Mexico City, buses (RTP and Metrobus), metro, and STE (suburban trains, light rail, and Cablebus); Lima, the metro system only; Montevideo, urban buses (STM) only; Panama City, bus (MiBus) and metro systems; Santiago de Chile, buses, metro, and urban trains; Santo Domingo, buses (OMSA) and metro; San José, buses and urban trains (only the train is subsidized); and Sao Paulo, municipal bus, metro, and suburban train systems. (3) Other income: This generally refers to additional business activities of public transport companies (e.g., advertising, private services, use of spaces, among others), as well as surpluses from previous years, as is the case in Mexico City. Santiago de Chile: other revenues from metro systems (these revenues remain in the metro system and are not integrated into the Red Movilidad system); Santo Domingo: other revenues collected by the metro system; Lima: other metro revenues; Cali: does not report other revenues; and Montevideo: other revenues are deducted from administrative expenses in the calculation of the technical fare. In terms of subsidy coverage, although most subsidies are intended to fund operating deficits, in some cases they may include support for other components. For example, in Santiago de Chile, in addition to operations, the subsidy covers the fleet, terminals, freight, and metro infrastructure, among other services.

their use is still in its infancy and concentrated in specific cases. In metro systems, non-fare revenue is particularly important: in Sao Paulo it accounts for 13 percent of the total, and in Santiago de Chile 9.2 percent thanks to initiatives such as Santiago's Tobalaba Urban Market, which generated additional revenue and improved station accessibility. At the public transport system level, Sao Paulo stands out as an example of implementation of value capture mechanisms that have made it possible to raise funds through the sale of additional construction rights, which are used for infrastructure projects and urban improvements.

Public transport systems in the region depend significantly on taxpayer-based funding. In most Latin American and Caribbean countries, it is the national or regional budget that provides the funds to make subsidies to the sector viable. In a region characterized by the predominance of indirect taxes, which are usually regressive (Pessino *et al*., 2023), this heavy reliance on taxpayer-based funding puts additional pressure on transportation spending by lower-income households.

The challenge of subsidies

Public transport subsidies are an indispensable tool to ensure the operation and affordability of quality transportation services. At the same time, however, they pose significant challenges in terms of sustainability and efficiency. On the one hand, they make it possible to reduce the fares paid by users, cover operating deficits, and ensure the provision of an essential service for urban mobility. On the other, their growing magnitude in the region—in a context of declining ridership and rising operating costs—places significant pressure on public budgets and limits the scope for investment in structural improvements in quality, integration, and innovation. The central challenge, therefore, is to design subsidy schemes that ensure service continuity while promoting long-term efficiency, equity, and sustainability.

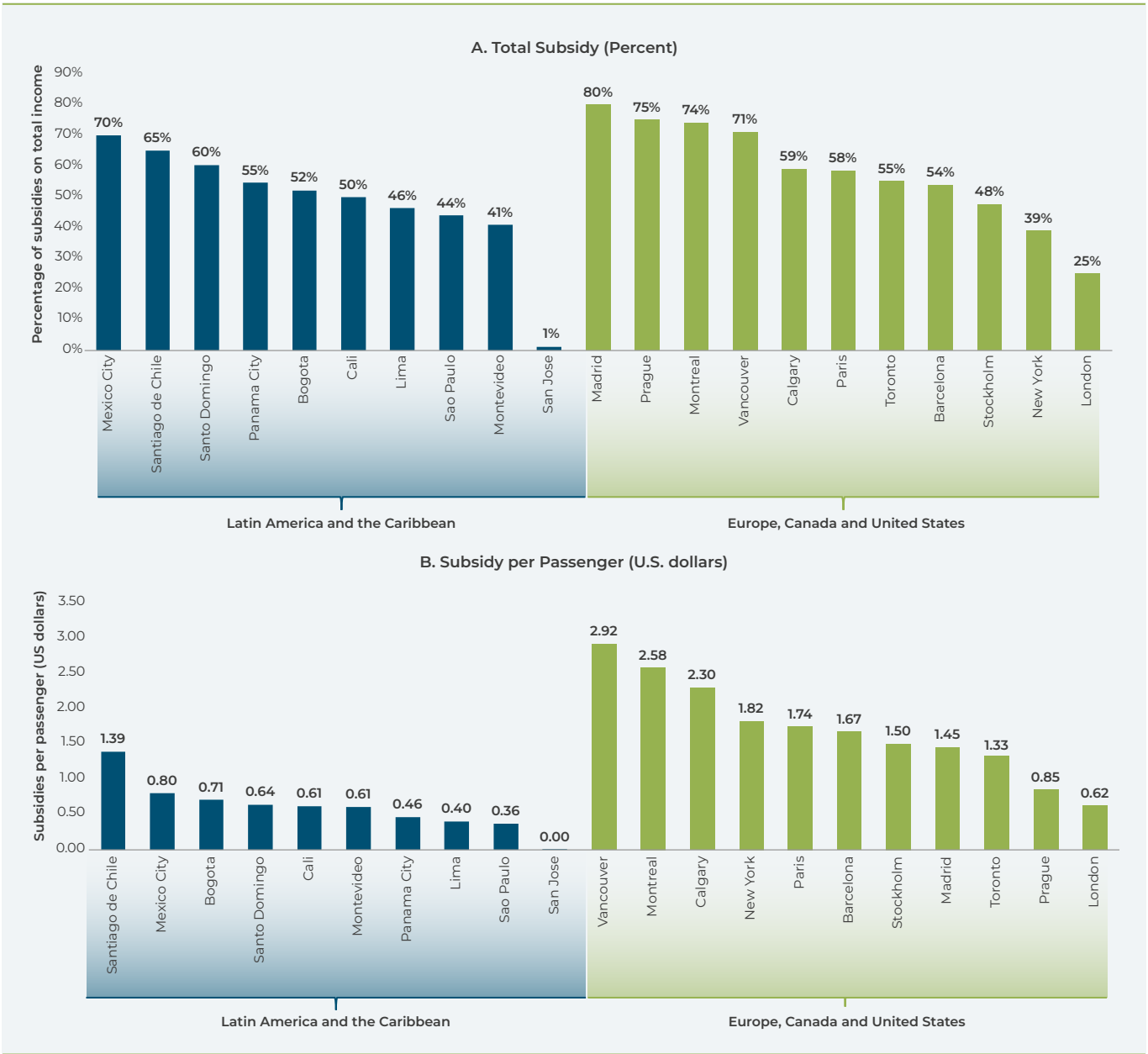
The level of subsidies in public transport in the cities analyzed averages around 50 percent of total revenue and continues to rise, although there is variability depending on the city and mode of transport. In the group of 10 cities analyzed (excluding San José, which has virtually no public transport subsidies), subsidy levels range from 41 percent in Montevideo to 70 percent in Mexico City (Figure 7, panel A), with similar differences between bus and metro systems. In cities outside the region, subsidy levels also vary widely, from 25 percent in London to more than 70 percent in Montreal, Prague, and Madrid. However, although the regional average (54 percent, excluding San José) is comparable to that of developed cities (58 percent), the contrast between regions shows that subsidies per passenger are significantly lower in Latin America and the Caribbean due to the lower operating costs of public transport systems in the region (Figure 7, panel B), although this also masks a significantly lower quality of service compared to that provided by systems in Europe in particular. The need for subsidies is a growing trend in the region, intensified since the pandemic due to the drop in demand.

The source of public transport subsidies varies significantly by jurisdiction, ranging from centralized national government schemes to models where municipalities or provinces assume a large part of the financial burden. In Montevideo, there is joint responsibility between the local administration and the national government, whereas in Sao Paulo, financing falls entirely on local and regional authorities. Bogota and Cali combine local contributions with national transfers to cover operating deficits or strategic components of their systems. In contrast, in Lima, Panama City, Santo Domingo, and Santiago de Chile, subsidies come almost exclusively from national funds. This reflects the diversity of schemes and the pressure that subsidies exert on public budgets at different levels of government.

Most operating subsidies for public transport in the region are general in nature, targeting either supply or demand universally. These include support to maintain unprofitable but socially desirable services, such as in isolated areas of Chile, or to stabilize public fares, as in Montevideo. Operating subsidies also play a countercyclical role, sustaining operations during demand shocks, as occurred during the COVID-19 pandemic. Several cities supplement these schemes with targeted subsidies for specific groups—seniors, students, the unemployed, or low-income sectors—whose proportion of ridership varies from 1 percent in Panama City and 3 percent in Bogota to 48 percent in Santiago de Chile, where there is a wide diversity of beneficiaries. Targeting criteria differ between cities and combine factors such as age, socioeconomic status, type of mobility, or social programs, with notable cases such as Bogota, which uses the System for Identifying Potential Beneficiaries of Social Programs (SISBEN) to optimize the allocation and reach of these benefits.

In short, public transport subsidies in Latin America and the Caribbean are indispensable, but their design and implementation largely determine the quality, sustainability, and equity of the systems. Rethinking the current schemes requires not only technical adjustments, but also political will, strengthened institutions, and a deep understanding of the urban and economic particularities of each city. Although the challenges are significant, regional and international experience shows that progress in these three areas is possible and, above all, necessary. An appropriate transformation of funding mechanisms can become a lever to reduce operating costs, expand access under more equitable conditions, strengthen the link between fare and environmental policies, and consolidate truly resilient, inclusive, and sustainable transport systems.

FIGURE 7. Subsidies for Public Transport Operations in Selected LAC Countries and Outside the Region, 2023



Source: Prepared by the authors based on a questionnaire completed by the cities analyzed and public information, including annual reports and financial statements of system operators: Calgary, Montreal, Vancouver, Toronto, London, and New York (data provided by International Transport Forum based on 2023 data); Prague (DPP, 2023); Madrid (CRTM, 2023); Barcelona (ATM, 2023); Stockholm (SOS, 2023); and Paris (IdFM, 2023).

Notes: (1) The results should be read taking into account the particularities of each system, such as its level of integration, institutional framework, service quality, coverage, and level of formality. (2) Transport systems by city: Bogota and Cali, bus and cable car systems; Mexico City, buses (RTP and Metrobus), metro, and STE (suburban trains, light rail, and Cablebus); Lima, the metro system only; Montevideo, urban buses (STM) only; Panama City, bus (MiBus) and metro systems; Santiago de Chile, buses, metro, and urban trains; Santo Domingo, buses (OMSA) and metro; San José, transport system, buses and urban trains (only the train receives subsidies); and Sao Paulo, municipal bus, metro, and suburban train systems. (3) In terms of subsidy coverage, although most subsidies are intended to fund operating deficits, in some cases they may include support for other components. For example, in Santiago de Chile, in addition to operations, the subsidy covers the fleet, terminals, freight infrastructure, and metro, among other services.

Toward more efficient and sustainable funding

The current public transport funding structure in the region reflects significant dependence on subsidies and limited diversification of funding sources, which creates vulnerability to external crises and fiscal constraints. Evidence from the 10 cities analyzed shows that the combination of declining fare revenues, low utilization of alternative sources, and high operating costs has intensified financial deficits. Whereas in developed countries public transport systems are supported by more robust and diversified schemes that sustain higher-quality services, in Latin America and the Caribbean resources are concentrated on maintaining basic service, limiting the scope for innovation and investment in structural improvements.

An effective funding model requires adopting a comprehensive vision of urban mobility, in which public transport is the linchpin of transportation policies. Indeed, public transport services are part of a broader urban mobility ecosystem that includes private transportation, active modes of mobility, and urban planning itself. A comprehensive vision involves managing all these elements together to take advantage of synergies, reduce negative externalities such as congestion and pollution, and ensure better allocation of public resources for urban mobility. In particular, charges on private mobility offer a "double dividend:" they allow the costs of private transport use to be internalized, while reducing the costs of providing public transport and increasing its benefits for users. This example reveals how public transport funding cannot be considered independently from the funding sources of other urban mobility services. The underuse of funding instruments for private transport not only leads to the loss of potential resources and the depletion of valuable public resources but also overburdens other funding sources needed to achieve policy objectives related to access to socioeconomic opportunities and environmental sustainability.

Moving toward more sustainable funding schemes requires structural reforms in three areas: (i) improvements focused on operational efficiency; (ii) improvements in the use and targeting of subsidies; and (iii) diversification of funding sources (Table 1). These changes would reduce excessive dependence on fiscal transfers, strengthen financial resilience, and enable a transition to public transport systems with higher quality, coverage, and sustainability.

TABLE 1. Areas of Reform for More and Better Funding for Public Transport in LAC

Area	Recommendations
1st Area: Improvements in funding with a focus on operational efficiency	→ Review operator remuneration schemes, prioritizing criteria of efficiency, quality, and safety, beyond the volume of passengers transported. → Progressively reduce implicit subsidies to private transport to correct distortions and negative externalities. → Implement complementary mechanisms such as congestion charges, road infrastructure usage fees, or specific environmental taxes. → Systematically generate robust information, regional benchmarks, and clear indicators on operational and financial efficiency to promote the dissemination of best practices in the region.
2nd Area: Improvements in the use and targeting of subsidies	→ Target subsidies to vulnerable or priority groups, ensuring equity and efficiency. → Implement personalized "micro-subsidies" to improve targeting accuracy. → Condition subsidies on supply through explicit performance and service quality criteria. → Improve transparency and social and political acceptance through distributive impact analysis, correcting errors of inclusion and exclusion. → Incorporate mechanisms to consult both experts and the general population about rate adjustment processes to improve understanding and acceptance of the results.
3rd Area: Development of new funding sources	→ Diversify funding sources to reduce dependence on government transfers, promoting financial stability. → Implement instruments to capture real estate value associated with improvements in public transport. → Implement charges focused on the effective internalization of externalities through specific tariffs (congestion, parking, road use). → Establish innovative sources linked to climate and public health objectives (emissions pricing, low-emission urban zones). → Strengthen institutional capacity and generate the political will to ensure effective implementation.

Source: Prepared by the authors.

Improving public transport funding in Latin America and the Caribbean requires moving toward schemes that prioritize operational efficiency and reduce distortions. The first area of reform consists of redesigning payment mechanisms for operators to incorporate efficiency, quality, and service safety criteria, avoiding models that only compensate for costs or passenger volume. Experiences such as those in Santiago de Chile and Bogota show that the inclusion of performance indicators (frequency, waiting times, regularity) and complementary instruments (congestion charges, road tolls, environmental taxes) generate adequate incentives to improve management, reduce generalized subsidies, and promote more balanced use of transport. These transformations must be accompanied by the progressive reduction of implicit subsidies to private transport, as well as the creation of robust comparative information systems that allow for establishing regional benchmarks, disseminating good practices, and strengthening the financial and operational sustainability of public transport systems.

Decisions on public transport subsidies must respond to strategic public policy objectives that combine social equity, economic efficiency, and environmental sustainability. Explicit public transport subsidies coexist with implicit subsidies for private transport, such as the provision of free road infrastructure or the absence of charges for negative externalities. Recognizing this asymmetry is essential to design more balanced pricing and resource allocation schemes in urban mobility. An important aspect of public transport subsidies is their social role in improving affordability for vulnerable populations, thereby promoting better access to opportunities. This does not conflict with system efficiency criteria. In fact, strategic subsidies can enhance economies of scale such as the Mohring effect, which states that increasing the frequency and density of public transport services reduces overall costs for users—specifically waiting times and access—generating economies of scale that benefit all passengers. Thus, an increase in demand generates a positive externality for current users by allowing for higher optimal levels of frequency and reducing both access costs and waiting times.

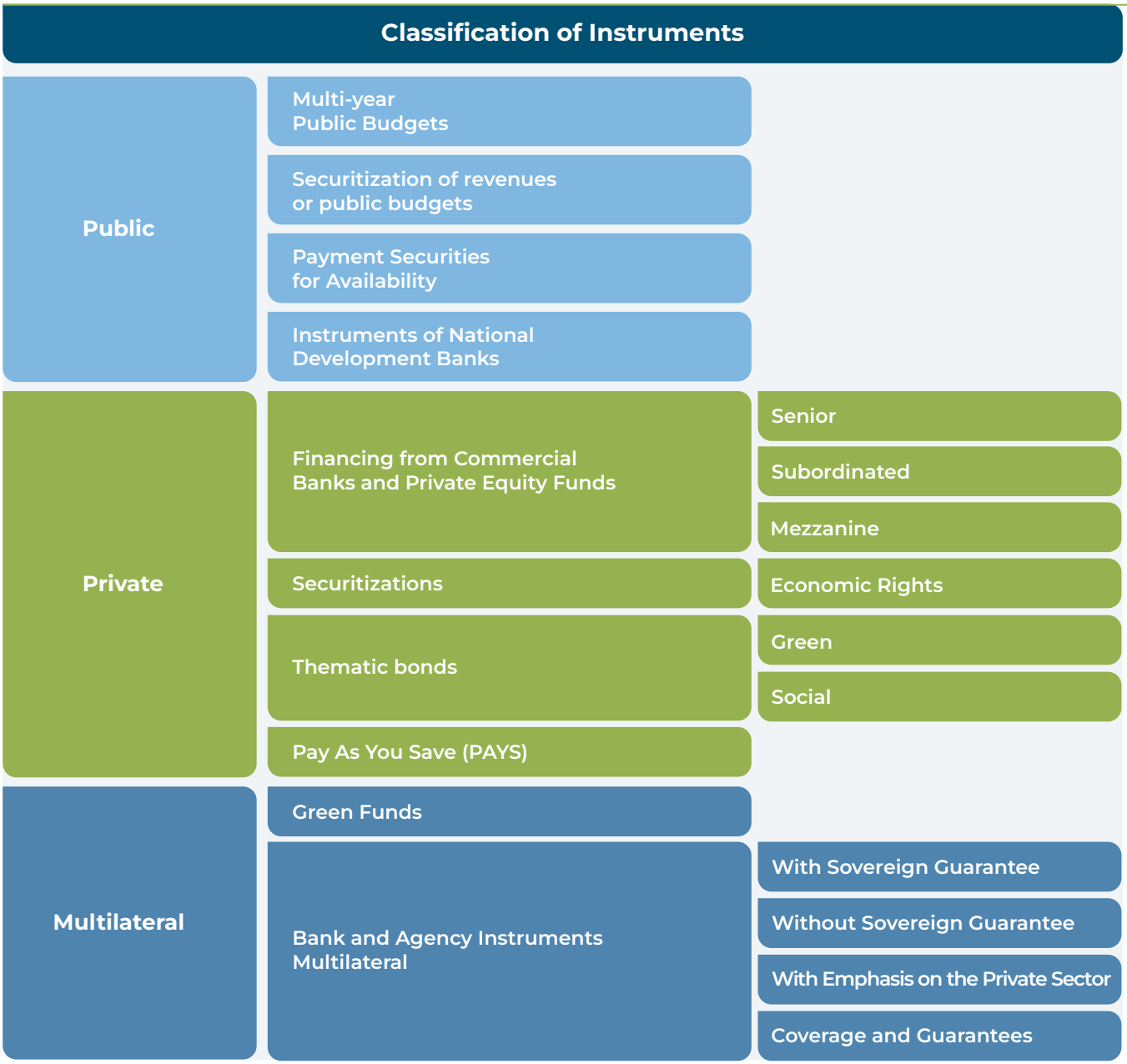
The financial sustainability of public transport in Latin America and the Caribbean requires diversifying funding sources beyond traditional fiscal transfers. In a context of growing budget constraints and high competition for public resources, expanding funding mechanisms is essential to reduce the sector's vulnerability and ensure both continuity of operations and investment in quality improvements. International and regional literature and experience show that diversification contributes to greater stability and resilience. Among the most relevant alternatives are value-capture instruments, which allow for the reinvestment of part of the real estate gains generated by transportation; internalization of negative externalities through charges on private car users, which, in addition to raising revenue, discourages excessive use of private vehicles; and "green" and innovative sources, such as pollution emission fees or low-emission zones, which align funding mechanisms with climate and public health objectives. These tools, although still in their infancy in the region, represent a viable and necessary path to strengthening the sustainability and equity of public transport systems.

Public Transport Financing

Investments in public transport projects can come from both the public and private sectors. Public investment responds to a social welfare purpose and is executed directly by state entities through national budgets. The public sector has several mechanisms for direct investment in infrastructure, among which the allocation of the public budget items is paramount. For its part, private investment in public transport has become more important in recent decades as a complementary mechanism to mobilize resources, increase efficiency in execution, and mitigate fiscal constraints. In this sense, the private sector contributes to investment in public assets and, consequently, to the social welfare purpose promoted by public transport projects. To meet the capital contributions required in the initial stages of investment in public transport projects, both the public and private sectors can turn to different entities to obtain resources in advance—commercial banks, national or multilateral development banks, or capital markets.

Depending on their origin, financial instruments can be classified as public, private, or multilateral. While public instruments come from budgetary or fiscal resources allocated by national or subnational governments, private instruments mobilize resources from the financial system. There are also resources from the multilateral financing system that can be structured with or without sovereign guarantees and are often accompanied by non-reimbursable resources to improve the conditions of borrowers and the sector, among others (Figure 8).

FIGURE 8. Classification of Financial Instruments according to Their Origin



Source: Prepared by the authors.

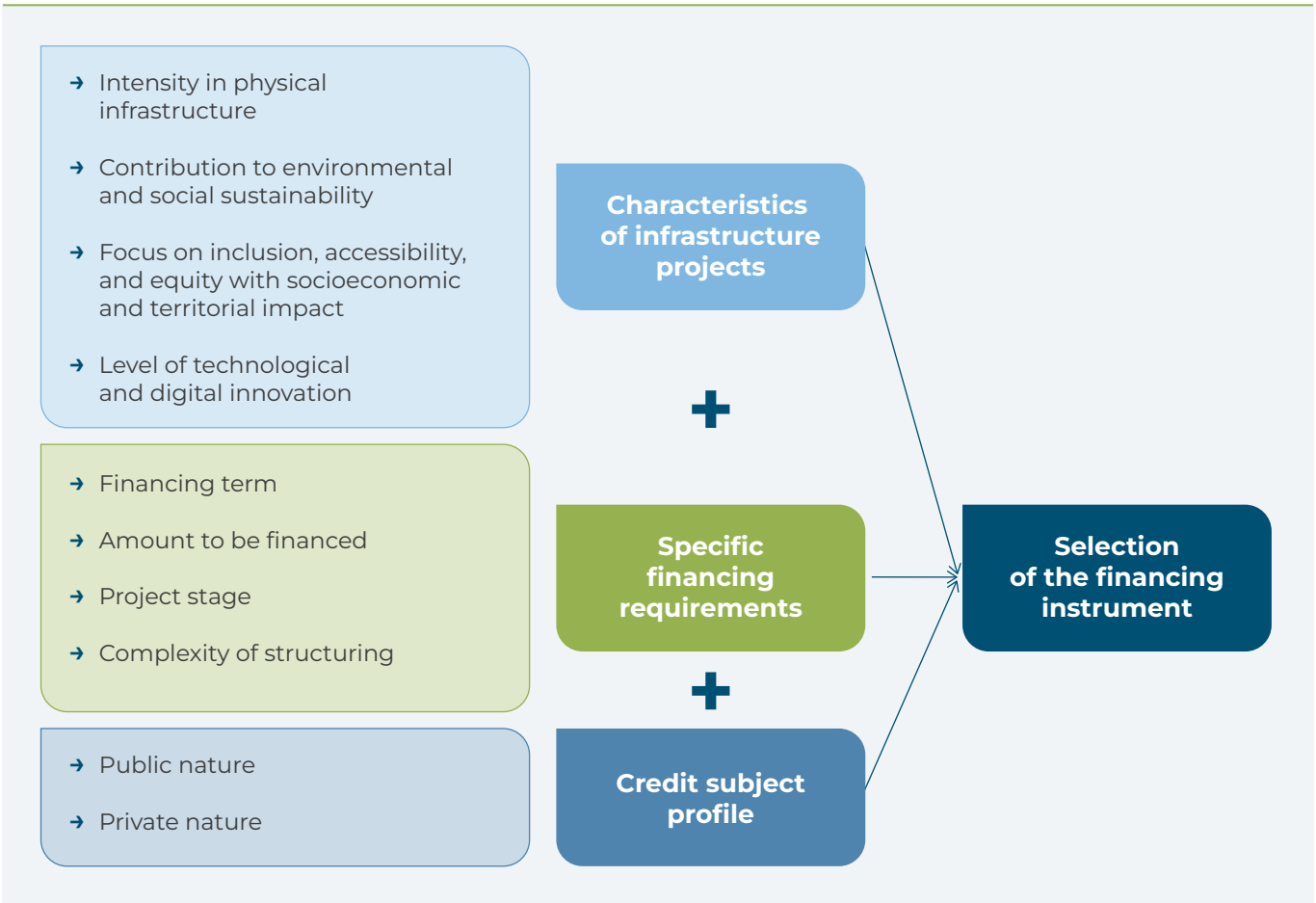
Note: The list is non-exhaustive and includes only the most frequently used instruments as well as those with the greatest potential for application to public transport projects.

The selection of the financial instrument must be based on a comprehensive analysis process that articulates the characteristics of the project, the financial requirements, and the nature of the borrower. Figure 9 presents this logic and shows that the appropriate choice is based on three dimensions: (i) understanding the scope and impacts of the project—physical infrastructure, environmental and social sustainability, inclusion and equity, technological innovation, and territorial effects; (ii) defining the financing requirements—term, amount, and complexity, considering whether the project is in the design, investment, or operation stage; and (iii) identifying the profile of the borrower—public or private—which determines potential access to each type of instrument. This structured approach allows risks and returns to be aligned, ensuring that financing is functional, efficient, and sustainable over time.

Despite the availability of instruments, access to financing in the region is conditioned by structural barriers that reduce the "bankability" of public transport projects. These barriers can be grouped into six categories: (i) institutional; (ii) financial; (iii) technical; (iv) social and environmental; (v) market; and (vi) international. These barriers explain why flagship projects such as Mexico City's green bonds or the electrification of buses in Santiago de Chile are still the exception rather than the rule.

Institutional and fiscal weakness in the region constitutes a structural obstacle to the use of financial instruments geared toward public transport. Tax systems face significant challenges, including a restricted base, evasion, and dependence on indirect taxes. In addition, insufficient budget planning and institutional challenges in the sector

FIGURE 9. Considerations for Choosing the Right Financial Instrument for a Public Transport Project



Source: Prepared by the authors.

complicate the allocation and procurement of resources for long-range projects. There is also a lack of technical skills in institutions to design complex financing schemes, which require a high level of organization, planning, and governance. At the same time, fragmentation at the governmental levels (national, regional, and local) complicates the formulation of consistent, long-term fiscal policies that facilitate private investment and obtaining international financing.

The limited depth of the financial sector in Latin America and the Caribbean restricts access to varied and affordable instruments for financing public transport projects. High credit costs and stringent credit conditions, the scarcity of financing in local currency, and low levels of financial inclusion make it difficult to finance public transport projects. In particular, this situation restricts the ability of important local participants in the sector, such as municipalities and small and medium-sized enterprises, to obtain financing, as they often lack sufficient collateral or track records to access these mechanisms.

The technical complexity of some public transport projects is a barrier to the application of financing instruments. Undertaking feasibility studies, engineering designs, environmental impact assessments, and financial estimates, among other initiatives, requires advanced skills and prior experience, which are not always available in local entities. High staff turnover in public entities exacerbates this problem, hindering project continuity and the accumulation of technical expertise. These constraints also impact on the ability of entities to negotiate with financiers, investors, and multilateral entities, as they are not always able to effectively meet the technical and financial requirements necessary to obtain financing.

Encountering community resistance to projects to be financed can affect the project's reputation, which in turn can have other consequences. Damage to the project's reputation as a result of possible social and environmental impacts can delay implementation, increase project costs, and limit the opportunity to obtain financing instruments that are vital to undertake the project.

Public transport projects in Latin America and the Caribbean face strong market barriers, stemming from uncertainty in demand estimates, competition with informal and private systems, and low private sector participation in their financing. Factors such as changes in mobility patterns, fare evasion, and competition with alternatives perceived as more practical reduce the confidence of investors and financiers. Added to this is the perception of high risks, the lack of tax incentives or guarantees, institutional weaknesses, and the limited experience of local companies, all of which discourage private capital. Finally, the presence of informal transport, coupled with poor regulation and a lack of technological and operational integration, weakens financial sustainability and increases the perceived risk of public transport projects.

Although multilateral banks and bilateral agencies offer financing and technical support, many countries and projects in Latin America and the Caribbean are unable to access these resources because of technical, institutional, and legal limitations in the design of proposals. In addition, compliance with environmental, social, and governance safeguards, while essential for sustainability, can be perceived as costly and complex for entities with limited capacity, further hindering access to such funds.

Improving access to financing for public transport projects in Latin America and the Caribbean requires policy actions in two complementary areas: macroeconomic and sectoral (Table 2). At the macroeconomic level, outside the transport sector, the priorities are to ensure a stable and predictable environment that reduces the risk premium demanded by investors, and to strengthen fiscal systems to expand public investment in transport. At the sectoral level, priorities include improving intergovernmental coordination in metropolitan areas; promoting innovative financial instruments specific to public transport; developing risk mitigation mechanisms to attract private capital; strengthening technical and institutional capacity to structure complex financing; and leveraging the role of multilateral organizations as catalysts for resources and trust. Together, these measures form the basis for a more robust and stable financing ecosystem capable of mobilizing resources for public transport projects that promote sustainability, inclusion, and resilience in the region.

TABLE 2. Public Policy Recommendations to Facilitate Access to Financing for Public Transport Projects in LAC

Area	Recommendations
1st Area: Macro conditions	→ Ensure a predictable macroeconomic environment to reduce the financial risk of projects → Improve tax systems to increase public investment capacity in transportation
2nd Area: Sectoral conditions	→ Strengthen intergovernmental coordination to finance public transport projects at the metropolitan level → Promote innovative financial instruments for the transport sector → Develop risk mitigation mechanisms to attract private capital → Strengthen technical and institutional capacity to structure financing → Leverage the support of multilateral organizations as a financial catalyst

Source: Prepared by the authors.

An Agenda to Transform Urban Public Transport Systems

The transformation of public transport in Latin America and the Caribbean requires a comprehensive agenda that combines financial sustainability, social equity, and efficiency in service delivery. This agenda is based on the recognition that public transport is not only a means of transportation, but also a fundamental pillar of urban quality of life, social cohesion, and economic competitiveness.

First, it is essential to prioritize investment in public transport as an urban and social development policy, placing it on the same level as other basic services. Robust public transport systems facilitate equitable access to opportunities, reduce congestion costs, improve environmental quality, and strengthen urban productivity. This requires consistent budget allocations and a clear narrative that communicates its value as a driver of well-being.

Second, it is necessary to define explicit, sustainable, and socially equitable fare policies that balance financial sustainability and affordability. This includes differential and targeted fare mechanisms for vulnerable or priority groups, distance- or zone-based schemes, and modern collection systems that reduce fare evasion and improve the user experience.

Third, funding sources need to be diversified beyond fares, for example, through land value capture, specific taxes, charges to indirect beneficiaries, and levies on private vehicle use. These mechanisms should be integrated with a **reformulation of the urban mobility pricing scheme**, where the social costs of private transportation are internalized through instruments such as urban tolls, congestion charges, or regulated parking, generating additional revenue to strengthen public transport.

Fourth, it is essential to diversify and strengthen public transport funding as a mechanism to leverage higher levels of financing. An effective

and sustainable financing strategy must start from a clear understanding of the available sources of payment, i.e., the revenue streams that cover the costs of investment, operation, maintenance, and renewal of the system throughout its life cycle. The more diversified, stable, and predictable these sources of payment are, the lower the risk perceived by financiers, which will allow access to better credit conditions and expand the capacity to mobilize private and multilateral resources.

It is also necessary to improve the efficiency and targeting of subsidies, giving priority to direct demand subsidies based on socioeconomic criteria and making supply subsidies conditional on quality and performance targets. **Increasing the efficiency of investments and operations** requires integrated planning, sound cost-benefit assessments, regulated competition schemes, performance-based contracts, and intelligent management, monitoring, and accountability systems.

Finally, the agenda must be supported by greater intergovernmental coordination and the innovative use of financial instruments. This implies effective coordination between different levels of government, clear regulatory frameworks for mobilizing private resources, greater use of thematic bonds, trusts, and securitization instruments, and risk mitigation mechanisms to attract private capital. The support of multilateral organizations, through concessional financing, guarantees, and technical assistance, will be key to catalyzing investment and confidence.

In short, implementation of this agenda will consolidate public transport as the backbone of urban mobility in Latin America and the Caribbean, contributing to more sustainable, inclusive, and competitive cities. The combination of just policies for fares, diversified funding sources, financial innovation, and institutional coordination represents a clear and operational roadmap to advance toward high-quality, resilient, and socially equitable public transport in the region.

Introduction

Public transport in Latin America and the Caribbean is at a turning point. In a region where public transport accounts for more than 30 percent of daily urban trips —and in lower-income households this proportion exceeds 45 percent—public transport is not simply a mode of transport: it is a determining factor for social inclusion, economic competitiveness, and environmental sustainability. However, public transport today faces a critical scenario marked by three forces acting in parallel: the sustained loss of users, the constant increase in operating costs, and the stagnation or even decline in revenues. These trends have weakened the capacity of systems to implement actions that improve service quality, while putting pressure on their financial sustainability.

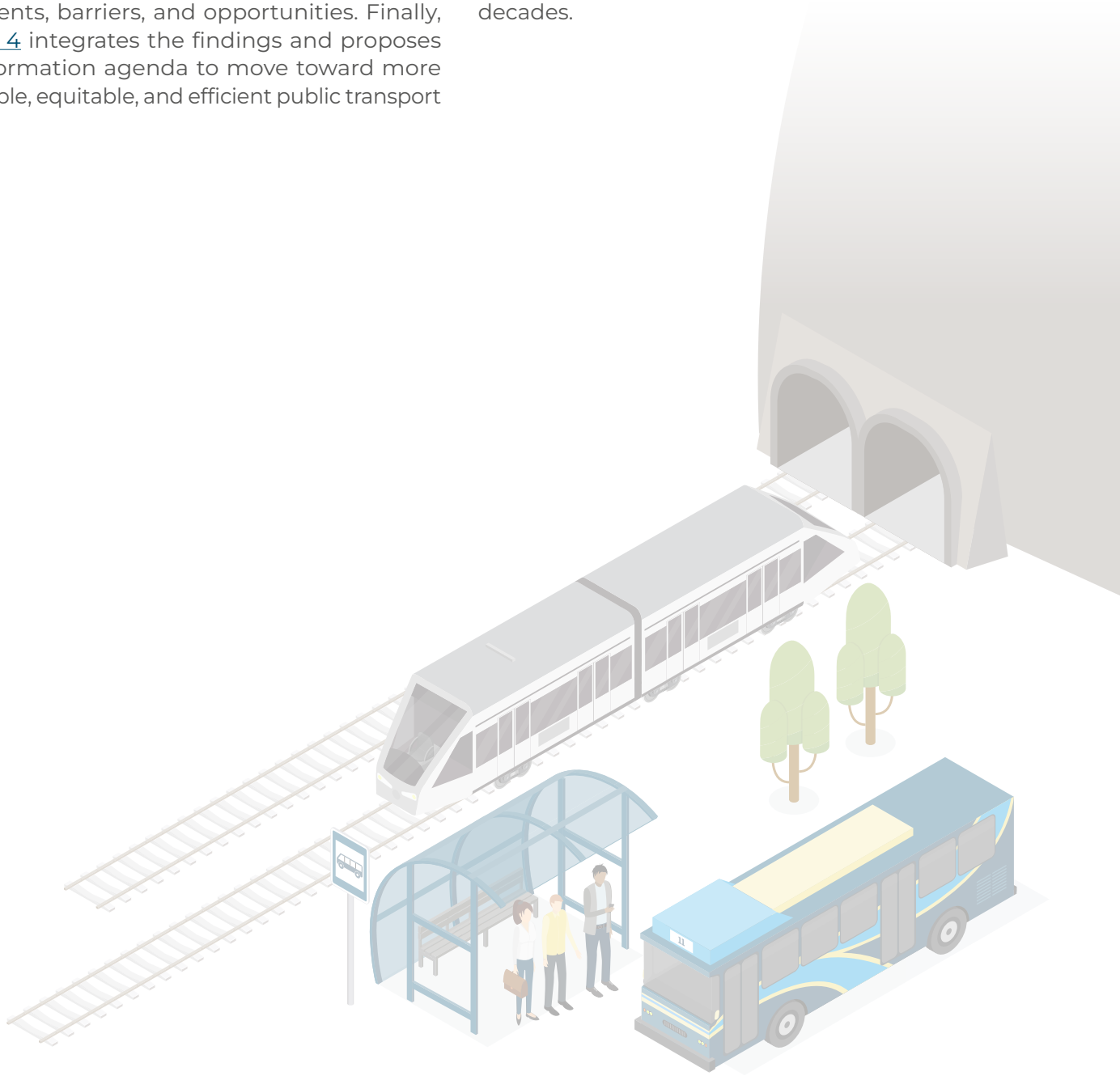
The impact of this deterioration transcends the economic sphere. When public transport loses quality, there is a reduction in access to employment, education, health, and other basic services, deepening social and territorial inequalities. In parallel with the loss of users to other modes of transport, the costs of congestion, pollution, and road accidents are increasing, with direct consequences on productivity and the quality of life in cities. For its part, the rapid expansion of private transport—particularly motorcycles—is transforming urban dynamics, creating a vicious circle that erodes the public transport user base and amplifies its financial deficits.

However, this scenario also represents a strategic opportunity. Within the framework of the global agenda set out by the United Nations Sustainable Development Goals (SDGs), public transport systems can become the backbone of more inclusive, competitive, and low-emission mobility. To this end, it is urgent to move from a model of public transport survival to a vision of structural transformation of the way people move around cities in Latin America and the Caribbean. Such a transformation must be based on reforms that strengthen public transport funding and financing schemes. The reforms need to establish the correct prices for mobility, incentivizing the most socially and economically efficient modes of transport from the point of view of collective mobility, and discouraging the least efficient ones by internalizing the costs they generate for society.

This publication aims to contribute to this transformation by offering a solid diagnosis of the issues facing public transport and putting forth public policy proposals adapted to the reality of the region. To this end, between 2024 and 2025, an unprecedented in-depth analysis was carried out in the region focusing on 10 major cities: Bogota, Cali, Mexico City, Lima, Montevideo, Panama City, San José, Sao Paulo, Santiago de Chile, and Santo Domingo. The analysis provides a diverse overview of the state of the public transport systems in these cities. It includes information on fare revenue, subsidies, other sources of revenue, and operating costs from a comparative and temporal perspective. This initiative was carried out in collaboration with the International Association of Public Transport (UITP) and the International Transport Forum (ITF).

The results are presented in four interrelated chapters. Chapter 1 provides an assessment of the main challenges facing public transport systems in the region: loss of users, failure to update fares, and rising operating costs. Taken together, these factors compromise the financial sustainability of the sector and form a vicious circle that undermines service quality and limits the ability to secure adequate funding and financing. Chapter 2 analyzes public transport funding, including its current sources and limitations, and proposes pillars for reform. Chapter 3 addresses public transport financing, identifying instruments, barriers, and opportunities. Finally, Chapter 4 integrates the findings and proposes a transformation agenda to move toward more sustainable, equitable, and efficient public transport systems.

In short, this study offers a rigorous diagnosis and, at the same time, a proactive roadmap for decision-making. By unraveling the complex interaction between public transport challenges and the sector's funding and financing, it seeks to provide a coherent framework for action to transform public transport systems in Latin America and the Caribbean. The ultimate goal is to overcome current challenges and build mobility systems that are not only economically sustainable but also act as true drivers of equity, competitiveness, and resilience for cities in the region in the coming decades.



1. Public Transport Under Pressure: The Challenge of Funding and Financing

1.1. Assessing the Challenges Facing Public Transport

Transport is an essential component of inclusive and sustainable development in Latin America and the Caribbean. Transport facilitates the movement of people, goods, and services and is the means of access to markets and opportunities for work, health, and education, helping to reduce poverty and inequality and improve the quality of life and productivity in the region (IDB, 2020). In particular, public transport—which accounts for 31 percent of daily trips in the region's major cities, and 45 percent of trips of lower-income populations[1]—is a catalyst to improve social inclusion and equity, helping to break the cycle of poverty and inequality in the region (Scholl *et al*., 2022).

There is ample evidence of the social benefits derived from investing in the construction and improvement of public transport systems. These investments allow people to travel greater distances within a given time frame, facilitating access to additional employment, education, health, social, and cultural opportunities for people previously deprived of this access due to their remote location (Bocarejo and Urrego, 2022; Hernandez, Hansz, and Massobrio, 2020; Yañez-Pagans *et al*., 2019). This reflects an improvement in what is known as the "extensive margin." In addition, for those who already have a certain level of access, improvements in public transport expand the range of job opportunities and services available to them within a given time, reflecting an increase in the "intensive margin." With greater job opportunities, these populations are more likely to increase their income and, in the case of the most vulnerable, escape poverty (Scholl *et al*., 2022). For its part, greater access to health, social, and cultural opportunities along with having more time to engage in these activities—facilitated by shorter travel times—improves quality of life and allows for greater participation in society, promoting social inclusion (Luz *et al*., 2022). It should come as no surprise, then, that the United Nations Sustainable Development Goals (SDGs) include a specific target to promote the expansion of public transport by 2030.

Beyond the direct benefits for users, investment in public transport generates significant economic impacts by improving labor market efficiency and boosting productivity. Investment in public transport allows companies to benefit from a larger labor market from which to find suitable workers. In fact, improved access for both workers and firms allows for better matches between them, increasing productivity and improving labor market efficiency (Lecaros *et al*., 2023). An efficient system also improves access to opportunities, boosting regional productivity and promoting agglomeration economies by facilitating urban densification (Chatman and Noland, 2011). Reduced travel costs and improved connectivity increase employment density in central areas (Hazledine, Donovan, and Bolland, 2013; Chatman and Noland, 2011). This concentration of economic activity boosts productivity through better labor market matching and knowledge diffusion (Chatman and Noland, 2011), as well as by freeing up parking space for more productive uses, which amplifies these benefits (Hazledine, Donovan, and Bolland, 2013).

Policies related to public transport fares also have a direct impact on access to opportunities and social inclusion. Lower-income populations spend

[1] Data from Origin-Destination Surveys in Montevideo (2016), Bogota (2023), Santiago de Chile (2024), Buenos Aires (2016), Mexico City (2017), and Sao Paulo (2017).

a high proportion of their income on transportation (Rivas, Suárez-Alemán and Serebrisky, 2019). In this context, the application of fare subsidies for specific population groups, for example, has proven to be an effective mechanism to enable greater mobility and access to opportunities for lower-income groups, who often forego travel because of the associated costs (Cavallo, Powell and Serebrisky, 2020; Gómez-Lobo, 2025). At the same time, reducing the monetary cost of transportation allows the most vulnerable families to free up a portion of their income to meet other basic needs (Scholl *et al*., 2022).

Public transport has a key role to play in the fight against climate change. Urban mobility of both passengers and freight is one of the main contributors to emissions from the transport sector and to the deterioration of air quality in cities, accounting for 27 percent of the sector's emissions at the regional level (Calatayud *et al*., 2023). The urgent need to reduce emissions and meet the objectives of the Paris Agreement[2] provides unprecedented momentum to restructure **urban mobility based on environmental, social, and economic sustainability criteria**. Thus, it is not simply a matter of creating alternatives to traditional combustion systems. Instead, it is about providing forms of mobility that are more environmentally efficient, providing access opportunities for all, maximizing the use of public space, and reducing the negative externalities associated with congestion, pollution, and road accidents. Strengthening public transport systems must be the backbone of this transformation in urban mobility, not only because of their greater energy efficiency, but also because of their role as a catalyst for greater social equity. This will ensure a fair and inclusive transition, in line with the Paris Agreement.

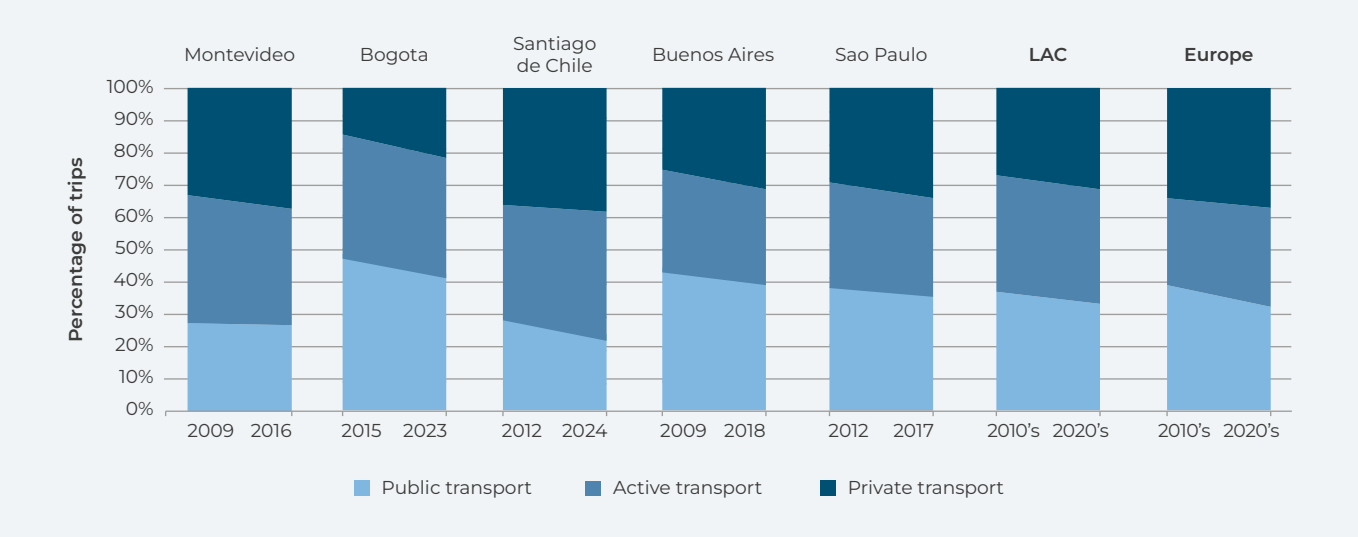
However, public transport in Latin America and the Caribbean faces a series of challenges that affect its funding and financing capacity and limit its contribution to achieving a more equitable and inclusive society, as well as a more prosperous and environmentally friendly economy. Among the main obstacles are the sustained loss of users in recent decades—also known as "user leakage"—and the failure to update and adjust rates, which affects the resources available to the sector. At the same time, systems are dealing with a pressing increase in operating costs. These three factors directly affect the basic equation of financial sustainability (Price x Quantity - Total Costs), where user leakage (Section 1. 2), the existence of inadequate fare policies (Section 1.3), and rising costs (Section 1.4) are the fundamental components of the challenge to ensure adequate funding and financing for public transport (Section 1.5). Without these resources, it will be difficult to achieve the increases in coverage and service quality required to promote more efficient, inclusive, and sustainable mobility in Latin American and Caribbean cities.

1.2. The Loss of Users

The most pressing symptom of the reality of public transport today in Latin America and the Caribbean is the loss of users. Figure 1.1 shows the change in modal share for the region's major megacities. Between 2013 and 2023, the share of daily trips using public transport decreased in all these cities, with more significant reductions in Santiago de Chile (6.2 percentage points), Bogota (5.9 percentage points), and Buenos Aires (3.7 percentage points). The data reinforce a long-term negative trend, with the modal share of public transport declining from approximately 50 percent in the 1990s to 35 percent in the 2010s (Rivas, Suárez-Alemán, and Serebrisky, 2019).

[2] The Paris Agreement is an international treaty adopted in 2015 at the United Nations Climate Change Conference (COP21) in Paris, which commits its signatories to take measures aimed at limiting global warming and combating climate change.

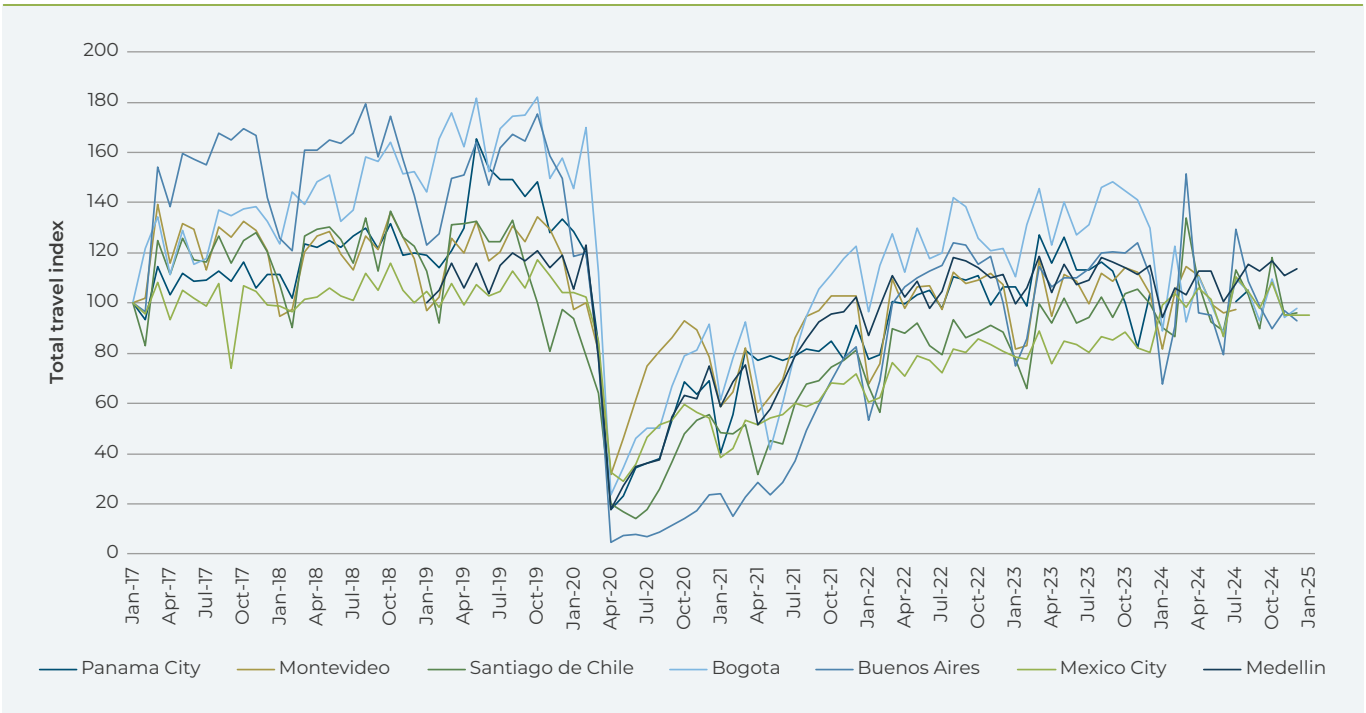
FIGURE 1.1. Evolution of the Split in Modes of Transport in Selected LAC Cities



Source: Prepared by the authors using data from origin-destination surveys. Latin America and the Caribbean: Bogota 2015, 2023; Buenos Aires 2009, 2018; Mexico City 2007, 2017; Montevideo 2009, 2016; Sao Paulo 2012, 2017; and Santiago de Chile 2012, 2024). Europe: Stockholm (National Mobility Survey 2012–2023); Copenhagen (National Mobility Survey, 2012–2022), Bern, Basel, Geneva, Zurich, Paris (Eurostat, 2012–2021); London (London Mobility Survey, 2012–2023); Vienna (Vienna Mobility Report, 2010–2019); and Berlin (Benno Bock, 2018–2022).

At the same time, the COVID-19 pandemic has had a negative impact on the sector. To date, a large share of the public transport systems in the region have not recovered to pre-2020 demand levels (Figure 1.2). Although these data do not cover all public transport trips, they reflect the dynamics and trends of mass mobility in the selected cities in a representative manner. This is explained, in part, by a reduction in the number of trips due to the increased adoption of teleworking and distance learning, which reduces the need to travel, as well as by the greater penetration of e-commerce and the migration of passengers to other modes of transport. The most recent origin-destination survey for Bogota reflects this trend: between 2019 and 2023, daily trips fell from 13.3 million to 12.1 million, equivalent to a 9.14 percent drop. Trips for study purposes fell by 21.1 percent and those for shopping by 32.3 percent. With regard to the modal split, it is estimated that between 2019 and 2023, the change in user preferences meant that public transport lost 600,000 trips per day, which were distributed among walking, motorcycles, and cars (Secretaría Distrital de Movilidad, 2023). It should be noted that, as these figures are based on official mass transit system records, they do not include fare evaders, which could mean that the number of passengers is underestimated, particularly in certain cities in the region (see Chapter 2).

FIGURE 1.2. Public Transport Passenger Trends and the Impact of COVID-19 in Selected LAC Cities



Source: Prepared by the authors based on data from transport authorities and operators.

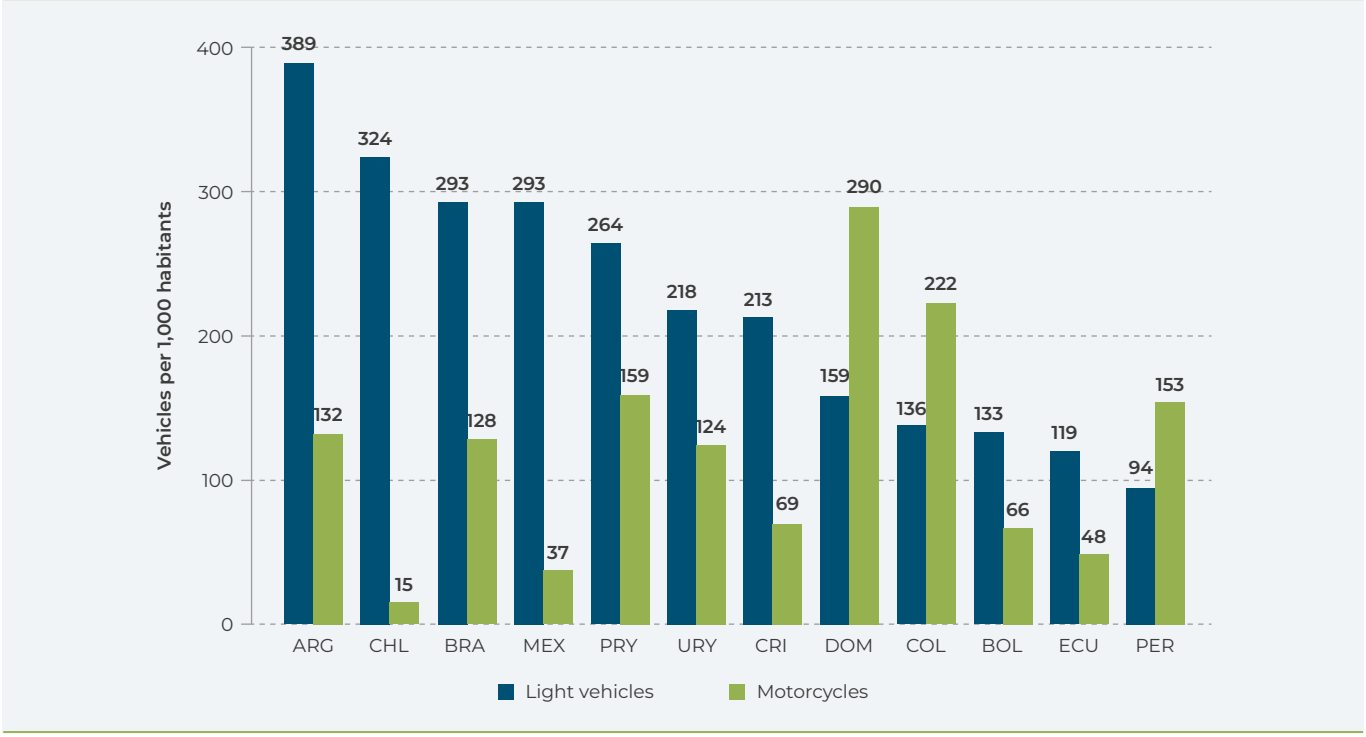
Notes: (1) The total trip index considers January 2017 as base 100. (2) Total trips consider the following modes and types of transport information by city: Panama City (MiBus and metro passengers); Montevideo (bus ticket sales); Santiago de Chile (Metropolitan public transport system, including buses, metro, and train); Bogota (Integrated public transport system and its trunk and zonal components); Buenos Aires (Buenos Aires Subway); Mexico City (Metrobús, Passenger Transport Network, Metro Collective Transport System, Light Rail, Suburban Train, and Trolleybus); and Medellín (Metro, Metrocable, Metroplús, and Tram). (3) The figures do not take into account possible variations in the proportion of passengers who do not pay their fare (fare evaders), nor do they include users of informal or semi-informal public transport.

Demand for public transport has also been affected by the rise in the use of ride-hailing apps, such as Uber and Cabify. While there is evidence that these platforms can complement public transport under certain scenarios (Scholl *et al.*, 2024)—particularly for first- and last-mile journeys—recent studies indicate a growing trend toward modal substitution. For example, Tirachini (2019) documents that in Santiago de Chile, for every one person who uses ride-hailing services, 11 use them as a substitute. Similarly, in the United States, it has been estimated that the expansion of Uber has led to an annual reduction in demand for buses and trains of 1.7 percent and 1.3 percent, respectively. These findings suggest that the rise of ride-hailing represents an additional challenge to the sustainability of public transport systems by eroding their user base and, with it, their operating revenues.

1.2.1. Increase in Motorization

One of the main causes of the decline in public transport users has been an increase in the use of private vehicles.[3] Combined with the increase in average income in Latin American and Caribbean countries, the region has experienced an increase in its motorization rate. The number of light vehicles in the region stands at 261 vehicles per 1,000 population,[4] below the figures reported by advanced economies such as those in Europe and the United States (641 and 871 vehicles per 1,000 inhabitants, respectively) (OICA, 2020). However, the average annual growth rate between 2015 and 2020 in Latin America and the Caribbean has been similar to that seen in advanced economies (1.3 percent in Latin America and the Caribbean compared to 1.7 percent and 1.1 percent in the United States and the European Union, respectively) (OICA, 2020). Likewise, the share of private mobility in total travel in the region has increased, from 28.4 percent in the 2010s to 33.2 percent in the 2020s (Figure 1.1).[5] Motorcycles are also playing an increasingly significant role in Latin American and Caribbean mobility, as they represent a more affordable option for private mobility. In countries such as the Dominican Republic, Colombia, and Peru, the number of motorcycles already exceeds the number of cars (Figure 1.3 and Box 1.1).

FIGURE 1.3. Motorization Rate in Selected LAC Countries, 2023



Source: Prepared by the authors based on technical reports from the entities responsible for vehicle registration in each country: Colombia (RUNT, 2023); Brazil (Ministry of Transport, 2023); Mexico (INEGI, 2023); Argentina (DNRPA, 2023); Uruguay (Ministry of Industry, Energy, and Mining, 2023); Chile (CAVEM, 2023); Peru, Bolivia, Ecuador (Andean Community, 2023); Costa Rica (INEC, 2023); Dominican Republic (DGII, 2023); and Paraguay (ANTSV, 2023).

[3] See Section 1.4 for a discussion of the impacts on congestion from increased motorization.

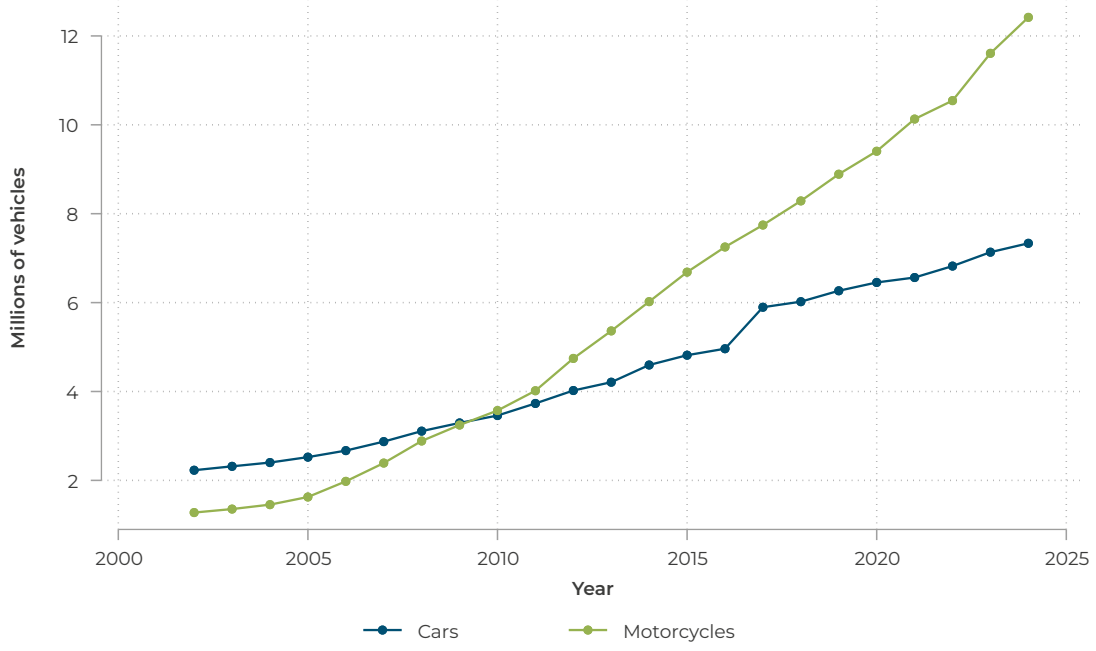
[4] The motorization rate for the region has been calculated based on technical reports from the entities responsible for vehicle registration in each country for 2023. The 12 countries included, which represent 86 percent of the population of the region, are Argentina, Chile, Brazil, Mexico, Paraguay, Uruguay, Costa Rica, the Dominican Republic, Colombia, Bolivia, Ecuador, and Peru.

[5] In Europe, the share of private transport rose from 35.2 to 37.9 percent over the same period.

BOX 1.1. Motorcycles in the Region: The Case of Colombia

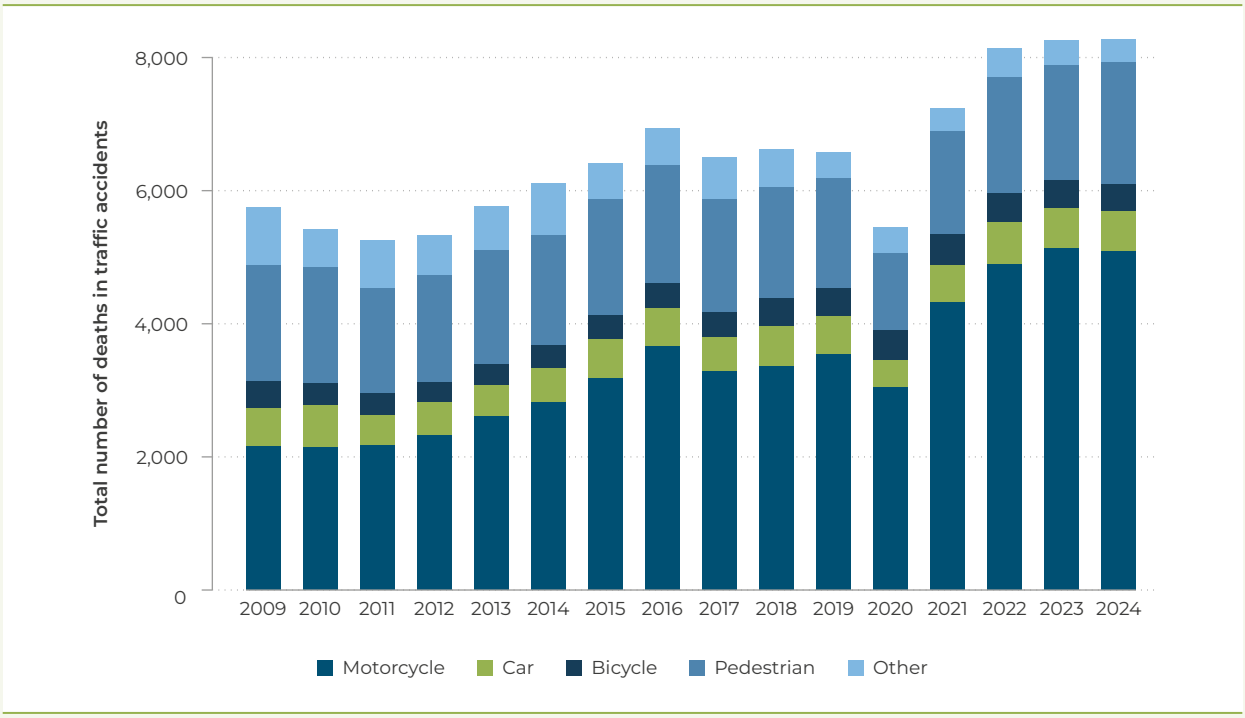
In 2022, Colombia had a total of 2.2 million cars and 1.3 million motorcycles. Between 2002 and 2024, the annual growth rate for motorcycles was around 11 percent, compared to 5.6 percent for cars. As a result, since 2010, the number of motorcycles in the country has exceeded that of cars. Motorcycles have gone from representing 36 percent to 63 percent of the vehicle fleet in the period under analysis. This change in vehicle composition has had negative impacts in terms of road safety, with motorcycles now leading in fatalities. As a result of the exponential growth in motorcycles, deaths from road accidents involving them increased by 135 percent between 2009 and 2024, while in the case of cars, the increase was 4.5 percent (Figures B1.1.1 and B1.1.2).

FIGURE B1.1.1. Numbers of Cars and Motorcycles in Colombia, 2002-2024



Source: Prepared by the authors using data from ANDI (2017) and RUNT (2017–2024).

FIGURE B1.1.2. Number of Fatalities in Road Accidents in Colombia by Type of Accident, 2009-2024



Source: Prepared by the authors with data from ANSV (2024).

Note: Data for 2024 are preliminary.

1.2.2. Deterioration in the Quality of Transport Services

The quality of public transport services in Latin America and the Caribbean is significantly lower than in other regions of the world. There are deficiencies in terms of the transport fleet, accessibility, interoperability, reliability, availability of services, and passenger safety (Rodríguez *et al*., 2020).

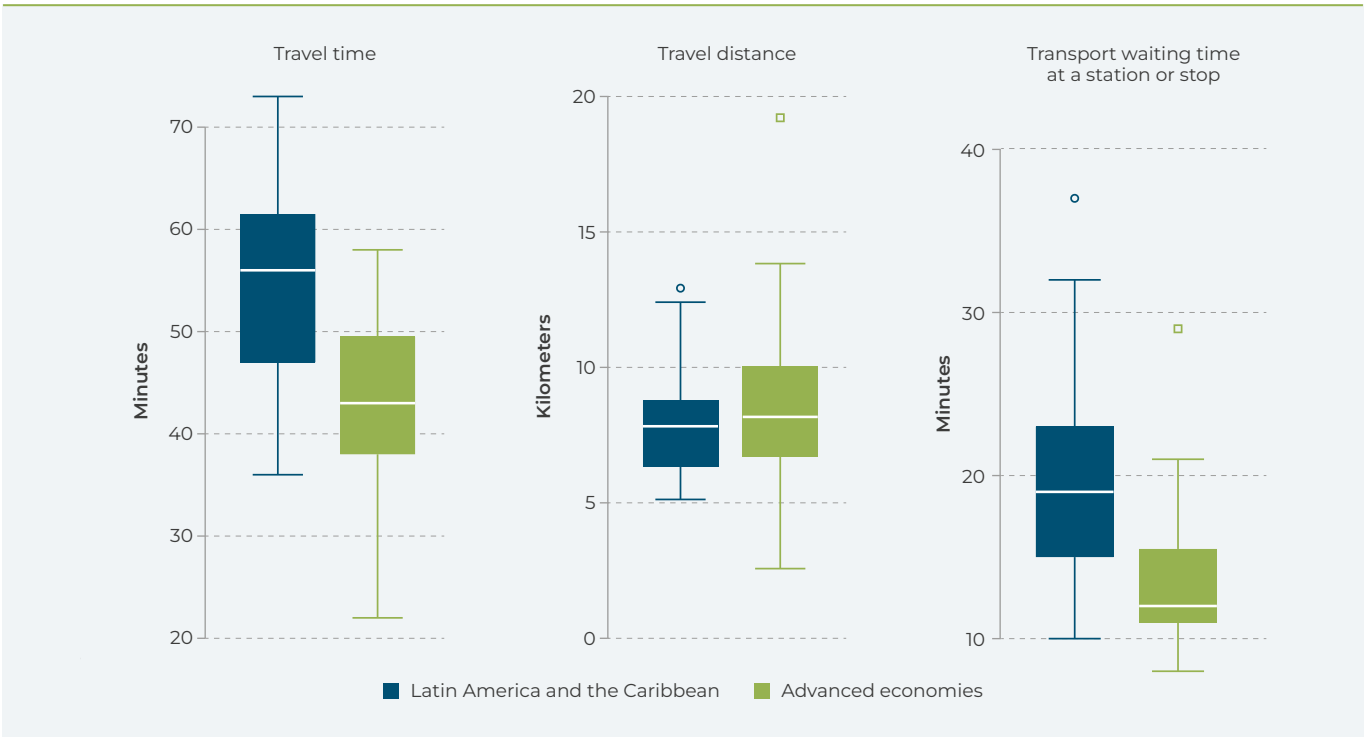
The accessibility provided by the public transport system in the region is limited due to the aforementioned territorial expansion phenomenon, low population density, and the high presence of informal settlements. Large metropolitan areas face significant challenges in ensuring equitable access to opportunities, as poverty is concentrated in the periphery, while economic and social opportunities are mainly located in the center. As a result, lower-income populations must travel longer distances with less public transport, which translates into longer travel times and lower levels of accessibility (Scholl *et al*., 2022). In Mexico City, for example, higher-income areas have up to eight times more access to employment opportunities reachable within 60 minutes by public transport than lower-income areas, six times more access to health services, and five times more access to education (IDB and CAF, forthcoming). In Sao Paulo, inequality in access to health care is even more pronounced, with a difference of up to 13 times between higher- and lower-income areas.[6]

[6] Caution should be exercised when interpreting the relationship between income and accessibility. It is possible that high-income areas attract greater investment in transport infrastructure, but it is also possible that improvements in accessibility generate, over time, gentrification processes that transform low-income areas into areas with greater resources.

The interoperability of passenger transport services is limited, which affects not only convenience for users but also the possibility of improving the overall efficiency of the urban transport system. Evidence shows that integration of public transport systems brings quality benefits to the system that attracts users, as has been the case in London and Madrid, where integration was implemented not only at the fare level, but also at the physical, institutional, and user information levels (Vassallo and Bueno, 2019). In the region, only Santiago de Chile and Bogota have advanced systems in terms of institutional, physical, and fare integration, while cities such as Montevideo, Buenos Aires, Cali, and Sao Paulo have partial integration.

In addition, the low availability and reliability of services results in longer travel times. Although people in the region travel distances similar to those in advanced economies, public transport users in Latin America and the Caribbean travel an average of 55 minutes, while in advanced economies the average time is 43 minutes (Figure 1.4). In addition, the average waiting time for public transport in Latin America and the Caribbean is 20 minutes, compared to 13 minutes in advanced economies. The variability in waiting times is also much greater in Latin America and the Caribbean, which impacts the reliability of the service. Although to a lesser extent, travel times are also affected by the number of transfers: on average, 10.4 percent of public transport users in Latin America and the Caribbean make two transfers during a trip, compared to 9.1 percent in Europe (Moovit, 2022).

FIGURE 1.4. Comparison of Public Transport Travel Time and Distance in LAC vs. Advanced Economies



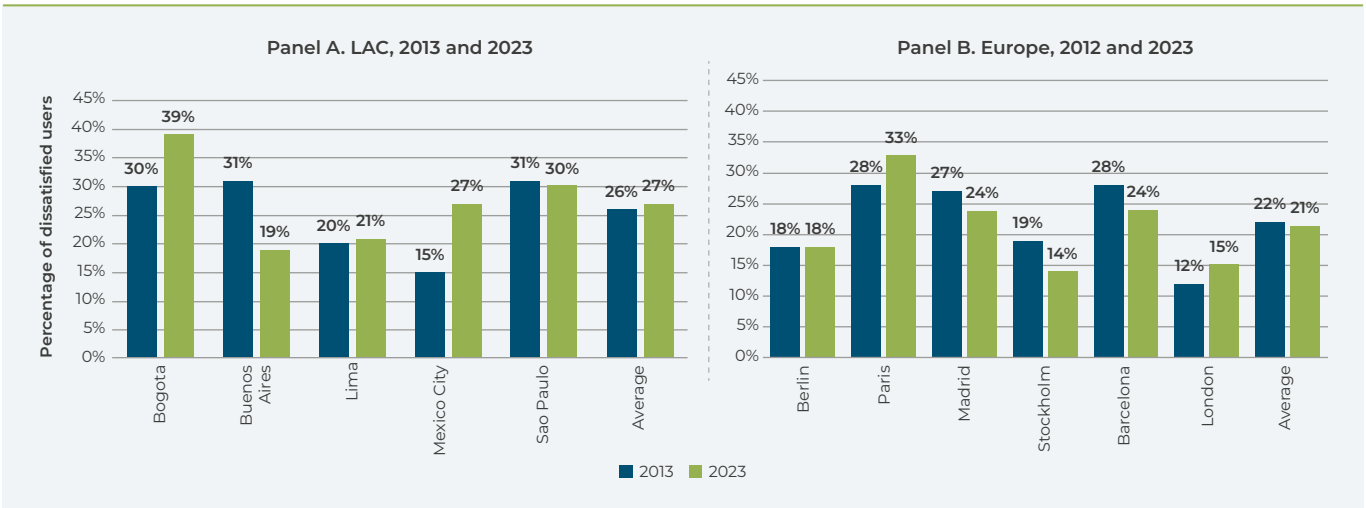
Source: Prepared by the authors using data from Moovit (2022).

In terms of safety, the high level of physical or verbal violence against women in public transport systems is a cause for concern, reaching 59 percent of female users in Santiago de Chile, 65 percent in Mexico City, 67 percent in Quito, and 80 percent in Buenos Aires (IDB, 2018). As a result, the perception of insecurity is very high in public transport. According to Steer (2019), 73.5 percent of women who use public transport in Bogota report feeling unsafe because of sexual harassment or crime. Meanwhile, 30 percent of women in Lima and 6 percent in Asunción reported having been victims of gender-based violence in public transport, while 79 percent in Lima and 36 percent in Asunción reported having witnessed violence against other women in the last 12 months (Jaitman, 2020).

Insecurity and violence in public transport have a significant effect on users' mobility decisions in some Latin American and Caribbean cities, affecting demand for the service. The perception of risks such as theft, harassment, or assault discourages use. According to De Martini, Gonzales, and Perez-Vincent (2025), crime can affect public transport demand through two different mechanisms. On the one hand, people who are more concerned about insecurity may completely eliminate public transport from their mobility options; on the other, some people who continue to prefer public transport require stronger incentives to compensate for the disutility caused by insecurity. The study based on surveys conducted in six cities in the region found that users place a high value on safety in public transport: a reduction in crime is valued at more than 50 percent of the fare cost. In turn, the authors noted that the presence of crime does indeed reduce the likelihood of choosing public transport as an alternative, especially for women. In certain contexts, even offering the service for free is not enough to counteract the negative effects of insecurity.

Although Latin American and Caribbean countries have been pioneers in proposing transport systems such as bus rapid transit (BRT) and cable cars and have made progress in the construction and expansion of their BRT, metro, and urban rail lines, there is still a significant gap to be closed. This is evidenced by the fact that one in four inhabitants of the region is dissatisfied with the quality of public transport (Figure 1.5, panel A) (Balza *et al*., 2023). Panel B of Figure 1.5 presents the results of a similar survey for a sample of European cities. Although comparisons must be made with caution due to methodological differences between the two surveys, it can be seen that, on average, the proportion of users dissatisfied with public transport is lower in European cities.

FIGURE 1.5. User Perceptions of Public Transport Service Quality (Dissatisfied Users), Selected Cities in LAC and Europe

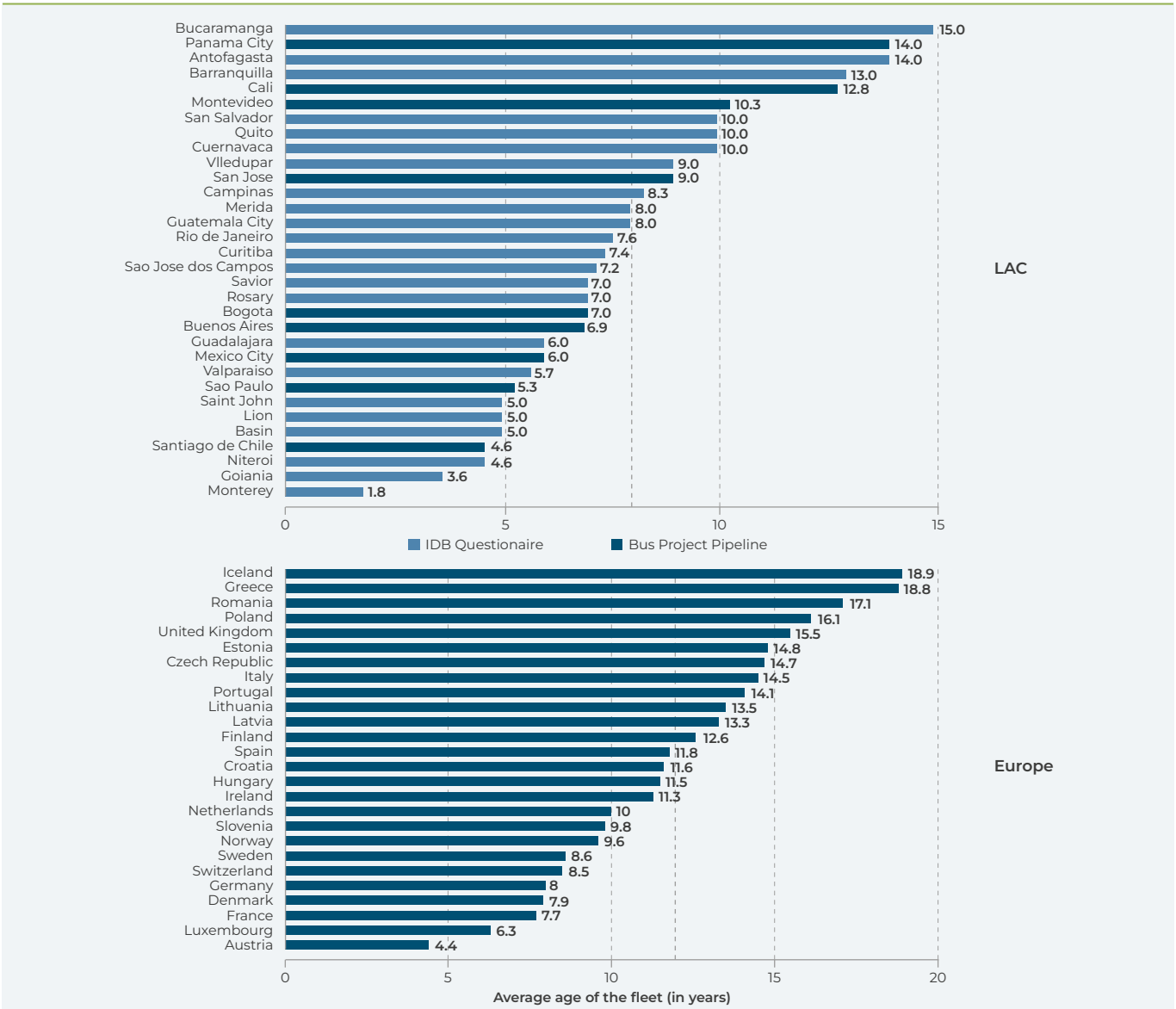


Source: Prepared by the authors based on Balza *et al*. (2023) and Eurostat (2024).

Note: The results for Latin America and the Caribbean and Europe come from surveys conducted using different methodologies, so comparisons between regions should be made with caution.

On the positive side, the region has made progress in terms of the characteristics of its public transport fleets. The average age of the bus fleet in some Latin American and Caribbean cities is significantly lower than in other cities in advanced economies (Figure 1.6). Formally operating bus systems are relatively new, with an average age of 8.4 years compared to 11.9 years for a group of European cities (European Automobile Manufacturers' Association, 2024). However, it is important to note that in Latin America and the Caribbean these results only include vehicles from formal transport systems, which account for approximately half of all trips made in the region (Tun *et al*., 2020). In addition, the recent renewal of the fleet has boosted the use of low-emission electric buses. Santiago de Chile and Bogota lead the use of electric buses, with the largest fleets in the region (E-Bus Radar, 2025).

FIGURE 1.6. Average Age of the Bus Fleet in LAC and Europe, 2023



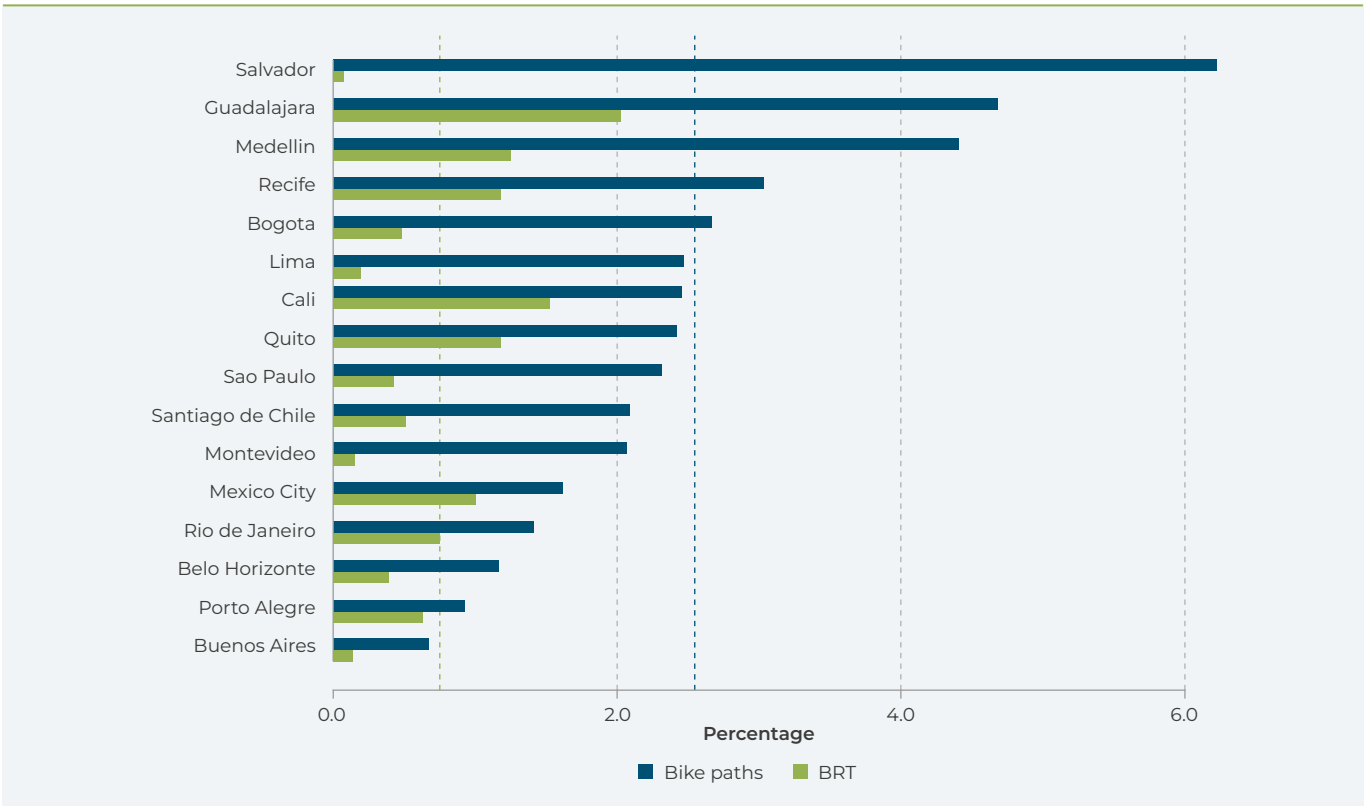
Source: Prepared by the authors based on a questionnaire completed by the cities analyzed; C40 Cities (2023); and European Automobile Manufacturers' Association (2024).

Note: Corresponds to formal public transport bus systems regulated by city transport authorities. Mexico City includes the RTP and Metrobus systems. Montevideo includes urban buses (STM). Panama City includes buses operated by MiBus.

1.2.3. Asymmetry in the Allocation of Infrastructure

The provision of road infrastructure in Latin American and Caribbean cities and the allocation of priorities for its use have favored individual transport over public and active transport. According to the latest available data, the road system in the 16 largest metropolitan areas in the region covers 211,000 kilometers, of which 0.75 percent is exclusively dedicated to public transport and 2.5 percent to cyclists (Figure 1.7). In fact, budgets allocated to investment in the transport sector in cities often show a disproportionate relationship between the resources allocated to road infrastructure and those allocated to public transport. A study by ITDP (2020), based on 59 metropolitan areas in Mexico, reveals that the average ratio of road investment and maintenance to public transport investment is 20 to 1. As a result of this asymmetry in infrastructure allocation, cars are more competitive than other modes of transport. In 9 of 10 typical trips in major Latin American and Caribbean cities, cars offer shorter travel times than public transport (Giráldez *et al.*, 2022). Lower investment in active infrastructure has also affected public transport use. In particular, the lack of sidewalks makes it difficult to access bus stops. In the region, less than 4 percent of the total amount invested in urban transport infrastructure has been allocated to pedestrians and bicycles, compared to 19 percent in Europe (Giráldez *et al.*, 2022).

FIGURE 1.7. Percentage of Exclusive Use for Active and Public Transport in Relation to the Total Road Network, Selected LAC Cities



Source: Prepared by the authors based on data from Urban Road Network (2016), BRT Global Data (2025), Aliança Bike (2024), Secretaría Distrital de Movilidad (2023).

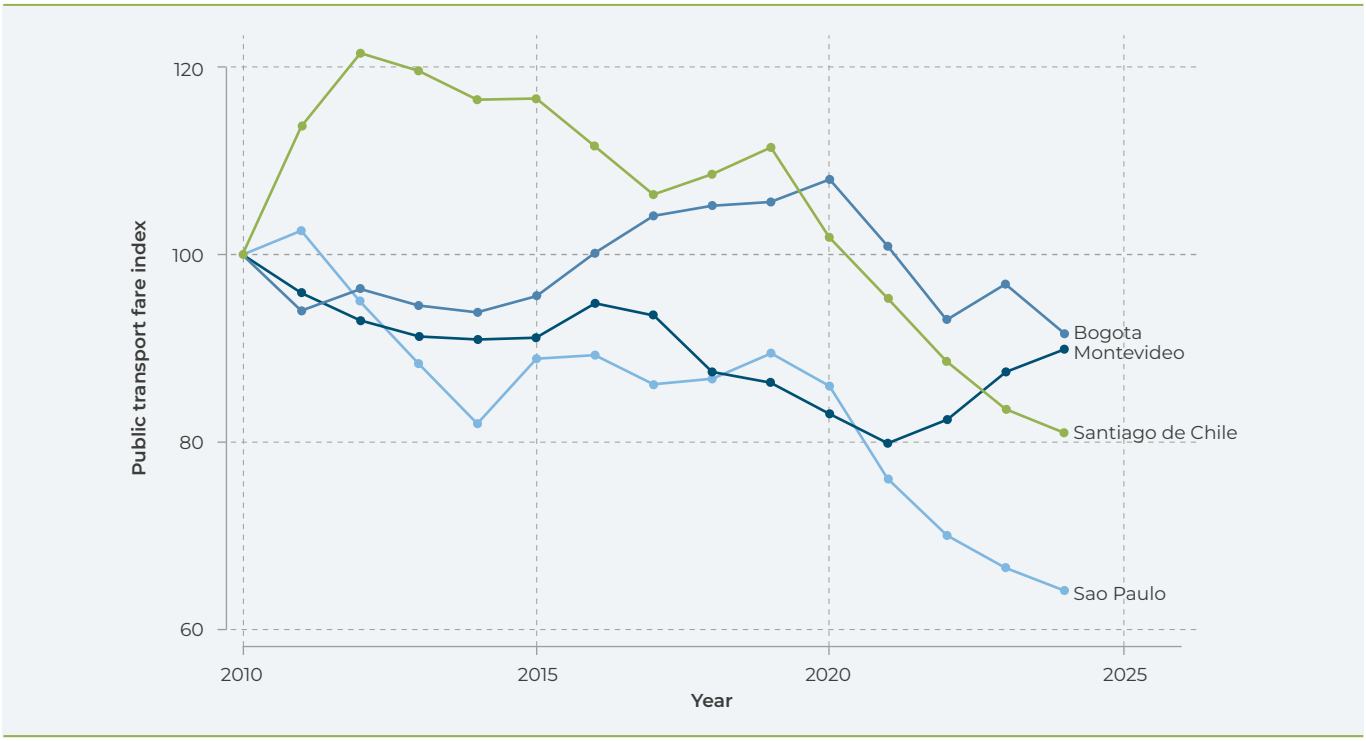
Note: The data correspond to the metropolitan areas of the different cities, except for Mexico City and Guadalajara, where the data correspond to the municipality. BRT: bus rapid transit.

1.3. Inadequate Fare Policies

1.3.1. Lack of Fare Adjustments

The setting of public transport fares is mainly a political decision, and their updating is usually done on a discretionary basis. An analysis of fare trends in selected cities in the region shows a general downward trend in real terms (Figure 1.8). Since 2020, there has been a more pronounced drop in fares in real terms, coinciding with the widespread use of supply subsidies to sustain the operation of public transport services, which have been severely affected by the mobility restrictions imposed during the COVID-19 pandemic. This indicates that, in real terms, public transport services have become cheaper, either because of the effect of sustained inflation or the prolonged freezing of fares. In some cities, such as the bus system in Quito or the metro in Panama City, fares have remained unchanged for long periods. Given the high social sensitivity to increases, fare updates tend to be postponed. Chapter 2 analyzes in greater depth the fare-setting mechanisms in different cities in the region.

FIGURE 1.8. Trends in Real Terms of Public Transport Fares in Selected LAC Cities



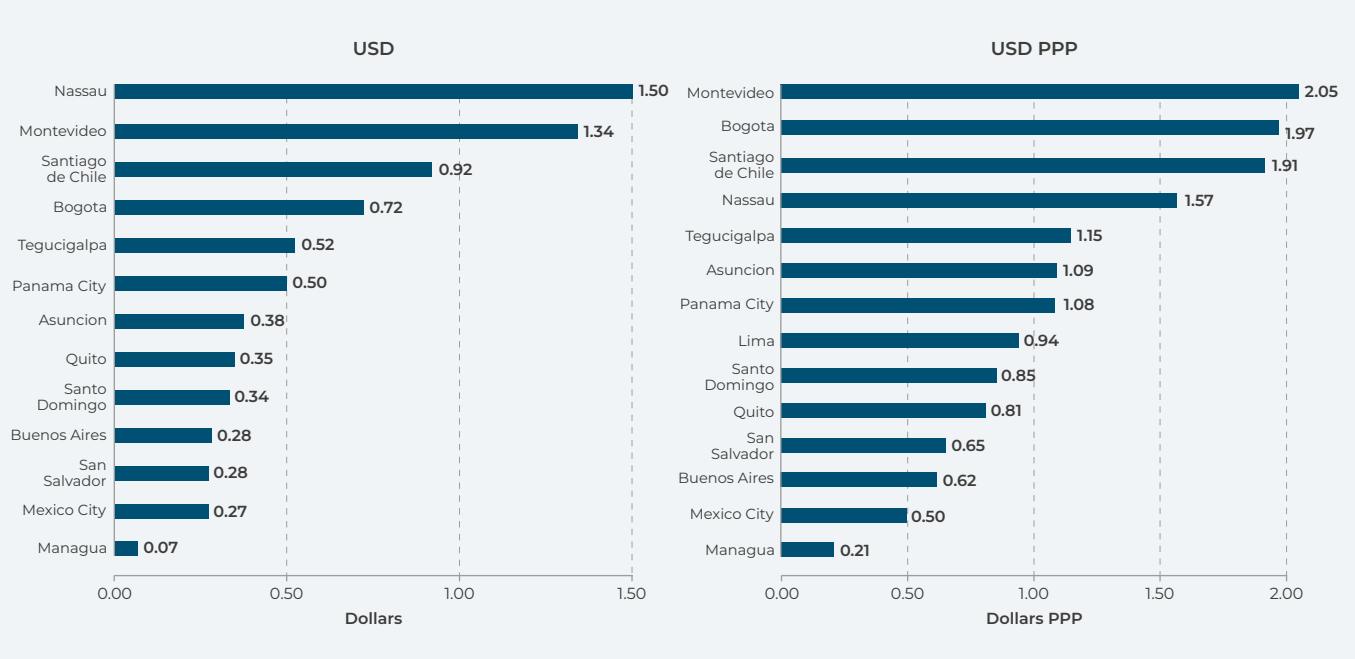
Source: Prepared by the authors based on Skiadaressis (2025).

Note: To construct the public transport fare index, the nominal fare in effect in each city was used. These fares were adjusted to constant 2010 prices using the GDP deflator for each country. They were then normalized into an index, using 2010 as the base year for all cities included.

1.3.2. Unaffordability of Public Transport

The unaffordability of public transport limits its use by lower-income populations. Transportation expenditure accounts for an average of 7.7 percent of total expenditure for lower-income households in the region (Gandelman, Serebrisky, and Suárez-Alemán, 2019). However, transportation expenditure may not capture the affordability problem for lower-income groups due to trips not taken and fare evasion (Gandelman, Serebrisky, and Suárez-Alemán, 2019). Low-income individuals may not take public transport because it is too expensive (Figure 1.9), so they become "captive walkers" for long distances. In fact, 45 percent of trips made by the low-income population are on foot, while this percentage ranges from 10 to 20 percent for the high-income population.[7] This phenomenon limits the ability of lower-income populations living in peripheral areas to access more employment opportunities. In addition, fare evasion in the region reaches levels close to 40 percent in Santiago de Chile and between 10 and 15 percent in Bogota and Cali in the case of buses, according to information provided by these cities.[8]

FIGURE 1.9. Public Transport Fares, 2024



Source: Prepared by the authors based on public information on public transport fares for 2023.

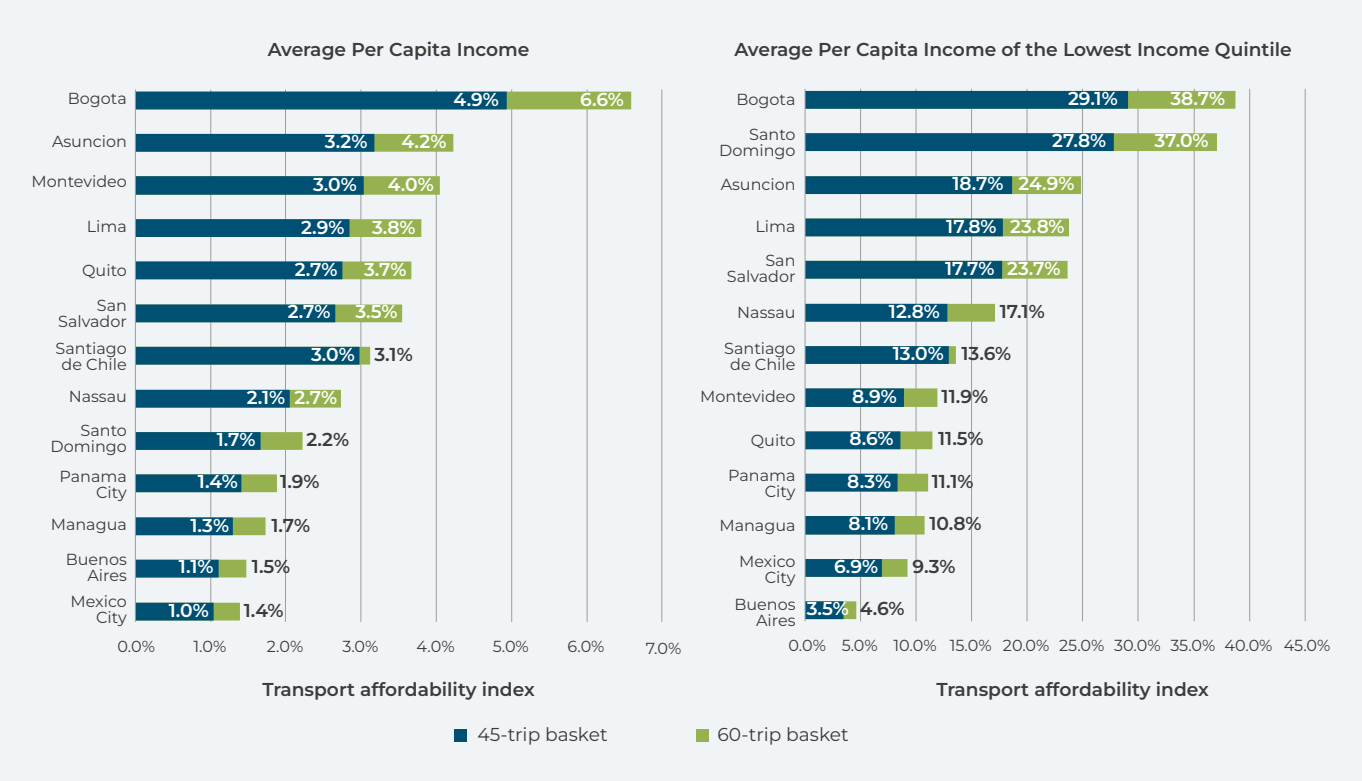
Note: The fares used for transportation systems are as follows: Asunción, average between conventional and differential service; Bogota, Transmilenio fare with Tullave card; Buenos Aires, average fare between sections 1, 2, and 3 with registered SUBE card; Mexico City, metro ticket price; Panama City, metro ticket price; Lima, general metro ticket price; Managua, conventional bus fare; Montevideo, STM 1-hour ticket price; Nassau, conventional bus fare; Quito, general metro ticket price; Santiago de Chile, Metro, Bus Red + Metro, and Tren Nos + Metro fares during peak hours (note that the three fares are the same during peak hours); Santo Domingo, metro fare with Santo Domingo Metro Card; and San Salvador and Tegucigalpa, conventional bus fare. These are 2023 fare values in current dollars, based on the 2023 average exchange rate taken from the World Bank (2025).

[7] Based on origin-destination surveys from Bogota (2023), Buenos Aires (2019), Mexico City (2017), Montevideo (2016), Sao Paulo (2017), and Santiago de Chile (2024).

[8] The level of fares has an impact on fare evasion. In Santiago de Chile, for example, a 10 percent increase in the fare increased fare evasion by 2 percent (Troncoso and de Grange, 2017). For more details on fare evasion, see Chapter 2.

The construction of an affordability indicator makes it possible to overcome the limitations of household expenditure data in order to gauge the affordability of public transport. The results show that the financial burden of a basket of transport trips is particularly problematic for lower-income populations, exceeding 20 percent of the average per capita income of the lowest income quintile for one-third of the cities analyzed, considering a basket of 60 trips per month (Figure 1.10). However, as Gwilliam (2017) points out, it is important to distinguish whether the affordability problem is due to high fares or insufficient income, as each cause requires a different policy response. If the obstacle is high costs, a targeted subsidy would be an appropriate response;[9] if the real problem is low household income, direct cash transfers to households could be more effective.

FIGURE 1.10. Transportation Affordability Indicators in Selected LAC Cities, 2024



Source: Prepared by the authors using publicly available information on 2024 public transport rates and data from the World Bank's World Inequality Database and World Development Indicators (World Bank, 2025).

Note: The same fares as those used in Figure 1.9 were considered. For the lowest income quintile indicator, the 2023 income distribution was used, given the availability of data. Data were collected from governments and operators (reports and websites), as well as through contacts at IDB Country Offices. The estimate considers a basket of 45 single trips (two trips per working day) in order to simplify the analysis and facilitate comparability between cities. It is important to note that this indicator does not fully capture the particularities of fare integration systems, as fares were standardized to the price of a single individual ticket, except in cases where discounted monthly passes are applied. For example, Santiago de Chile has a maximum spending system called DaleQR that allows free travel starting at around $40. Above this value, the basket of 45 or 60 trips has a similar value. In this case, the fare for 60 trips for Santiago de Chile has been calculated using the maximum value of CLP 41,000.

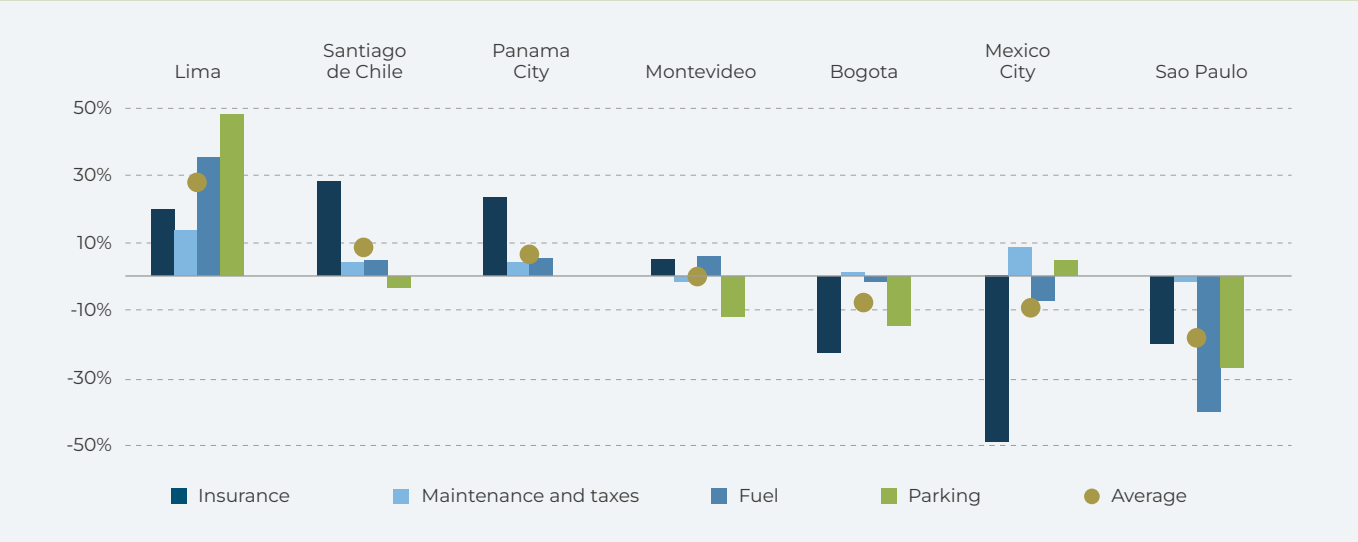
[9] See Chapter 2 for a discussion on subsidies and trade-offs associated with the design of urban mobility public policies.

1.4. Increase in Costs

1.4.1. Congestion

Increased urban congestion has a negative impact on public transport performance and system costs. Related to the trend toward greater car use, in 2019, 3.07 billion hours were lost due to congestion in 10 major cities in Latin America and the Caribbean, equivalent to $8.681 billion (Calatayud *et al.*, 2021). The costs of congestion range from 0.5 to 1.1 percent of each city's GDP. This is equivalent, for example, to 1.9 and 2.3 times what the local governments of Buenos Aires and Mexico City invest annually in education, respectively, or to the total amount that Sao Paulo spends on health. Congestion negatively impacts public transport performance, as it reduces the average speed at which buses travel when they do not have segregated corridors. It also increases the costs of providing consistent service quality over time, for example, by having to increase the bus fleet to maintain frequency. Despite these impacts, private transportation does not pay for the negative externalities it generates. In this regard, data for the main cities in Latin America and the Caribbean show that, while the cost of public transport increased by an average of 26 percent between 2019 and 2021, the real cost of car use remained unchanged (Figure 1.11) (Giraldez *et al.* 2022).

FIGURE 1.11. Real Variation in the Cost of Car Use in Selected LAC Cities, 2019–2021

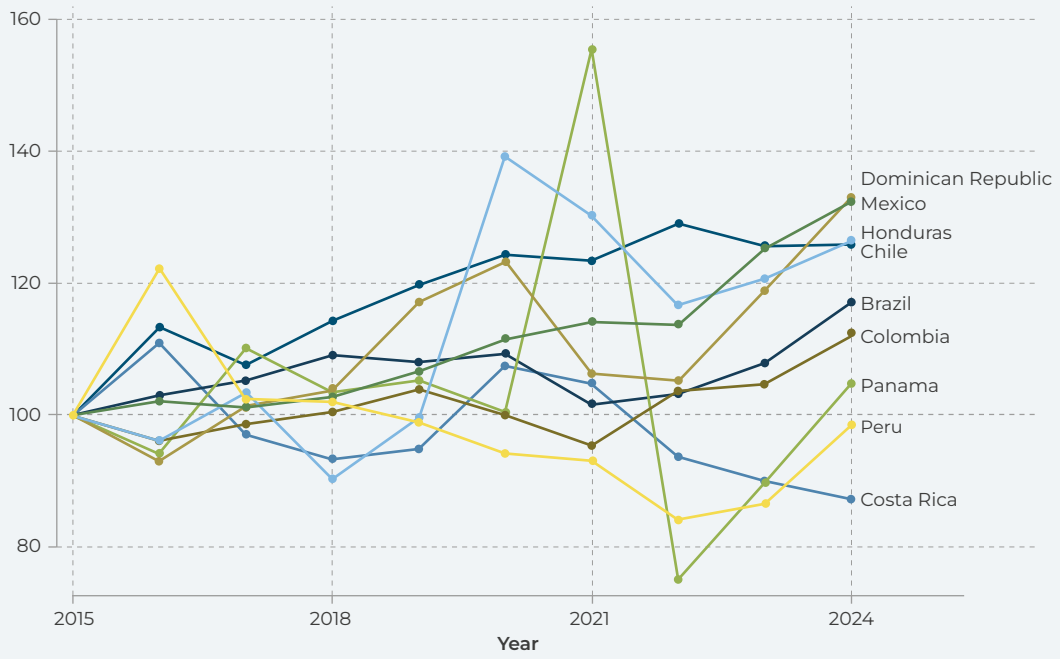


Source: Giraldez *et al.* (2022).

1.4.2. Increase in Input Prices

The operating costs of public transport have risen steadily, mainly as a result of the increase in the price of its key input: labor. Public transport's internal costs include staff salaries, fuel consumption, rolling stock maintenance, and administrative expenses. However, urban transport is a highly labor-intensive service,[10] with labor being the largest item in the cost structure.[11] In Montevideo, for example, personnel costs account for approximately 73 percent of the total operating cost of the bus system.[12] In terms of the evolution of this component, the data available for the region show that there has been an increase in real terms of the labor costs over the last decade in most countries (Figure 1.12).[13]

FIGURE 1.12. Transport Labor Cost Trends in Selected LAC Countries



Source: Prepared by the authors based on ILO (2025).

Note: Hourly wages corresponding to section H (Transport) of the International Standard Industrial Classification Rev. 4 coding for each country were used to construct this indicator. The values were adjusted to constant 2015 prices using the GDP deflator for each country. They were then normalized in the form of an index, using 2010 as the base year for all countries included.

[10] Given that labor accounts for the largest share of public transport operating costs, autonomous technologies could significantly reduce service provision costs (Litman, 2025).

[11] In the United States, personnel costs account for approximately 62 percent of total public transport operating costs (CRS, 2024), while in Great Britain (outside London) this figure is around 60 percent for buses (CPT, 2025).

[12] According to details of the technical fare calculation (Intendencia de Montevideo, 2020).

[13] In addition, preliminary evidence for the region suggests that bus-based urban public transport is subject to what is called "Baumol's cost disease" (Gómez-Lobo and Price, 2020). As it is a labor-intensive sector with limited possibilities to incorporate technological improvements that significantly increase productivity, its operating costs tend to grow in relative terms compared to other goods and services in the economy. In this context, even in the absence of congestion, without changes in the modal share toward the automobile or the presence of other previously identified challenges, the relative costs of public transport will increase as the wages of drivers, mechanics, and other personnel adjust upward with economic development, without this being offset by an increase in productivity in the sector. This phenomenon anticipates a structural trend toward growing operating deficits in bus systems, ceteris paribus.

1.4.3. Ambitious Reforms Without Adequate Funding

One of the major challenges facing public transport is the implementation of ambitious reforms without adequate funding schemes. The type and scope of a reform should depend on the resources available, as is evident in investments such as subways, which are almost always funded through public spending. However, in the case of bus reforms, this relationship is less clear. If it is not feasible to increase fares or provide subsidies—either to cover infrastructure costs or to partially cover the higher operating costs of higher-quality systems—it may be necessary to adjust the scope and ambition of the reform (Gómez-Lobo, 2025). Experience in the region shows that, in some cases, reforms funded exclusively by fare revenues have led to a reduction in frequency in both main corridors and feeder services. Examples of this situation were observed in Transantiago and in intermediate cities in Colombia (Box 1.2)

BOX 1.2. Bus Rapid Transit Systems in Mid-size Cities in Colombia

In mid-size cities in Colombia, the implementation of bus rapid transit (BRT) systems under the Integrated Mass Transit System (SITM) model faced significant structural challenges. Funded solely by fare revenues, these reforms reduced the frequency of trunk and feeder services, which increased waiting times and reduced service quality. The short length of the trunk corridors and the need to make multiple transfers led to a loss of well-being for users, who in many cases opted for alternative modes of transport. As a result, demand was significantly lower than projected, ranging from 75.7 percent in Medellín to just 22 percent in Cartagena, causing financial problems that forced the introduction of subsidies. Figure B1.2.1 shows the dynamics in the case of Bucaramanga. Even without considering other difficulties faced in the implementation of BRTs, the design of reforms without adequate funding resulted in a sharp drop in system usage and lower user satisfaction.

FIGURE B1.2.1 Vehicles in Operation and Passengers in Bucaramanga

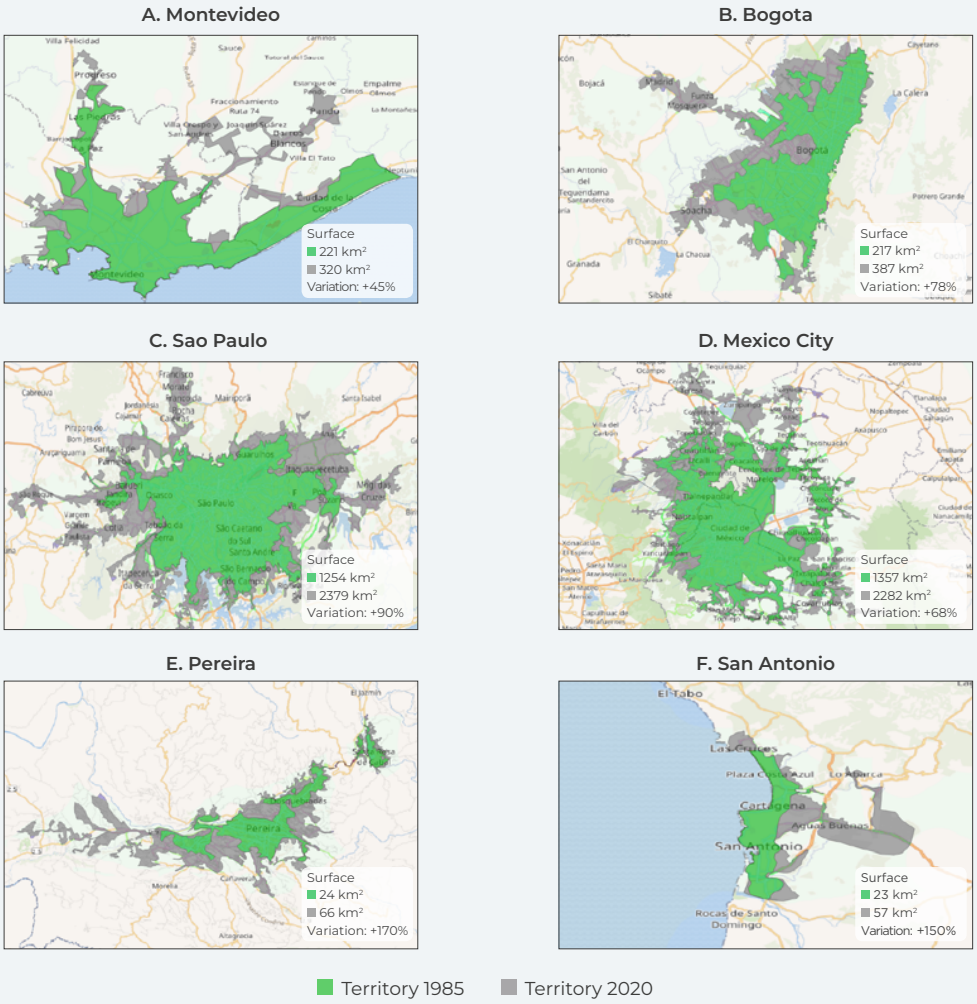
Source: Based on Gómez-Lobo (2020).

Note: Based on Gómez-Lobo (2025).

1.4.4. Unplanned Urban Growth

The rapid increase in the rate of urbanization, coupled with the absence of efficient land-use planning, has created significant structural challenges for public transport. Between 1950 and 2024, the urban population in Latin America and the Caribbean grew from 41.3 to 82 percent of the total population and is expected to rise to 90 percent by 2050 (United Nations, 2018). At the same time, cities in the region have undergone a process of territorial expansion characterized by low population density. On the one hand, this phenomenon is a natural process of dispersion associated with rising incomes and migration to peripheral areas, reflecting a pattern of "consumption" of living space. On the other, the search for lower housing costs by some households and the expansion of informal settlements in urban peripheries have also contributed to this reduction in urban density (Figure 1.13). For example, between 1985 and 2020, Mexico City decreased its density by 9 percent, Montevideo by 20 percent, and Sao Paulo by 13 percent (Giraldez *et al*., 2022). In general, this process has not been accompanied by integrated land-use planning and transportation provision. As a result, peripheral areas are inadequately connected by public transport networks, while the low density of these areas increases the costs of providing such services, making them unprofitable to operate. All of this has led to greater use of private vehicles, longer distances and travel times, and higher levels of congestion.

FIGURE 1.13. Territorial Expansion of Urban Areas in LAC



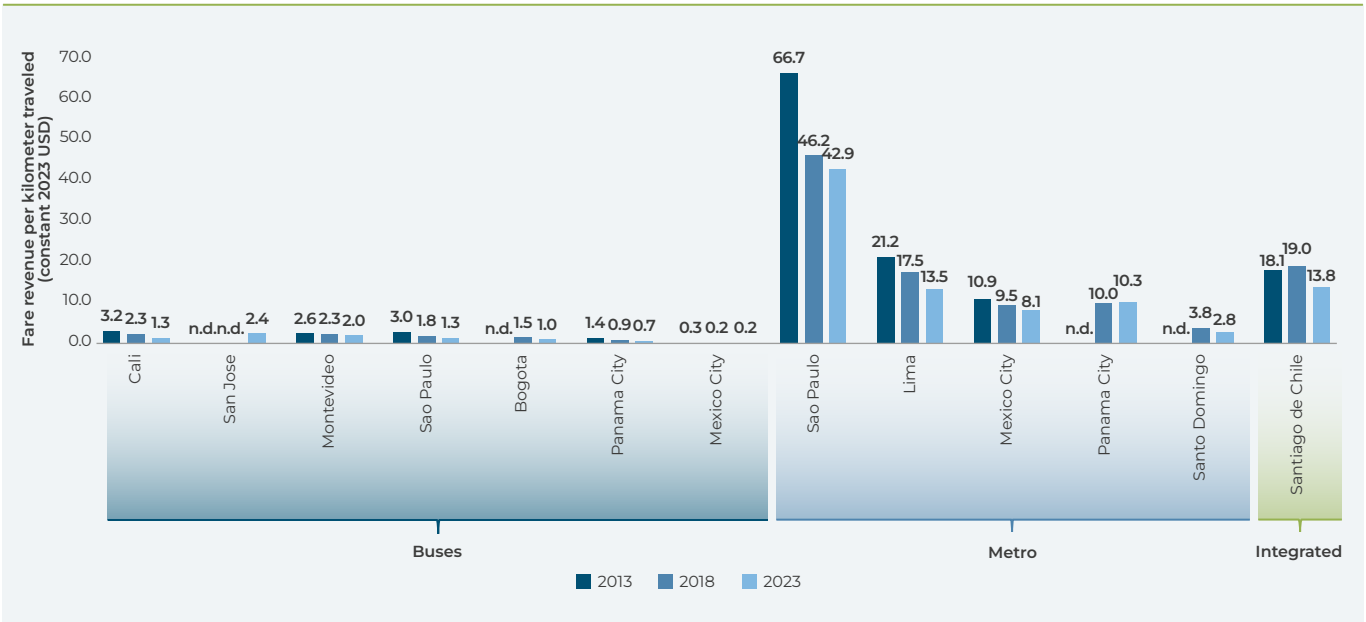
Source: Giraldez *et al.* (2022).

1.5. The Challenge of Funding and Financing Public Transport

1.5.1. Growing Difficulties of Economic Sustainability

As a result of what has been discussed so far in this chapter, it is clear that public transport faces a key challenge in terms of economic sustainability. The loss of users, together with inadequate fare structures, puts pressure on the ability of systems to generate revenue. Combined with rising costs, this situation increases the operating deficit. In fact, public transport system fare revenue has fallen dramatically over the last decade. According to information from a group of Latin American and Caribbean cities (Figure 1.14), fare revenues per kilometer traveled in both bus and metro systems fell in 2023 compared to 2013. This reduction in fare revenues occurred at the same time that operating costs per kilometer traveled increased. In effect, the region today faces challenges in its revenue and expenditure structures, resulting from lower fare revenues (due to lower demand in some cases and high levels of fare evasion; see Chapter 2) and higher operating costs per kilometer traveled and per passenger. Given the dependence on fare revenue as a mechanism for covering operating costs, this has led to a crisis in funding and financing for the sector (Box 1.3).

FIGURE 1.14. Evolution of fare revenues in selected cities per kilometer



Source: Prepared by the authors based on a questionnaire completed by the cities analyzed and public information, including annual reports and financial statements from system operators.

Notes: (1) The results should be read taking into account the particularities of each system, such as its integration, institutional framework, service quality, coverage, and level of formality. (2) Values are expressed in 2023 U.S. dollars, removing the effect of inflation in dollars. (3) Transportation systems by city: Bogota and Cali, bus systems; Mexico City, buses (RTP and Metrobus) and the metro; Lima, the metro system only; Montevideo, urban buses (STM) only; Panama City, bus systems (MiBus) and the metro; Santiago de Chile, buses and the metro; Santo Domingo, buses (OMSA) and the metro; San José, transport system, buses and urban trains (only the train is subsidized); and Sao Paulo, municipal bus and metro systems.

BOX 1.3. Concepts: Funding and Financing of Public Transport

Funding and financing are different but related concepts. To make a transport project viable, it is key to establish who will pay for the service and in what proportions and time frames, and who will mobilize the resources to meet the initial requirements of the project (ITF, 2024c).

Funding describes the process of paying for transportation infrastructure and services over time (Brichetti, Cavallo, and Serebrisky, 2024). In other words, it refers to the instruments and mechanisms that ensure that the necessary resources are available to meet the investment and operating costs of transportation systems over time. In general, as will be seen in Chapter 2, the sources of funding for public transport projects can be classified into four broad groups: (i) direct beneficiaries or service users; (ii) indirect beneficiaries; (iii) users of other modes of transport; and (iv) taxpayers.

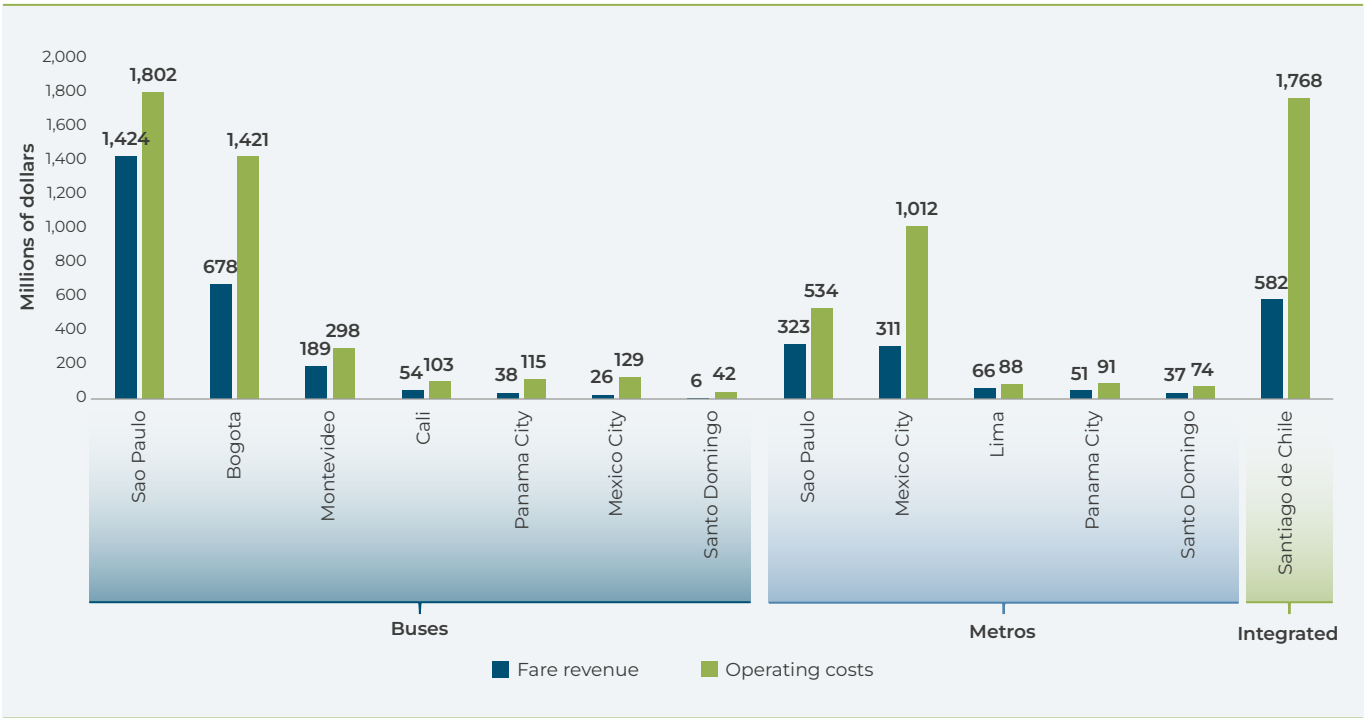
Financing refers to the process of covering the initial costs of investments in transportation infrastructure and services. In this sense, funding is the flow of revenue that repays the financing and can be estimated as follows (Vassallo and Garrido, 2023):

Funding needs = capital investment + return on capital + operating costs + maintenance costs

Thus, a project's funding flow will be a key factor in determining the project's level of risk for accessing financing. For this reason, as will be discussed in Chapter 3, the appropriate financial structure for a project will be one that minimizes the risks arising from, among other things, the project's funding structure (Brichetti, Cavallo, and Serebrisky, 2024).

In response to this situation, the volume of operating subsidies for public transport has increased. As will be seen in detail in Chapter 2, public transport systems in several cities in the region face serious difficulties in covering operating costs through fare revenues, which puts pressure on their financial sustainability. In fact, most of the cities surveyed report that fare revenues do not cover even 50 percent of operating costs, requiring high levels of subsidies for their operation (Figure 1.15). Even in the case of metro systems, where revenue is higher, a significant portion of operating costs must be covered by subsidies. This has put pressure on public budgets in fiscal contexts already constrained by the COVID-19 pandemic (see Chapter 2).

FIGURE 1.15. Comparison of Fare Revenues and Operating Costs for Public Transport Systems in Selected in LAC Cities, 2023



Source: Prepared by the authors based on a questionnaire completed by the cities analyzed and public information, including annual reports and financial statements from system operators.

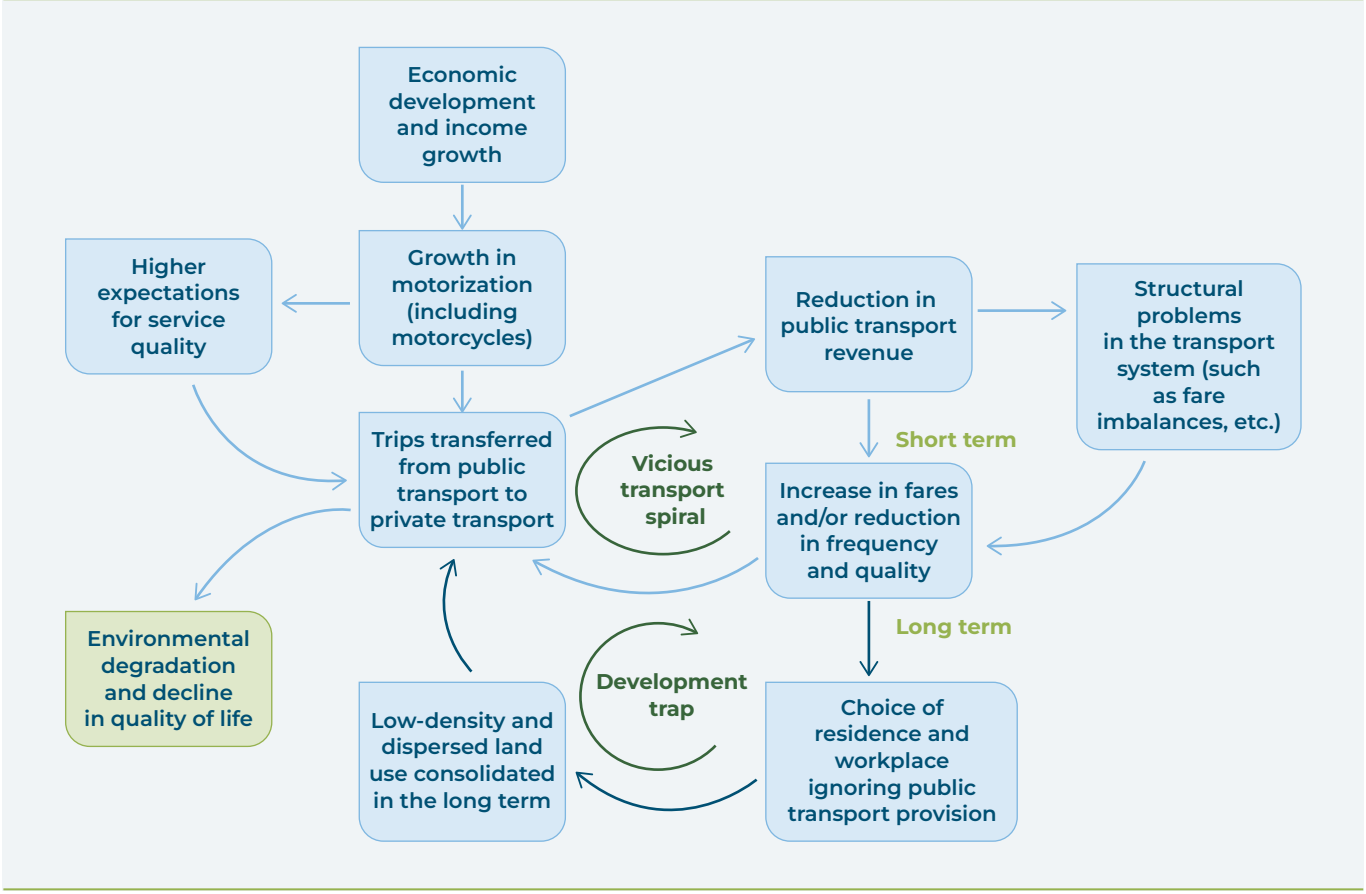
Notes: (1) The results should be interpreted taking into account the particularities of each system, such as its integration, institutional framework, service quality, coverage, and level of formality. (2) Transportation systems by city: Bogota and Cali, bus systems; Mexico City, buses (RTP and Metrobus) and the metro; Lima, the metro system only; Montevideo, urban buses (STM) only; Panama City, bus systems (MiBus) and the metro; Santiago de Chile, buses and the metro; Santo Domingo, buses (OMSA) and the metro; and Sao Paulo, municipal bus systems and the metro.

1.5.2. Danger of a Vicious Cycle and the Challenges Ahead

An important underlying factor explaining the loss of users in public transport is the lack of resources to improve its quality and affordability. As shown in Figure 1.16, a combination of external and internal factors affects the availability of resources from public administrations and private operators to make the investments required to provide quality public transport services, triggering a vicious cycle that affects the sustainability of the system. Indeed, as the rate of motorization in cities increases as a result of economic growth, users have higher expectations regarding the quality of transport services. At the same time, the reduction in the number of public transport users—who now use cars—decreases operators' revenues to maintain service quality and, even worse, forces them to reduce services, increase fares, or both. This makes cars a more attractive option, causing a further loss of users and the consequent loss of fare revenue (Willumsen and Lillo, 2005). In the long term, this problem is exacerbated by the territorial expansion of cities made worse by the lack of urban planning integrated with the provision of public transport, as well as by infrastructure investment in favor of cars, which reinforces dependence on cars for mobility and exacerbates environmental degradation. In developing countries, the growing penetration of motorcycles further reduces the demand for public transport.

Added to this dynamic are challenges specific to the sector, such as tariff imbalances—that is, a tendency to keep tariffs low or not adjust them in the face of rising costs, or tariff structures that do not adequately reflect the costs of each service or time slot, Additional challenges include the need to provide subsidies to certain categories of users to promote social welfare, and the implementation of ambitious reforms not always accompanied by adequate funding strategies, which has made some systems more expensive. In this context, and although mass public transport systems require subsidies for reasons of economic efficiency (see Section 2.3 of Chapter 2), it is even more imperative to have adequate funding strategies in place to ensure the economic sustainability of the system.

FIGURE 1.16. Challenges of Public Transport and Its Economic Sustainability

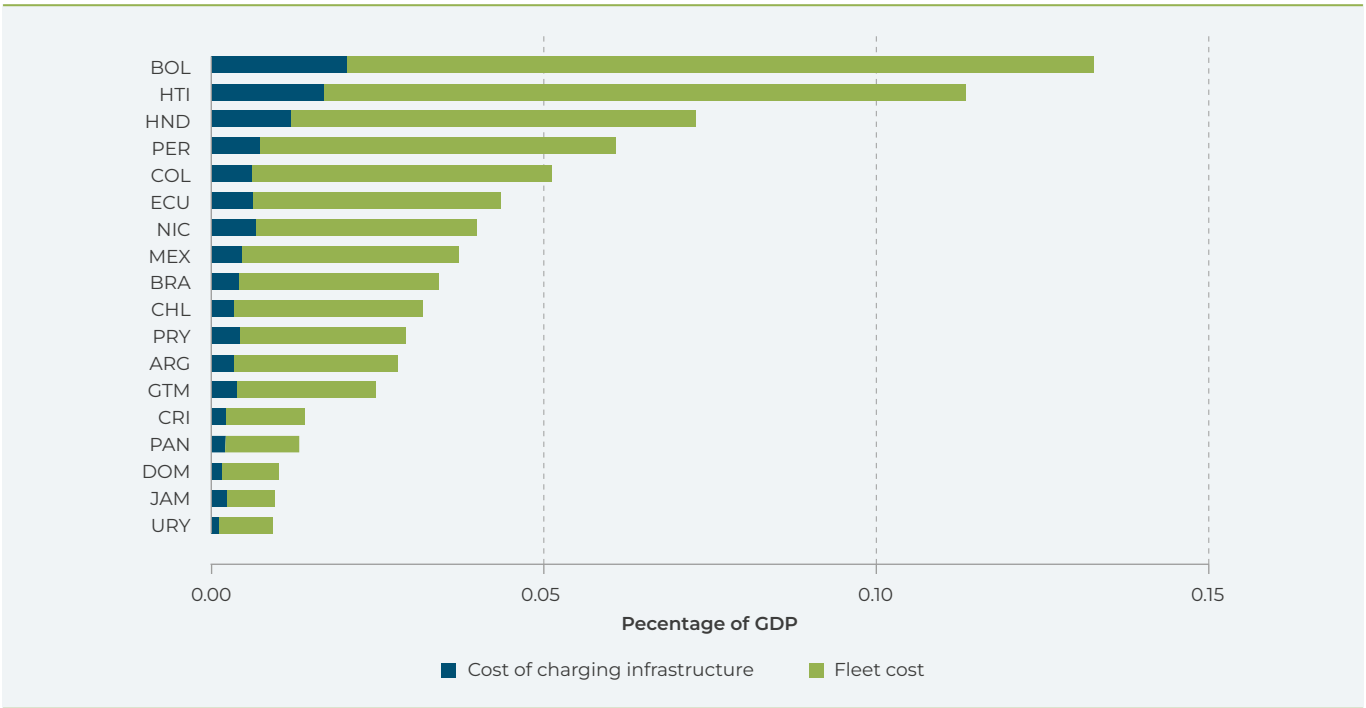


Source: Adapted by the authors based on Willumsen and Lillo (2005).

1.5.3. An Even Greater Challenge to Meet 2030 Sustainable Development Goals

Achieving the SDGs by 2030 will require even more resources for public transport. Brichetti *et al*. (2021) estimated that in the period 2022–2030, Latin American and Caribbean countries would need to invest around 0.31 percent of their GDP annually in mass transit—BRT, commuter rail, and metro systems—to meet SDG 11, which is related to providing access to safe, affordable, and sustainable systems for all. This figure is equivalent to 35 percent of the average historical public investment in transportation in the region measured in terms of GDP for the period 2019–2023.[14] The percentage would be even higher if the investment needs for both improving urban mobility and decarbonizing the sector to meet climate targets were taken into account. In the latter case, it is estimated that the region would need to invest 0.036 percent of its annual regional GDP by 2050 to achieve the transition to electric buses (Figure 1.17) (Sánchez *et al*., forthcoming).[15] However, this percentage hides large asymmetries, given that the investment needs for sustainable mobility vary according to the characteristics of the cities, their transport systems, and the objectives set. A city such as Bogota, for example, with a strong focus on improving urban mobility to overcome the challenges of congestion and social inclusion, has estimated that the annualized investments of the Safe and Sustainable Mobility Plan (PMSS) 2023–2035, focused on improving the quality of life

FIGURE 1.17. Cost of the Transition to Electric Buses as a Percentage of GDP by 2050



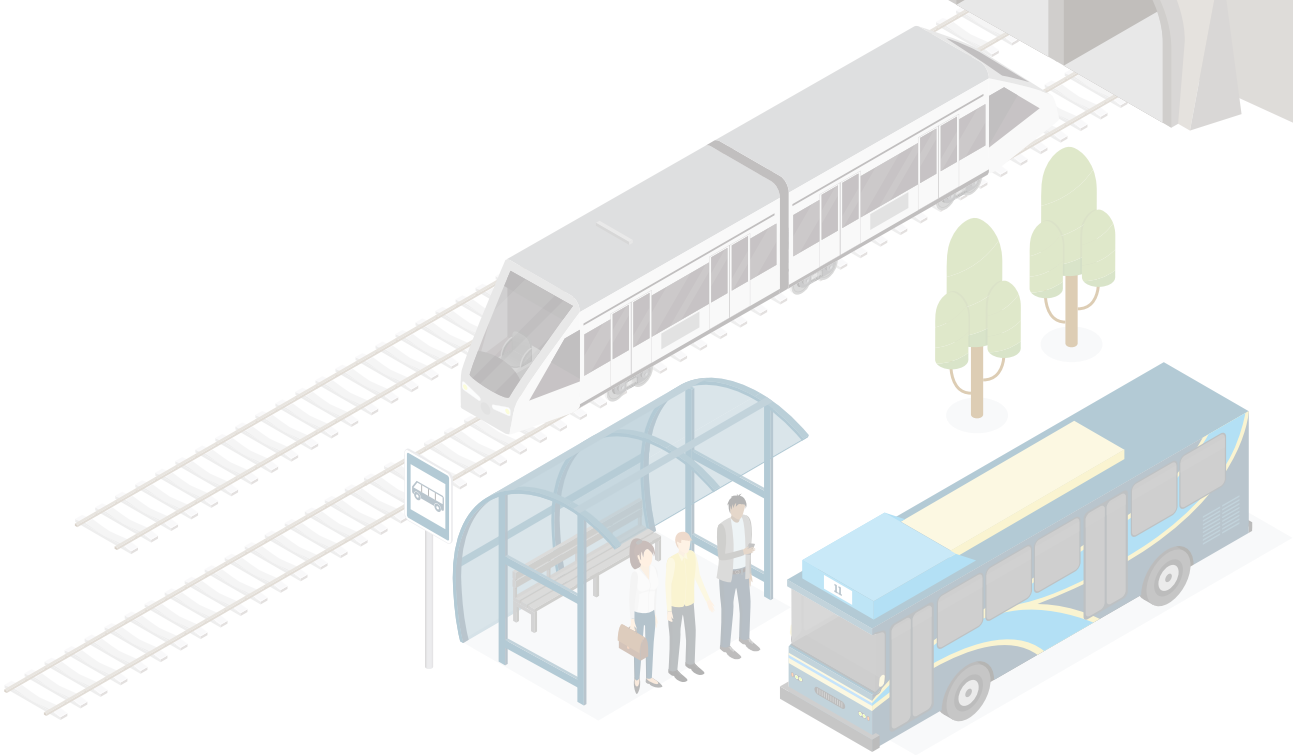
Source: Sánchez *et al*. (forthcoming).

[14] According to data from Infralatam (2023), public investment in transport infrastructure in Latin America and the Caribbean in the period 2019–2023 stood at 0.89 percent of GDP (Infralatam, 2023).

[15] It should be noted that this study focuses on accounting costs and does not consider the associated economic costs. However, recent studies suggest that, depending on the conditions, the economic costs of electromobility may be lower than those of internal combustion systems (Chen and Wang, 2023). Thus, the biggest challenge in the transition to electric mobility is financing.

of the city's inhabitants,[16] amount to approximately US$44.325 billion (Secretaría Distrital de Movilidad, 2023). This figure represents approximately half of the city's annual budget.[17] This highlights the need to move toward stable funding and financing structures for public transport.

Given the purpose of this study, the chapters that follow will explore in depth the status and challenges of public transport funding and financing in Latin America and the Caribbean. In order to reverse the current situation and provide policy guidelines to improve the economic sustainability of public transport systems, the chapters will analyze the causes of these challenges, identify good practices and success stories to be replicated, and provide recommendations for decision-makers in the sector. To begin to understand this phenomenon, the next chapter will present an in-depth analysis of the funding of public transport systems in the main cities of Latin America and the Caribbean.



[16] The PMSS sets out four objectives: "(i) to consolidate a sustainable and decarbonized mobility system (...), (ii) to implement a network of public spaces for mobility with pedestrians as the main focus (...), (iii) to strengthen the freight transport and land, rail, and air logistics network in the Bogota Metropolitan Region - Cundinamarca through the development of regional governance in coordination with the Regional Mobility Agency, (iv) to contribute to the construction of a smart, safe, and caring territory to improve the travel experience, services for citizens, and competitiveness in the City Region" (Secretaría Distrital de Movilidad, 2023).

[17] The estimate was made by annualizing the total PMMS investment at constant 2023 prices for the period 2023–2035 and comparing it with the consolidated annual budget for 2023.

2. Public Transport Funding

This chapter focuses on public transport funding in Latin American and Caribbean cities, that is, the mechanisms to address both operating costs and infrastructure investments, a central aspect for the sustainability of urban mobility in the region. The analysis explores how such funding is structured in the region, combining a specific conceptual framework with new empirical evidence. The chapter starts by presenting the conceptual framework on funding, then offers a detailed diagnosis of the state of public transport funding in the region, identifying the main challenges and trends over the last decade. The final section puts forth a set of policy recommendations based on both empirical evidence and notable experiences at the regional and international levels.

The empirical basis for the analysis comes from a survey of public transport systems in the region conducted in 2024, in which 10 cities participated: Bogota, Cali, Mexico City, Lima, Montevideo, Panama City, San José, Sao Paulo, Santiago de Chile, and Santo Domingo. Using structured forms, information was collected on the characteristics, fare revenues, subsidies, other revenues, and operating costs of the public transport systems, as well as information on their financing for 2013, 2018, and 2023. This time frame allows for the identification of trends over the last decade as well as the effects of the COVID-19 pandemic. The chapter develops an aggregate analysis at the regional level based on this information. The Appendix to this publication includes a detailed technical data sheet for each participating city with the main data on their public transport systems.

2.1. Conceptual Framework

Public transport funding describes the process of paying for transport infrastructure and services over time (Brichetti, Cavallo, and Serebrisky, 2024). Specifically, funding is linked to a project's ability to capture benefits and generate revenue to cover both the capital investment and the operating and maintenance costs required (Vassallo and Garrido, 2023). The funding capacity of a public project or system is associated with the sources the resources come from—in other words, who pays for the project or system.

Public transport funding comes from four main sources: direct beneficiaries, indirect beneficiaries, users of other modes of transport, and taxpayers (Figure 2.1). Direct beneficiaries pay for public transport through fares, which correspond to the price charged to users for the service. Through different mechanisms, such as value capture and property taxes, indirect beneficiaries of a public transport project pay for the benefits it generates for them, even if they are not users of the system. Users of other modes of transportation also serve as funding sources through such mechanisms as fuel taxes, congestion charges and parking fees. These intra-sectoral sources (within the transportation sector) may be limited exclusively to the same city where the public transport system to be funded operates. In addition, they can generate indirect benefits for the system itself by helping to reduce funding needs due to less congestion, increased average bus speeds, and, consequently, lower fleet requirements to maintain a certain level of coverage and frequency. Finally, taxpayers contribute to public transport projects through different sources, such as general taxes.

In general, each source of public transport funding has a primary use, either for capital investment or for operation and maintenance. In the case of fares—which come from the direct beneficiaries of public transport—most of the funds are used primarily to pay for operations, maintenance, and small-scale investments such as the renewal of rolling stock. However, these fares are unlikely to generate sufficient resources to fund larger-scale infrastructure investments. On the other hand, other sources of funding, such as those from indirect beneficiaries or taxpayers, are often used to cover the difference between the operating costs of the systems and the revenue collected from fares, thus helping to cover operating deficits. There are also certain sources, such as those from value capture, that are generally used to pay for capital investments.

FIGURE 2.1. Public Transport Funding Sources and Main Uses

	DIRECT BENEFICIARIES	INDIRECT BENEFICIARIES	USERS OF OTHER MODES OF TRANSPORT	GENERAL OR SPECIFIC TAXPAYERS
SOURCES	→ Tariffs.	→ Property taxes. → Value capture. → Rents at public transport stations. → Employer charges (e.g., payroll taxes). → Regional sales taxes. → Sale of air rights. → Advertising. → Impact /development fees.	→ Vehicle charges. → Fuel taxes. → Charges based on distance traveled. → Tolls. → Congestion charges. → Environmental charges (e.g., carbon pricing). → Parking fees.	→ General taxes. → Income taxes. → Taxes on public services.
USES (1)	→ OPEX (2).	→ OPEX/CAPEX.	→ OPEX/CAPEX.	→ OPEX/CAPEX.

Source: Prepared by the authors based on Litman (2024) and ITF (2024c).

Notes: CAPEX: capital expenditure; OPEX: operating expenditure. (1) Corresponds to main uses. (2) Fares are mainly used to pay for operations, maintenance, and eventually fleet renewal. However, they are not sufficient to fund capital investments associated with infrastructure.

2.2. Diagnosis of Public Transport Funding

The analysis carried out for this publication shows that public transport funding in the region faces a number of challenges, the main ones being limited availability of funding sources; falling revenues from direct beneficiaries; low uses of charges to indirect beneficiaries; high dependence on taxpayer-based revenues; inefficiency of subsidies; and inefficiency of systems. These challenges will be addressed in the following pages based on empirical evidence from the main cities in the region. In addition, the experiences of cities that have implemented policy actions to address these challenges, both within and outside the region, will be highlighted as a prelude to the discussion of policy recommendations presented at the end of the chapter.

2.2.1. Limited Availability of Funding Sources

In the major cities of Latin America and the Caribbean, the operation of public transport systems depends mainly on fare revenues and subsidies.[18] According to information compiled for a set of 10 cities in the region, on average, fares account for about half of the total revenues of public transport systems. It should be noted, however, that there are significant variations: in some cases, such as Mexico City, fares account for 22 percent of revenue, while in others, such as Montevideo, they account for almost 60 percent of revenue (Figure 2.2).

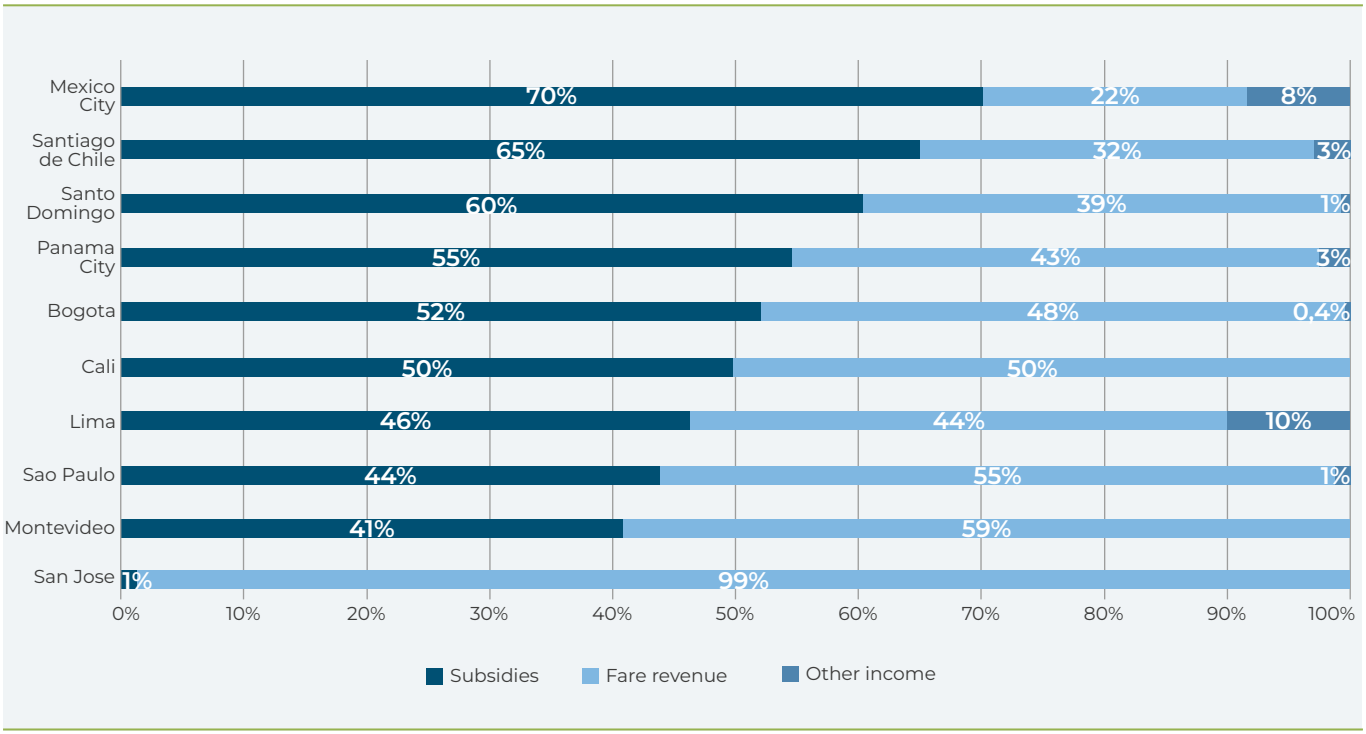
The participation of funding sources other than fares and general or specific tax revenue in the operation of public transport remains in its infancy in the region. In fact, very few cities have incorporated alternative mechanisms. In Bogota, the Pico y Placa Solidario system—which allows a car to pay to be exempt from the ban on driving on a specific day of the week—generates resources that are mainly allocated to the Fare Stabilization Fund (FET) of the Bogota public transport system. Established in 2019, the FET covers the difference between the social fare and the technical fare of the system, mitigating the impact that a potential increase in operating costs could have on the affordability of public transport. In 2023, the resources obtained through Pico y Placa Solidario accounted for more than 10 percent of the FET's resources.[19] In Mexico City, 8 percent of the public transport system's revenue comes from sources such as the leasing of premises and commercial spaces, advertising space, and special services (e.g., school services in the case of the Passenger Transport Network - RTP). In Panama City, 3 percent of total revenue of the metro and bus system comes from space rentals, advertising, penalties, and the sale of oil and scrap metal, among other sources.

However, the revenue linked to public transport infrastructure is not always directly allocated as a source of funding for the operation of the system. For example, in some cities, revenue generated by advertising at bus stops is integrated into the general budget of local governments. This contributes to the persistence of limited diversification of funding sources, which contrasts with the experience of several cities outside the region, where broader schemes have been implemented (Box 2.1). Similarly, in some countries, such as Chile, revenue from specific fuel taxes is allocated to general government funds, so there is no guarantee that these resources will be used for public transport or the transport sector in general.

[18] In the case of semi-formal or informal transport services, where transport companies operate on a private basis, funding comes exclusively from the fares charged to users. It is estimated that more than half of public transport trips in the region are made through semi-formal or informal transport services (Tun *et al*., 2020). In some Caribbean cities, such as Port-au-Prince, these services satisfy a large part of urban mobility (Oviedo *et al*., 2020). Thanks to the flexibility of their routes and their wide coverage, they are particularly relevant for populations living in peripheral neighborhoods—usually lower-income populations (Scholl *et al*., 2022)—and they tend to offer more convenient frequency and fares, as is the case in Bogota (Rodríguez-Valencia *et al*., 2023). These systems do not receive any additional income other than that derived from the price paid by users. In this chapter, all references to public transport shall be understood to refer to formal systems, unless otherwise specified.

[19] Information provided by the Bogota District Mobility Secretariat.

FIGURE 2.2. Sources of Revenue for Public Transport Operations in Selected LAC Cities, 2023



Source: Prepared by the authors based on questionnaires completed by the cities analyzed and public information, including annual reports and financial statements from system operators.

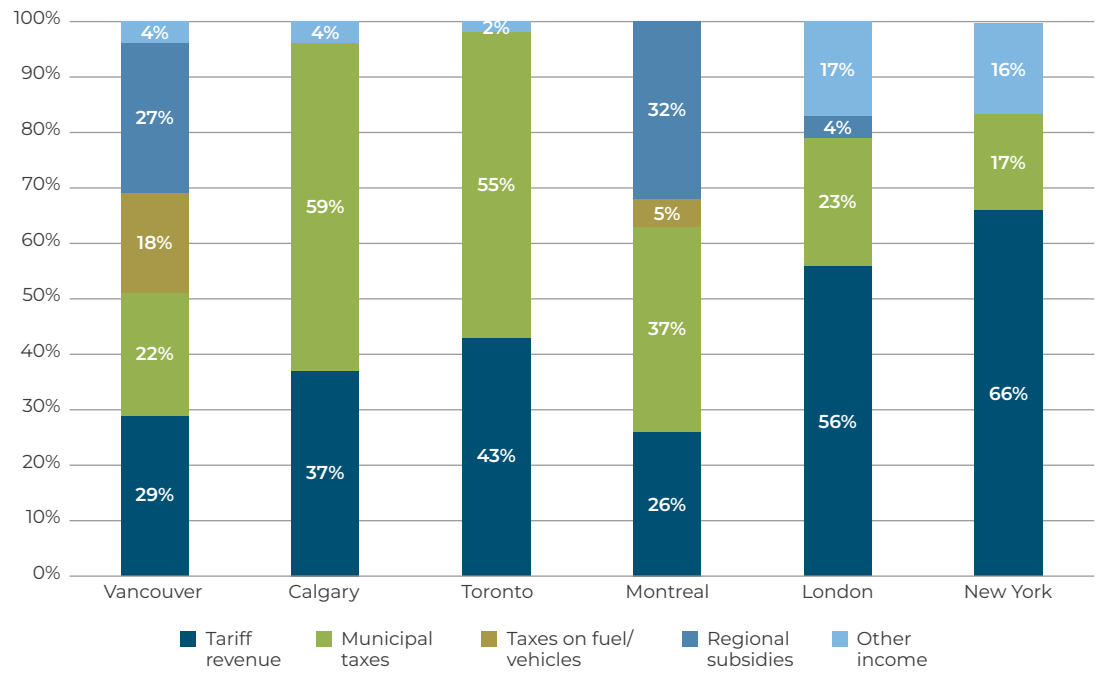
Notes: (1) The results should be interpreted taking into account the particularities of each system, such as its level of integration, institutional framework, service quality, coverage, and level of formality. (2) Transportation systems by city: Bogota and Cali, bus and cable car systems; Mexico City, buses (RTP and Metrobus), metro, and STE (suburban trains, light rail, and Cablebus); Lima, the metro system only; Montevideo, only urban buses (STM); Panama City, bus (MiBus) and metro systems; Santiago de Chile, buses, metro, and urban trains; Santo Domingo, buses (OMSA) and metro; San José, buses and urban trains (only the train is subsidized); and Sao Paulo, municipal bus, metro, and suburban train systems. (3) In terms of other income, this generally refers to additional business activities of public transport companies (e.g., advertising, private services, use of spaces, among others), as well as surpluses from previous years, as is the case in Mexico City. In Santiago de Chile, other income corresponds to that from metro systems (this income remains in the metro system and is not integrated into the Red Movilidad system). In Santo Domingo, other income refers to collected by the metro system. In Lima, it refers to other metro income. Cali does not report other incomes. In Montevideo, other income is deducted from administrative expenses in the calculation of the technical fare. (4) In terms of subsidy coverage, although most subsidies are intended to fund operating deficits, in some cases they may include support for other components. For example, in Santiago de Chile, in addition to operations, the subsidy also covers the fleet, terminals, freight infrastructure, and the metro, among other services.

BOX 2.1. An International Perspective: Public Transport Funding Schemes in Other Regions

Cities outside Latin America and the Caribbean have a variety of funding schemes for investment in and operation of their public transport systems (Figure B2.1.1). This is especially important in cases where fare revenues are relatively low. In the Canadian cities of Vancouver, Calgary, Toronto, and Montreal, for example, fares account for just over 30 percent of total public transport system revenues, on average. Even in cases where cities have a higher percentage of revenue from fares—for example, in New York and London, fares account for approximately 60 percent of system funding—there is a range of instruments available to generate resources that make the provision of quality services viable.

The share of alternative funding sources is significant in several of the cities mentioned. Local property taxes account for a significant percentage of total public transport funding in the Canadian cities of Vancouver (22 percent), Calgary (59 percent), Toronto (55 percent), and Montreal (37 percent). In Vancouver, in addition to local property taxes, funding sources include fuel and vehicle taxes (18 percent), parking taxes (4 percent), and other regional taxes (1 percent). In London, 17 percent of public transport revenue comes from sources such as toll schemes in certain areas (congestion charges, low-emission zone, ultra-low emission zones), as well as commercial activities, which include advertising on the Transport for London (TfL) network, property rentals and sales, and sponsorships for the bicycle system (Santander Cycles) and cable car system (IFS Cloud Cable Car). TfL allocates part of its revenue to fund its infrastructure investment and renewal programs. In New York, public transport funding sources include local property taxes (5 percent), bridge and tunnel toll surpluses (11 percent), a capital investment fund (composed of property transfer taxes, sales tax, and congestion charges) (12 percent), a surcharge on rental vehicles (3 percent), and a mobility payroll tax (2 percent).

FIGURE B2.1.1 Sources of Revenue for Public Transport Operations in Selected Cities, 2023



Source: Prepared by the authors based on data collected by the International Transport Forum.

Note: Municipal taxes correspond to local property taxes. In the case of London, the local business tax is also included. In Montreal, pandemic-related support (local COVID-19 relief) is still in place. The "Other revenues" category includes revenues from reserves, collateral businesses, and private transportation charges such as parking fees or payments for congestion or low-emission zones, among other mechanisms.

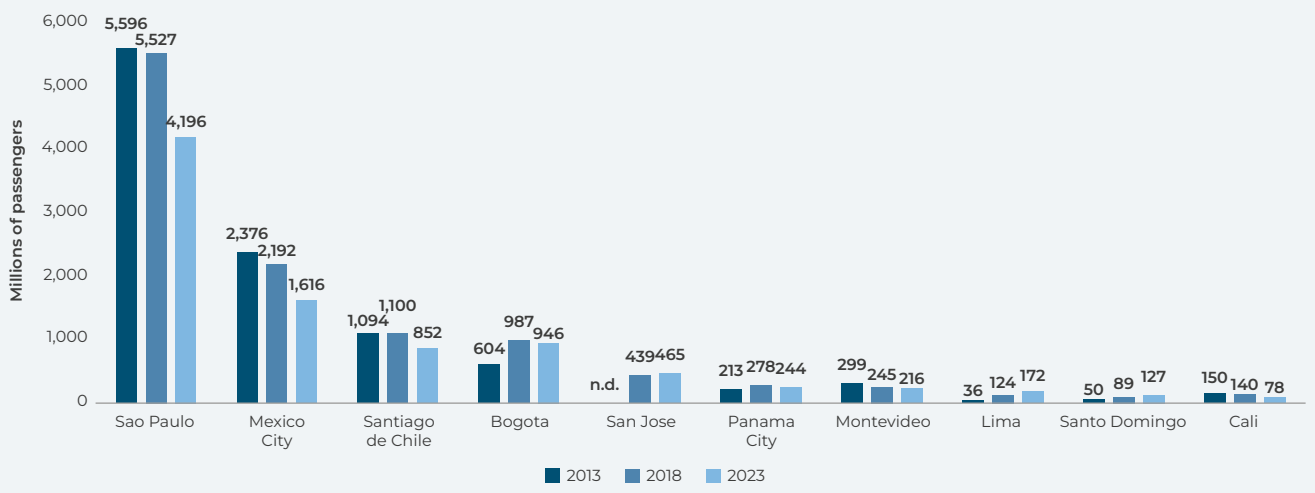
2.2.2. Decline in Revenue from Direct Beneficiaries

Fare revenue in the region's public transport systems is threatened by declining passenger demand. Fares have historically been the primary source of funding for systems, as they come directly from users.[20] However, in recent years, the sustained reduction in the number of fare-paying passengers has jeopardized this source of revenue (Figure 2.3). This trend is part of a structural decline in public transport use mentioned in Chapter 1, accompanied by an increase in private transportation—both cars and motorcycles—a phenomenon intensified by the COVID-19 pandemic. Indeed, according to recent International Association of Public Transport (UITP) findings, nearly 60 percent of public transport systems worldwide report that their demand levels are still below pre-pandemic levels (UITP, 2024). The report also highlights that Latin America is the region with the greatest pessimism regarding fare revenue growth (median between -1 and 5 percent). The decline in fare revenue, combined with the increase in operating costs, has created a growing imbalance between them, hindering the financial sustainability of public transport systems.

[20] In contexts with high levels of fare evasion, it is particularly difficult to determine the real trend in demand. An apparently stable demand in scenarios of increasing fare evasion could lead to a misinterpretation of a decline in public transport use, when in reality what has increased is the number of unregistered trips. This aspect must be carefully considered when analyzing demand figures, especially in cities where fare evasion has shown a significant increase in recent years (Box 2.2).

In addition, in several cities in the region, fare revenue is affected by fare evasion, impacting the financial sustainability of public transport systems. Fare evasion levels differ by city and mode of transport affected, in some cases exceeding 30 percent of revenue (Table 2.1), as in Santiago de Chile. Some cities, such as Bogota and Santiago de Chile, have implemented official monitoring systems that allow for better control and for the design of strategies to reduce evasion (Box 2.2). In Bogota, for example, the Transmilenio System's Trunk Component closed 2024 with a fare evasion rate of 13.14 percent, representing a reduction of 2.18 percentage points compared to 2023 (15.32 percent). This decrease was made possible by the strengthening of the Strategic Anti-Fare Evasion Plan, which included improvements in the characterization of fare evasion, monitoring and enforcement, the promotion of civic culture, and partnerships with the private sector and other public sector entities to prevent, control, and punish fare evasion (Transmilenio S.A., 2025). Similarly, the Anti-Evasion Plan implemented by Santiago de Chile—which had an evasion rate of 38.2 percent in 2024—is based on five pillars: enforcement, access control, new technologies, education and information, and intersectoral coordination (DTPM, 2024).

FIGURE 2.3. Public Transport Demand Trends in Selected LAC Cities



Source: Prepared by the authors based on a questionnaire completed by the cities analyzed and public information, including annual reports and financial statements from system operators.

Notes: (1) The results should be interpreted taking into account the particularities of each system, such as its level of integration, institutional framework, service quality, coverage, and level of formality. (2) Transportation systems by city: Bogota and Cali, bus and cable car systems; Mexico City, buses (RTP and Metrobus), metro, and STE (suburban trains, light rail, and Cablebus); Lima, the metro system only; Montevideo, urban buses (STM) only; Panama City, bus (MiBus) and metro systems; Santiago de Chile, buses, metro, and urban trains; Santo Domingo, buses (OMSA) and metro; San José, transport system, buses and urban trains; and Sao Paulo, municipal bus, metro, and suburban train systems. (3) Demand refers to the demand that actually pays for the service, which is the only demand that can be identified and quantified from annual validation records. In turn, for integrated systems, this refers to passengers on the system, considering validations at the start of their journeys, regardless of whether they have made transfers during their journey.

TABLE 2.1. Fare Evasion in Selected Public Transport Systems in LAC

City	Mode	Percentage of Evasion
Bogota	Buses	13.14%
Cali	Buses	10-15%
Santiago de Chile	Buses	38.2%
Lima	Metro	0.7%

Source: Prepared by the authors based on questionnaires completed by the cities for Cali and Lima (2023), DTPM (2024) for Santiago de Chile, and Transmilenio S.A. (2025) for Bogota.

Note: The methodologies used to estimate fare evasion differ between cities, which should be taken into account when analyzing these data. For example, in Bogota, only fare evasion on the trunk line is considered. Santiago de Chile, on the other hand, has a rigorous fare evasion estimation system based on a representative sample of the entire bus system. The methodology for estimating fare evasion in Santiago de Chile is detailed on the official Metropolitan Public Transport Directory website (https://www.dtpm.cl/index.php/documentos/indice-de-evasion).

BOX 2.2. Fare Evasion in Santiago de Chile and Bogota

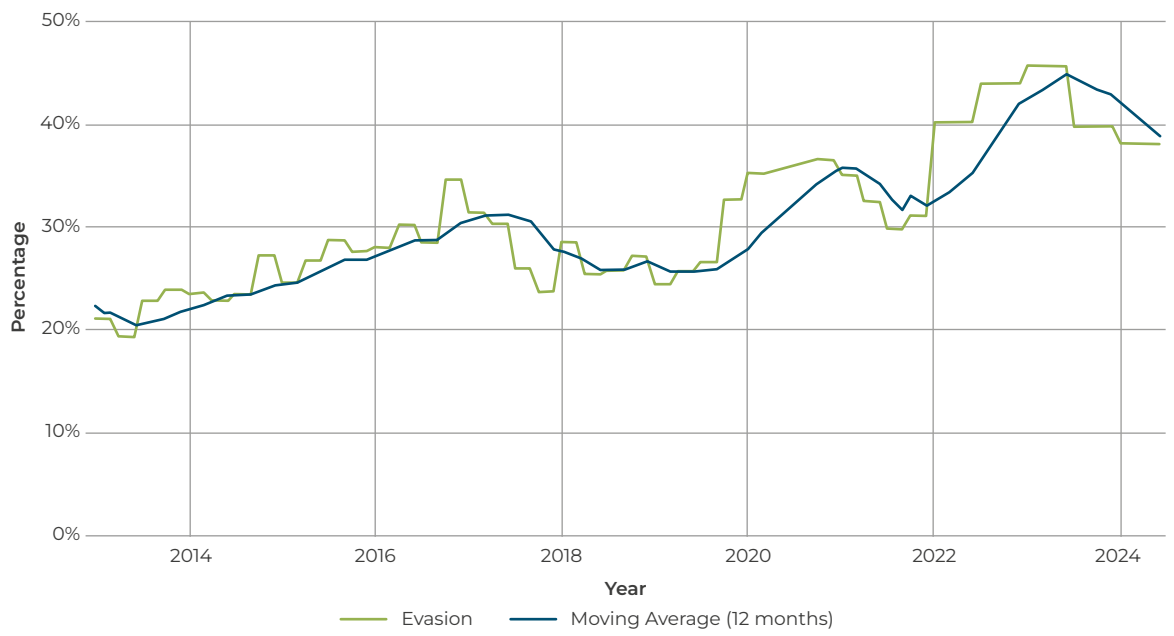
The public transport systems in Santiago de Chile and Bogota actively monitor fare evasion levels and have been implementing various measures to reduce them. As in other cities in the region, fare evasion negatively affects the systems' revenues, compromising their financial sustainability and affecting the quality and safety of the service.

In Bogota, according to information reported by Transmilenio, fare evasion was 13.1 percent in the trunk component in 2024, a slight decrease from the 14.3 percent recorded in 2023 (Transmilenio S.A., 2025). It is important to note that the trunk component fleet represents only 20 percent of the system's total fleet (Secretaría Distrital de Movilidad, 2023), which corresponds to the main system with the highest levels of control. Therefore, it is reasonable to assume that fare evasion levels could be higher if the system as a whole were considered. With the aim of containing and reducing fare evasion, Transmilenio has strengthened its Strategic Anti-Evasion Plan with monitoring, enforcement, and civic culture actions, expanding the surveillance system with more cameras at portals and stations, and increasing control hours in different areas. In addition, educational activities have been intensified, with teams on the road and educational awareness-raising interventions (Transmilenio S.A., 2025).

In Santiago de Chile, fare evasion showed an increasing trend in recent years, reaching a peak of 45.8 percent in 2023 (Figure B2.2.1). However, thanks to a strong enforcement and awareness campaign, this figure fell to 31.7 percent in 2024. The Anti-Fare Evasion Plan implemented in 2024 reduced fare evasion by 7.6 percent in that year, which also saw a 12.6 percent increase in transactions. The plan has been accompanied by communication campaigns such as "Bip a Bip! Let's Build a Better Network" and "Let's Be Kinder," aimed at educating the public and raising awareness about the importance of paying fares and respecting public transport rules.

The central focus of the Anti-Evasion Plan is education, recognizing that evasion is a complex and multifactorial phenomenon. The plan is structured around five pillars: enforcement, access control, incorporation of new technologies, education and information, and intersectoral coordination. Among the main measures implemented are the strengthening of enforcement, oversight in paid areas, improved accessibility through the installation of validators at rear doors, communication campaigns, educational activities in schools, and ongoing intersectoral collaboration to ensure compliance with the plan (DTPM, 2024).

Figure B2.2.1. Evolution of Fare Evasion in Santiago de Chile



Source: DTPM (2024).

Fare setting in most cities in the region is a political decision and is usually updated on a discretionary basis (Table 2.2). Many formal contracts include input price indexation formulas to maintain the real value of payments to operators (technical fare), but the decision to increase the fares paid by users (public fare) remains political (Gómez-Lobo and Serebrisky, 2023), as in most public transport systems globally. Thus, given that public transport fare increases are highly sensitive to public opinion, they tend to be postponed, leading to prolonged fare freezes. In Santiago de Chile, for example, after the 2019 social unrest caused by the increase in subway fares, fares remained unchanged for the next four years. In Quito, public transport fares remained unchanged for almost 20 years until they were updated in 2020.[21] In Panama City, metro fares have not been updated since it began operating in 2014.

[21] The national urban transport service fare was set at US$0.25 in 2003 and remained frozen until 2020, when it was updated to US$0.35 (Metropolitan Ordinance No. 017-2020, Municipality of Quito).

The difficulty in increasing public transport fares is not unique to the region. In Madrid, the Madrid Regional Transport Consortium (CRTM) is expected to propose fare adjustments each year, which must be approved by its Board of Directors made up of representatives from the Community of Madrid, the Madrid City Council, other municipalities, the state government, and other agents. However, since 2013, fares have remained unchanged, mainly due to the sensitivity surrounding such increases. In New York, the Metropolitan Transportation Authority (MTA) does not have a formal fare and toll-setting policy, and fare adjustments must be approved by the MTA Board of Directors. In Finland, ticket prices are usually decided by the local authority committee or the joint municipal authority council, as in the case of Helsinki Region Transport. For significant fare adjustments, independent advice is usually sought, in addition to studies, consultations, and user surveys (ITF, 2024a).

TABLE 2.2. Setting Public Transport Fares in Selected LAC Cities (1 of 2)

City	Mechanism for Calculating the Fare	Entity Responsible for Updating	Frequency of Updates
Bogota	By means of a District Decree, the Mayor sets the user fare and its updates, based on a prior assessment carried out by the District Mobility Secretariat, which will be based on the principles and structure of the contractual, financial, and fare design adopted for the public transport system.	District Mobility Secretariat	Variable, depending on the results of the assessments carried out by the Mobility Secretariat
Montevideo	Set according to demand levels, cost estimates, and budget availability to cover fare shortfalls.	Municipality of Montevideo	Annual
Panama City	In the case of buses, the concessionaire submits a fare adjustment proposal to the Panama Land Transit and Transportation Authority (ATTT) that is analyzed and ultimately approved by this entity.	ATTT	The fare adjustment process has two components: monitoring of the industry through what is known as an "efficient company" (every three years) and a "polynomial indexation" (annually).

TABLE 2.2. Setting Public Transport Fares in Selected LAC Cities (2 of 2)

City	Mechanism for Calculating the Fare	Entity Responsible for Updating	Frequency of Updates
Santiago de Chile	Fare adjustments are established by a Public Transport Expert Panel (a technical and autonomous body created by Law No. 20,378) composed of three experts (two of them proposed by the Senior Public Management Council, and the third member chosen from a shortlist proposed by the deans of the engineering, economics, and administration faculties of universities accredited by the Ministry of Education). The President of the Republic has the power to revoke these increases.	Public Transport Panel of Experts	Monthly
Mexico City	The Mobility Law (Art. 164) establishes that, for the establishment or modification of fares, the Secretariat of Mobility considers various economic factors and, in general, all direct or indirect costs that affect the provision of the service, as well as the opinion of the transport agency providing the service.	SEMOVI (Ministry of Mobility)	Article 166 of the Mobility Law establishes that fares must be reviewed during the third quarter of each year
Sao Paulo	Municipal Law 13.241 establishes that fare setting must consider the sum of fare and non-fare revenues not provided for in the bidding conditions and obtained as a result of the delegation of activities related to transportation services by third parties, regardless of whether or not they are operators.	Municipal Executive Branch	Although the update period is not specifically established, Article 28 of Municipal Law 13,241 establishes that the fare must be adjusted periodically according to the conditions and terms defined in the contract and in the bidding documents

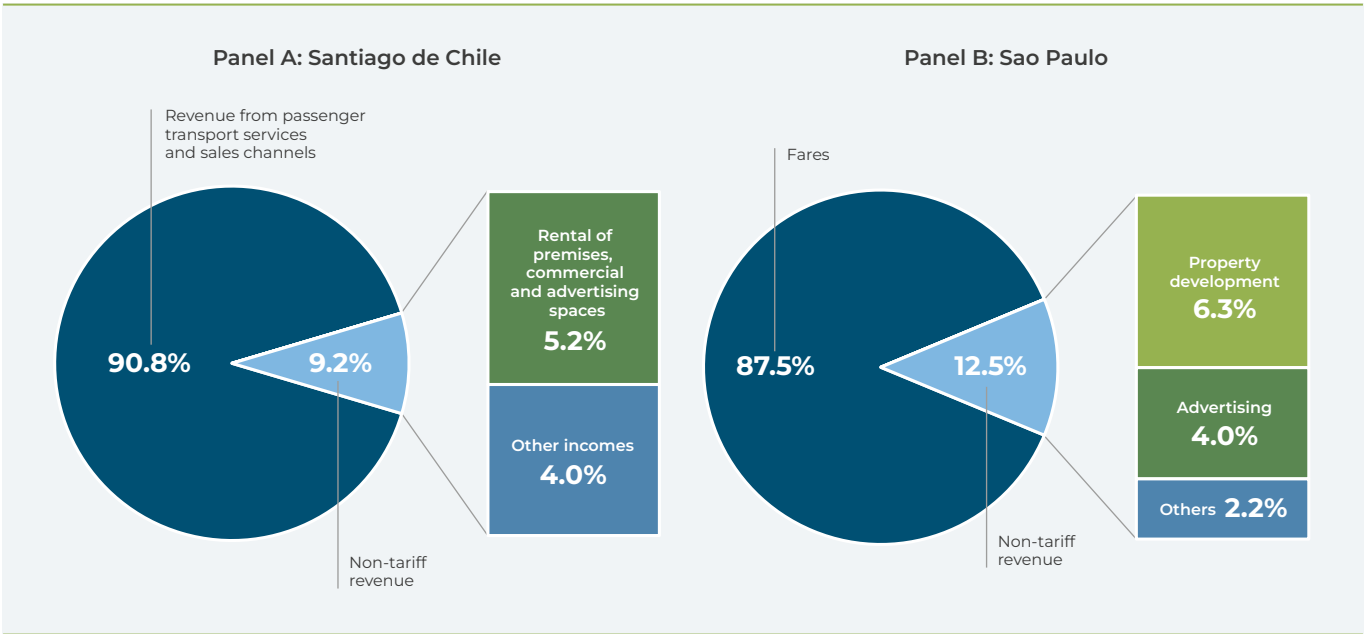
Source: Prepared by the authors based on information provided by the cities.

2.2.3. Underutilization of Charges to Indirect Beneficiaries

The use of funding sources based on indirect public transport beneficiaries is in its infancy in the cities of the region. As mentioned above, few public transport systems have funding sources other than user fares and government subsidies, especially with regard to the operation of the systems. However, some cities are implementing mechanisms based on charges to indirect beneficiaries, such as value capture and the sale of air rights, to supplement traditional revenues.

Non-fare revenue in public transport is particularly relevant in certain subsystems, such as the metro, where it can represent a significant proportion of total funding. Sources of funding not associated with fare revenue include the commercialization of space above stations or infrastructure for commercial and real estate development, and the leasing of advertising space, among others. In the case of the Santiago Metro in Chile, this revenue represents 9.2 percent of total revenue, while in the Sao Paulo metro it reaches 13 percent (Figure 2.4). A recent example of diversification of funding sources is the Tobalaba Urban Market (MUT) established in Santiago de Chile, which opened in 2023 at Tobalaba Station, allowing the metro to generate additional revenue and enable two new exits, improving accessibility for users (Ortega, 2024).

FIGURE 2.4. Revenue from Activities of the Santiago de Chile and Sao Paulo Metro Systems



Source: Prepared by the authors based on DTPM (2024) and Companhia do Metropolitano de Sao Paulo (2023).

Note: In Santiago de Chile, other revenues include leasing of intermodal terminals, leasing of space for telephone antennas and fiber optics, and leasing of land. In in Sao Paulo, they include retail sales, telecommunications, disposals, and services. With regard to the item "Sales channel revenue" in the Santiago de Chile metro, this refers to activities under the contract for "issuance and after-sales of access media and provision of a marketing network and loading of access media to the Santiago de Chile passenger public transport system. This revenue is recognized monthly and is equivalent to a total percentage of the revenue from transport fees charged on the means of payment". Financial Statements of the Santiago Metro are available at https://www.metro.cl/gobierno-corporativo/inversionistas/.

Although value capture instruments are widely used in the region, their application specifically for public transport improvements is still limited. Land value capture can be defined as a set of policy instruments that allow governments to capture the increase in land value, known as land value increment, generated by public interventions, such as investments in infrastructure or administrative actions.[22] These can be classified as tax-based or development-based instruments.[23] The region has more than 100 years of history in capturing resources linked to urban development (Blanco *et al*., 2016), but their use specifically for public transport improvements is not widespread. A notable case is that of Sao Paulo, which has successfully applied the value capture approach to transportation effectively based on a set of specific instruments (Box 2.3).

BOX 2.3. Value Capture in Sao Paulo and Public Transport Improvements

Sao Paulo is a leading example of the use of value capture mechanisms to fund urban projects. Based on the 2002 Strategic Master Plan and the 2004 Land Use Law, two key instruments were implemented: the Outorga Onerosa do Direito de Construir (OODC) and the Certificado de Potencial Adicional de Construção (CEPAC). Both mechanisms have made it possible to raise funds through the sale of additional building rights, which are allocated to infrastructure and urban improvements (Mahendra *et al*., 2022; Nobre, 2023).

The OODC consists of a permit granted by the public authority that allows developers to build above a set limit by paying a fee. CEPAC is a marketable security issued by the municipality that grants its holders the right to build beyond the limits established by land-use legislation in a specific area linked to Consortium Urban Operations (OUC). Both mechanisms have been able to generate economic resources that have then been allocated to urban revitalization and improvement works in the areas involved. Between 2013 and 2020, these mechanisms enabled an investment of approximately US$272 million, 25 percent of which was allocated to public transport works, bike lanes, and improvements for pedestrians (Nobre, 2023).

An emblematic case is the district of Faria Lima, where the sale of additional construction rights made it possible to finance a series of urban interventions, including road works, improvements to public spaces, drainage, and even some mobility and public transport accessibility initiatives. The Faria Lima case has demonstrated the potential of value capture mechanisms to generate urban financing and improve infrastructure without resorting to public debt.

However, despite their success in certain contexts, the implementation of these instruments faces significant challenges. In particular, the mechanisms require a high level of institutional and technical capacity for implementation, and their effectiveness is subject to the volatility of the real estate market.

[22] Investments in infrastructure, such as improvements to water, energy, housing, public spaces, and transportation services, or facilities such as parks and schools, and changes in zoning and land-use regulations, such as the conversion of rural areas to urban areas or the authorization of greater urban density (OECD, 2022).

[23] See OECD (2022) for more details on the taxonomy of value capture instruments.

2.2.4. High Dependence on Taxpayer-based Funding

Taxpayer resources are one of the main sources of funding for public transport. Among taxpayer-based funding sources, it is possible to identify two large groups: general funds and specific funds. General funds come from the general budget of the nation or regional governments, while specific-purpose funds are taxes on a specific good or service, where the revenue is designated for public transport. In a region characterized by the predominance of indirect taxes, which are usually regressive (Pessino *et al*., 2023), this heavy reliance on taxpayer-based funding puts additional pressure on transportation spending for lower-income households.

In most cases in the region, subsidies come from general funds, although there are funds specifically earmarked for public transport. It should be noted that Colombia has a diverse scheme of specific resources for public transport funding, covered by a national law (Law 1,743 of 2015). This framework has already been implemented in cities such as Bogota and Cali, with the aim of ensuring the financial sustainability of the system and improving service quality (Box 2.4). In Santiago de Chile, the Subsidy Law (Law 20,378) establishes a subsidy for public transport at the national level, whose resources come from the fiscal budget approved annually by Congress (Box 2.5). In Montevideo, subsidies come from both municipal and national sources through the Ministry of Transport and Public Works. While municipal funds are used to stabilize fares and come from the Montevideo City Council's own resources, other resources come from specific funds, such as the nationally administered diesel trust fund, which consists of a surcharge on this fuel that is then transferred to public transport operators throughout the country, with the aim of reducing fares.

BOX 2.4. Funds for Specific Purposes: Law 1,753 of Colombia

Colombia is among the countries that have made the most progress in diversifying public transport funding sources, driven by the enactment of Law 1,753 of 2015. Article 33 of this law establishes various sources of funding for transportation systems, allowing local authorities to supplement fare revenues. As a result, cities such as Bogota and Cali are transitioning to public transport funding models that are less dependent on fares.

The mechanisms established include the use of territorial resources (a percentage of property tax revenue), contributions for on-street parking services, compensation for access to areas with infrastructure that reduces congestion or areas with vehicle restrictions, traffic fines (up to 60 percent of the corresponding revenue), and a fare factor for public transport that will be channeled through stabilization and fare subsidy funds (Table B2.4.1). In this context, cities such as Bogota and Cali—which already have demand subsidies and fare stabilization funds, mainly made up of district resources—have begun to incorporate alternative sources of funding to strengthen their public transport systems. Examples of this are the revenue generated through the Pico y Placa Solidario scheme in Bogota and the Congestion Charge in Cali.

FIGURE B2.4.1 Sources of Financing for Transportation Systems in Colombia

ARTICLE 33. OTHER SOURCES OF FINANCING FOR TRANSPORTATION SYSTEMS.

Territorial or administrative entities may establish resources complementary to the revenue from user fees, which will be channeled through stabilization and fare subsidy funds.

These funds shall be adopted by administrative act, which shall indicate the sources of the resources that will finance them, based on criteria of fiscal sustainability of the territorial and/or administrative entity.

Alternative sources of funding for obtaining additional resources may include the following:

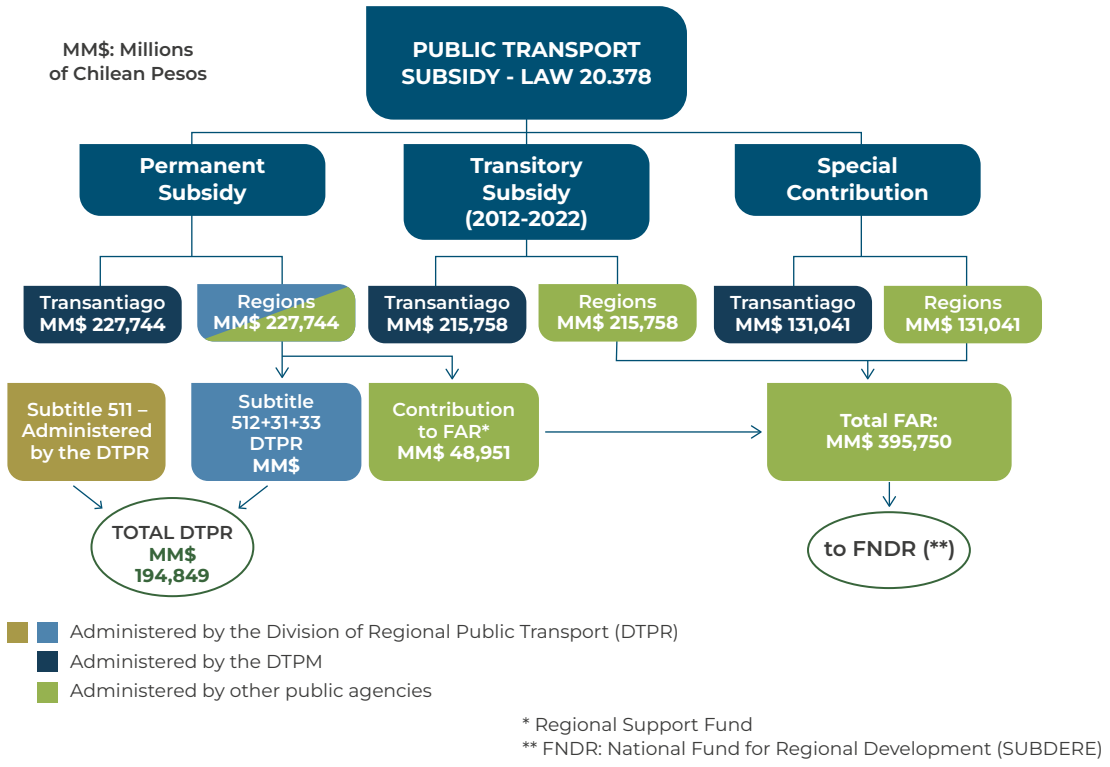
1. Land resources. (...)
2. Contribution for parking or street parking services. (...)
3. On-street parking. (...)
4. Fees for access to areas with infrastructure that reduces congestion. (...)
5. Fees for access to areas with vehicle restrictions or for driving in the territory. (...)
6. Traffic fines. (...)
7. Public transport fare factor. (...)

Source: Article 33, Law 1,753 of 2015.

BOX 2.5. General Funds: The Public Transport Subsidy Law in Chile

Law 20,378, enacted in 2009, establishes the creation of a national subsidy for public transport with the aim of strengthening mobility in Chile, especially in geographically remote regions with accessibility and connectivity difficulties (Figure B2.5.1). The law puts in place a subsidy to fund the costs of the public transport system in Santiago de Chile. At the same time, an equivalent amount is allocated to the regions (areas other than Santiago de Chile)—known as the "mirror fund"—for various programs, including subsidies for school transport, rural transport, and transport infrastructure. These latter subsidies and programs are administered by the Regional Public Transport Division (DTPR), while the resources for the Santiago de Chile public transport system are administered by the Metropolitan Public Transport Directorate (DTPM). Both agencies report to the Ministry of Transport and Telecommunications.

FIGURE B2.5.1 Resource Distribution under Law 20.378 on Public Transport Subsidies in Chile



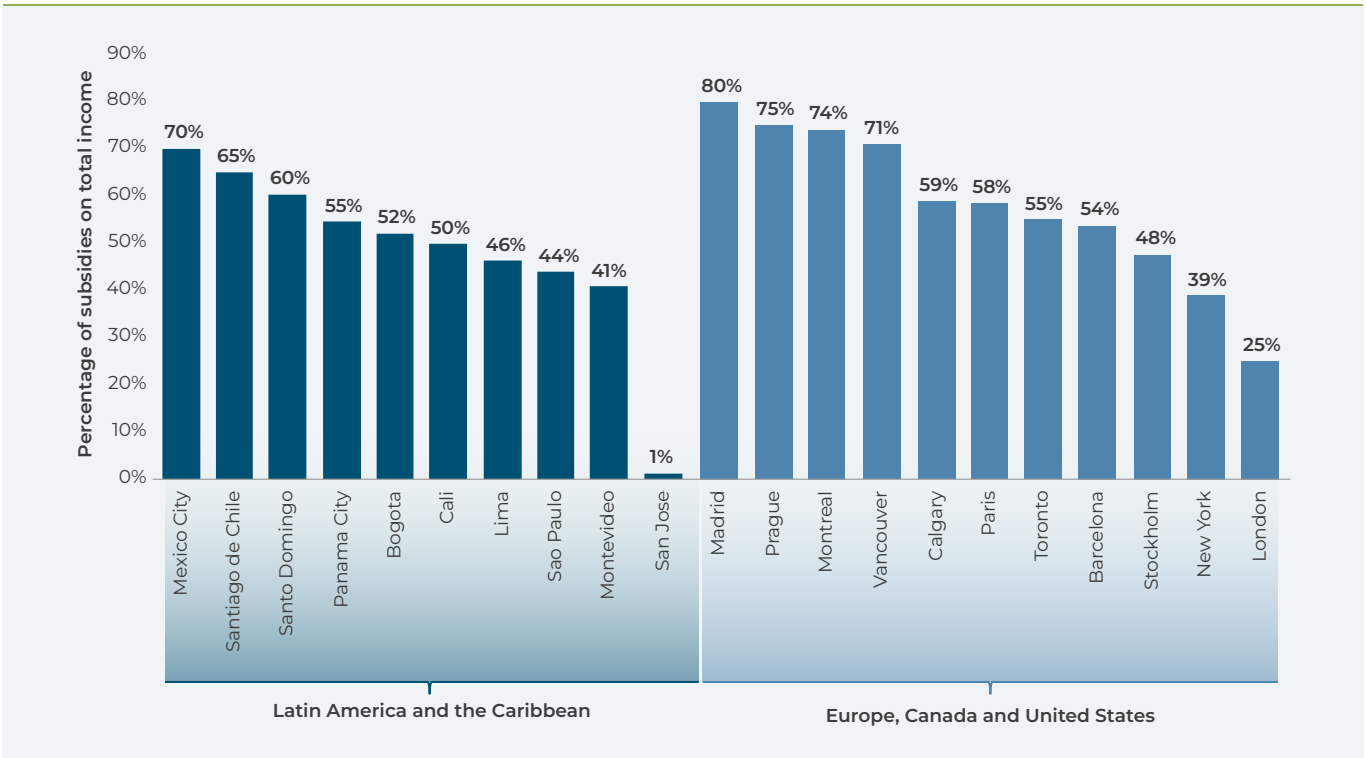
Source: Salas, Figueroa, and Yanez (2020).

2.2.5. The Challenge of Subsidies

Level of Subsidies

The level of subsidies in public transport systems of the cities analyzed is around 50 percent. Public transport subsidies can be defined as financial support or incentives provided by governments, organizations, or employers to help reduce the cost of public transport for users. Although subsidies are widespread in public transport in the region—and also outside it—their magnitude varies significantly depending on the city and the mode of transport considered (Figures 2.5 and 2.6). In the group of 10 cities analyzed, apart from San José, which only has subsidies for the urban train system representing a total of 1 percent of the total revenue of the entire system, the level of subsidies on total revenue ranges from 41 percent in Montevideo to 70 percent in Mexico City. These variations are also evident in transportation systems outside Latin America and the Caribbean, with levels of 25 percent for London and above 70 percent for Vancouver, Montreal, Prague, and Madrid. Likewise, when analyzed at the transportation mode level, there is significant heterogeneity in subsidy levels by city and mode (Figure 2.6). In the case of bus systems, the level of subsidies varies between 41 and 82 percent of total revenue for Montevideo and Mexico City, respectively. In metro systems, the percentage of subsidies over total revenue varies between 28 percent in Sao Paulo and 67 percent in Mexico City.

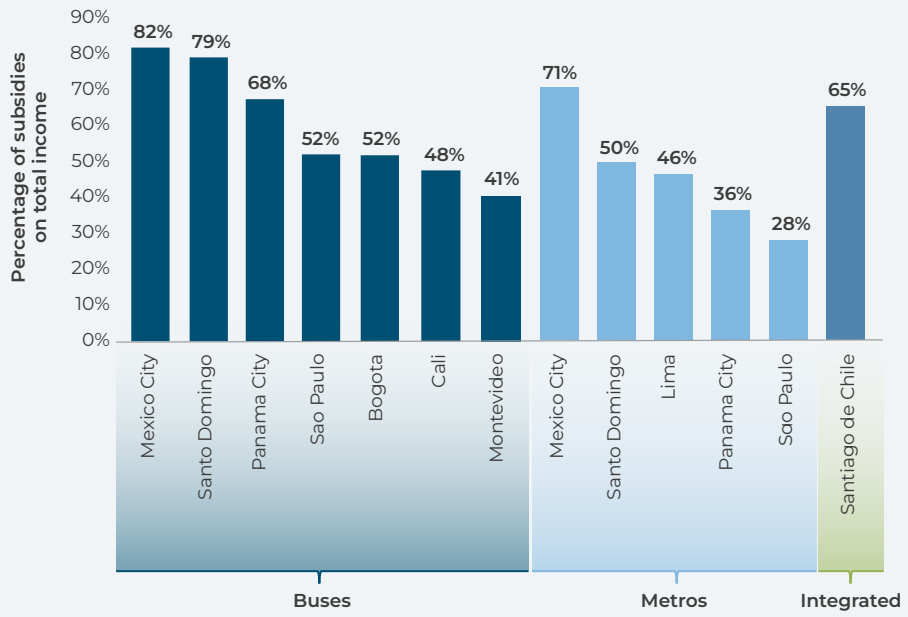
FIGURE 2.5. Subsidies for Public Transport Operations in Selected Cities in LAC and Outside the Region, 2023



Source: Prepared by the authors based on a questionnaire completed by the cities analyzed and public information, including annual reports and financial statements from system operators. Data for Calgary, Montreal, Vancouver, Toronto, London, and New York provided by the International Transport Forum based on 2023 data; Prague (DPP, 2023), Madrid (CRTM, 2023), Barcelona (ATM, 2023), Stockholm (SOS, 2023), and Paris (IdFM, 2023).

Notes: (1) The results should be read taking into account the particularities of each system, such as its level of integration, institutional framework, service quality, coverage, and level of formality. (2) Transport systems by city: Bogota and Cali, bus and cable car systems; Mexico City, buses (RTP and Metrobus), metro, and STE (suburban trains, light rail, and Cablebus); Lima, metro system only; Montevideo, urban buses (STM) only; Panama City, bus (MiBus) and metro systems; Santiago de Chile, buses, metro, and urban trains; Santo Domingo, buses (OMSA) and metro; San José, transport system, buses and urban trains (only the train receives subsidies); and Sao Paulo, municipal bus, metro, and suburban train systems. (3) In terms of subsidy coverage, although most subsidies are intended to fund operating deficits, in some cases they may include support for other components. For example, in Santiago de Chile, in addition to operations, the subsidy also covers the fleet, terminals, loading infrastructure, and metro, among other services.

FIGURE 2.6. Subsidies for Public Transport Operations in Selected LAC Cities by Mode of Transport, 2023



Source: Prepared by the authors based on a questionnaire completed by the cities analyzed and public information, including annual reports and financial statements from system operators.

Notes: (1) The results should be read taking into account the particularities of each system, such as its level of integration, institutional framework, service quality, service coverage, and level of formality. (2) Transport systems by city: Bogota and Cali, bus and cable car systems; Mexico City, buses (RTP and Metrobus), metro, and STE (suburban trains, light rail, and Cablebus); Lima, metro system only; Montevideo, urban buses (STM) only; Panama City, bus (MiBus) and metro systems; Santiago de Chile, buses, metro, and urban trains; Santo Domingo, buses (OMSA) and metro; San José, transport system, buses and urban trains (only the train receives subsidies); and Sao Paulo, municipal bus, metro, and suburban train systems. In terms of subsidy coverage, although most subsidies are intended to fund operating deficits, in some cases they may include support for other components. For example, in Santiago de Chile, in addition to operations, the subsidy also covers the fleet, terminals, loading infrastructure, and metro, among other services.

Although most cities in the region receive subsidies that constitute a proportion of total revenue similar to that of several cities in developed countries, the subsidy per passenger in Latin America and the Caribbean is significantly lower, as is the quality of public transport services. The average level of subsidies as a percentage of total revenue for the cities analyzed (excluding San José) is 54 percent, while for the cities considered in Europe, the United States, and Canada, the average is 58 percent. However, per-passenger subsidy levels in Latin America and the Caribbean continue to be significantly lower than those in European cities (Figure 2.7). In addition, the quality of public transport services is significantly lower in the region compared to cities in developed countries. An analysis of the global public transport Index, which evaluates cities based on public transport density, efficiency, and use (Thibault *et al*., 2024), shows that Latin American cities are well below the values of European cities and some North American cities (Figure 2.8).[24,25] This explains why subsidies per passenger are higher in developed countries, given that they face higher operating costs associated with factors such as higher wages, maintenance of high-quality infrastructure and equipment,

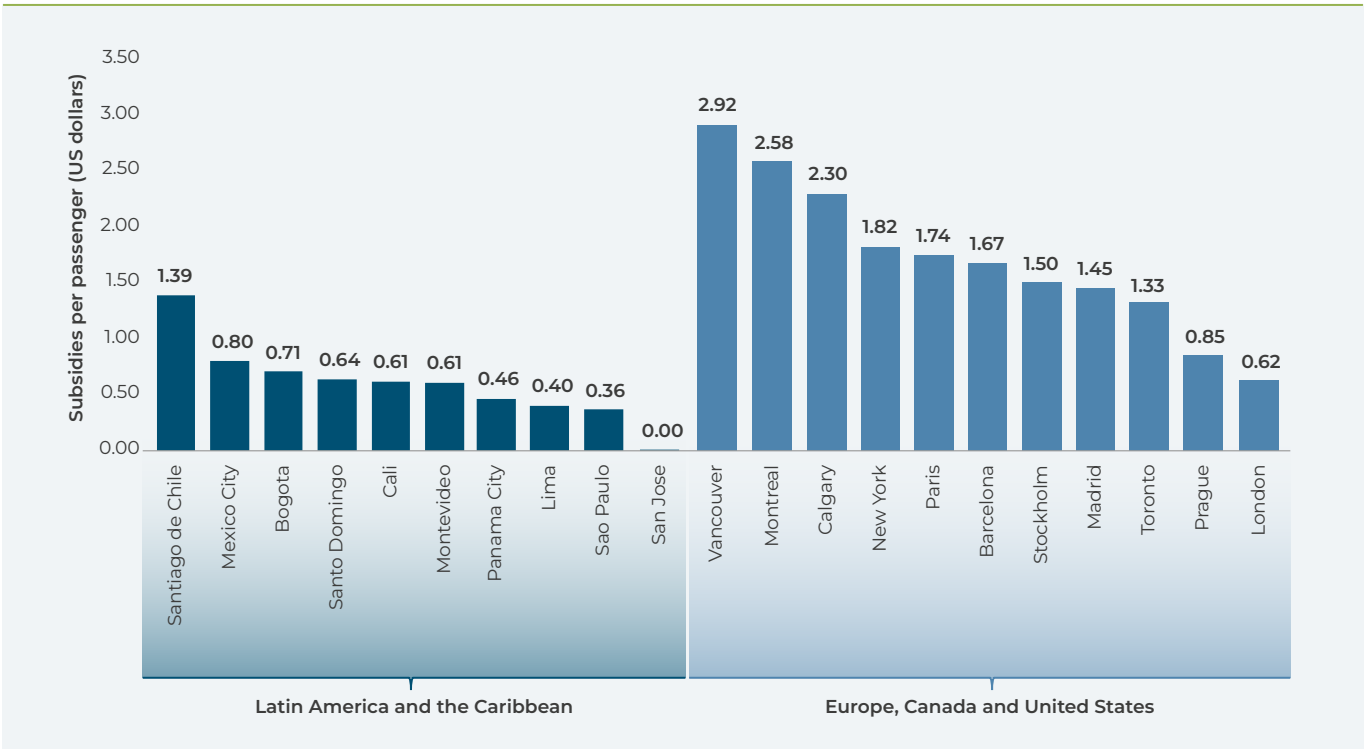
[24] The Latin American cities included in the analysis by Thibault *et al*. (2024) are Santiago de Chile, Sao Paulo, Buenos Aires, Rio de Janeiro, Mexico City, Brasilia, Quito, Monterrey, Bogota, and Lima.

[25] In this analysis, North America refers exclusively to Canada and the United States. It is important to note that these cities are dominated by a car-oriented urban and suburban model, which means that their public transport index score is lower than that of other cities in developed countries, such as those in Europe.

availability of new technologies, and stricter safety standards.mayores salarios, mantenimiento de infraestructura y equipamiento de alta calidad,

disponibilidad de nuevas tecnologías, y estándares de seguridad más estrictos.

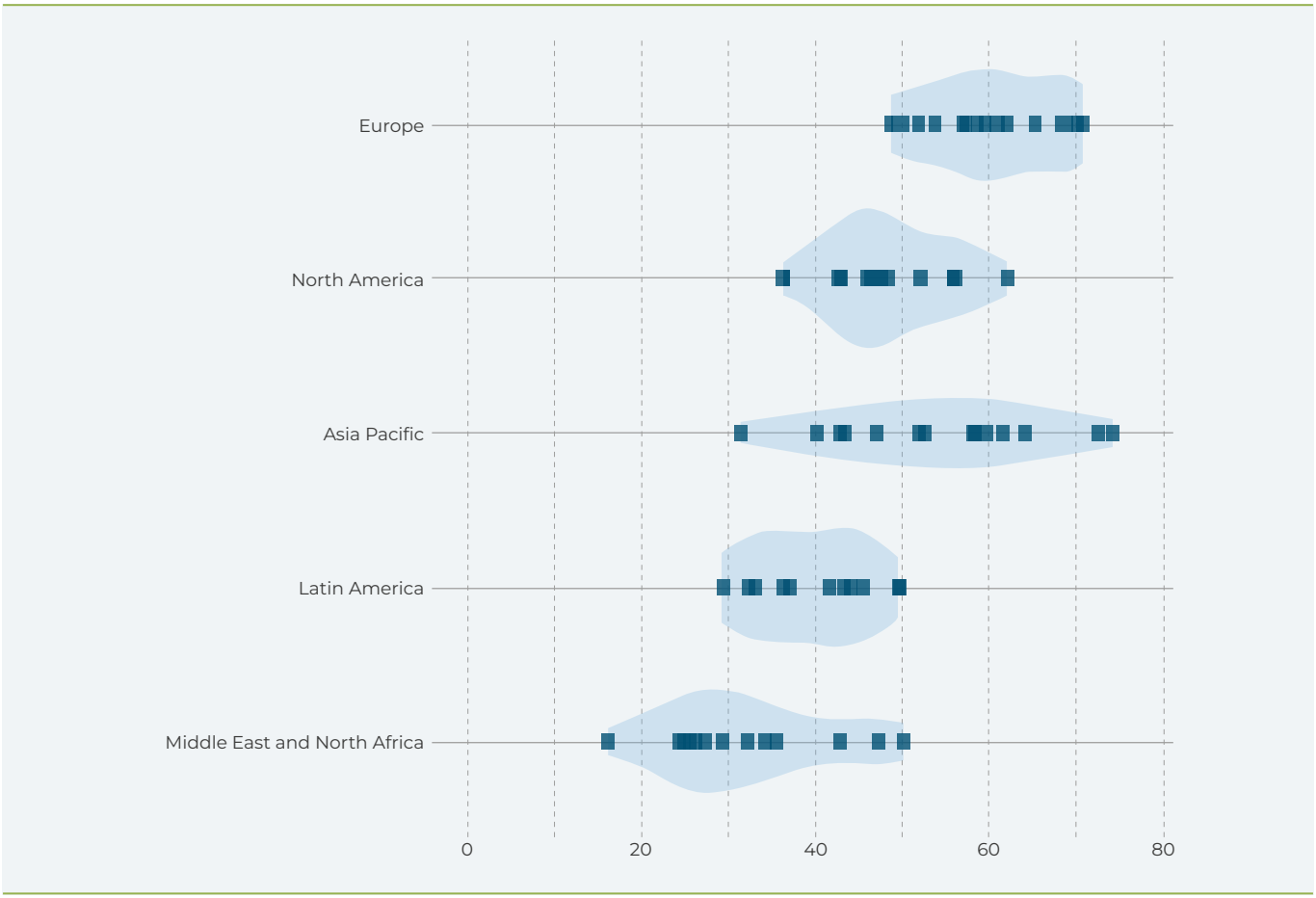
FIGURE 2.7. Subsidies for Public Transport Operations per Passenger in Selected Cities in LAC and Outside the Region, 2023



Source: Prepared by the authors based on a questionnaire completed by the cities analyzed and public information, including annual reports and financial statements of system operators; Data for Calgary, Montreal, Vancouver, Toronto, London, and New York provided by the International Transport Forum based on 2023 data; Prague (DPP, 2023), Madrid (CRTM, 2023), Barcelona (ATM, 2023), Stockholm (SOS, 2023), and Paris (IdFM, 2023).

Notes: (1) The results should be read taking into account the particularities of each system, such as its level of integration, institutional framework, service quality, coverage, and level of formality. (2) Transport systems by city: Bogota and Cali, bus and cable car systems; Mexico City, buses (RTP and Metrobus), metro, and STE (suburban trains, light rail, and Cablebus); Lima, metro system only; Montevideo, urban buses (STM) only; Panama City, bus (MiBus) and metro systems; Santiago de Chile, buses, metro, and urban trains; Santo Domingo, buses (OMSA) and metro; San José, transport system, buses and urban trains (only the train receives subsidies); and Sao Paulo, municipal bus, metro, and suburban train systems. In terms of subsidy coverage, although most subsidies are intended to fund operating deficits, in some cases they may include support for other components. For example, in Santiago de Chile, in addition to operations, the subsidy also covers the fleet, terminals, loading infrastructure, and metro, among other services.

FIGURE 2.8. Public Transport Index by Region, 2024

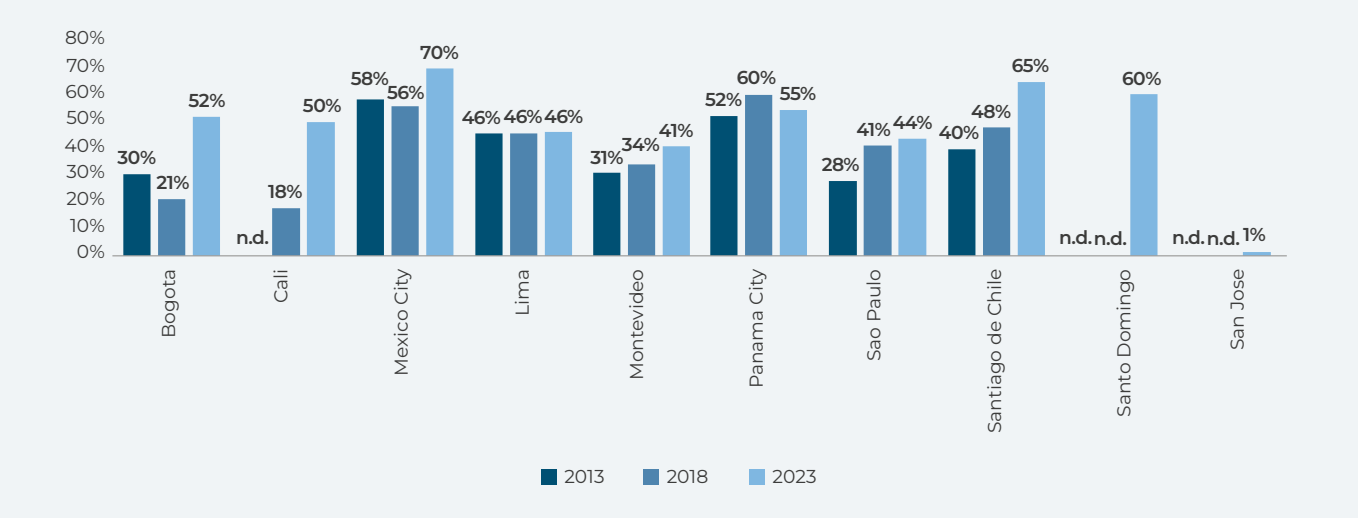


Source: Prepared by the authors based on data from Thibault *et al*. (2024).

Note: The public transport sub-index, together with the sustainable mobility and technology adoption sub-indices, forms part of the Urban Mobility Readiness Index. The public transport sub-index is composed of 14 key performance indicators: autonomous transportation in operation; diversity of public transport modes; walking distance to public transport; multimodal application maturity; public transport affordability; public transport operating hours; public transport station density; public transport utilization; rail network; percentage of time spent on public transport; strength of the multimodal network; public transport speed; estimated public transport arrival time; and urban rail use.

The region shows a growing trend in the need to fund public transport systems through subsidies. This trend is observed in virtually all the cases analyzed and, in many of them, has intensified since the COVID-19 pandemic (Figure 2.9). This phenomenon is due both to the drop in public transport demand as a result of the modal shift and to increased fare evasion, as well as to the increase in operating costs, which is not unique to the region. In fact, public transport systems in advanced economies such as London and New York have also seen their funding needs increase beyond fare revenues (Box 2.6).

FIGURE 2.9. Evolution of Subsidies for Public Transport Operations in Selected LAC Cities

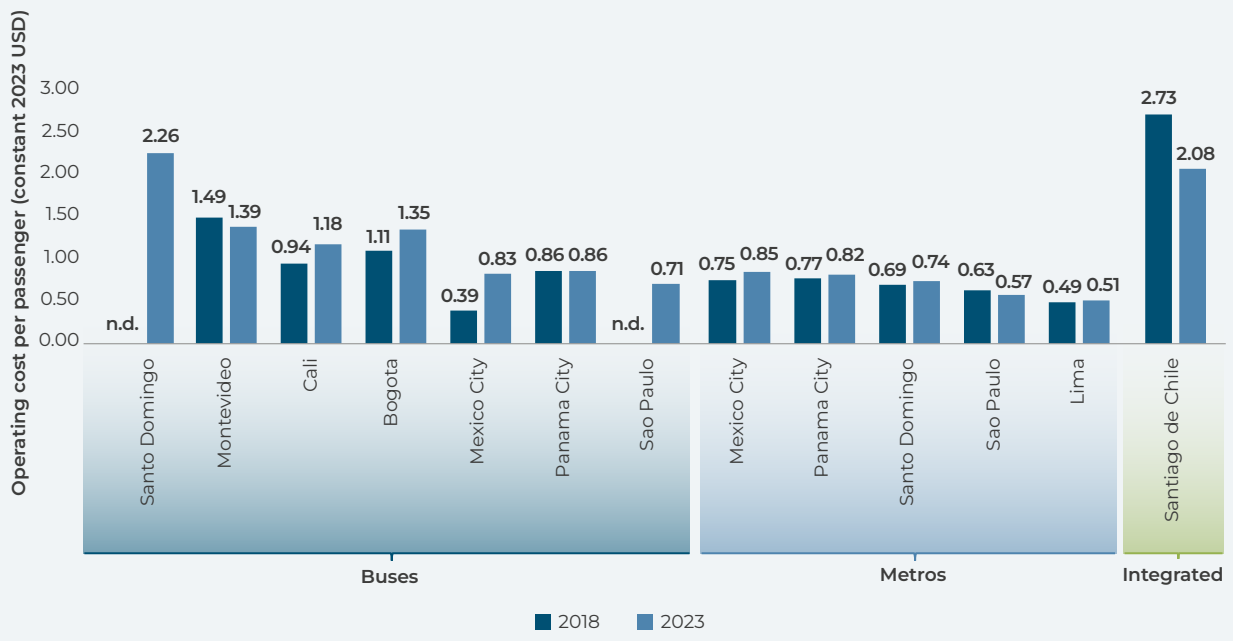


Source: Prepared by the authors based on a questionnaire completed by the cities analyzed and public information, including annual reports and financial statements from system operators.

Notes: (1) The results should be read taking into account the particularities of each system, such as its level of integration, institutional framework, service quality, coverage, and level of formality. (2) Transport systems by city: Bogota and Cali, bus and cable car systems; Mexico City, buses (RTP and Metrobus), metro, and STE (suburban trains, light rail, and Cablebus); Lima, metro system only; Montevideo, urban buses (STM) only; Panama City, bus (MiBus) and metro systems; Santiago de Chile, buses, metro, and urban trains; Santo Domingo, buses (OMSA) and metro; San José, transport system, buses and urban trains (only the train receives subsidies); and Sao Paulo, municipal bus (metropolitan systems are excluded because only 2023 information is available), metro, and suburban train systems. (3) In terms of subsidy coverage, although most subsidies are intended to fund operating deficits, in some cases they may include support for other components. For example, in Santiago de Chile, in addition to operations, the subsidy also covers the fleet, terminals, loading infrastructure, and metro, among other services.

Public transport systems in the region face significant challenges in terms of efficiency, which directly affects their funding needs. Operational efficiency influences operating costs and, consequently, dependence on certain sources of funding. More efficient systems have a greater capacity to optimize resources, be more competitive, and, therefore, offer better quality service. In a context where costs are rising in most transport systems in the region, finding ways to improve system efficiency is essential. Indeed, as shown in Figure 2.10, costs per passenger transported measured in dollars have increased compared to pre-pandemic levels in most of the cases analyzed in the region, both in bus and metro systems.

FIGURE 2.10. Cost per Passenger in Bus and Metro Systems in Selected LAC Cities, 2023



Source: Prepared by the authors based on a questionnaire completed by the cities analyzed and public information, including annual reports and financial statements from system operators.

Note: (1) The results should be read taking into account the particularities of each system, such as its integration, institutional framework, service quality, coverage, and level of formality. Values are expressed in 2023 U.S. dollars, removing the effect of inflation in dollars. (2) Transportation systems by city: Bogota and Cali, bus systems; Mexico City, buses (RTP and Metrobus) and the metro; Lima, the metro system only; Montevideo, urban buses (STM) only; Panama City, bus systems (MiBus) and the metro; Santiago de Chile, buses and the metro; Santo Domingo, buses (OMSA) and the metro; and Sao Paulo, municipal bus systems and the metro are considered.

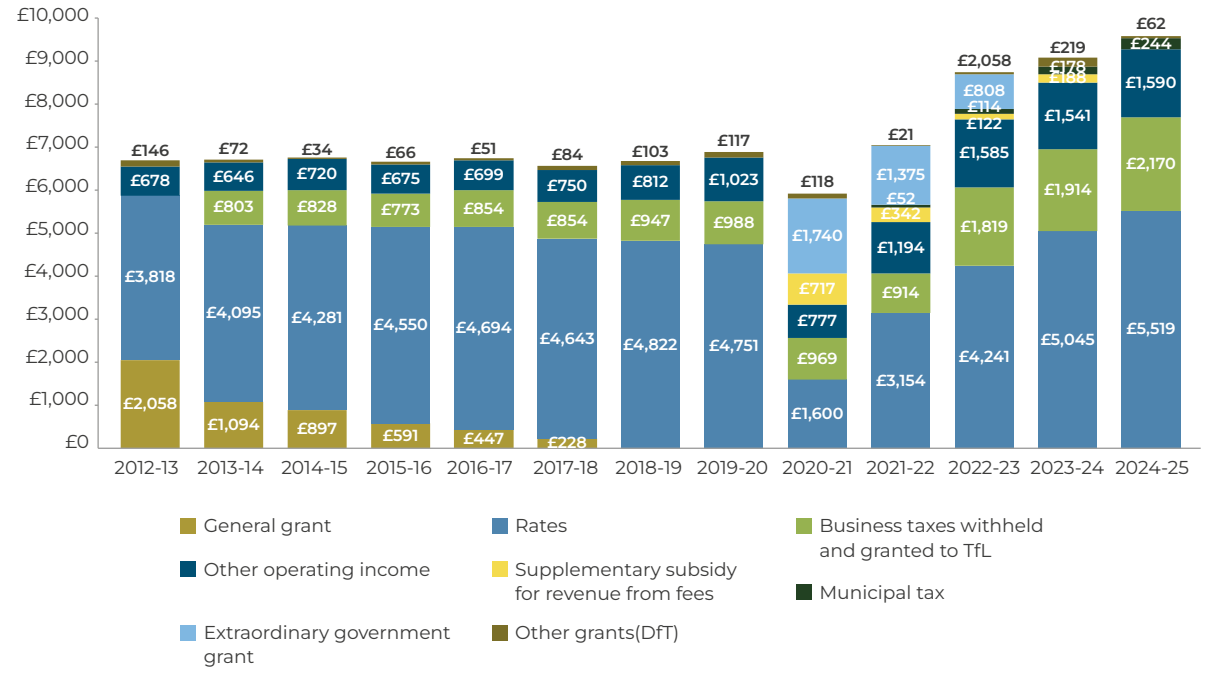
BOX 2.6. An International Perspective: Evolution of Subsidies in Other Regions

Globally, the share of funding sources for public transport operations other than fares has been increasing. As in Latin America and the Caribbean, many cities across the world have experienced a reduction in fare revenue in recent years. In the region, this decline has resulted in a significant increase in the proportion of subsidies received by public transport systems. However, some cities outside Latin America and the Caribbean have managed to diversify their funding sources without relying exclusively on higher subsidies.

A notable case is London, which in recent years has reduced its dependence on subsidies thanks to an increase in other sources of revenue (Figure B2.6.1). Although fare revenue has managed to recover and even exceed pre-pandemic levels, rising costs have required other sources of funding to be strengthened. This adjustment has mainly come through revenue from retained business rates and an increase in other operating revenue, such as that from

commercial activities, congestion charging, and low-emission zone systems, which have grown in importance since 2021.

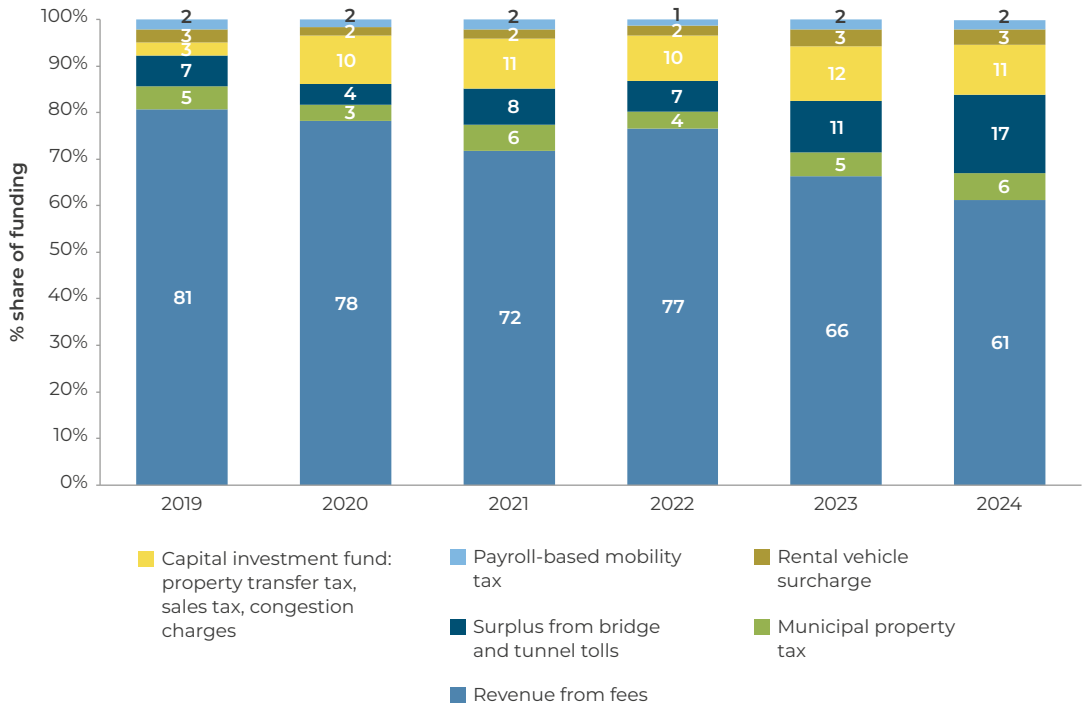
FIGURE B2.6.1. Evolution of Transport for London's Operating Revenues and Costs



Source: Transport for London (2023).

Similarly, New York has seen a reduction in the proportion of fare revenue since the pandemic. However, other sources of funding, such as revenue from tunnel and bridge tolls, as well as property transfer and sales taxes, have increased their share of public transport funding (Figure B2.6.2). Manhattan recently introduced a congestion charging system similar to those in other cities around the world, such as London and Stockholm. The measure, which came into effect in January 2025, stipulates that vehicles entering the area south of 60th Street in Manhattan (Congestion Relief Zone) have to pay a toll to enter that zone. This measure aims to remove approximately 80,000 vehicles per day from this central area, significantly reducing congestion and pollution levels, while generating resources that will be used to strengthen and fund New York's public transport system (MTA, 2025).

FIGURE B2.6.2 Evolution of Metropolitan Transit Authority Revenue, New York



Source: New York City MTA Performance Metrics for 2024.

Note: Revenues also include 'Automated enforcement system (camara-based)' with a share of less than 1%.

Source of Subsidies by Jurisdiction

Responsibility for subsidizing public transport varies depending on whether the funds come from municipalities, provinces, or the national government. In some cases, such as Montevideo, the local administration shares responsibility for supporting public transport systems with the national government. In others, support is centralized at a single level of administration, whether national, regional, or local. In general, the local authority funds the public transport system within its jurisdiction. However, in the case of mass transit systems, such as subways, for which local resources are often insufficient, support from the central government is more likely to be needed.

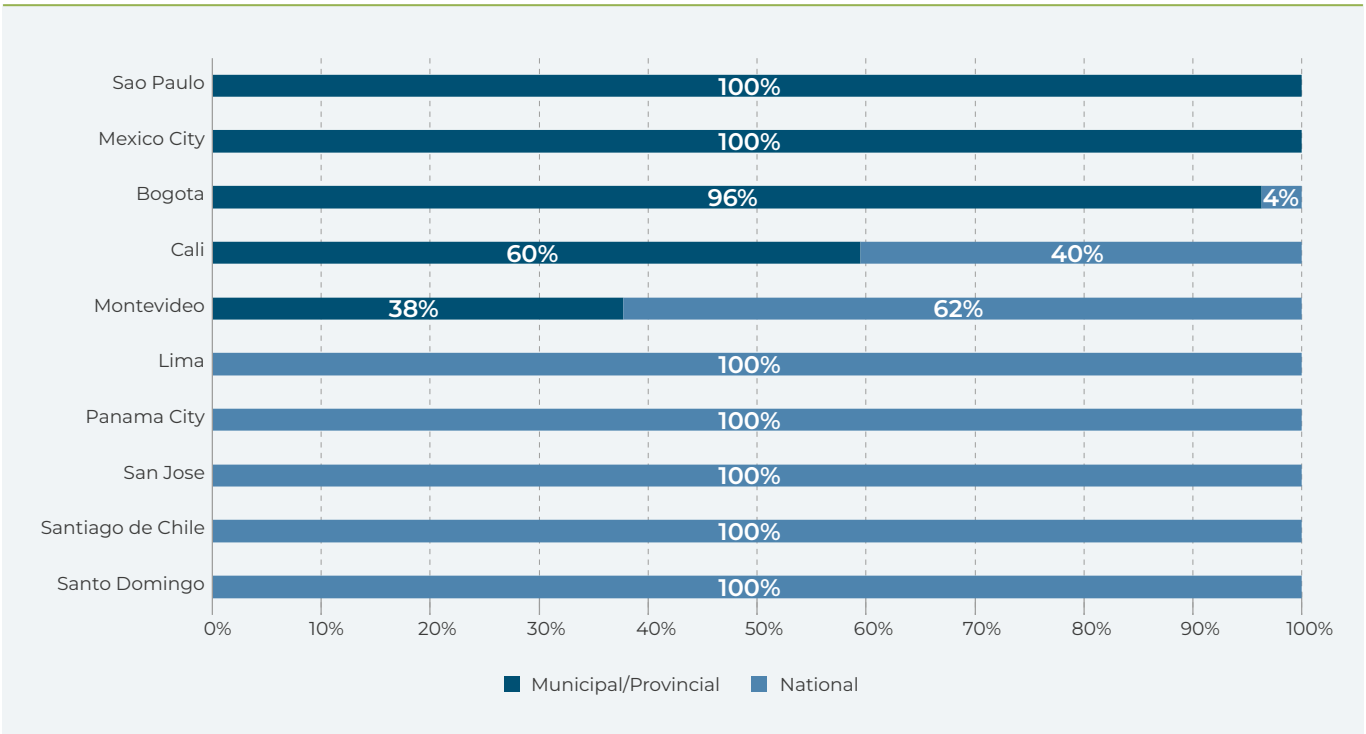
There are cases in the region in which all or a high percentage of the subsidy comes from local jurisdictions, such as municipalities or provinces, putting pressure on budgets (Figure 2.11). One example is Sao Paulo, where public transport funding is entirely local or regional in origin.[26] The municipality covers the municipal bus system (70 percent of subsidies) and the State of Sao Paulo is responsible for supporting metropolitan buses, the metro, and urban trains (the remaining 30 percent). In Bogota, the operating deficit is covered by the FET, under the administration of the Capital District, with funds transferred mainly through the District Finance Secretariat, although there is also a contribution from the national government to support the financing of strategic components

[26] To a certain extent, the national government also subsidizes through the Vale Transporte voucher, which is tax deductible. This is a subsidy that goes directly to demand.

of the public transport system (SITP), including the FET. Similarly, the Cali public transport system receives national transfers to cover the fare differential (Stabilization and Demand Subsidy Fund - FESDE). At the budget level, public transport subsidies compete to varying degrees with other policy objectives. In Sao Paulo, for example, public transport subsidies represent around 6 percent and 1 percent of the municipal and state budgets, respectively, whereas in Bogota they represent 9 percent of the district budget.

At the other extreme, there are cities where subsidies come exclusively from national resources. For example, for Lima, the Ministry of Transport and Communications compensates the concessionaire of Metro Line 1 to stabilize the fare. For Panama City and Santo Domingo, the national governments fund the metro and bus systems. In Santiago de Chile, the operating deficit is covered by the National Subsidy for Remunerated Passenger Public Transport (Law No. 20,378).

FIGURE 2.11. Sources of Public Transport Subsidies by Jurisdiction in Selected LAC Cities, 2023



Source: Prepared by the authors based on questionnaires completed by the cities analyzed and public information, including annual reports and financial statements from system operators.

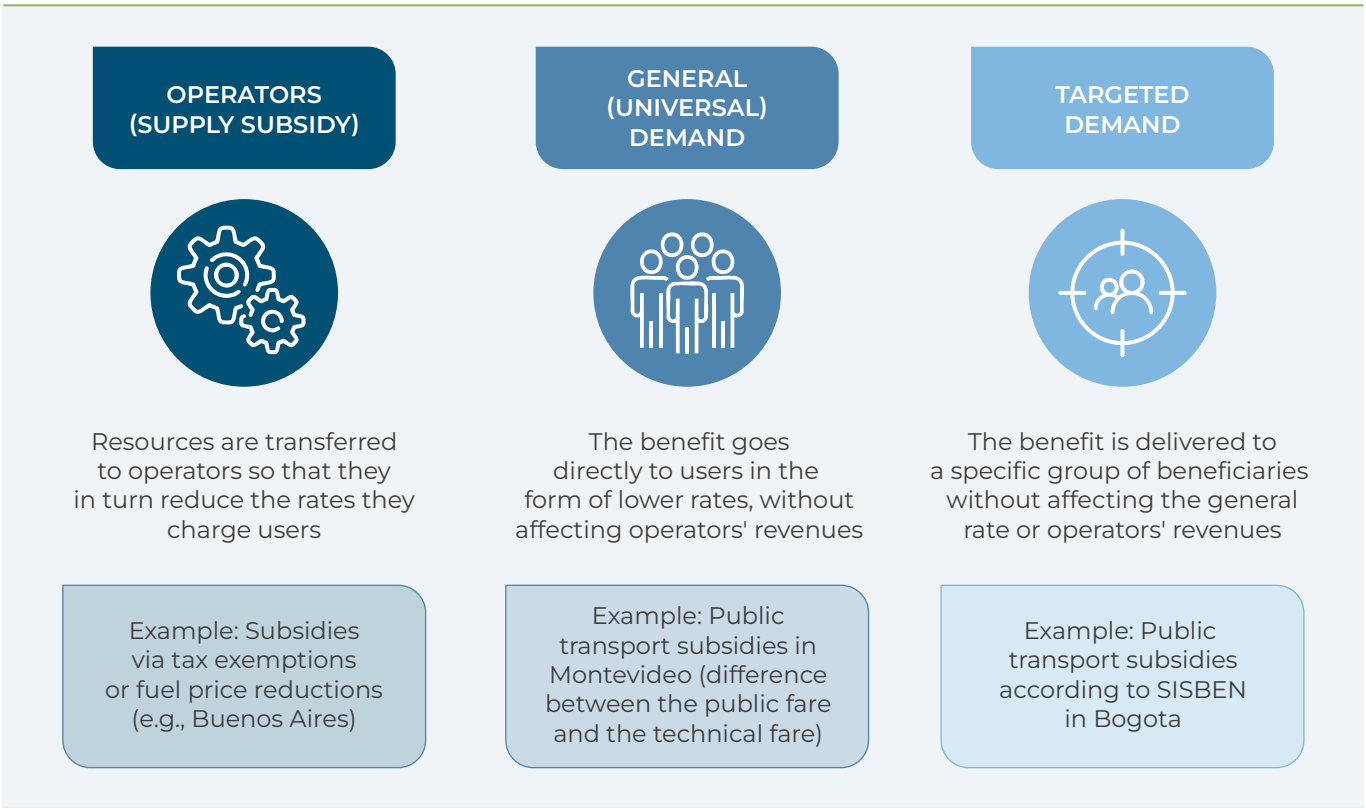
Notes: (1) The results should be interpreted taking into account the particularities of each system, such as its level of integration, institutional framework, service quality, coverage, and level of formality. (2) Transport systems by city: Bogota and Cali, bus and cable car systems; Mexico City, buses (RTP and Metrobus), metro, and STE (suburban trains, light rail, and Cablebus); Lima, metro system only; Montevideo, urban buses (STM) only; Panama City, bus (MiBus) and metro systems; Santiago de Chile, buses, metro, and urban trains; Santo Domingo, buses (OMSA) and metro; San José, transport system, buses and urban trains (only the train receives subsidies); and Sao Paulo, municipal bus, metro, and suburban train systems (63% corresponds to municipal transfers and 37% corresponds to the State of Sao Paulo, as reported in the forms). (3) In terms of subsidy coverage, although most subsidies are intended to fund operating deficits, in some cases they may include support for other components. For example, in Santiago de Chile, in addition to operations, the subsidy also covers the fleet, terminals, loading infrastructure, and metro, among other services.

Subsidies by Type of Beneficiary

Subsidies can be classified according to the type of beneficiary as supply subsidies and demand subsidies (Figure 2.12). Supply subsidies are granted directly to operators with the aim of reducing the fares charged to users. This type of subsidy includes, for example, fuel price reductions. Demand subsidies are aimed directly at users. If they are applied to all users, they are called general demand subsidies.[27] If they are directed at a specific group of the population, they are considered targeted demand subsidies.

Most operating subsidies in the region are general subsidies, that is, they are channeled to operators or allocated to demand in general. Supply-side or general-demand subsidies are less targeted than specific demand-side subsidies (targeted demand), as transport operators do not identify different types of users, except in the case of subsidies conditional on specific performance or service objectives, such as unviable rural services (Gómez-Lobo and Serebrisky, 2023). In the case of remote areas of Chile, for example, the Isolated Areas Subsidy makes it possible to provide public transport in areas that are difficult to access, allowing formal operators to provide services that, without state support, would be unviable or would have very high fares. Currently, the Ministry of Transport and

FIGURE 2.12. Classification of Public Transport Subsidies by Beneficiary



Source: Prepared by the authors based on Gómez-Lobo (2024).

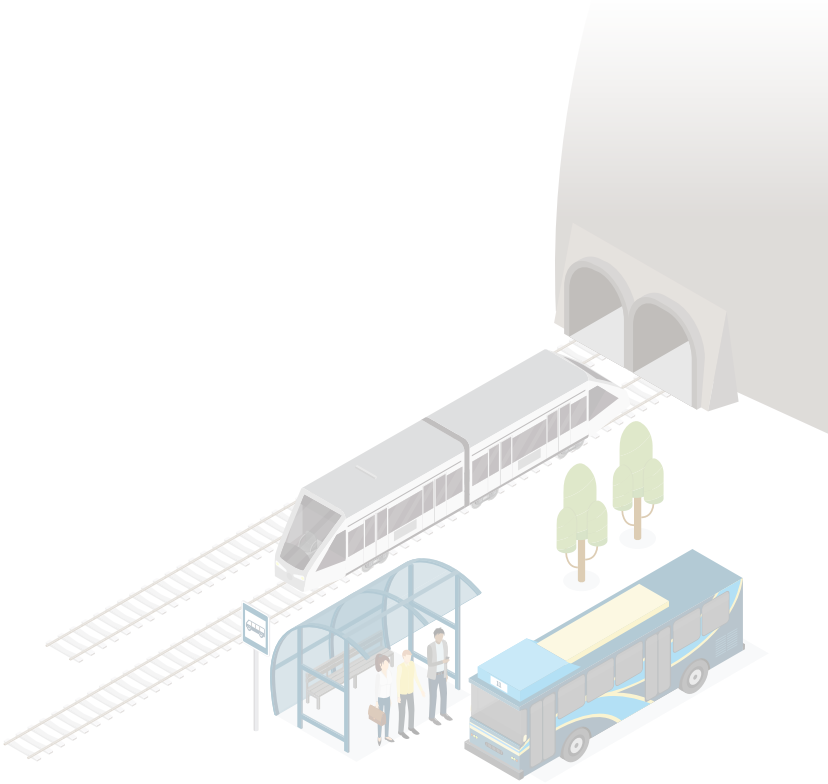
Note: SISBEN: System for Identifying Potential Beneficiaries of Social Programs.

[27] This type of subsidy is similar to that granted to operators in that the price reduction benefits all users. However, while the amount allocated in the operator subsidy is not conditioned by the level of demand, in the case of general demand subsidies, the amount allocated varies according to actual demand.

Telecommunications subsidizes land, sea, river, air, and lake services, benefiting more than 400,000 people with reduced fares and contractually regulated frequencies (DTPR, n.d). Supply-side subsidies also help strengthen resilience to demand shocks, such as during the COVID-19 pandemic, when lockdowns drastically reduced mobility and social distancing restrictions limited public transport occupancy (Gómez-Lobo and Serebrisky, 2023). Demand-side subsidies (general) include payments to operators to stabilize public fares, as in the case of Montevideo, where the general subsidy is calculated as the difference between the public fare and the technical fare.

The region has various targeted demand-side subsidy schemes. Several cities have subsidies targeted at specific demand groups, including Panama City, Bogota, and Montevideo.[28] The proportion of demand-targeted subsidies out of total subsidies varies between cities, ranging from 1 percent in Panama City and 3 percent in Bogota to 48 percent in Santiago de Chile, which has a significant number of different subsidy beneficiary groups (Figure 2.13).

The targeting criteria differ among the cities analyzed. Some use age as a criterion (e.g., subsidies for older adults), whereas others are based on the type of mobility (such as peripheral trips or frequent users), activity status (such as students and unemployed persons), or socioeconomic status (Table 2.3). Most of these subsidies are funded in part through cross-subsidies from other users (Gómez-Lobo and Serebrisky, 2023).[29] In Montevideo, the high proportion of demand-targeted subsidies out of total subsidies is a result of a combination of these criteria, including beneficiaries such as students, retirees, frequent users, and participants in social programs, among others. On the other hand, within the subsidy targeting mechanisms, Bogota's experience stands out for the effectiveness of subsidy allocation through the SISBEN mechanism, optimizing its targeting and reach.[30]

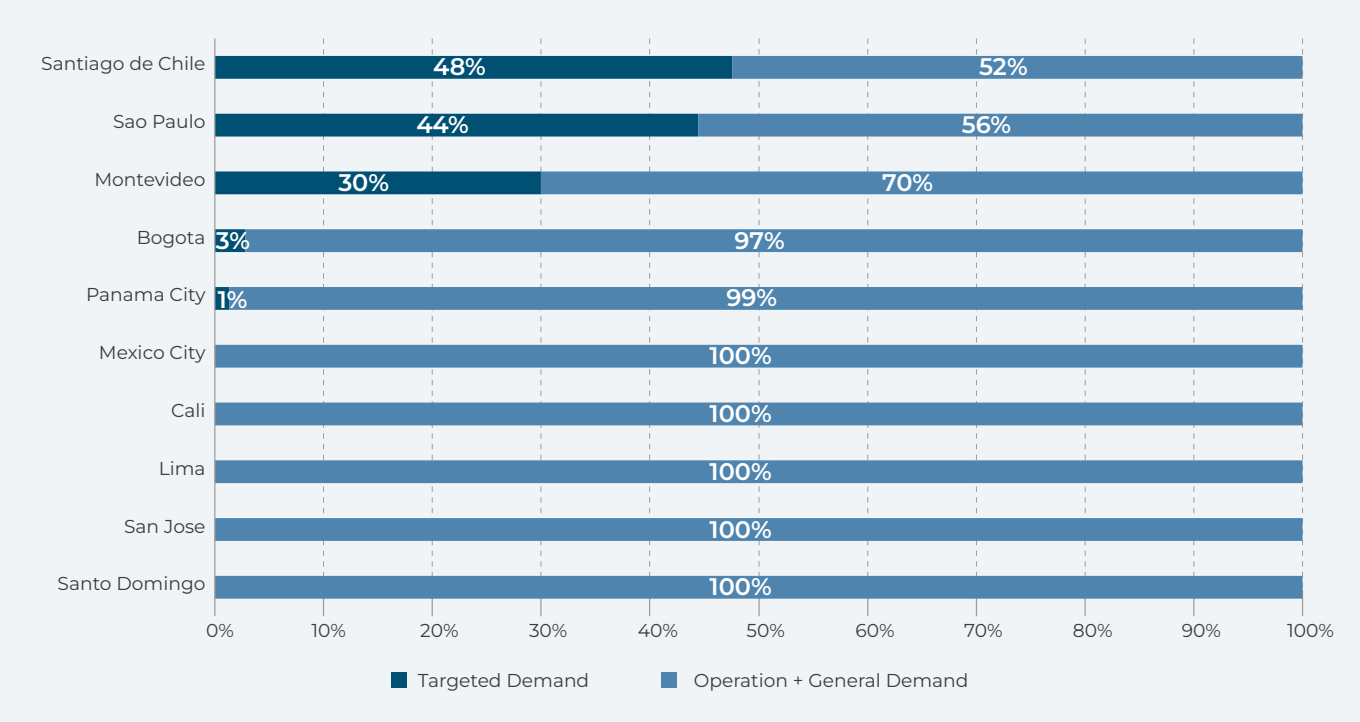


[28] See Section 2.3 on targeting subsidies as a tool for improving funding.

[29] It is important to note that, in the case of cross-subsidies, users who subsidize other passengers usually do not pay the full cost of the services they use.

[30] See Section 2.3, Box 2.10.

FIGURE 2.13. Types of Public Transport Operating Subsidies in Selected LAC Cities, 2023



Source: Prepared by the authors based on a questionnaire completed by the cities analyzed and public information, including annual reports and financial statements from system operators.

Notes: (1) The results should be read taking into account the particularities of each system, such as its level of integration, institutional framework, service quality, coverage, and level of formality. (2) Transport systems by city: Bogota and Cali, bus and cable car systems; Mexico City, buses (RTP and Metrobus), metro, and STE (suburban trains, light rail, and Cablebus); Lima, metro system only; Montevideo, urban buses (STM) only; Panama City, bus (MiBus) and metro systems; Santiago de Chile, buses, metro, and urban trains; Santo Domingo, buses (OMSA) and metro; San José, transport system, buses and urban trains (only the train receives subsidies); and Sao Paulo, municipal bus, metro, and suburban train systems. (3) In terms of subsidy coverage, although most subsidies are intended to fund operating deficits, in some cases they may include support for other components. For example, in Santiago de Chile, in addition to operations, the subsidy also covers the fleet, terminals, loading infrastructure, and metro, among other services.

TABLE 2.3. Setting Public Transport Subsidies in Selected LAC Cities

City	Type of Subsidy and Calculation Mechanism
Bogota	→ General subsidy: The operating deficit is covered by resources from the Capital District, which are transferred to the Tariff Stabilization Fund (FET) through the District Finance Secretariat. → Targeted demand subsidies: Seniors, persons with disabilities, and the System for Identifying Potential Beneficiaries of Social Programs (SISBEN).
Cali	→ General subsidy: Operating deficit is paid through the Stabilization and Demand Subsidy Fund (FESDE).
Montevideo	→ General subsidy: Difference between the public fare and the technical fare. The final decision on setting the fare is political. The fare is set based on demand levels, cost estimates (using a parametric model), and budget availability to cover the fare shortfall (subsidies). → Targeted demand subsidies: Students, retirees, frequent users, social program beneficiaries (ABC Program), and International Women's Day
Santiago de Chile	→ General subsidy: The operating deficit is covered by the National Subsidy for Paid Passenger Transport, provided for by Law No. 20,378 and its amendments. → Targeted demand subsidies (resources also granted by Law 20,378): Student and senior citizen fares.

Source: Prepared by the authors based on information provided by the cities.

The results presented in this section show that public transport systems in the region face significant challenges in terms of operating subsidies. Persistent operating deficits, in a context of slow recovery in demand after the pandemic and a sustained increase in operating costs, are increasing the pressure on the sustainability of the system. Although this phenomenon is not unique to the region—it is also observed in cities in developed countries— subsidies are largely used in Latin America and the Caribbean to ensure basic operation, often under conditions of low service quality. This situation limits the possibility of allocating resources to structural improvements, such as modernization, modal integration, and service quality enhancement. In this context, there is an urgent need to move toward a more efficient allocation of subsidies that will not only guarantee operation but also drive the transformation of transport systems toward more efficient, accessible, integrated, and sustainable models.

2.3. Funding in action

The preceding sections have addressed the current structure of public transport funding in Latin America and the Caribbean, identifying the main challenges and trends observed over the last decade. Among the main problems are the limited availability of funding sources, the decline in revenue from direct beneficiaries, the limited use of charges on indirect beneficiaries, the high dependence on taxpayer-based revenue, and the need to improve the efficiency of subsidies and public transport systems in general. Based on evidence from 10 cities, variations are observed in the share of fare revenue, the alternative mechanisms implemented, and the effects of the pandemic on public transport demand, which has led to growing operating deficits. Although progress has been made in certain areas, there remains a significant dependence on subsidies and low diversification of

funding sources, which limits the financial sustainability and capacity for continuous improvement of public transport. Unlike developed countries, where services are of higher quality and backed by more robust and diversified funding schemes, the region finds itself in a situation in which resources are stretched to guarantee a basic level of service, compromising the possibilities for improvements in infrastructure, technology, and equipment. The pandemic exacerbated this situation by reducing demand and weakening the financial position of transport systems.

This section, however, takes a forward-looking approach, focusing in particular on how funding in the region should ideally be organized. To this end, it explores recommended principles and mechanisms to make public transport systems more efficient, equitable, and sustainable from an economic and social standpoint, overcoming the limitations of the models that predominate in the region. This approach to the problem seeks to provide concrete guidelines and practical recommendations to guide a gradual but decisive transition toward better funding schemes.

2.3.1. Sustainable Urban Mobility at the Center

To determine how an effective and efficient public transport funding model should work, it is necessary to adopt a systemic perspective that transcends the traditionally limited view of analyzing the various modes of transport independently. In fact, public transport services are part of a broader urban mobility ecosystem that includes private transportation (private cars, shared mobility services), active modes of mobility (walking, bicycles, or other alternatives), and urban planning itself. A comprehensive vision involves managing all these elements together to take advantage of synergies, reduce negative externalities such as congestion and pollution, and ensure a better allocation of public resources for urban mobility.

Within this comprehensive vision, public transport must play a central role, functioning as the backbone of urban mobility policies. In this sense, it is essential to ensure its articulation with adequate urban planning—characterized by balanced density, mixed land use, and accessibility—that will guarantee not only the economic sustainability of the public transport system but also enhance its social benefits, transforming it into an enabler of greater inclusion and territorial equity.

This also implies redirecting the focus of public transport planning and management towards the user in order to improve the perception, quality, and experience of citizens who use transport systems on a daily basis, thereby encouraging the use of public transport. A user-oriented policy can generate virtuous circles: by increasing the quality and comfort of services, it stimulates their intensive use, increasing effective demand, justifying greater investment, and ultimately contributing to the economic and social sustainability of public transport.

Achieving this objective from the point of view of public transport funding also requires comprehensive actions related to urban mobility. As highlighted in the previous section, public transport fares only cover part of the resources needed to provide quality services, both in the region and in more advanced countries. Charges for private mobility, for example, allow for internalizing the undesirable effects of this mode on society in terms of congestion, pollution, and road accidents. Charging for these externalities, as Bogota and Cali have been doing, provides resources to strengthen a more socially and environmentally sustainable transport system. In addition, charges on private mobility, to the extent that they reduce congestion, benefit surface public transport by increasing its average speed, reducing the costs of providing a level of coverage and frequency, and increasing the quality of service. This generates a "double dividend" in which not only are the costs of private transport use internalized, but the costs of providing public transport are reduced and its benefits to users are increased. This example reveals how public transport funding cannot be considered independent of the funding sources for other urban mobility services.

The underuse of funding instruments derived from private transport, such as tolls, congestion charges, or other available instruments, implies the loss of potential resources and the depletion of valuable public resources. It also places excessive

demands on other sources of funding necessary to achieve policy objectives. Ultimately, public transport fares are only one of the relative prices relevant to determining the mobility solutions used by the population and, with that, the social consequences in terms of access to socioeconomic opportunities and the consequences for the environment.

Realizing this comprehensive view of public transport requires coordinated action at the inter-institutional level. The responsibilities to establish appropriate regulatory and governance mechanisms for urban mobility are often distributed not only among different levels of government (national, state, or municipal), but also among different institutions, even within the same level of government. For example, if one considers a typical city in the region, one may find that regulations on public transport systems are defined by national or provincial standards; that transport systems that interact with each other (urban, metropolitan, and regional) are not regulated by a single authority; that urban highway tolls arise from public-private partnership contracts that respond to a national legal framework; that urban development plans and building permits are under the purview of a municipal secretariat; and that shared transport services—such as bicycles or scooters—are regulated by local transportation authorities. This institutional fragmentation makes articulating, aligning, and coordinating policies across sectors and levels of government a major and highly complex challenge, which is unavoidable to achieve efficient, equitable, and sustainable urban mobility.

Finally, it should be noted that a comprehensive urban mobility and funding model in Latin America and the Caribbean must necessarily include **the progressive incorporation of clean and resilient technologies**, which in turn tend to represent a substantial improvement in service quality. Progress toward decarbonization of the sector, particularly through electromobility, is an opportunity to reduce pollutant emissions, lower long-term operating costs, and adapt transportation systems to the region's climate vulnerability (Sanchez *et al*., forthcoming). However, this path requires the development and application of new funding and financing instruments, innovative management strategies, and effective coordination among multiple actors—from the public sector to private operators—to mobilize resources and ensure the viability of this technological and environmental transition.

2.3.2. Reforming Funding: The Importance of Governance and Appropriate Sectoral Regulations

The successful implementation of comprehensive public transport funding and management models requires a clear political vision, accompanied by a solid legal, institutional, and regulatory framework. The existence of this framework not only provides the stability necessary to implement public policies but also facilitates coordination and cooperation among different levels of government, private sector actors, and civil society. A robust institutional framework helps to overcome conflicts, improve planning, and generate efficient and transparent management of public resources allocated to mobility.

However, in Latin America and the Caribbean, current regulatory frameworks often lag significantly behind the current challenges of urban transport. Estache and Serebrisky (2020) explicitly point out the urgent need to update these regulatory frameworks to adapt them to the new technological, environmental, and social realities of the sector. De Borger and Proost (2012) highlight the importance of improving decentralization schemes, which, although they have granted greater local autonomy, often generate additional complexities as a result of fragmentation in decision-making, especially in metropolitan urban contexts.

In this regard, one of the main challenges facing cities is precisely the establishment of an institutional framework capable of achieving effective interjurisdictional coordination. Limitations in coordination between actors—often linked to differences in political interests, disparate institutional capacity, and different time horizons—represent significant barriers to the development and adequate funding of public transport.

There is no single recipe to overcome these challenges, as institutional arrangements must take into account the idiosyncratic characteristics of the countries and cities that establish reform projects. However, there are lessons that can be incorporated to improve reform processes. The case of Madrid may be illustrative in this regard. The Madrid Regional Transport Consortium (CRTM) is an exemplary case of metropolitan governance in the area of mobility based on collegial administration and an institutional structure that ensures the participation of multiple actors. Its Governing Council and Board of Directors are made up of between 19 and 21 members from the Community of Madrid, local councils, trade associations, operating companies, and users, while its Technical Committee and executive authorities ensure the system's operability. Since its creation in 1985, the CRTM has promoted the progressive integration of companies and operators, such as Metro de Madrid, Cercanías, intercity buses, and light rail, facilitating the incorporation of municipalities and improving interoperability. Its funding scheme combines state contributions, user fares, fare subsidies, budgetary credits, and contributions from different jurisdictions, supplemented by revenue from ticket sales and advertising. Its achievements include fare integration, the creation of the Center for Innovation and Public Transport Management (CITRAM) for real-time monitoring, improved efficiency and service quality, and coordinated infrastructure planning. The CRTM's good practices include effective inter-institutional coordination, diversification of funding sources, promotion of sustainable mobility, and a strong focus on service quality, consolidating the consortium as a regional benchmark—albeit not free from increasingly frequent political controversies—in public transport management (IDB, forthcoming).

In this vein, a recent example of progress toward integrated governance in Latin America and the Caribbean is the Santiago de Chile Metropolitan Public Transport Directorate, which brings together different actors linked to the city's public transport This search for a new institutional framework is also reflected in the intention to transfer powers from the national level to the regional government. An example of this is the proposal to transfer the Traffic Control Operations Unit (UOCT)—which manages traffic lights and cameras—from the Ministry of Transport and Telecommunications to the regional government. In addition, through studies and seminars, Santiago de Chile is moving forward with the transition process to create a metropolitan transport authority.

Institutional capacity is another key aspect to consider to strengthen public transport funding and financing schemes. Joseph *et al*. (2021) and Engel, Fischer, and Galetovic (2022) highlight that public transport problems often stem not only from a shortage of resources, but also from technical limitations and institutional weaknesses that hinder efficient financial management. Improving this capacity is a priority task to ensure the effective and sustainable use of funds allocated to public transport.

Public transport financial planning also must be carried out with a long-term vision, focusing on economic sustainability beyond political cycles. One of the main imbalances in Latin American and Caribbean cities is the gap between the relatively short terms of local government administrations and the long time horizons required for transportation infrastructure projects. Therefore, it is essential to implement institutional mechanisms that provide continuity and financial predictability beyond electoral cycles.

Finally, the incorporation of innovative tools such as climate budgeting—which involves allocating specific public resources to objectives related to decarbonization and resilience—allows for aligning transport funding and financing with the environmental commitments made by countries in the region. This approach should not only focus on providing financial predictability, but also on strengthening transparency, oversight, and accountability regarding the use of public resources, thereby increasing the legitimacy and social acceptance of the policies implemented.

2.3.3. Fares, Externalities, and Subsidies: Who Should Pay for Public Transport?

Determining who should pay for public transport services is a political decision conditioned by the environmental, social, and urban objectives established for each city or region. There is no single technical or economic answer that universally resolves this issue, given that decisions must be explicitly defined by each society on fares, subsidies, and financing that reflect priorities and trade-offs involving issues such as social equity, economic efficiency, environmental sustainability, and even the promotion of compact and inclusive urban development.

In this context, the traditional "user pays" principle cannot always be applied, especially in the presence of strong externalities and economies of scale. Although charging the user directly has clear advantages from an economic perspective—by linking individual costs and benefits—this logic ignores the existence of significant positive and negative externalities associated with transportation. Urban mobility, especially when carried out by collective and sustainable modes such as public transport, generates benefits that go far beyond the direct user: it reduces traffic congestion, mitigates pollutant emissions, generates economies of scale (mainly the Mohring effect, which states that increasing the frequency and density of public transport services reduces overall costs for users), lowers public health costs, and contributes to social cohesion. Consequently, it is necessary for other actors, in addition to the direct user of the public transport, to contribute financially to internalize these positive externalities and offset the negative ones (see Box 2.7) generated by other modes, especially cars and motorcycles.

BOX 2.7. Dealing with Climate Externalities: Carbon Pricing

Carbon pricing is an economic mechanism that puts a cost on carbon dioxide (CO_2) and other greenhouse gas emissions in order to reduce emissions and promote a transition to low-emission economies. These mechanisms recognize that pollution has a cost and seek to internalize it among emitters. There are two broad categories of instruments to capture the externality associated with carbon emissions: emissions trading (cap-and-trade) and carbon taxes (Tietenberg 2013). There are even cases where both mechanisms operate in a hybrid system (Narassimhan *et al*., 2018).

Emissions trading or cap-and-trade is a mechanism in which a total emissions limit is set and companies are allowed to buy and sell carbon emission permits, creating an economic incentive to reduce pollution. For example, California has had an emissions trading scheme in place since 2012, which sets an annual limit on carbon emissions and auctions permits to emit, allocating part of the revenue to finance transportation projects (California Transit Association, n.d.). Since 2015, the scheme has also included fuels, and the funds are used to expand clean public transport systems, promote active mobility infrastructure, and reduce emissions from the sector (MTC, n.d.).

For its part, the carbon tax is, in essence, a Pigouvian tax—that is, a levy on activities that generate negative externalities that aims to shift the costs of harm to the producers or consumers of the activity. The tax seeks to internalize the unaccounted public costs of increased pollution on the environment and health. In Ireland, for example, carbon taxes introduced in 2010 directly tax the consumption of fossil fuels such as gasoline, diesel, and natural gas (PBO, 2024). In recent years, part of the revenue generated has been allocated to financing sustainable mobility and transportation. In the region, Chile was the first country to tax carbon emissions through a "green tax." Although the revenue from the tax is not directly allocated to funding and financing

public transport, there are mechanisms such as the Emissions Compensation System that allow resources to be allocated to emission reduction projects, including those in the transport sector.

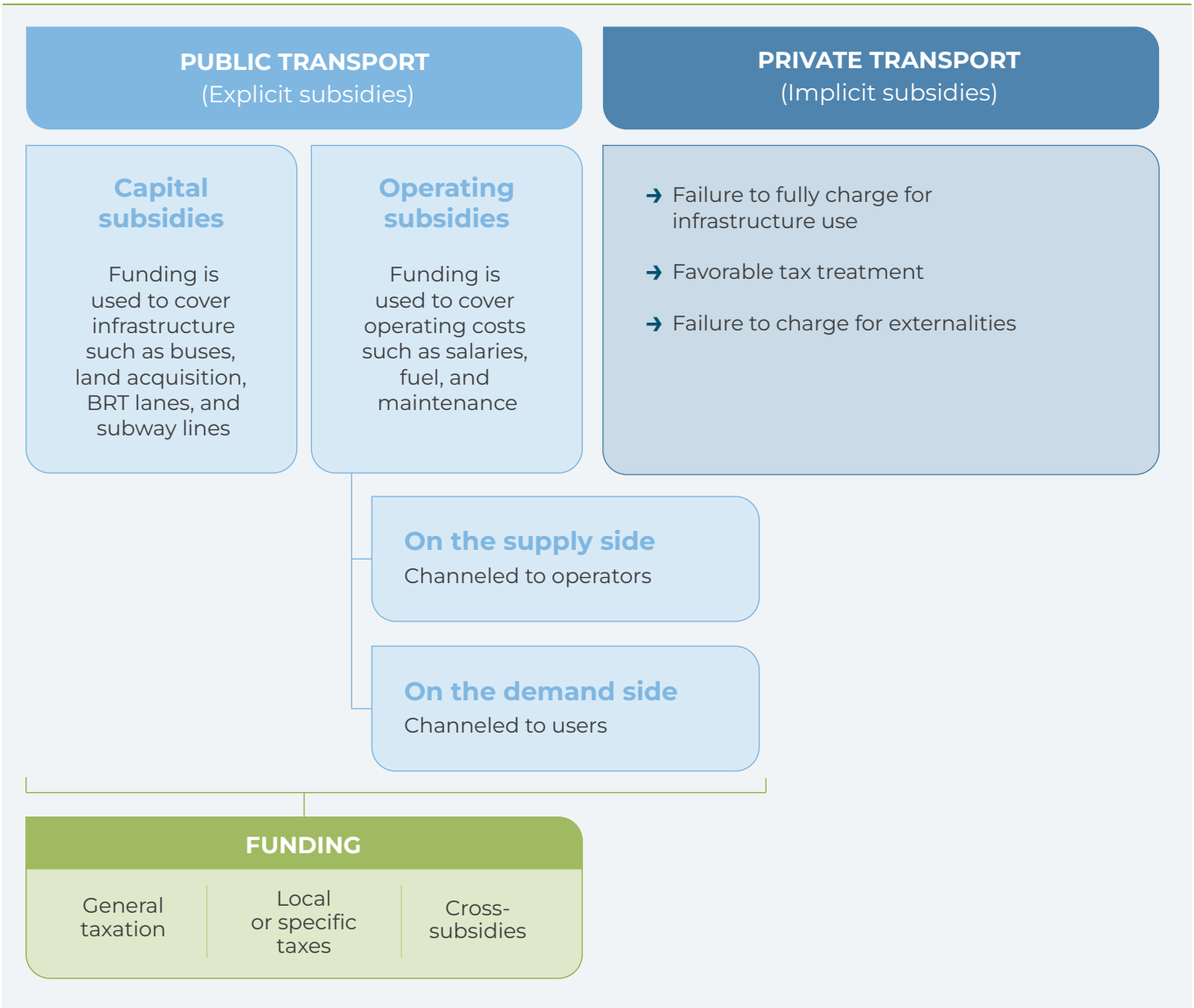
Instruments such as carbon pricing and cap-and-trade systems are effective mechanisms to discourage the use of fossil fuels and reduce emissions. In addition to fulfilling an environmental function by helping to correct market distortions, these instruments have demonstrated their potential to finance public policies. In a regional context where operational deficits are putting pressure on public transport systems, mechanisms such as carbon pricing represent innovative alternatives to address the challenges of public transport funding.

Given this complexity, it is essential to clearly define which specific components of public transport should be subsidized, to what extent, at what times of day, and by which actors. Decisions on subsidies must respond to a comprehensive vision of urban mobility and its strategic objectives, considering elements such as social equity (subsidizing vulnerable users), environmental sustainability (promoting clean technologies or low-emission modes of transport), and economic efficiency (using pricing mechanisms that reflect real costs and externalities). Thus, a balanced and intelligent fare scheme, supported by strategic subsidies, is a fundamental instrument to achieve the comprehensive goals defined by urban public policies in Latin America and the Caribbean.

The evaluation of public transport subsidy levels must also consider the opportunity cost of obtaining the resources to fund them. Public resources are obtained through taxation, which generates distortions that affect economic efficiency. These inefficiencies constitute a significant opportunity cost that must be incorporated into the analysis when defining which components of the transportation system should be subsidized and what specific objectives are to be achieved. This discussion has become more relevant given that countries in the region have seen their fiscal space to implement public policies reduced, which has increased the economic cost of mobilizing additional resources.

To establish an appropriate strategic subsidy scheme, it is necessary to consider both the resources allocated explicitly and those resources that may be directed toward supporting other mobility solutions implicitly (Figure 2.14). This distinction is relevant because subsidies for public transport are usually explicit in nature, either through the allocation of capital subsidies for the construction of exclusive infrastructure (subway tunnels, BRT lanes, etc.), the purchase of rolling stock (trains or buses), or as transfers to support the costs of operating services. However, many of the resources allocated to support private mobility are rarely explicitly identified as subsidies. Some of the most common forms of these implicit subsidies, which are also substantial, are the construction of road infrastructure without charging for its use, and the absence of charges for the negative externalities generated by private transport.

FIGURE 2.14. Classification of Public and Private Transport Subsidies



Source: Prepared by the authors based on Rivas, Suárez-Alemán, and Serebrisky (2019).

The promotion of equity and social inclusion have been key aspects when considering decisions on public transport fares and subsidies in Latin America and the Caribbean. The main reason behind this is that public transport is mainly used by lower-income population groups, who depend directly on these services to meet their basic daily mobility needs. This means that fares are perceived not just as a mechanism to recover costs, but mainly as a key instrument of social policy, explicitly aimed at reducing inequalities through indirect income redistribution. In effect, public transport is a mechanism that facilitates equitable access to essential socioeconomic opportunities, including employment, education, and health care. Consequently, improving the affordability of public transport reduces structural barriers faced especially by the poorest households, promoting their participation in labor markets and facilitating upward social mobility. From this perspective, fare subsidies and other economic support mechanisms have been seen not only as technical instruments to cover operating deficits, but primarily as public policies aimed at reducing social exclusion and urban poverty. In this sense, Vale Transporte in Brazil—through which employers provide vouchers

BOX 2.8. Public Transport as a Facilitating Mechanism: Vale Transporte in Brazil

In 1985, Brazil introduced Vale Transporte (Law No. 7,418/1985 and regulated by Decree No. 95,247/1987), which requires employers in the formal sector to provide transportation vouchers to their employees for commutes between home and work (Gómez-Lobo, González, and Sánchez González, 2025). In exchange, employers can deduct up to 6 percent of workers' monthly wages. This mechanism functions as a targeted subsidy, as only workers with low incomes and high transportation costs (greater than 6 percent of their salary) receive a net benefit. The employer must cover the total cost of the trip, even if it involves multiple operators or segments. If the cost exceeds 6 percent of the salary, the employer pays the difference, although this expense is tax deductible, so the government indirectly finances part of the subsidy.

The Vale Transporte experience is an example of an innovative and targeted subsidy instrument in the region that seeks to facilitate access to work for low-income people, promoting labor mobility and social inclusion. In 2019, Vale Transporte trips accounted for 30.3 percent of passengers and 14 percent of the transport system's revenue (Gómez-Lobo, González, and Sánchez González, 2025). However, there is evidence that the instrument has some weaknesses in terms of unintended effects, particularly the impact of the informal sector on the distributional effects of the tool as a parallel market. This highlights the need to review and adapt the program's design to improve its equity and distributional effectiveness (Gómez-Lobo, González, and Sánchez González, 2025).

that cover the transportation costs of their workers in their daily commutes—can be considered a social policy (Box 2.8).

Several studies have documented how demand-oriented subsidies, especially those targeted at vulnerable groups using socioeconomic criteria, can generate significant benefits in terms of accessibility and social welfare (Guzmán and Oviedo, 2018; Litman, 2025; Crisp, Gore, and McCarthy, 2017). Emblematic examples in the region, such as Bogota (Box 2.9) and, to a lesser extent, Santiago de Chile,[31] involve implementation of differentiated fare schemes and targeted subsidies aimed at specific groups (students, older adults, persons with disabilities, or beneficiaries of social programs), showing positive results in terms of improvements in social inclusion, territorial equity, and effective accessibility to basic services. In this regard, Guzmán and Hessel (2022) evaluated the causal impact of public transport subsidies targeted at low-income individuals in Bogota, finding that the subsidy, equivalent to 32 percent of the regular fare, significantly and substantially increased the monthly number of public transport trips. However, the effect on demand has tended to diminish over time and is more pronounced among economically active individuals than among those who are inactive.

[31] For a detailed discussion of the effectiveness of targeting subsidies in Santiago de Chile, see Brichetti (2020).

BOX 2.9. SISBEN as a Mechanism to Effectively Target Subsidies for Infrastructure Services and Social Assistance

The System for Identifying Potential Beneficiaries of Social Programs (SISBEN) is a key tool used by the Colombian government to target social spending and allocate subsidies efficiently. Since its creation in 1995, SISBEN has undergone several methodological updates that have improved its ability to identify the most vulnerable populations (Table B2.9.1).

TABLA B2.9.1 Evolution of SISBEN Over Time

	SISBEN I 1995	SISBEN II 2005	SISBEN III 2011	SISBEN IV 2020
Focus	Productive exclusion	Social exclusion	Social exclusion	Social and productive exclusion
Score	Score from 0 to 100	Score from 0 to 100 (cut by levels)	Score from 0 to 100 (cut by program)	Groups (cut by program)
Zone	1 zone (national)	2 zones (urban, rural)	3 zones (urban, rural, and 14 cities)	64 zones (urban and rural by department + Bogota)
Other changes			Exclusion of socioeconomic status	Collection with *Dispositivo Móvil de Capura* (DMC) Geo-referencing Proxy IPM calculation Social Registry

Source: Prepared by the authors based on information from the National Planning Department (DNP).

In its latest update, SISBEN IV has improved the efficiency of subsidy allocation by reducing inclusion and exclusion errors. This has been achieved through the use of mobile devices for data collection and geo-referencing as a mechanism to more accurately identify households in poverty. In addition, integration with other available administrative records has facilitated the updating of information and the monitoring of beneficiaries.

Despite these advances, SISBEN faces challenges such as the strategic response of some households, which may underreport their conditions in order to access subsidies. For example, Bottia, Cardona-Sosa, and Medina (2012) analyzed the use of SISBEN as a targeting mechanism for the subsidized health system in Colombia and found that approximately one-fifth of beneficiaries may not be eligible because they underreport their conditions. In response, the Colombian government plans to implement the Universal Income Registry (RUI), a tool to improve the targeting of subsidies by integrating tax and social security information into the targeting system. Efforts in this direction in Chile have shown the potential of developing such registries. Errázuriz and Gómez-Lobo (2024) document how, in the case of drinking water subsidies, the creation in 2016 of the Social Household Registry—which integrates all the government's administrative information on health, taxes, employment, and pensions, among

other information—has made it possible to significantly improve the targeting of subsidies allocated on the basis of socioeconomic criteria.

In conclusion, SISBEN has been fundamental to Colombia's social policy and has become a relevant regional reference as a mechanism for more efficient allocation of social and economic subsidies. However, the evolution toward even more integrated systems such as the RUI represents a step forward in the search for greater equity and efficiency in the distribution of public resources.

Beyond the relevance of public transport subsidies in contributing to policies focused on improving access and affordability of services for vulnerable populations, **a balanced view requires incorporating aspects related to the economic efficiency of public transport**. From a comprehensive perspective, it is essential to recognize that efficiency is not necessarily at odds with equity, but that both dimensions can reinforce each other if approached in an appropriate manner. A clear example of efficiency that justifies public transport subsidies is the Mohring effect—specifically as it relates to waiting times and access—generating economies of scale that benefit all passengers (Mohring, 1972). Thus, an increase in demand generates a positive externality for current users by allowing for higher optimal levels of frequency and reducing both access costs and waiting times (Gómez-Lobo, 2014).

In addition to the social equity criterion, from a second-best perspective, setting low fares for public transport can have additional positive effects by reducing negative externalities generated by private transport, such as traffic congestion, environmental pollution, urban noise, and road accidents. In this sense, subsidies aimed at maintaining affordable fares can also be justified by their potential indirect effect on reducing the use of cars and motorcycles, thus improving the overall efficiency of urban mobility and the environmental quality of cities. However, it should be noted that the sensitivity of demand to public transport prices—technically known as price elasticity—is relatively low and heterogeneous among different socioeconomic groups (Gandelman, Serebrisky, and Suárez-Alemán, 2019). This implies that fare reductions alone may not be an effective mechanism to induce these users to switch from cars to public transport. In these cases, it is essential to complement fare policies with additional measures, such as quantitative or regulatory restrictions on car use (e.g., congestion charges, parking restrictions, or low-emission zones) and to significantly improve the quality of public transport services.

There is valuable regional empirical evidence on these points that justifies public transport subsidies and complementary policies. Basso and Silva (2014) show that public transport subsidies, congestion charges, and exclusive bus lanes are largely substitutes and that the marginal effectiveness of subsidies falls rapidly when the other measures are implemented first, whereas exclusive lanes allow for increased frequency of the public transport services and lower fares without requiring public funds. For Bogota, Gómez Gélvez and Mojica (2022) find that high levels of subsidies are only justified if the supply of services grows at the same rate as demand, since otherwise internal congestion on board public transport modes negates the benefits of shorter waiting times and reduced road congestion. They also identify research gaps on elasticities and marginal effects. For their part, Rizzi *et al*. (2025) demonstrate that, even with severe budget constraints and the absence of road pricing, fare subsidies provide social benefits in Asunción, Paraguay: during rush hour, they help to offset the untaxed external costs of substitute modes such as cars and motorcycles, and during off-peak hours, they reduce waiting times by inducing greater frequency, as well as mitigating externalities, with relevant distributional implications for middle-income cities. **These more comprehensive**

approaches make it possible to effectively address the trade-offs inherent in the design of public policies for urban mobility.[32]

Ignoring these considerations can lead to strategies that, far from solving the structural problems of public transport, end up creating vicious circles. Indeed, when users' modal preference is determined mainly by qualitative aspects such as quality, safety, and frequency of service—rather than price—opting to reduce fares implies the need to significantly increase subsidies to maintain these essential attributes. If the increase in subsidies is not financially viable or sustainable, the quality of services inevitably deteriorates, causing a drop in demand, thus wasting economies of scale and generating a vicious circle of continuous deterioration in services and additional loss of passengers.

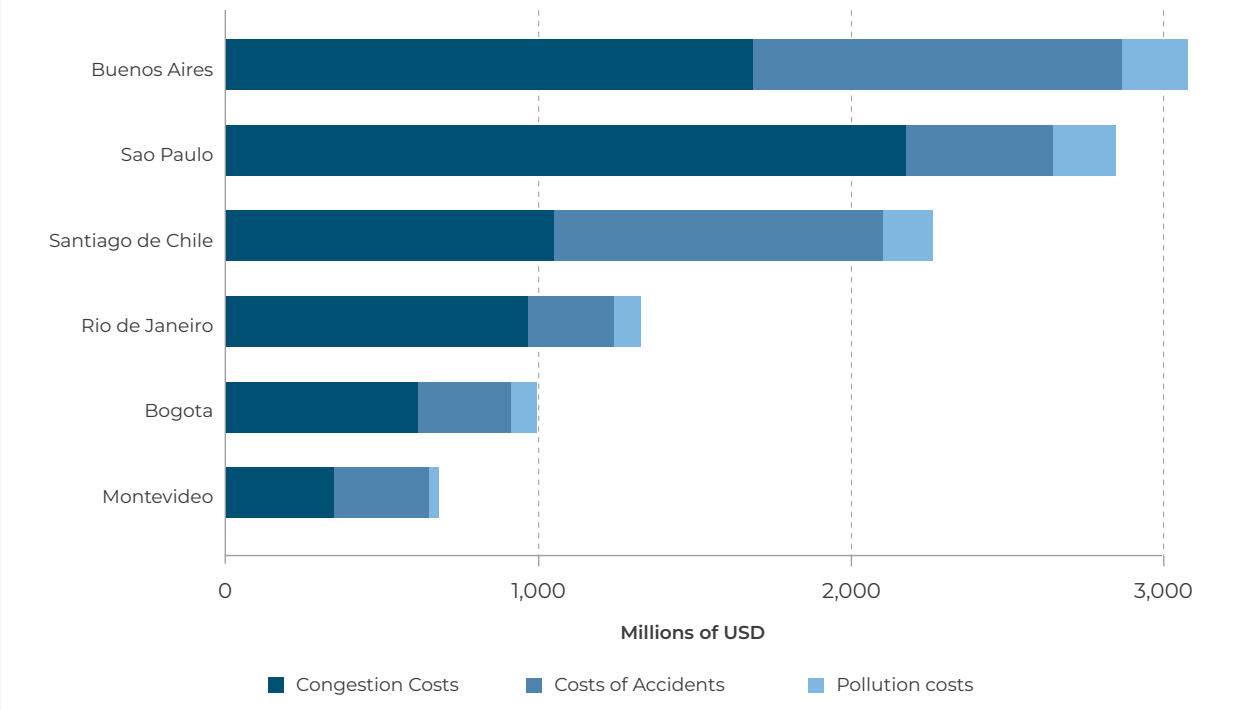
Consequently, the establishment of efficient and sustainable funding schemes necessarily requires a comprehensive approach that combines private, public, and active transportation management strategies with coherent urban planning policies. In particular, an effective funding scheme—in the sense of providing effective transportation services while minimizing social costs—must consider the accurate measurement and penalization of the negative externalities associated with each mode of transportation, such as congestion, environmental pollution, excessive consumption of public space, and road safety. Calatayud *et al*. (2021) estimated that traffic congestion costs cities such as Buenos Aires and Mexico City twice what they invest in education, while in Sao Paulo it is equivalent to what the city spends on public health. For their part, Sánchez, Rivas, and Brichetti (forthcoming) showed that the use of public transport can avoid congestion costs of up to US$650 million and US$480 million in cities such as Sao Paulo and Buenos Aires, respectively. This represents approximately 20 to 30 percent of the total costs of externalities associated with congestion in these cities. In addition, public transport can avoid costs in terms of road accidents of more than US$50 million annually in cities such as Sao Paulo, Buenos Aires, and Santiago de Chile (Box 2.10). Rizzi and De la Maza (2017) estimated the marginal external costs per kilometer associated with congestion, road damage, accidents, air pollution, and noise for cars and buses in Santiago de Chile, distinguishing between peak and off-peak hours. They found that during peak hours, cars generate around US$0.52 per km (US$0.41-US$0.42 per passenger-km) compared to US$1.80 per km for buses (only US$0.04 per passenger km), while outside peak hours these costs drop to US$0.15-US$.16 for cars and US$0.78 per km for buses (US$0.12-US$0.13 and US$0.05 per passenger km, respectively). With this comprehensive view of externalities—in conjunction with the Mohring effect—fare and subsidy policy ceases to be solely a tool for social equity and becomes a key instrument to guide sustainable urban development and efficient use of public resources.

[32] A relevant trade-off relates to the second-best effect. This effect tends to be more significant for individuals who are more elastic in their demand for public transport, such as middle-class people with the option of using private transport. Consequently, from an efficiency perspective, it might be preferable to implement a general demand subsidy, which also benefits the middle class, but for social reasons it is preferable to target these benefits at lower-income groups.

BOX 2.10. The Cost of Transport Externalities in the Region: A Quasi-experimental Design Using Public Transportation Strikes

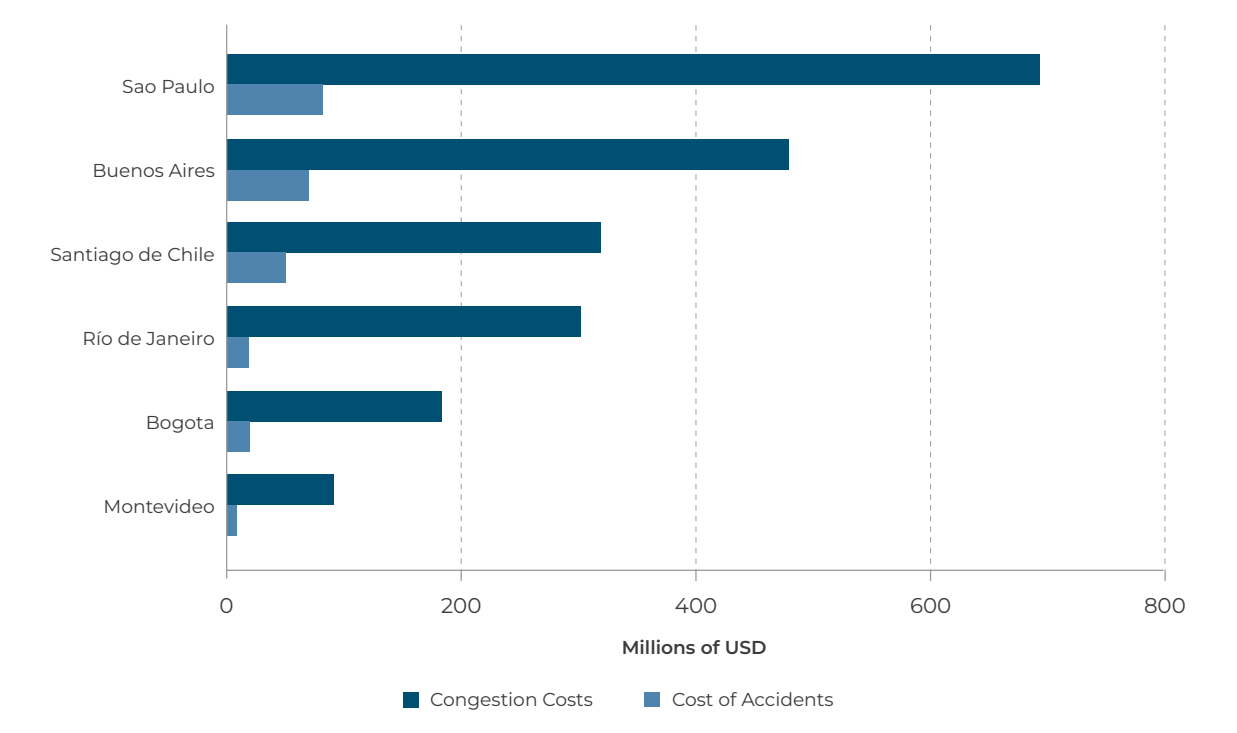
Establishing an efficient fare and pricing system for urban mobility requires, as a key input, the ability to identify the magnitude of the externalities—both positive and negative—generated by the use of various modes of transport. Despite this, studies that effectively quantify externalities in Latin American and Caribbean cities are scarce, partly because of the difficulty in finding adequate data to perform the measurements. An exercise carried out by Sánchez *et al.* (forthcoming) contributes to filling this gap in the literature. Using microdata from Waze on private travel times in six Latin American cities and taking advantage of episodes of total and partial stoppages in various public transport subsystems as quasi-experiments, the authors identify both the total costs and the costs avoided by public transport operation linked to congestion and road accidents. Figures B2.10.1 and B2.10.2 show the main results of the study.

FIGURE B2.10.1 Total Cost of Externalities in Selected LAC Cities



Source: Prepared by the authors based on Sánchez, Rivas, and Brichetti (forthcoming).

FIGURE B2.10.2 Avoided (Identifiable) Cost of Externalities from Urban Transport in Selected LAC Cities



Source: Prepared by the authors based on Sánchez, Rivas, and Brichetti (forthcoming).

The results presented by the authors indicate that—even under conservative assumptions—the costs associated with externalities avoided by the operation of public transport are significant, with the effect on reducing congestion particularly relevant. The economic impacts reach US$650 million per year in the case of Sao Paulo, and in five of the six cities analyzed they exceed US$100 million per year. Likewise, the (partial) absence of public transport increases total congestion costs by approximately 30 percent for the cities included in the sample. Considering the cost of avoided traffic accidents—although relatively minor compared to congestion costs—increases the benefits associated with public transport by around 10 percent on average.

2.3.4. How Can More and Better Sources of Funding for Public Transport Be Developed?

Throughout this chapter, there has been an emphasis on the critical importance of public transport funding as a central element to ensure sustainable, equitable, and efficient urban mobility in Latin America and the Caribbean. However, the chapter has also shown that the region faces significant challenges in terms of available resources, efficiency in the allocation of funds, and the adequacy of current funding instruments for the comprehensive objectives set out in urban and social policies. The regional reality shows that public transport systems are often dependent on generalized subsidies to offset growing operational deficits and declining demand, with insufficient or sub-optimally designed fare structures. This not only has an impact on the fiscal costs of sustaining services but also limits the possibility of improving the quality and coverage of the services offered to the population.

Given this scenario, there is an urgent need to move toward structural reforms in funding schemes that will overcome these limitations. The reforms must be simultaneously oriented toward economic efficiency in public transport operation, better targeting and allocation of subsidies according to clear criteria of equity and efficiency, and strategic expansion and diversification of alternative funding sources (Table 2.4). These three pillars, detailed below, seek to generate sustainable schemes over time, reduce excessive dependence on direct fiscal transfers, and substantially improve the quality, accessibility, and resilience of public transport.

TABLE 2.4. Areas of Reform for More and Better Public Transport Funding in LAC

Area	Recommendations
1st Area: Improvements in funding with a focus on operational efficiency	→ Review operator remuneration schemes, prioritizing criteria of efficiency, quality, and safety, beyond the volume of passengers transported. → Progressively reduce implicit subsidies to private transport to correct distortions and negative externalities, implementing complementary mechanisms such as congestion charges, road infrastructure usage fees, or specific environmental taxes. → Systematically generate robust information, regional benchmarks, and clear indicators on operational and financial efficiency to promote the dissemination of best practices in Latin America and the Caribbean.
2nd Area: Improvements in the use and targeting of subsidies	→ Target subsidies at vulnerable or priority groups, ensuring equity and efficiency. → Implement personalized "micro-subsidies" to improve targeting accuracy. → Condition subsidies on supply through explicit performance and service quality criteria. → Improve transparency and social and political acceptance through distributive impact analysis, correcting errors of inclusion and exclusion. → Incorporate mechanisms to consult experts and the public in rate adjustment processes to improve understanding and acceptance of the results.
3rd Area: Development of new funding sources	→ Diversify funding sources to reduce dependence on government transfers, promoting financial stability. → Implement instruments to capture real estate value associated with improvements in public transport. → Put in place charges focused on the effective internalization of externalities through specific tariffs (congestion, parking, road use). → Establish innovative sources linked to climate and public health objectives (emissions pricing, low-emission urban zones). → Strengthen institutional capacity and generate political will to ensure effective implementation.

Source: Prepared by the authors.

First Area: Improvements in Funding with a Focus on Operational Efficiency

A first fundamental area of reform to improve public transport funding is to move decisively toward mechanisms and instruments that prioritize and reward operational efficiency. Currently, the payment system in many Latin American and Caribbean cities does not always generate incentives that promote efficient, safe practices with a focus on service quality. In this regard, it is essential to review remuneration schemes for operators that tend to compensate for costs incurred without considering criteria on the efficiency with which these resources are used, or that reward only the volume of passengers transported without also considering compliance with clear standards of quality, frequency, and safety of service. There are effective models in the region that incorporate international best practices, such as the case of Santiago de Chile, where, in bus concession contracts promoted from 2021 onward through competitive bidding, remuneration depends partially on service quality indicators such as the Frequency and Seat Compliance Index (ICFP) and a Waiting Indicator (Transmilenio S.A., 2025). The ICFP determines whether the concessionaire's operation in each service-direction-period corresponds to that planned in the operating program, considering the number of dispatches made during the period. Based on this index, the valid kilometers provided are calculated, which are considered for the payment of kilometers traveled to each service provider. Similarly, the Waiting Indicator seeks to measure and safeguard the impact of the operator's regularity on user waiting times. It measures the actual waiting time along the entire route and then compares it with an acceptable waiting time, which incorporates attributes of each service, such as its length and the frequency of dispatches in the period. Good performance on this indicator translates into an additional economic incentive for the concessionaire, generating an interest in providing a service with low waiting times for users. Incorporating these explicit criteria is central to reducing operational inefficiencies, promoting effective competition, decreasing the fiscal pressure derived from generalized subsidies, and significantly improving the user experience, generating a virtuous circle of greater demand and lower relative funding needs.

To accompany this process of operational improvement, it is essential to progressively reduce the implicit subsidies currently received by private transport, which distort individual decisions and generate strong negative externalities in urban mobility. Indeed, improving the efficiency of public transport cannot be achieved exclusively through changes in its fare structure. Given the simultaneous existence of multiple externalities and political (economic, environmental, and social) objectives, it is essential to expand the set of instruments available to public policymakers. This means incorporating complementary mechanisms such as congestion charges, road infrastructure usage fees, or specific environmental taxes to internalize the hitherto ignored costs of private car use. Incorporating these instruments is not without political and legal challenges, but their implementation is possible and necessary, as demonstrated by successful experiences in Latin America and the Caribbean. The example of Pico y Placa Solidario in Bogota, mentioned in the preceding sections, reveals how a policy focused on drivers internalizing the external costs of congestion can generate a double dividend: it discourages car use while generating an important source of funding to sustain better public transport services. In addition, by discouraging car use, it also contributes to reducing the operating costs of the system and improving its quality.

Finally, to successfully implement these transformations, it is crucial to move toward the systematic and rigorous generation of information that allows benchmarks to be established in the region. The creation of robust databases, clear indicators, and comparative studies on the operational and financial efficiency of different systems in Latin America and the Caribbean is key to promoting the dissemination of regional best practices. In addition, generating timely information is central to clearly identify the most effective management and funding strategies, thus facilitating the transfer of knowledge between cities and countries in the region, enhancing its practical application, and accelerating the process towards more efficient, sustainable, and equitable public transport systems.

Second Area: Improvements in the Use and Targeting of Subsidies

It has been shown that subsidies directly targeted at demand are preferable in terms of economic efficiency and equity to general supply subsidies (Gómez-Lobo and Serebrisky, 2022). The regional experience provides illustrative examples such as the case of Bogota, where the targeting of subsidies to specific low-income groups has increased the effective use of public transport and significantly improved urban accessibility (Guzmán and Hessel, 2022). New emerging approaches such as micro-subsidies, proposed by Nadal, Laborda, and Podesta (2024), offer the additional possibility of further customizing targeting. However, the challenges presented by subsidies in terms of beneficiary inclusion and exclusion underscore the need to generate robust information through distributional impact analysis—such as Brichetti (2020) for the case of Santiago de Chile—in order to evaluate the effectiveness and efficiency of public policies focused on vulnerable populations.

Finally, ensuring the social and political acceptability of subsidies is key to their success, which is why the careful design and implementation of these instruments is crucial (Guzmán and Cantillo-García, 2024). To help the population understand the objectives of public policy and how they are to be achieved, the design of subsidies must incorporate both technical aspects (adequate identification of target populations, incorporation of horizontal equity criteria, and avoidance of inefficient use of services and minimization of administrative costs for their implementation, among other aspects) as well as effective communication aspects (simplicity of schemes, clarity about benefits and costs, transparency in accountability for the use of resources, etc.) Clearly, creating an optimal design for public transport subsidy schemes in the region is no easy task. The essential challenge is to ensure that the schemes evolve over time, guided by the principles of good design.

Third Area: Development of New Sources of Funding

In a context characterized by significant fiscal constraints, it is crucial to move toward expanding and diversifying sources of funding for public transport, as systems in the region depend increasingly on government transfers that compete with other equally important budget priorities, such as education and health (Rivas, Suárez-Alemán, and Serebrisky, 2020). The academic literature and regional experiences agree that such diversification promotes greater financial stability and resilience in the sector. Thus, the incorporation of new funding sources helps to ensure the sustainability of operations and generate sufficient funds for investments that improve service quality. Among the most promising funding alternatives for achieving such diversification are the following:

- **Value capture instruments.** These mechanisms allow the public sector to recover part of the increase in real estate value generated by transportation improvements. This approach takes advantage of the economic benefits that new public transport infrastructure provides to property owners and investors in beneficiary areas. Cities such as London have already successfully implemented these tools—for example, capturing urban capital gains in metro projects —to reinvest in the transport system itself. In the region, the case of Sao Paulo stands out (Box 2.3). Studies in Latin America and the Caribbean indicate that these instruments have high potential for financing urban infrastructure (see Echavarria and Monkkonen, 2024, for the case of Mexico City), although they are still underutilized in local budgets (Contreras Ortiz *et al*., 2022). Strengthening regulatory frameworks and technical capacity would make it possible to scale up value capture as a stable source of resources for public transport.

- **Internalization of negative externalities.** This involves applying charges or fees to private transport users that reflect the social costs they generate, such as traffic congestion,

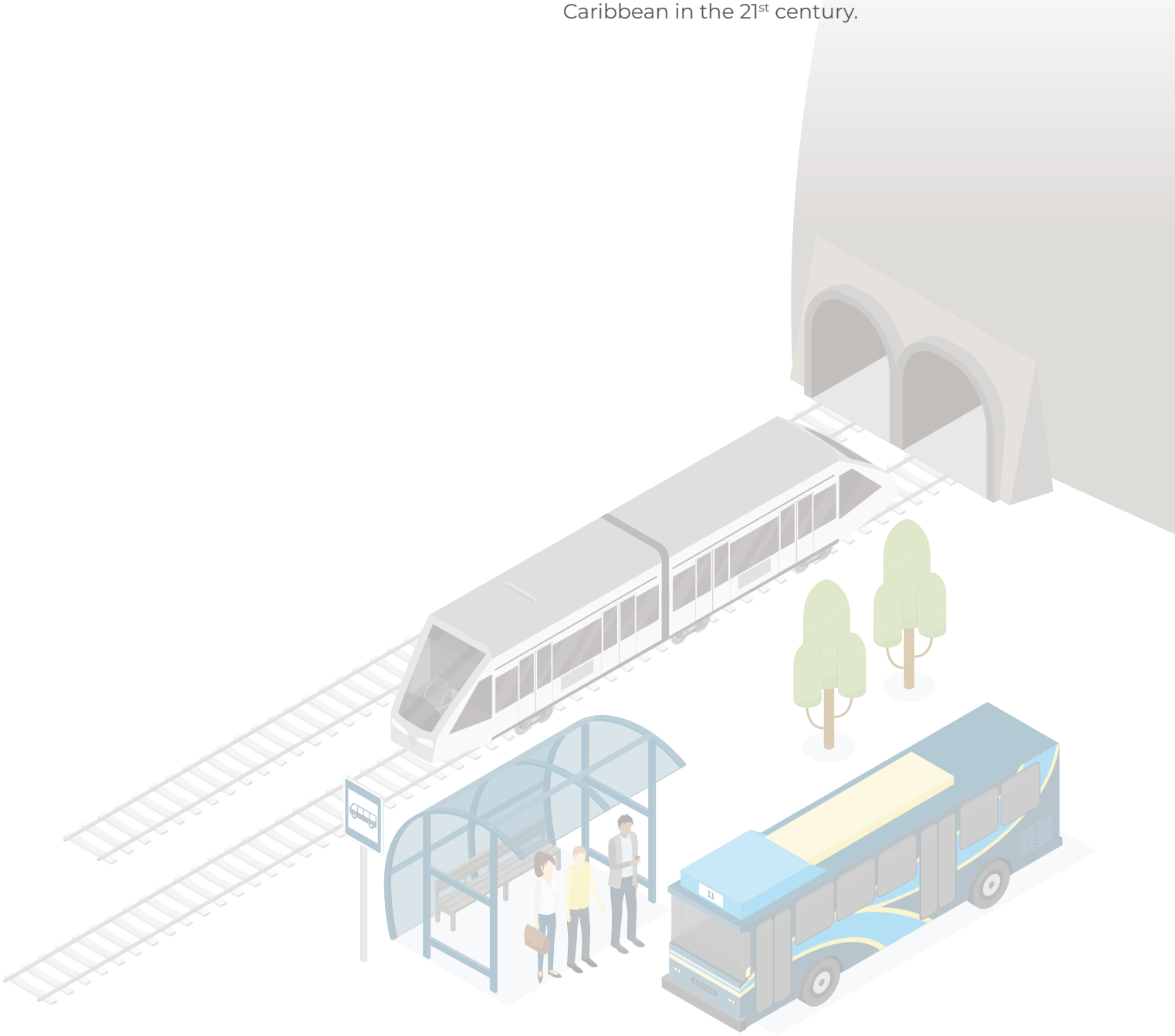
[33] The Mayoral Community Infrastructure Levy introduced in 2012 to partially fund the construction costs of the Elizabeth Line is a concrete example of the potential associated with the use of this type of instrument.

occupation of public space, and pollution. This category includes measures such as urban tolls or congestion charges, taxes on parking in central areas, and charges for the use of high-demand road infrastructure. These policies not only generate additional revenue that can be allocated to public transport, but also discourage excessive car use. Empirical evidence shows their effectiveness: a study for Madrid concluded that implementing a congestion charge would significantly reduce car use and increase the use of public transport and active modes, improving overall urban sustainability (Muñoz and Anguita, 2018). Similarly, cities that have pioneered these charges (London, Stockholm, Singapore, and. more recently. New York, among others) have succeeded in decongesting their city centers while channeling the revenue generated into improving public transport. In the region, Bogota is also exploring the potential of a vehicle pricing policy by implementing a toll to enter a specific zone and a charge for distance traveled applicable to the entire city, both of which derive from the current mobility policy that includes a traffic restriction based on license plate numbers (Pico y Placa) and a payment scheme to be exempt from this restriction (Pico y Placa Solidario) (IDB, forthcoming).

- **Green and innovative sources aligned with climate and public health objectives.** These instruments are designed to directly promote clean mobility. Noteworthy examples include charging for pollutant emissions (e.g., additional fees for vehicles with high levels of CO_2 and other pollutant emissions and carbon pricing) (Box 2.7) and the creation of low-emission urban zones, where the entry of more polluting vehicles is restricted or taxed. These policies, already widespread in many European cities, encourage faster renewal of vehicle fleets towards clean technologies and a modal shift towards public transport or other active modes of transport. They are also a growing source of revenue: in the United Kingdom, low-emission and congestion zones in 16 cities have collectively generated more than £1 billion in fees and fines since 2019, with the emblematic case of London, where the ultra-low emission zone contributed most of that revenue (Middleton, 2024). Similarly, multiple cities in Latin America and the Caribbean have begun to evaluate the implementation of environmental tolls and restrictions on high-emission vehicles (Vasconcellos, Álavares, and Menddonça, 2019).

In short, diversifying public transport funding sources through these innovative instruments would help stabilize and expand the resources available to the sector. Equally important, each of these additional sources encourages positive changes in urban mobility behavior, promoting less dependence on private cars, reducing congestion and emissions, and supporting the shift toward more sustainable and resilient public transport. The development of these instruments therefore seeks not only to obtain additional funds for transport, but also to align funding mechanisms with the objectives of sustainable urban development and collective well-being.

The effective implementation of changes in these three areas of reform requires political will, institutional strengthening, and a deep understanding of the urban and economic dynamics of each city. However, regional and international evidence shows that moving in this direction is not only feasible but also indispensable. The challenges are many, but the opportunity is promising: an adequate transformation of public transport funding mechanisms will reduce operating costs, improve equity in access, strengthen the link between fare and environmental policies, and ensure urban mobility that truly responds to the needs of citizens in Latin America and the Caribbean in the 21st century.



3. Public Transport Financing

As seen in the preceding chapters, improving public transport in Latin America and the Caribbean requires substantial investments, so to ensure the viability of these systems it is crucial to properly structure projects and efficiently identify and organize their funding and financing sources. Having analyzed public transport funding in Latin America and the Caribbean, this chapter will review the status, challenges, and opportunities for financing projects in the sector. The chapter is organized into three sections, as detailed below.

Similar to Chapter 2, the first section of this chapter begins by establishing the conceptual and technical framework, starting with a description of the financial instruments available for public transport, from the most traditional—public budgets and bank loans—to the most innovative—thematic bonds, crowdfunding, and blockchain.[34] Each instrument will be analyzed according to its conditions, the stages of the project to which it applies, associated sources of payment, and complexity of implementation. The section then turns to characterizing the credit subjects; that is, the actors seeking financing for public transport projects. These may be national or subnational governments, public or private companies, transport operators, or public-private partnerships (PPPs), among others. The characteristics of these actors largely determine access to and use of financial instruments. The profile of the projects to be financed will also be analyzed, as this also influences the availability of financial instruments. The analysis of these three components—instruments, subjects, and profiles of public transport projects—together with the institutional, technical, and financial conditions of each context, allows for the design of financing strategies that make public transport projects viable.

Section 3.2 will analyze the determinants and challenges of access to financing for public transport projects in Latin America and the Caribbean. Section 3.3 concludes with recommendations to catalyze greater volumes of financing for the sector, as a starting point for the final chapter of this report, which will present a public policy roadmap to comprehensively improve the conditions for funding and financing public transport in Latin America and the Caribbean. In this regard, emblematic cases in the region will be presented, which will contribute to evaluating the opportunities for public transport financing in the region.

3.1. Financing Framework

Investments in public transport projects can come from both the public and private sectors. Public investment responds to a logic of social welfare and is executed directly by state entities through national budgets. The public sector has several mechanisms for direct investment in infrastructure, among which the allocation of public budget items is paramount. For its part, private investment in public transport has become more important in recent decades as a complementary mechanism to mobilize resources, increase efficiency in execution, and mitigate fiscal constraints. In this sense, the private sector contributes to investment in public assets and, consequently, to the social welfare logic promoted by public transport projects. To meet the capital contributions required in the initial stages of investment in public transport projects, both the public and private sectors can turn to different entities to obtain resources in advance—commercial

[34] Financial instruments can be applied both in typical credit operations, aimed at public or private entities, and in investment schemes linked to the project's equity.

banks, national or multilateral development banks, or capital markets (Alvarez *et al*., 2022).

Thus, for the purposes of this chapter, financing refers to those who contribute the capital required for public transport projects. In fact, these projects usually require significant upfront investments, whereas the income from the project only materializes several years later (Brichetti, Cavallo, and Serebrisky, 2024). Resources from private and/or public financiers make it possible to meet the initial investment costs, which in turn entails a future obligation. This obligation will be repaid later through funding, or in other words, project revenues. Funding and financing are therefore intrinsically linked, given that funding is the flow of revenues that repays the financing (Alvarez *et al*., 2022).

Channeling investment resources for public transport projects depend on a number of factors, including the characteristics of the sector, the project, and the context in which it is carried out. A key factor is the risk profile of a project, for which aspects affecting its viability and sustainability are evaluated. Among others, the following risks must be considered: (i) technical risks related to the complexity of the design, the technology used, and the construction; (ii) financial risks, which include the availability of capital, the financing structure, and exposure to variations in interest rates or exchange rates; (iii) regulatory and legal risks, linked to regulatory compliance, permits, and legal stability; (iv) environmental and social risks, which include potential negative impacts and community acceptance issues; and (v) operational risks, which refer to the performance of the project once it is in operation. In addition, it is essential to analyze the political and macroeconomic context, as well as the experience and strength of the actors involved in development of the project.

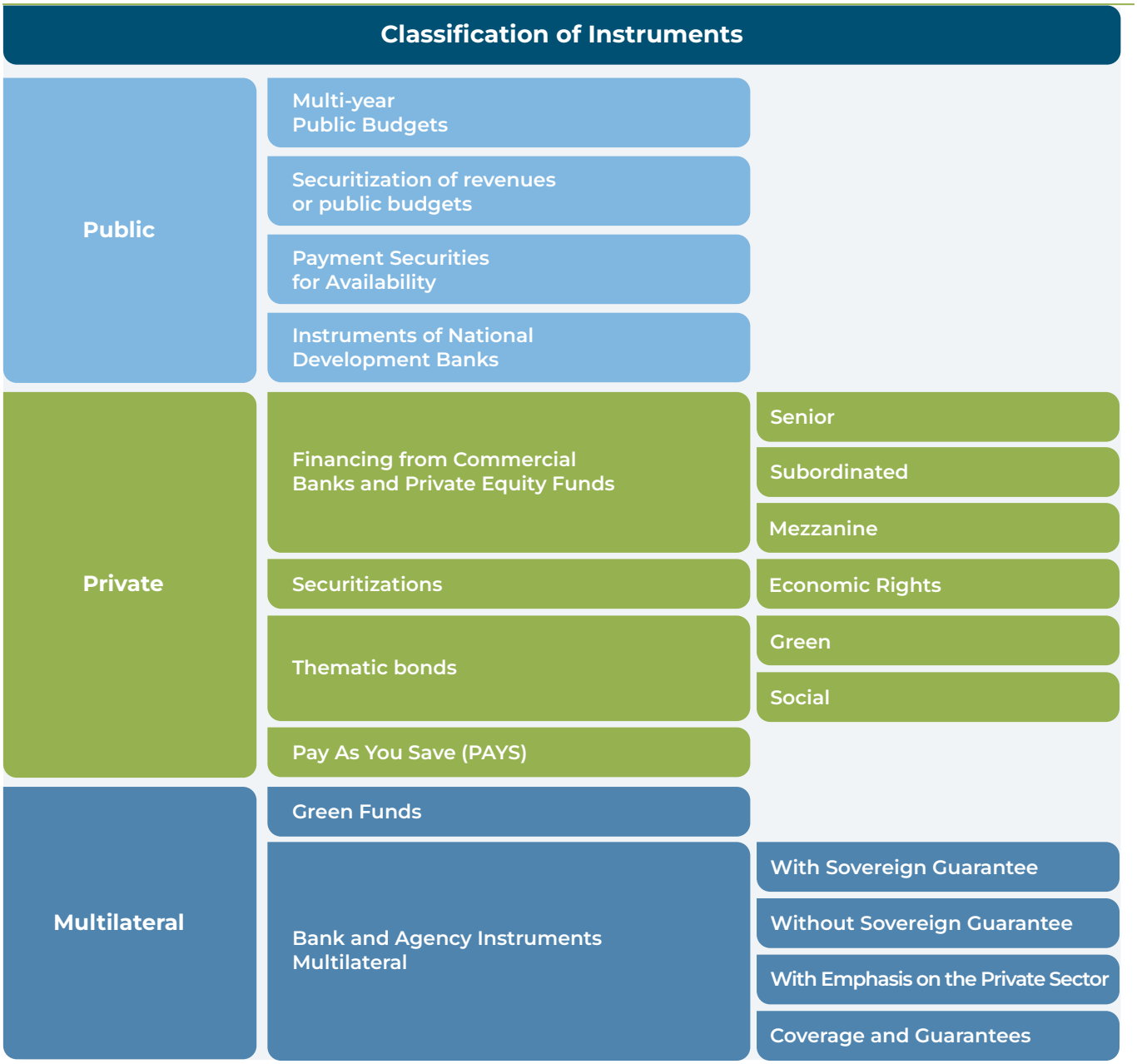
The financing strategy for an infrastructure project is closely related to the risks identified for it. These risks directly influence investors' perceptions and the conditions under which they will be willing to contribute resources. A higher level of risk—for example, regulatory, environmental, or execution uncertainties—can increase the cost of financing, limit access to certain financial instruments, or require additional guarantees. Conversely, adequate risk management and mitigation—including identifying the most suitable agents to manage risks and correctly assigning risks to them—allows for the structuring of more attractive financing, with better terms and interest rates, and greater private sector participation. In addition, the financing strategy should consider specific mechanisms to distribute or transfer risks (such as insurance, guarantees, or PPP schemes) and ensure alignment between the project's cash flows and its financial obligations. In this context, it is pertinent to refer to the project finance approach, as it represents a methodology widely adopted in infrastructure projects, particularly when the aim is to structure financing in such a way as to reduce the direct exposure of capital contributors and instead base it on the project's ability to generate its own cash flows.

In this regard, a rigorous risk assessment is essential to design a viable, sustainable financial structure that is tailored to the project's profile. A key aspect of this strategy will be to combine the appropriate instruments to channel financing to the project. These instruments are detailed below.

3.1.1. Financial Instruments Available for Public Transport

Depending on their origin, financial instruments can be classified as public, private, or multilateral. There are different ways to classify the financial instruments available for public transport projects. This section will begin by classifying them according to the entity providing the financing (Figure 3.1). This classification will provide an overview of the most frequently used instruments, as well as those with the greatest potential for application to public transport projects, facilitating their analysis and subsequent characterization based on key attributes. Whereas public instruments come from

FIGURE 3.1. Classification of Financial Instruments by Origin



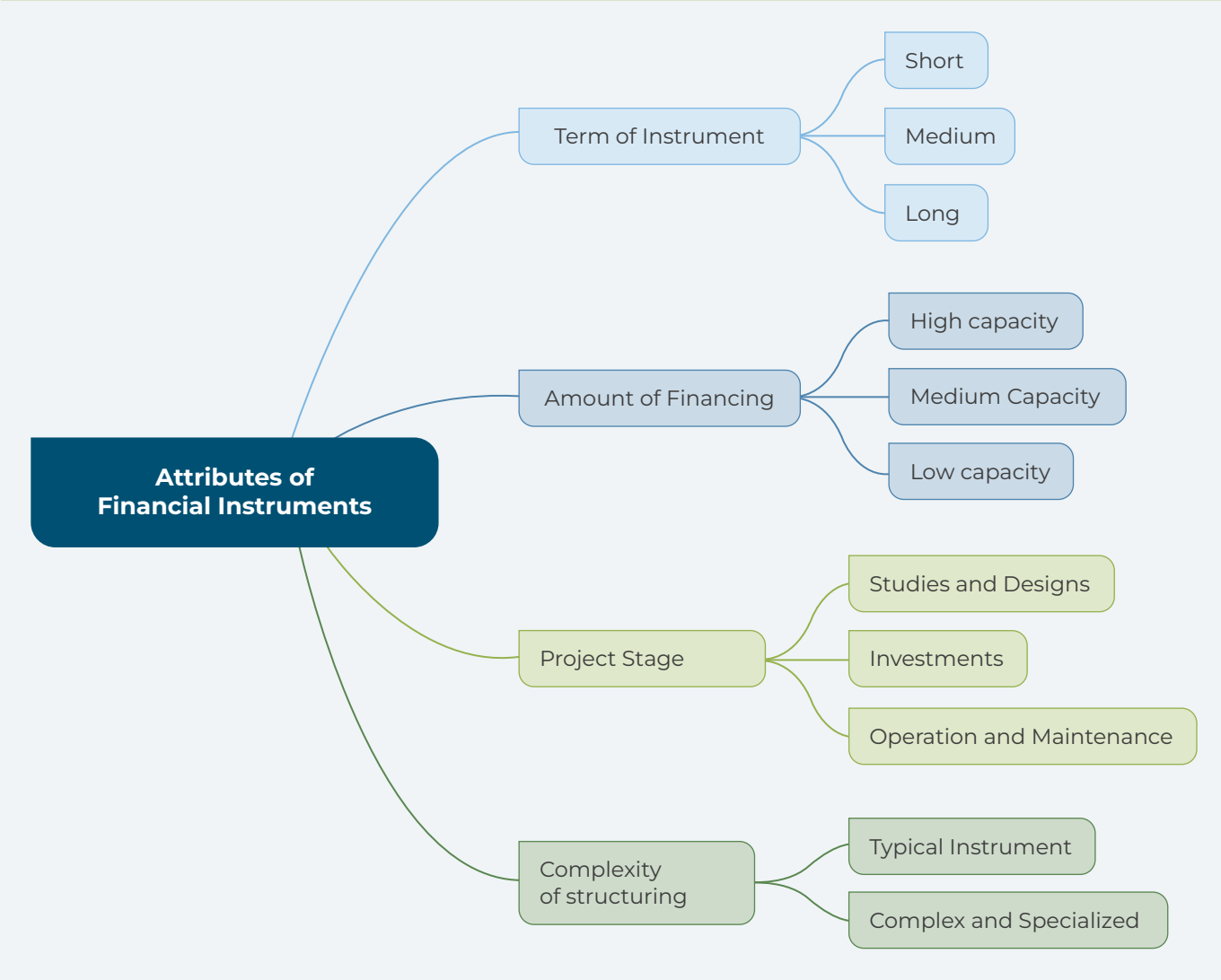
Source: Prepared by the authors.

Note: The list is non-exhaustive. It includes the most frequently used instruments, as well as those with the greatest potential for application to public transport projects.

budgetary or fiscal resources allocated by national or subnational governments, private instruments mobilize resources from the financial system. For their part, there are resources from the multilateral financing system, which can be structured with or without sovereign guarantees and are often accompanied by non-reimbursable resources to improve the conditions of credit subjects and the sector, among others.

In addition to their origin, financial instruments can be characterized according to a set of attributes that allow for assessing their relevance to different contexts and projects. There are four such attributes: (i) **term**, which indicates the length of time during which the financing remains in effect; (ii) **amount**, which indicates the instrument's capacity to mobilize resources; (iii) **project stage**, which determines at what point in the project life cycle the instrument can be applied; and (iv) **complexity of structuring**, which assesses the level of sophistication and financial, legal, technical, and operational analysis, among other aspects, required for its implementation. These four attributes allow for the comparison and selection of the most appropriate instruments according to the specific characteristics of each project. Figure 3.2 summarizes these attributes, along with the classification options that can be assumed in each case.

FIGURE 3.2. Attributes of Financial Instruments



Source: Prepared by the authors.

The term of a financial instrument corresponds to its duration and defines the period during which the payment or financing commitments remain in effect. This attribute is directly related to the structuring of the project's cash flow, the amortization profile, and the source of financing. In general, long terms are associated with publicly or multilaterally backed schemes or traded on the stock market, while short terms are more common in private market instruments or those based on tariff revenues. Properly assessing the term involves considering the stage of the project, the predictability of revenues, and the risks assumed, since a longer duration usually implies higher financial costs. According to the survey of the state of public transport financing in the region, instruments can be:

- **Short-term:** Instruments with maturities of less than three years, usually intended to cover immediate liquidity needs, working capital, or pre-investment.
- **Medium-term:** Instruments with a duration of between 3 and 10 years, suitable for financing specific phases of the project or implementation stages that do not require long repayment periods.
- **Long-term:** Instruments with horizons of more than 10 years, common in infrastructure projects that require progressive recovery of the investment and robust financial structures.

The amount of financing refers to the resources that a financial instrument can contribute to the project. This is determined according to the scale of the project, with larger projects requiring a combination of sources or actors (public, private, or multilateral). In transportation, where capital requirements are high, this attribute helps to differentiate instruments suitable for large projects from those more appropriate for specific stages or pilot projects. An instrument's capacity to mobilize resources may also be limited by institutional, regulatory, or market conditions, and some instruments are designed to complement other mechanisms through cofinancing or leverage schemes. In line with the reality of financing in the sector in the region, instruments may have:

- **High mobilization capacity: I**nstruments that can mobilize more than US$50 million, suitable for structural or large-scale projects.
- **Medium mobilization capacity:** Instruments between US$10 million and US$50 million, appropriate for medium-sized projects, specific implementation stages, or relevant urban interventions.
- **Low mobilization capacity:** Instruments of less than US$10 million, usually geared toward studies, technical assistance, pilot projects, or projects with low investment requirements.

The stage of the project at which a financial instrument is applied is key to assessing its relevance, as each phase has different financial needs, risks, and return horizons. In pre-investment, flexible instruments are required to cover studies and structuring. In execution, a large amount of resources is needed to cover construction costs, the acquisition of goods and services, and the start of the project's implementation. During operation, the aim is to stabilize project revenues and ensure repayment of financing. Identifying the appropriate stage allows for aligning the instrument with the specific conditions and objectives of the project.

- **Studies and designs (pre-investment):** Instruments applicable to the definition of the project, including technical, financial, environmental, and social feasibility, designs, and legal and contractual structuring activities.
- **Investment:** Instruments intended to cover the costs of construction, acquisition of goods and services, and operational implementation of the project.
- **Operating expenditure:** Instruments focused on ensuring the sustainability of the project over time, including maintenance, refinancing, revenue optimization, asset replacement, or expansion.

Structural complexity refers to the level of technical, legal, financial, and institutional sophistication required for a financial instrument to be implemented. This attribute makes it possible to estimate the time, operational burden, and capabilities required of the entities involved in order to use the instrument. Highly complex instruments require specialized regulatory frameworks, robust governance schemes for the project and the actors involved, high capacity in structuring and executing entities, and detailed risk management. On the other hand, low-complexity instruments have standardized processes, known conditions, and more agile and accessible implementation. Thus, instruments can be characterized according to their implementation as:

- **Complex and specialized:** Instruments that require advanced structuring schemes, regulatory adaptation, tailor-made contracts, complex risk mitigation mechanisms, or the participation of multiple technical and financial entities.
- **Typical operation:** Instruments widely known to financial system actors, with standardized conditions, routine structuring processes, and frequent application in projects with similar characteristics.

Having established the macro classification of the instruments to be used according to their originator—public, private, and multilateral—as well as the attributes that differentiate these instruments—term, amount, project stage, and complexity of structuring—the section now turns to analyzing the instruments available in the region for public transport projects, including their current implementation, opportunities, and challenges.

Public Financing Instruments

These instruments mainly correspond to multi-year public budgets; the securitization of public revenues or budgets; payment instruments for execution, availability, or achievement of milestones; and instruments from national development banks (Table 3.1).

TABLE 3.1. Summary of the Attributes of Public Financial Instruments

Financial Instrument	Instrument Term	Financing Amount	Project Stage	Complexity of Structuring
Multi-year public budgets at the national and regional levels	Long-term	High mobilization capacity	Mainly finance investments	Typical implementation
Securitization of revenues or public budgets	Medium- and long-term	Medium and high mobilization capacity	Mainly finances investments and operating expenditure	Complex and specialized implementation
Payment securities for execution, availability, or the achievement of milestones	Medium- and long-term	High mobilization capacity	Primarily finance investments	Complex and specialized implementation
National development bank instruments	Medium- and long-term	Medium capacity for mobilization	Mainly finance investments	Typical implementation

Source: Prepared by the authors.

Multi-year public budgets at the national and regional levels

A key instrument available to the public sector for direct investment in infrastructure is the multi-year public budget. This is a financial planning tool that is based entirely on public sources of payment and allows both national and subnational governments to project and allocate resources beyond the annual budget cycle, facilitating the execution of medium- and long-term projects. In effect, the ability to commit public budget resources to specific projects ensures continuity and adequate financing for projects, which is essential for the implementation of public transport investment programs that require large investments and have a long-term impact and maturity curve. Likewise, a public budget specifically earmarked and allocated to leverage projects over a period of time allows investments to mix other financial instruments such as commercial and multilateral loans or the issuance of securities, creating a hybrid financing scheme that maximizes available resources and spreads financial risk. Its use is widely institutionalized at the national and subnational levels, making it a typically complex instrument with defined and standardized processes in public management. This combination of attributes makes multi-year budgets a versatile and strategic tool within sectoral policies and development plans.

A significant number of Latin American and Caribbean countries have adopted this approach to improve the efficiency and effectiveness of public spending. For example, Peru and Chile use results-based budgets and multi-year programming, where an institutional framework has been developed to formulate multi-year sectoral strategic plans and establish performance indicators for public sector agencies. This integrates strategic planning with budget allocation to improve the efficiency of public spending and guide the management and use of resources toward the achievement of specific results. Argentina, Mexico, and Uruguay also have multi-year budgets, incorporating multi-year programming into their budgetary processes. In Colombia, regulations allow for a future appropriations mechanism, which, with prior authorization, allows commitments to be made when their execution begins with the budget for the current fiscal year and continue in future years (ordinary future appropriations), or with the budget for subsequent years without having an appropriation in the current fiscal year's budget (exceptional future appropriations). As will be seen below, the allocation of these terms has been key to making the Bogota Metro Line 1 project financially viable.

Securitization of public revenues or budgets

Securitization is a financial mechanism that allows future income flows to be transformed into immediate resources through the issuance of securities backed by assets or collection rights. In the context of public transport projects, it is structured for public, private, and tariff payment sources, such as budget transfers, operating income, or contractual rights. These schemes are designed with medium- and long-term maturities, in line with the duration of expected cash flows and investors' repayment needs. Their capacity to mobilize resources is medium to high, making them suitable for medium-to-large-scale projects, and they can finance specific phases within a larger investment. They are mainly used in the investment and operating expenditure stages, as they allow resources to be anticipated for the execution of the project based on committed or projected flows. Due to the need to structure financial vehicles, specifically determine repayment sources, assess risks, define guarantees, and obtain ratings, securitizations are considered highly complex and specialized instruments that require a solid institutional environment and expert technical advice.

The securitization process involves the creation of an investment or special-purpose vehicle, generally in a trust, that pools the collection rights of expected future revenues such as taxes (property, income, valuation contributions, etc.), toll revenues, and public service collections, among other revenues. These rights are used as collateral to issue securities, which are offered to investors in the capital market. By selling these securities, public entities can obtain immediate resources to finance priority projects.

One of the main advantages of this instrument is that it allows public entities to capitalize on revenues that would otherwise be received in the future, thus optimizing financial planning and project execution. In addition, by diversifying funding sources, dependence on traditional loans is reduced and better financing conditions can be accessed

based on revenue expectations. As part of the diversification of sources, the issuance of securities allows institutional investors such as pension funds, insurance companies, and investment funds to participate in the development of transportation infrastructure.

Examples of projects that have used securitization as a financial instrument include bonds backed by future budget revenues allocated to Transmilenio in Bogota, thus facilitating the acquisition of funds for the construction of new trunk roads and the upgrading of the bus fleet. In Mexico City, the securitization of future revenues from Metro system fares has been used to carry out projects to expand and upgrade its transport lines.

Securitizing future revenues not only contributes to infrastructure development but can also improve transparency in resource management by establishing a clear framework for the use of the funds obtained and ensuring that they are allocated for specific purposes. However, it should be noted that its implementation requires rigorous structuring of future revenue projections (fiscal or commercial) and adequate management and administration of the risks associated with fluctuations in revenue collection. Furthermore, the success of the securities depends largely on favorable economic conditions and investor appetite. Factors such as economic stability, interest rates, and fiscal policies can influence their demand and price.

Pay-for-performance, availability, or milestone securities

Payment certificates for execution, availability-based or milestone-based securities are instruments that allow for deferred payments to be structured for a private party based on the physical progress of the project, the continued provision of services, or the fulfillment of contractual goals. Thus, for each milestone achieved, the contracting entity issues a payment certificate that backs the corresponding financial obligation, providing security to both the contractor and investors. These instruments may be negotiable, allowing the contractor to obtain liquidity by assigning or discounting them on the financial market. They are backed by public payment sources or tariff revenues, which requires institutional capacity to commit future funds or investment lines in multi-year budgets and guarantee stable revenue streams. These instruments are designed with medium- and long-term maturities, in line with the duration of the contracts and the need to distribute payments over time. They tend to have a high capacity to mobilize resources, which makes them suitable for financing specific infrastructure projects. They are applied at the investment stage, allowing the private sector to assume the initial financing in exchange for payments conditional on the delivery or availability of the asset. Given the need to structure complex contractual mechanisms, performance measurement systems, and payment guarantees, these instruments are considered highly complex and specialized.

One of the most recent and notable use cases is Line 1 of the Bogota Metro in Colombia, where the Bogota Metro Company implemented Performance Payment Certificates (PPCs) to finance part of the line's construction. To this end, 23-year PPCs were issued in 2020 to cover payments to the consortium in charge of the work. This mechanism made it possible to link disbursements to the progress and fulfillment of specific project milestones, ensuring efficient and transparent financial management.

National development bank instruments

Development banks play an important role in financing infrastructure projects through financial instruments and technical assistance. These entities complement the private financial system by mobilizing resources for sectors and projects that are fundamental to the economic and social development of their countries but may not receive adequate financing from traditional commercial banks. The instruments of national development banks may include senior debt, subordinated debt, mezzanine debt, and guarantees. They accept various sources of payment, including public resources, private contributions, and tariff revenues, which allows them to be combined with mixed financing schemes and to accompany syndicated operations. Their application is relevant in the medium and long term, with financial operations aligned with the execution and maturity times of infrastructure projects. These loans typically offer an average capacity to mobilize resources, sufficient to cover relevant investment or operational components. The technical, financial, and contractual requirements that typically accompany this type of operation are considered typical complex instruments, with known structuring challenges.

There are various examples in the region where these entities have financed public transport projects. In Curitiba, Brazil's National Bank for Economic and Social Development (BNDES) financed the acquisition of high-capacity bi-articulated buses through credit lines to private operators under preferential conditions and facilitated the purchase of technology for electronic fare collection and user information systems. In addition, through the BNDES Mobilidade Urbana Program, the bank financed infrastructure works linked to the BRT system, including stations and terminals. The credit operations were characterized by subsidized rates, grace periods, and long repayment terms, which were adapted to the income profile of the public transport projects. At the same time, technical assistance was provided in the structuring of the projects, evaluating aspects such as demand and financial sustainability, which are fundamental for determining the source of payment.

In Mexico City, the National Bank of Public Works and Services (Banobras) provided financing and guarantees through the National Infrastructure Fund (Fonadin) to purchase more than 300 electric trolleybuses.[35] It also cofinanced the construction of corridors and allocated resources for charging systems, smart bus stops, and maintenance centers. Among the financing conditions, the use of schemes that allocate non-reimbursable and reimbursable resources with soft terms and deferred payments stands out.

In Bogota, the financing of more than 1,400 electric buses incorporated into the Transmilenio system was leveraged through a project finance scheme with the participation of national development banks (including the National Development Finance Agency – FDN), local and international commercial banks, and private equity funds. The structured debt included senior transactions with terms of between 8 and 14 years, as well as liquidity guarantees that reduced the risk for financiers.

In Cartagena, Colombia, the FDN participated in the financing for the acquisition of bus fleets by the operator SOTRAMAC, a transaction that also involved funds from Proparco (a subsidiary of the French Development Agency – AFD) and Scania Colombia, backed by an export credit guarantee provided by EKN, Sweden's export credit agency. The financial structure made it possible to leverage resources on the order of US$107 million at preferential rates and extended terms, ensuring the operator's financial sustainability and facilitating the incorporation of modern buses with Euro VI technology.

[35] Fonadin, a trust established at the Banobras, is a coordination vehicle of the Mexican government for infrastructure development in the communications, transportation, water, environment, and tourism sectors, among others. Fonadin supports the planning, design, construction, and transfer of infrastructure projects with social impact or economic profitability, in which the public and private sectors participate.

Private Financing Instruments

When analyzing private financial instruments applicable to sustainable infrastructure financing, it is important to understand the difference between debt and equity within the financing structure. Debt, in its various forms (bonds, loans, securitizations, etc.), allows for the structuring of repayment schemes through future revenues allocated and/or generated by the project, whereas equity implies direct participation in the capital and risks of the project, mainly by private or mixed actors. Both mechanisms are combined through blended finance schemes and instruments, where public, private, and multilateral resources and instruments can be coordinated. Effective coordination between debt and equity is essential to define the optimal financial structure for a project.

Private instruments include tools from the financial sector and capital markets, including commercial bank loans (senior, subordinated, or mezzanine), securitization of economic rights, conventional and/or thematic bonds (green and sustainable), pay-as-you-save (PAYS) schemes, and financial innovations such as crowdfunding platforms and blockchain solutions (Table 3.2).

TABLE 3.2. Summary of the Attributes of Private Financial Instruments

Financial Instrument	Instrument Term	Financing Amount	Project Stage	Complexity of Structuring
Senior commercial bank loans	Mainly short- and medium-term	Medium mobilization capacity	Finance studies, designs, and investments	Typical implementation
Subordinated commercial bank loans	Short-term	Low mobilization capacity	Finance specific investment components and operating expenditure	Complex and specialized implementation
Mezzanine loans from commercial banks	Medium- and long-term	Medium capacity for mobilization	Finance any stage of the project	Complex and specialized implementation
Securitization of economic rights	Medium- and long-term	Medium mobilization capacity	Primarily finances investments	Typical implementation
Conventional and/or thematic bonds	Medium- and long-term	Medium mobilization capacity	Mainly finance investments	Complex and specialized implementation
Pay-as-you save (PAYS)	Medium- and long-term	Low mobilization capacity	Mainly finances operating expenditure	Complex and specialized implementation
Innovations in financial products (blockchain, crowdfunding)	Short-term	Low mobilization capacity	Finances or supplements specific operations	Complex and specialized implementation

Source: Prepared by the authors.

Credits from commercial banks (local and international)

Commercial bank loans (local and international) are common in schemes involving private sector participation, predictable cash flows, and a clearly defined revenue structure. They are comprised of a variety of financial instruments aimed primarily at projects with the capacity to generate their own revenue, whether through private sources of payment, tariffs, or service contracts. They are divided mainly into three types—senior, subordinated, and mezzanine loans—which allows financing to be tailored to the conditions of the project and the investor's position in the capital structure. This makes commercial loans a flexible option, but one that requires rigorous analysis of risk and return.

- **Senior commercial bank loans,** which have a medium capacity to mobilize resources, operate mainly in the short and medium term, and occasionally in the long term, finance mainly investment studies and designs, and have a typical level of complexity to implement, with standard conditions and agile structuring.

- **Subordinated commercial bank loans,** with a low capacity to mobilize resources, apply to short terms and focus on financing specific components within the investment or operation stages, with complex and specialized implementation that requires more elaborate contractual and risk schemes.

- **Mezzanine loans,** which offer medium capacity to mobilize resources, apply to medium and long terms, and are designed to cover medium- and high-risk activities in any of the project stages, under advanced financial structure schemes and also with complex and specialized implementation. Eventually, they finance under specific conditions associated with the development and completion of the project, linking mixed repayment schemes that may include profit-sharing or corporate structure.

The conditions that usually accompany this type of credit do not always make it widely accessible for public transport projects. In particular, the interest rates applied by commercial banks are often higher than those offered by other financing instruments, which makes financing more expensive. Negotiating variable interest rates subject to macroeconomic developments introduces another level of uncertainty to projects, where the volatility of variables such as inflation and devaluation can drastically affect credit costs and project viability. In addition, financing terms are often shorter compared to other financial instruments, creating additional financial pressures for projects.

Despite these limitations, commercial bank loans have played a key role in driving the advancement of public transport projects because of their strength in providing rapid and customized financing for the particular demands of projects. Flexibility in credit terms is a favorable aspect of commercial bank financing. It is possible to negotiate interest rates, payment terms, and conditions tailored to the project's revenue stream, allowing for greater financial alignment with the specific needs of the project. Likewise, commercial financing requires projects to be structured with viable business models that guarantee a financial return on investment. This encourages more rigorous planning, with detailed reviews to ensure that projects are sustainable in the long term and align the interests of both investors and project managers.

Commercial banks have facilitated the implementation of major urban mobility projects through a variety of financial tools, studied the dynamics of the sector, and, in several of the region's BRT systems, assumed high risks associated with the implementation phases of the systems. This support for public transport development has been provided through instruments such as loans, whereby banks have contributed the money required for the construction of transport infrastructure, enabling cities to increase the quality and scope of their services. For its part, financial leasing has proven to be a strategic instrument for transport companies to acquire vehicles and equipment without having to make large initial outlays, thus optimizing their operations and resources. At the same time, factoring has provided

short-term liquidity solutions, enabling companies to effectively manage their accounts receivable and maintain continuity in service provision.[36]

Furthermore, the increasing incorporation of sustainability criteria into commercial bank credit programs is an important boost to the decarbonization of the sector and the pursuit of environmentally friendly development. Indeed, commercial entities are increasingly interested in offering competitive rates and financial products designed to support sustainable mobility, energy efficiency, and emissions reduction initiatives, thereby contributing significantly to sustainable development goals and the transformation of transport systems in the region.

In various flagship projects in the region, private banks have complemented the resources provided by multilateral banks, the public sector, and national development banks. For the Mi Bus fleet renewal in Panama City, a senior syndicated loan was arranged with the participation of commercial banks including Global Bank, Banistmo, and BAC, providing resources on the order of US$100 million for different financing stages between 2018 and 2023. In the financing of Line 2 of the Lima metro, multiple global banks participated in the financing package, including Banco Santander, BBVA, and Banco Sabadell (Spain) and Société Générale (France).

Securitization of economic rights

As explained above, securitization is a financial mechanism that allows future income flows to be transformed into immediate resources through the issuance of securities backed by assets or collection rights. In public transport projects, it can be structured from public, private, or tariff payment sources, such as budget transfers, operating income, or contractual rights. It is a medium- and long-term instrument designed based on the expected duration of the flows and the repayment needs of investors. Securitization has a medium capacity to mobilize resources, making it suitable for medium-scale projects or to finance specific phases within a larger investment. It is mainly used in the investment stage, as it allows for the anticipation of committed or projected resources. Although its design requires certain technical and financial elements, it is considered a typically complex instrument, with standardized processes that can be managed by entities with basic experience in financial structuring.

Conventional and/or thematic bonds: Green and sustainable

Conventional bonds are debt instruments issued by private entities to finance their capital needs. They operate on the basis of an agreement whereby the issuer undertakes to repay the capital invested (nominal value) on a specified future date (maturity date) and to pay periodic interest (coupons) at a fixed or variable rate during the term of the instrument. These bonds do not have a specific purpose linked to the use of the resources, unlike other instruments such as green or social bonds. Their main appeal to investors lies in the predictability of cash flows and their widespread use as a traditional financing mechanism in capital markets.

Thematic bonds, on the other hand, are debt instruments issued to finance projects with a positive environmental or social impact, in line with international standards. With the aim of promoting sustainable development, capital markets use thematic bonds (including green and sustainable bonds) that are aligned with the SDGs and international standards developed by the Climate Bonds Initiative (CBI) or the International Capital Market Association (ICMA). Green bonds are geared toward financing projects with environmental benefits related to zero-emission economies, renewable energy, and environmental protection. As part of their structuring, and complementing the Green Bond Principles, the CBI developed Climate Bond Standards, which are used to prioritize investments that contribute to minimizing the adverse effects of climate change. For their part, sustainable bonds aim to finance projects with environmental and social impact, aligning with the Green Bond Principles and Social Bond Principles, which recognize that there are social projects that can have environmental

[36] Factoring is a financial mechanism whereby a company sells its accounts receivable (outstanding customer payments) to a specialized entity (called a "factor") in order to obtain immediate liquidity in exchange for a discount.

benefits, as well as green projects that bring social benefits.

Thematic bonds are supported by public or private sources of payment or project tariff revenues, which means that they require clear repayment structures and solvent responsible institutions. They are structured with medium- and long-term maturities, in line with the maturation of infrastructure projects and the recovery of investment over time. Thematic bonds tend to have a medium capacity to mobilize resources, making them suitable for medium-scale projects or to complement broader financing schemes. They are mainly geared toward the investment stage, where they can help close financing gaps in sustainable initiatives. Due to traceability, certification, impact reporting, and alignment with thematic framework requirements, they are considered highly complex and specialized instruments that require the issuer to have consolidated technical and financial capabilities.

According to S&P Global Ratings (February 2024), the issuance of thematic bonds through green, social, and sustainable bonds (GSSSBs) in 2024 stood at around US$55 billion, representing 30 percent of total bond issuance in Latin America and the Caribbean. Sustainable bonds accounted for 38 percent of GSSSBs, while sustainability-linked bonds and green bonds each accounted for 16 percent (the remaining 30 percent corresponded to social bonds). These issuances mainly finance energy and transportation projects. The issuance of thematic bonds in the region is led by Chile, Brazil, and Mexico, which together account for around 85 percent of the GSSSB market, followed by Colombia and Peru, which account for 12 percent.

Notable examples of the use of thematic bonds in Latin America and the Caribbean for public transport projects include the green bonds issued by Mexico City in 2016 and 2018, which financed the expansion of the Metrobus system and investments in non-motorized mobility infrastructure. Similarly, Transmilenio in Bogota issued a sustainable bond in 2020 to finance the acquisition of electric and low-emission buses, with the aim of reducing greenhouse gas emissions and improving access to clean transportation for vulnerable populations. On the private side, three Transmilenio system concessionaires (Scania, Natixis, and Bonus) carried out a private issuance for US$126 million through a U.S. Private Placement (USPP) scheme to finance the acquisition of more than 700 low-emission buses.[37] The operation, structured with the backing of contractual flows guaranteed by the Mayor's Office of Bogota, included currency hedging and liquidity lines, and was framed under international sustainability standards, receiving certification from the Climate Bond Standard.[38] At the sovereign level, since 2019 Chile has allocated part of the proceeds from its green bonds to investment in the Santiago Metro and the incorporation of electric buses into the capital's public transport system.

Pay-as-you-save (PAYS)

This instrument is based on the idea that the savings generated by the improvement are used to cover the investment costs through regular payments incorporated into utility bills or specific fares. It is an innovative mechanism that facilitates the implementation of improvements in infrastructure or services without the need for high initial costs. Within the transportation sector, PAYS instruments can be used to finance the shift to cleaner technologies, such as electric vehicle fleets and charging infrastructure. The initial investments for these improvements are generally assumed by a third party, such as a utility company, local authority, or private investor. End users then pay for these expenses through a structure that ensures that payments do not exceed the financial savings generated, such as lower operating or fuel costs.

The source of payment for a PAYS model is based on private resources and tariffs, making it viable for projects with recurring and predictable revenues. It is structured over medium and long terms to allow for a gradual return on investment. It has a low capacity to mobilize resources, associated with the flow of expected savings. Its application is concentrated in the operation and maintenance

[37] USPP is a form of private debt issuance in the U.S. capital market aimed at qualified institutional investors such as pension funds, insurance companies, and investment funds.

[38] An international certification framework developed by the CBI that allows bond issuers to demonstrate that the funds raised are used exclusively for projects with real environmental benefits, particularly in the fight against climate change.

stage, especially in initiatives that improve energy efficiency (technological advancement), reduce costs, or extend the useful life of existing assets. Due to the need to model savings flows, establish performance contracts, and design results-based repayment mechanisms, a PAYS model is considered a highly complex and specialized instrument.

Although this instrument has been successful in other regions, its specific use in transportation projects in Latin America and the Caribbean has not been widely applied or documented. However, the model is gaining relevance in initiatives that seek to promote the implementation of sustainable technologies by balancing initial investments with long-term benefits for users and the environment.

Innovations in financial products

Innovations in financial products are emerging as alternatives to strengthen the financing of specific projects or components within broader schemes. These tools allow resources to be mobilized from multiple private actors, in some cases directly from citizens or non-institutional investors, through digital and decentralized schemes.

Crowdfunding is a mechanism that enables individuals, companies, and organizations to raise funds for specific projects through collective contributions, usually via digital platforms. This model is based on the involvement of several funders, who may be individuals or entities wishing to support a cause or project in exchange for symbolic rewards, collaboration on the project, or simply out of altruism. In the transportation sector, crowdfunding has been used to finance projects such as (i) the implementation of sustainable mobility initiatives, such as bicycle lanes or charging points for electric vehicles; (ii) innovative vehicle models, including electric vehicles and autonomous transportation technologies; and (iii) community infrastructure, such as the improvement of rural roads or alternative public transportation in isolated communities.

For its part, **blockchain technology**, a secure and decentralized database, is transforming project financing by providing a clear and unalterable system to document transactions.[39] In the financial sphere, blockchain technology is used to establish smart agreements, issue digital tokens, and ensure the tracking of money flows, which reduces management costs and the risk of fraud. In the transport sector, blockchain technology has been used to (i) make it easier for investors to acquire digital tokens that symbolize a stake in a transport project, promoting direct investment and democratizing access to financing; (ii) monitor and track the traceability of financial and material resources, ensuring that resources are used in accordance with project goals; and (iii) decentralize financing and payments, facilitating payment procedures while reducing expenses linked to economic intermediaries.

In line with these applications, the use of blockchain technologies as a financing instrument has begun to materialize through the tokenization of infrastructure assets and the issuance of digital debt. This approach makes it possible to transform assets or future revenue streams (such as tolls, fees, or operating rents) into digital tokens that can be acquired and traded by investors, expanding access to financing and improving the liquidity of instruments. Through smart contracts, these tokens can be directly linked to the project's repayment flows, automating payments and reducing intermediation costs. Several studies have documented this type of application in infrastructure, including pilot projects in public transport projects (World Bank, 2023). In addition, concrete experiences with digital bonds issued on blockchain platforms have already been developed, such as the World Bank's "bond-i," along with public and corporate debt issuances in Asia and Europe that use blockchain networks. These digital bonds, also known as smart bonds, improve the traceability, transparency, and operational efficiency of issuances, while expanding the universe of potential investors, especially in contexts where access to traditional capital is limited.

[39] Blockchain is a recording technology that allows data to be stored securely, transparently, and immutably. Its structure is based on a decentralized network of nodes that verify, validate, and store transactions in blocks, which are linked together in chronological order. It offers a reliable and efficient way to record transactions and share data.

The source of payment for blockchain networks is based on private resources and fees, which requires that the project generate sufficient operating income to support the return on investment. They are structured in short terms, suitable for rapid execution interventions or pilot projects. Due to their nature, blockchain networks offer low resource mobilization capacity, so they are usually applied to specific, innovative, or demonstrative initiatives. They can be applied at any stage when they can finance improvements, renovations, or technological solutions. Their implementation is still in its infancy in the public transport sector. They are considered highly complex and specialized instruments because of the emerging regulatory framework, the need for digital trust, and innovation in their governance and traceability models.

Multilateral Financing Instruments

Multilateral banks offer various instruments such as loans, guarantees (partial credit and political risk, among others), insurance, or credit lines with or without sovereign backing. In addition, through technical assistance resources, multilateral institutions and international funds facilitate blended finance for the project structuring stage, helping to improve the financial conditions projects can access. This section analyzes five representative financial instruments of multilateral origin through international banks or funds: (i) green funds, which support projects with a positive climate and environmental impact; (ii) loans from multilateral banks at the national level (with sovereign guarantees); (iii) loans at the subnational level (without sovereign guarantees); (iv) credit operations by multilateral institutions focused on the private sector; and (v) credit enhancement instruments, such as hedges and guarantees (Table 3.3).

Green funds

Green funds are financial mechanisms designed to support projects that contribute to climate change mitigation, adaptation, and sustainable development. Their structure is intended to be repaid primarily with public resources. They operate

TABLE 3.3. Summary of the Attributes of Multilateral Financial Instruments

Financial instrument	Instrument Term	Financing Amount	Project Stage	Complexity of Structuring
Green funds	Medium- and long-term	Low mobilization capacity	Finance any stage of the project	Complex and specialized implementation
Loans from multilateral banks at the national level (with sovereign guarantee)	Long-term	High mobilization capacity	Finance investments	Complex and specialized implementation
Loans from multilateral banks at the subnational level (without sovereign guarantee)	Short- and medium-term	Low mobilization capacity	Finance investments	Complex and specialized implementation
Credit operations by multilateral financial institutions with an emphasis on private entities	Short- and medium-term	High capacity for mobilization	Finance investments	Complex and specialized implementation
Coverages and guarantees	Supports and improves credit risk Supports short- and medium-term transactions Complex and specialized implementation			

Source: Prepared by the authors.

in the medium and long term, which is suitable for accompanying both the structuring and execution phases of projects with environmental impact. They have a low capacity to mobilize resources, which makes them ideal for small-scale projects or as a complement to other larger sources of financing. They can be applied at all stages of the project, especially in initiatives that seek to incorporate sustainability components or technological innovations. Due to the requirements associated with climate eligibility, traceability of results, and compliance with safeguards, these funds are considered highly complex and specialized, and access to them requires technical capacity and knowledge of international climate finance frameworks, as well as implementation schemes with a high level of technical expertise.

The main example of this type of fund in Latin America and the Caribbean is the Green Climate Fund (GCF), which supports developing countries in their efforts to address climate change by financing projects that include sustainable transport components (Box 3.1). Another example is the Clean Technology Fund (CTF), which finances projects that promote clean technologies in sectors such as renewable energy and energy efficiency in order to accelerate the adoption of technologies that reduce greenhouse gas emissions. As an application of this type of fund, the IDB has a facility with GCF funds to promote electric mobility and the use of green hydrogen in Latin America and the Caribbean, with a contribution of US$450 million in concessional loans and grants to nine countries in the region (Barbados, Chile, Colombia, Costa Rica, Jamaica, Panama, Paraguay, the Dominican Republic, and Uruguay). The aim is to facilitate the transition of cities towards resilient, low-carbon public transport systems (IDB, 2022).

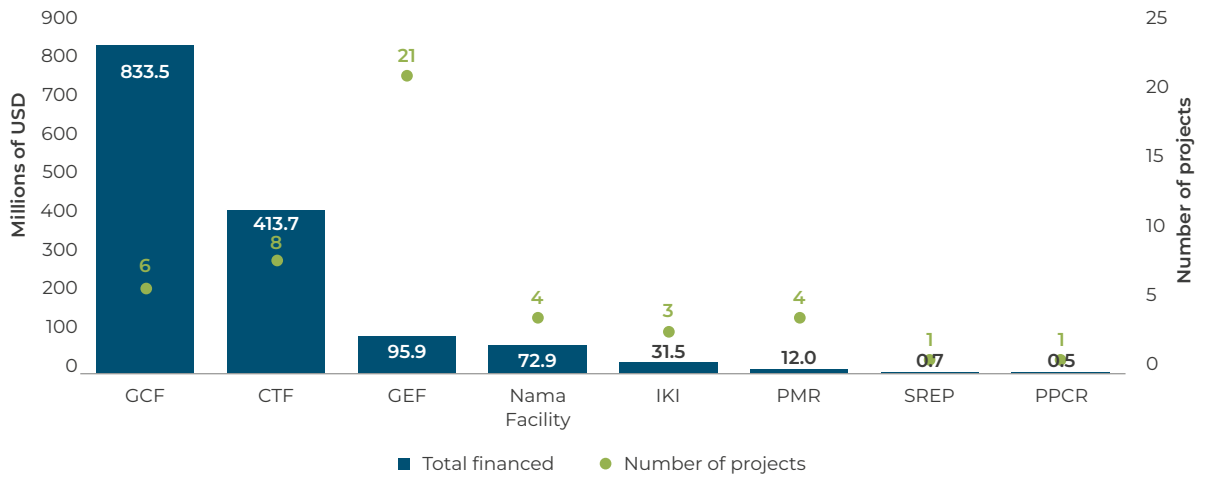
Another relevant example is the CTF, which as of December 31, 2023, had approved global financing programs with an investment of US$5.2 billion, of which about 6 percent is directed to the sustainable transport sector (US$300 million) (Box 3.1). Latin America and the Caribbean has received 16 percent (US$800 million) of the CTF's total financing, supporting initiatives to improve urban mobility and reduce greenhouse gas emissions, such as actions related to the implementation or strengthening of mass transport systems with clean technologies and the promotion of active or non-motorized mobility.

BOX 3.1. Climate Funds in LAC and Their Participation in the Transport Sector

Multiple climate funds allocate resources to the transport sector in Latin America and the Caribbean, mostly geared toward climate change mitigation projects. Among the most relevant are the Green Climate Fund (GCF), Clean Technology Fund (CTF), Global Environment Facility (GEF), International Climate Initiative (IKI), NAMA Facility, Partnership for Market Readiness (PMR), Scaling Up Renewable Energy Program in Low Income Countries, and Pilot Program for Climate Resilience.

From 2000 to date, these funds have contributed a total of US$1.46 billion to the financing of 48 transport projects in the region. As illustrated in Figure B3.1.1, the largest amount of this financing comes from the GCF (US$833.5 million), followed by the CTF (US$413.7 million).

FIGURE B3.1.1 Climate Funds in the Transport Sector in LAC



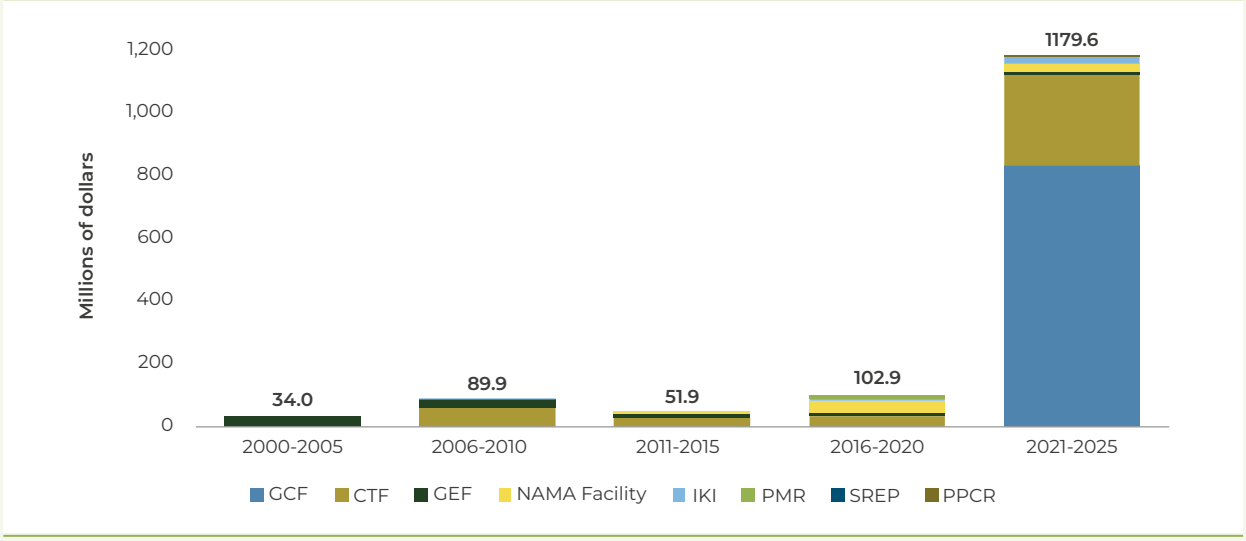
Source: Prepared by the authors based on data from GCF (2025), CTF (2025), GEF (2025), Mitigation Action Facility (2025), PMR (2015), and IKI (2025).

An analysis of the evolution of climate finance in the region reveals significant growth in recent years, driven mainly by the GCF and the CTF (Figure B3.1.2), where the most notable projects focus on electric and sustainable mobility. Among the most relevant are the programs approved in 2022 by the GCF: the E-Motion: E-Mobility and Low Carbon Transportation Program, implemented by the Development Bank of Latin America and the Caribbean (CAF) for US$231 million; and the E-Mobility Program for Sustainable Cities in Latin America and the Caribbean, led by the IDB, for US$450 million. However, both programs have very low disbursement levels, at just 3 percent and 2 percent of their total amounts, respectively.

The challenges to greater use of these funds in Latin America and the Caribbean can be explained in large part by the fact that many projects lack sufficiently robust technical and economic studies to meet the eligibility and maturity criteria required by climate financiers. In addition, limited institutional capacity in climate planning, emissions accounting, and financial structuring make it difficult to formulate competitive proposals. Added to this is the need for intersectoral

coordination between ministries of transportation, environment, and finance, and the existence of still-incipient regulatory frameworks for electric mobility in several countries in the region.

FIGURE B3.1.2 Climate Fund Trends in the Transport Sector in LAC (2000 - 2025)



Source: Prepared by the authors based on data from GCF (2025), CTF (2025), GEF (2025), Mitigation Action Facility (2025), PMR (2015), and IKI (2025).

Multilateral bank loans at the national level (with sovereign guarantee)

Multilateral bank loans are granted by international financial institutions mainly to national governments, which act as borrowers and provide the sovereign guarantee required to back the operation. Multilateral institutions include the IDB, World Bank, and Development Bank of Latin America and the Caribbean (CAF), among others. Under these schemes, municipalities or subnational entities can benefit from the resources through inter-administrative agreements or mandate contracts with the national government, which in turn is responsible for transferring the resources and monitoring their use.

Among the main characteristics of these loans are:

- **Favorable financial conditions:** The loans typically offer lower interest rates and longer repayment terms compared to commercial loans, which facilitates the implementation of large-scale projects.
- **Technical assistance:** In addition to financing, multilateral institutions support project planning, implementation, and monitoring, ensuring their long-term viability and sustainability, for which borrowers may have access to repayable and non-repayable resources and cooperation funds.
- **Focus on strategic sectors:** Loans are allocated to key areas such as infrastructure, education, health, the environment, and institutional strengthening, contributing to the comprehensive development of recipient countries.

Loans from multilateral banks at the national level with sovereign guarantees are designed to finance structured projects that have a sovereign public budget as their main source of repayment. Given their focus on long-term infrastructure, these loans are granted with long terms, which allow financial commitments to be aligned with the maturity of the project's operational flows. They have a high capacity to mobilize resources, making

them particularly suitable for large-scale initiatives, such as mass transit systems. Their application is concentrated in the investment stage, when significant financial resources need to be mobilized for project construction and implementation. Because the loans involve the backing of the national government as guarantor, their structuring requires complex inter-institutional coordination and compliance with technical, financial, and sustainability standards required by multilateral banks, which is why they are considered highly complex and specialized instruments.

Multilateral banks have a long history of supporting transportation projects in the region. Among the emblematic examples of this type of credit are in Colombia, where the IDB and World Bank have been financing the implementation of public transport systems in various cities throughout the country for nearly two decades, and, more recently, Lines 1 and 2 of the Bogota Metro; in Ecuador, where the IDB, World Bank, CAF, and the European Investment Bank have financed Line 1 of the Quito Metro; and in different cities in Latin America and the Caribbean, where the bilateral development banks KfW and AFD have financed implementation of public transport systems.

Subnational multilateral bank loans (without sovereign guarantee)

Some multilateral financing institutions have developed credit lines that do not require a sovereign guarantee from the national government and allow direct financing to be granted to subnational governments, public, or mixed companies. These instruments expand access to financing for territorial actors that have sufficient institutional, financial, and management capacity and can demonstrate fiscal and administrative autonomy. The main advantage of these loans is that they do not depend on the central government's debt quota or the parliamentary approval process, which speeds up their structuring. In addition, they maintain competitive financial conditions and may include components of technical assistance, institutional strengthening, and monitoring of results. However, access to these loans is often limited to entities that meet strict eligibility requirements, including credit risk assessments, governance, implementation capacity, and financial sustainability. It is also essential to consider the impact that these loans could have on the fiscal sustainability of local governments.

These loans are structured on the basis of public resources as a source of payment, which implies the need for stable and predictable income flows. They are granted in the short and medium term, which allows repayment to be aligned with the financial performance of the project. However, their capacity to mobilize resources tends to be low, which restricts their use to smaller-scale projects or to supplement other sources of financing. They are mainly geared toward the investment stage, when the project is already structured and requires resources for its execution. By their nature, they require rigorous financial evaluation processes, risk analysis, and compliance with multilateral standards, which is why they are considered highly complex and specialized.

Multilateral financial institutions with an emphasis on private entities

In addition to their sovereign operations, several multilateral financial institutions have financing windows geared to the private sector that are designed to support commercially focused projects or those developed through PPPs. These windows operate under criteria of profitability and financial sustainability, but with a strong focus on development impact, seeking to mobilize private investment toward strategic sectors such as sustainable transportation, resilient infrastructure, and energy transition.

Entities such as IDB Invest (IDB Group), the International Finance Corporation (IFC) (World Bank Group), and CAF through its Private Sector Directorate provide direct financing to companies, concessionaires, or structured vehicles for project execution, without the need for sovereign guarantees. These instruments can take the form of senior or subordinated loans, equity investments, guarantees, credit lines, or structured financing, and are often complemented by technical assistance. In the capital market, instruments such as partial credit guarantees stand out, improving the credit rating of issuances and facilitating access to financing on better terms; anchor investments, where the multilateral entities act as the first investor to attract

additional capital; and the structuring of thematic bonds (green, social, or sustainable) aligned with international standards.

This type of financing is especially relevant for projects that have their own revenue streams (such as fees or commercial operating income) or that are developed under PPP or concession schemes. The participation of multilateral entities helps improve the project's bankability, attract private cofinanciers, and ensure high technical, environmental, and social standards. This is normally done in coordination with prior support to the public sector to generate conditions and projects that mobilize private participation for public infrastructure, both through upstream reforms to improve the regulatory, institutional, and project planning framework, through the structuring of specific transactions such as PPPs, or through the development of guarantee instruments to reduce project risks.

These instruments are supported by private or tariff-derived sources of payment, which requires a solid financial structure and a self-sustaining business model with clearly identified sources of income and payment. They operate mainly in the short and medium term, which is appropriate for critical investment phases, strategic acquisitions, or expansion of operational capacity. Their capacity to mobilize resources is high, as they link other banks and international institutional investors, making them appropriate for medium-size and large projects or as part of cofinancing schemes. The instruments focus on the investment stage, especially in contexts where the aim is to accelerate execution or close financing gaps. Given that they require advanced financial structuring, compliance with international standards, and validation of project sustainability, they are considered highly complex and specialized instruments.

In Latin America and the Caribbean, the private windows of multilateral banks have participated in multiple urban infrastructure projects. For example, IDB Invest has financed electric mobility projects in Santiago de Chile and low-emission bus fleets and electric terminals in Bogota (Box 3.2), while the IFC has participated in the financing of urban trains in Brazil and Peru. These operations demonstrate the potential of these instruments to leverage private investment in projects with high urban and climate impact.

BOX 3.2. Electrifying Public Transport: The Case of Bogota and Support from IDB Invest

In 2019, Transmilenio in Colombia launched public tenders to concession the provision, operation, and maintenance of electric buses. IDB Invest acted as lead structurer of the financing for 401 of these buses, as well as the construction of charging infrastructure associated with 10 transportation routes concessioned by Transmilenio in the towns of Fontibón and Usme.

The financial package for the project—with terms tailored to the business model and mobilizing local and international sources of liquidity—consisted of two senior loans granted to two special-purpose vehicles (one for the Fontibón concession and the other for the Usme concession) created by ENEL X, a business line of Enel Colombia for electric mobility projects, and InfraBridge, a global infrastructure investment fund dedicated to investing in medium-sized companies in transportation and logistics, digital infrastructure, and energy transition. The loans granted by IDB Invest, in conjunction with the UK Sustainable Infrastructure Program (UKSIP) and BNP Paribas, exceeded 610 billion Colombian pesos (approximately US$134 million), with a term of up to 14.5 years.

By providing financing in a context of scarce local commercial credit for projects of this type, IDB Invest took a countercyclical role and enabled investments in innovation and technology. The financing included favorable terms for the project's characteristics, such as customized

maturity and amortization profiles. UKSIP's concessional financing resources, managed by IDB Invest, complemented scarce market resources and improved the amortization profile that will be charged toward the end of the concession, assuming part of the exposure risk during the final years of the loan. This long-term financing allowed the sponsors to balance the project's debt structure and reinvest capital in other projects in the region.

Beyond the financial package, IDB Invest provided technical assistance to maximize the efficiency of the bus batteries during operation and develop a plan for their reuse once they are replaced in the eighth year of operation.

The expected impact of this project includes net environmental benefits associated with the reduction of carbon dioxide (CO_2), particulate matter 2.5 (PM 2.5), and nitrogen oxide (NOx) emissions. Between 2022 and 2037, it is estimated that there will be a reduction of 237,464 tons of CO_2 emissions, 3.10 tons of PM 2.5 emissions, and 4,663 tons of NOx emissions.

Instruments to improve the credit quality of the credit subject: coverage and guarantees

Coverages and guarantees are complementary instruments that support financial transactions with the aim of improving the risk profile and credit rating of projects. Although they are not a direct source of resources, they play a key role in facilitating access to financing by protecting investors and financiers against financial, contractual, or performance risks. They are backed by public payment sources or project fees, and are most frequently used during the investment stage, when they help to build confidence in the financial viability of the project. Due to their need for rigorous technical design, risk assessment, legal validation, and coordination among multiple actors, they are considered complex and specialized implementation instruments, suitable for contexts that require robust financial structures and advanced mitigation mechanisms.

Entities such as the IDB, IFC, Multilateral Investment Guarantee Agency (MIGA), and CAF offer a variety of coverages and guarantees designed to improve the credit rating of a financing operation, stimulate the participation of different types of issuers and financing instruments, and promote foreign direct investment in developing countries, among other aspects, by protecting investors against non-commercial risks.

Coverage and guarantees include aspects such as (i) protection against losses resulting from the inability to convert local currency into foreign currency or to transfer funds out of the host country; (ii) protection against direct or indirect expropriation of investments by the host government, ensuring that investors do not lose their assets without adequate compensation; (iii) losses caused by armed conflict, acts of terrorism, or civil unrest that negatively affect the investment; (iv) protection for investors in cases where key contracts related to the investment are breached, providing a means for dispute resolution and compensation; and (v) the failure of a government or public sector entity to meet its financial obligations affecting the investment.

In financing the expansion and operation of Line 1 of the Panama City metro and the extension to Line 2, MIGA, part of the World Bank Group, provided a guarantee to cover the risk of the non-honoring of financial obligations, which protects creditors against default by a subnational public borrower, without requiring a sovereign guarantee from the national government. The guarantee covers an amount of approximately US$260 million, corresponding to a portion of the senior debt issued by the Panama Metro Authority, for a term of 15 years. The coverage allowed commercial banks to unlock financing, as they participated with greater confidence knowing they had direct backing against political or financial risks.

3.1.2. Credit Subjects in Public Transport

Being a creditworthy entity means that an entity meets the minimum financial, legal, operational, and institutional conditions to be considered capable of assuming debt obligations and fulfilling them in a timely manner, in a way that is reasonably predictable by lenders. For a creditworthy entity to be considered viable for the use of financing instruments, it must normally meet a set of conditions that depend on whether the entity is public or private.[40]

Public Credit Subjects

Public credit subjects are state entities such as national and subnational governments, or other public entities such as non-state public persons, that must meet certain conditions to be considered viable for financing instruments (Table 3.4). These conditions include financial and budgetary soundness, that is, consistent budgets and the ability to generate their own income. They must also demonstrate their ability to pay and provide guarantees through clear sources of repayment and legal mechanisms for earmarking income. It is essential that these entities have a legal framework that enables their autonomy to borrow and manage resources, as well as political and institutional support for the projects to be financed. In addition, transparent corporate governance is required, with internal controls and regular publication of financial information, and measures to mitigate specific public sector risks, such as insurance, guarantees, and contingency plans. Finally, a good track record of compliance with previous obligations strengthens their credit profile with financiers and investors. All these characteristics must be managed by a qualified professional team that identifies and interacts directly with the financiers and the project.

[40] To simplify the analysis, this classification will be used in this publication. However, there are also mixed-credit subjects (such as companies with public and private participation, or mixed-economy business association schemes). These entities can structure hybrid financial schemes, taking advantage of both typical public sector mechanisms (such as multi-year budgets or sovereign guarantees) and private sector tools (such as commercial loans or project finance structures), depending on the legal framework that governs them and the conditions of the project.

TABLE 3.4. Conditions for Public Credit Subjects

Conditions	Characteristics
Financial and budgetary soundness	→ Has approved budgets that are consistent with its level of expenditure and investment and formalized within the governing budgetary legal framework. → May have the ability to generate its own resources (fees, tariffs, concessions, etc.) or depends solely on government transfers → Low or manageable exposure to budget cuts.
Payment capacity and guarantees	→ Has identifiable and protected sources of repayment (e.g., tariff revenues, specific funds, guaranteed allocations). → There are legal mechanisms for earmarking revenues or explicit guarantees from the government. → There is the possibility of establishing guarantee trusts or transaction coverage tools (payment trusts, for example).
Legal framework and autonomy	→ The legal framework expressly authorizes it to borrow or issue debt instruments. → Has budgetary and operational autonomy to manage its resources (even if it is supervised). → There are no legal restrictions limiting its indebtedness or compromising its future cash flow.
Political and institutional support	→ There is clear political support for the project or entity. → The proposed financing aligns local, regional, or national interests. → The project or operation is a priority within the state or territory's development or public investment plans.
Corporate governance and transparency	→ Complies with public procurement and internal control standards. → Has independent control bodies (comptroller, internal and external audits). → Manages and publishes financial information regularly and transparently (management reports, budget execution, etc.).
Mitigation of specific risks in the public sector	→ Insurance and guarantees have been provided for operational and infrastructure risks. → Contingency plans are in place for changes in government or fiscal and macroeconomic crises. → Regulatory risk (changes in law, tariffs) mapped and mitigated.
Compliance history	→ Positive track record of compliance with previous financial obligations (bonds, multilateral loans, etc.). → No recent history of default or forced restructuring.

Source: Prepared by the authors.

Private Credit Subjects

Private credit subjects, such as operating companies, concessionaires, or special purpose vehicles (SPVs), must also meet certain conditions in order to access financing instruments (Table 3.5). First, they must demonstrate financial solvency, with solid equity, recurring income, and healthy financial ratios. Similarly, it is essential to have payment capacity, that is, sufficient and predictable cash flows to meet debt obligations. A solid legal and contractual structure, including risk separation, support contracts, and institutional backing, reinforces the confidence of financiers. Private credit entities are also expected to have good corporate governance, with clear internal control rules, structured decision-making, and transparency in management. If they do not have their own track record, it is considered positive to have representative sponsors with experience and financial backing. They must incorporate effective risk mitigation mechanisms (regulatory, construction, market, etc.), conduct periodic audits, and publish transparent financial information to ensure the traceability and reliability of the project in the market. In the case of companies or mixed economy schemes with public and private participation, the conditions of the legal regime under which the company operates take precedence.

TABLE 3.5. Conditions for Private Credit Subjects (1 of 2)

Conditions	Characteristics
Financial solvency	This means having characteristics such as sufficient equity in relation to liabilities, a good track record of generation of earnings before interest, taxes, depreciation, and amortization (EBITDA) (or operating cash flow), and healthy financial ratios: debt/EBITDA, interest coverage, current liquidity, etc. This implies having aspects such as: → Recurring and diversified income not 100 percent dependent on transfers from the central government → Allocation of own revenues (tolls, fees, taxes, royalties, tariffs) to guarantee payments → A history of operating surpluses or recent positive balance sheets → Good studies and demand projections → Healthy financial ratios for project projections: → Debt/own income: moderate (e.g., <100 percent) → Debt service coverage: > 1.2x (revenue/debt costs)
Payment capacity	This implies having predictable and sufficient cash flow to service the debt. If it is a special-purpose vehicle (SPV), the project generates or manages sufficient and stable resources to cover its obligations. It is normally based on future contracts (such as Power Purchase Agreement (PPAs), concessions, leasing, etc.) that generate stable income.

TABLE 3.5. Conditions for Private Credit Subjects (2 of 2)

Conditions	Characteristics
Solid legal and contractual structure	This means having an SPV or project management scheme with the following characteristics: → Clear purpose associated with a specific activity or project → Real separation of risks (not to be confused with the sponsoring company or other public entities or subsidiaries) → Support contracts (offtake agreements, Engineering Procurement Construction (EPCs), insurance, etc.) already signed or well advanced → Strong and documented political support (resolutions, supporting decrees). → Inclusion in sectoral or regional development plans (priority works, strategic programs).
Good corporate governance	→ Includes aspects such as financial policy manuals, formal committees (audit, risk), and conditions of transparency in management and information → Reasonable administrative stability (low staff turnover) → Formalized decision-making bodies (boards of directors, councils, audit committees) → Active internal control and risk management policies → Regular publication of audited financial statements and performance reports → Third-party access to key information (active transparency).
Credit history or representative sponsors	If the SPV does not have a track record, then it has: → Sponsors (main shareholders) with an excellent financial profile and experience → Guarantees from sponsors if necessary (corporate guarantees, equity commitments, etc.).
Risk mitigation	Construction, market, regulatory, and other risks controlled or mitigated through insurance, hedging, or contracts.
Audits and transparent financial information	Financial statements audited by recognized firms. Structured reporting, with well-designed financial models.

Source: Prepared by the authors.

3.1.3. Public Transport Projects to Be Financed

The selection of financial instruments for public transport projects cannot be done in isolation, but must take into account the characteristics of the project that determine the type of risk, the investment horizon, the revenue stream, and, therefore, the viability of each financial mechanism (Table 3.6). Characteristics such as the scale of the infrastructure, environmental sustainability, technological incorporation, and economic and territorial impact guide the financial profile of the project and determine which type of instrument is most appropriate.

TABLE 3.6. Characteristics of Transport Infrastructure Projects

Conditions	Characteristics
Scale of physical infrastructure	This refers to the level of physical requirements and investment in civil works, equipment, and fixed assets. It may include projects such as: → Metro, tram, or light rail networks → Roads → Bus rapid transit → Intermodal integration stations or equipment → Depots and workshops.
Contribution to environmental sustainability	Assesses whether the project aligns with environmental and climate agendas. These projects may include: → Transportation projects that include electric vehicles, infrastructure for zero-emission vehicles, and clean technologies → Promotion of active mobility → Bicycle lanes and pedestrian zones → Transit-oriented development → Traffic management measures.
Focus on inclusion, accessibility, and equity with socioeconomic and territorial impact	Considers whether the project improves access to mobility for vulnerable populations, integrates marginalized areas, applies gender or universality criteria, and promotes the right to transportation. Examples of this type of project include: → Traditional public transport → Last-mile projects (regulated motorcycle taxis, light electric vehicles, public bicycle systems) → Integration of transport services.
Level of technological and digital innovation	Measures the extent to which the project incorporates advanced technological solutions, such as intelligent traffic management, digital payment systems, autonomous vehicles, data platforms, etc.

Source: Prepared by the authors.

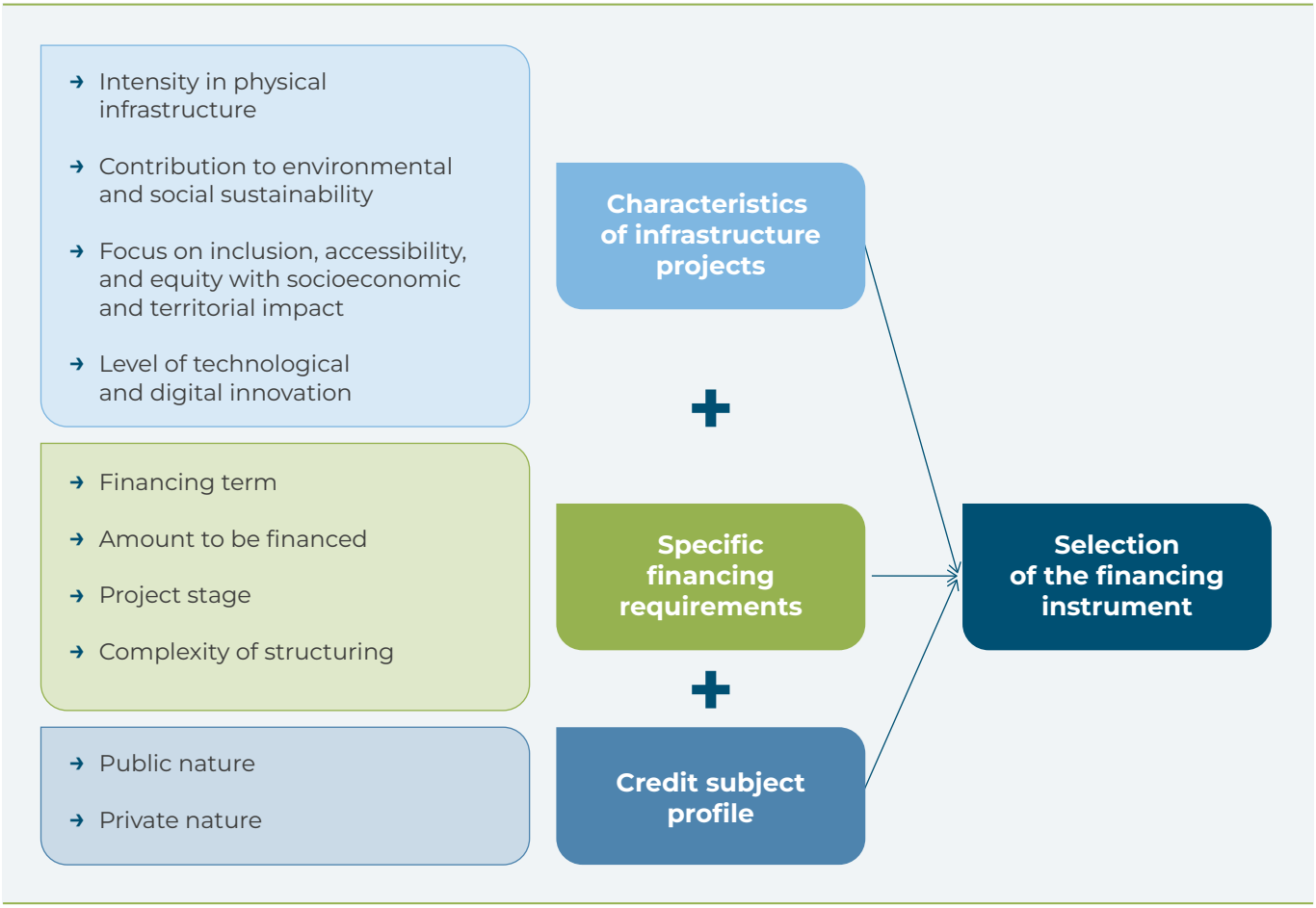
3.1.4. Selection of the Appropriate Financial Instruments for a Public Transport Project

As concluded from the analyses presented in the previous sections, **the choice of the most appropriate financial instrument must be based on consideration of three main elements:** (i) a comprehensive understanding of the project and its specific financing requirements, (ii) the identification of the credit profile of the borrower, and then comparing this analysis with (iii) a detailed review of the attributes of the various financial instruments available, from which to identify those that best match the characteristics of the project and are therefore more functional, efficient, and viable for its implementation. This is illustrated in Figure 3.3.

In other words, the process of selecting the financing instrument for a public transport project starts with (i) understanding the characteristics of the project, such as the scale of its physical infrastructure, its contribution to environmental sustainability, its socioeconomic and territorial impact, or the incorporation of technological innovation; (ii) determining the financing requirements, such as the term of the operation, the amount required, and the complexity of the structuring, taking account the stage of the project (studies and designs, investment, or operation and maintenance); and (iii) defining who the credit subject is.

Figures 3.4. to 3.7 illustrate the relationship between the characteristics of the project, its stage in the life cycle, and the nature of the credit subject. These representations allow for visualizing how the

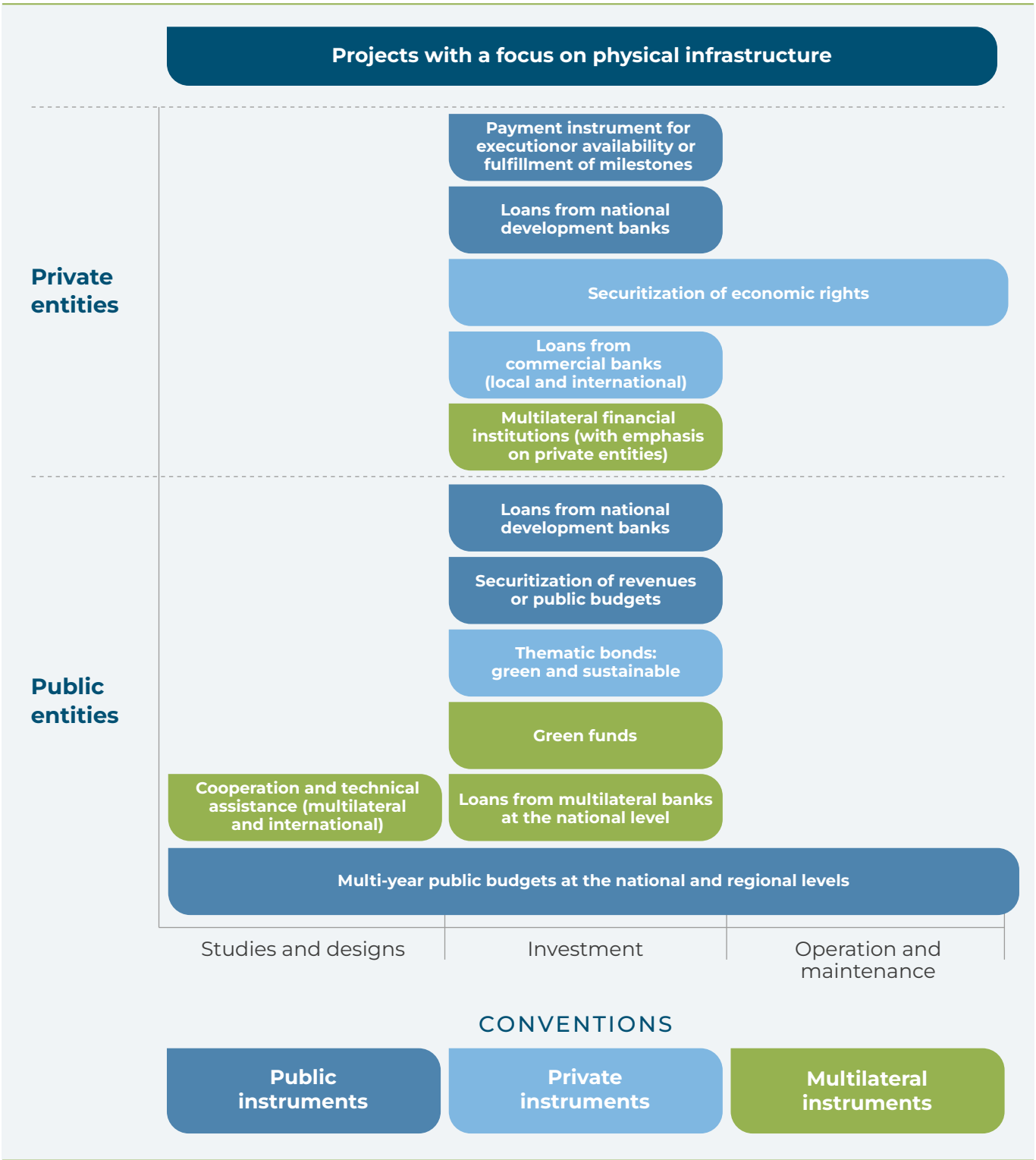
FIGURE 3.3. Considerations for Choosing the Right Financial Instrument for a Public Transport Project



Source: Prepared by the authors.

combination of these three elements influences the selection of the most appropriate financial instruments, highlighting the scenarios in which certain tools are more viable and relevant to support the financing of the project.

FIGURE 3.4. Potential Financial Instruments for Large-scale Physical Infrastructure Projects

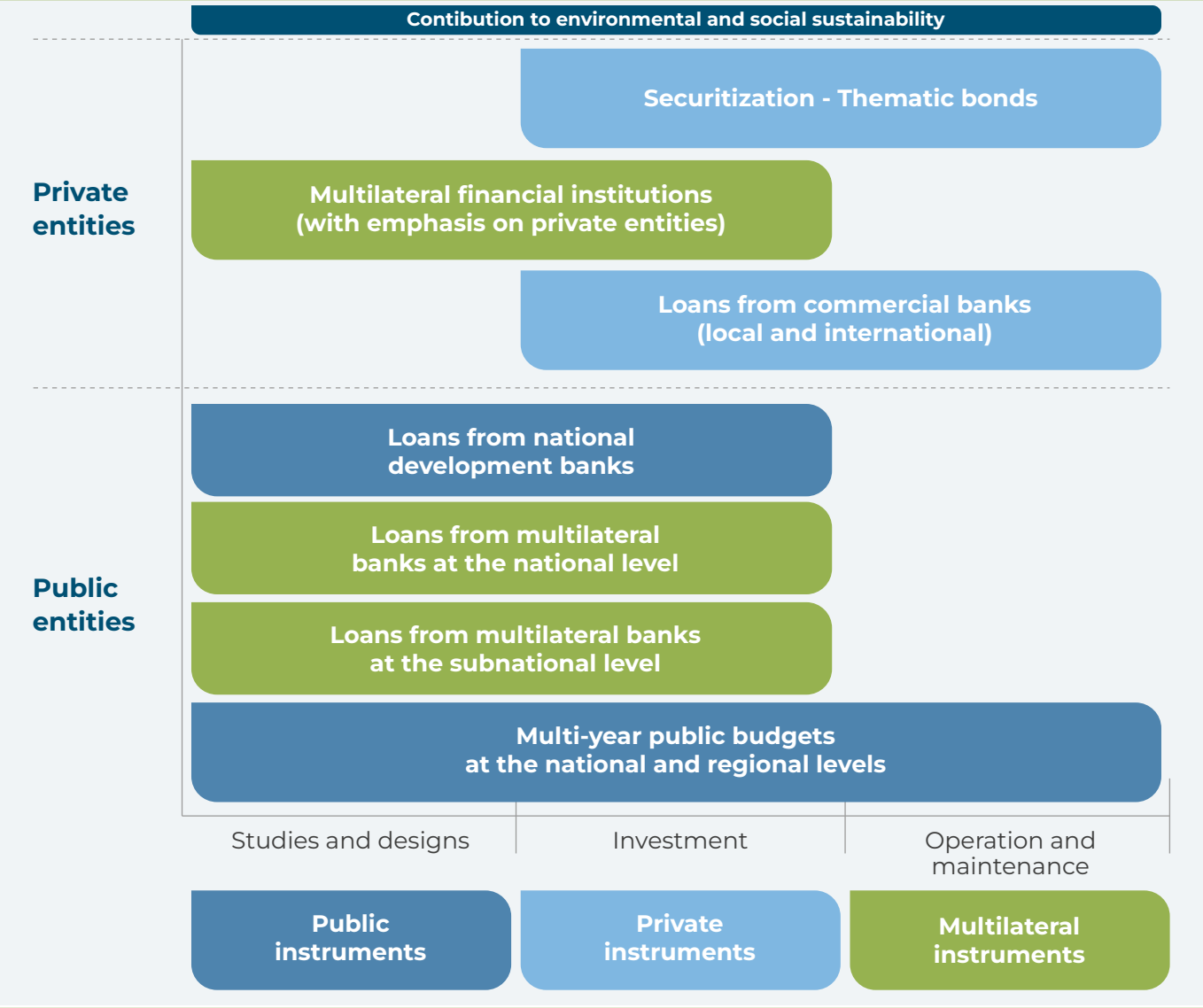


Source: Prepared by the authors.

As shown in the Figure 3.4, **projects with high physical infrastructure intensity—such as BRT systems, subways or trains, or depots and work sites—are where most of the financial instruments available on the market converge.** They tend to concentrate financing instruments with high funding capacity, mainly during the investment stage. These types of projects generally require the backing of public or private credit entities with solid institutional and fiscal capacity, which allows them to access a wide range of financial instruments. On the other hand, the study and design stage is usually financed mainly with public budget resources and can be supplemented by multilateral and international technical cooperation arrangements. Technical cooperation resources are also useful to improve the sectoral and institutional environment in which projects are planned, structured, and executed, helping to reduce their risks. It is also important to note that multi-year public budgets, both at the national and regional levels, are a source of cross-cutting financing that can be applied at any stage of the project.

In contrast, projects with a strong environmental component, such as fleet electrification or transit-oriented development projects, can access more specialized and flexible schemes, although the variety is limited (Figure 3.5). When the borrower is private and the project is in the

FIGURE 3.5. Potential Financial Instruments for Projects Contributing to Environmental Sustainability

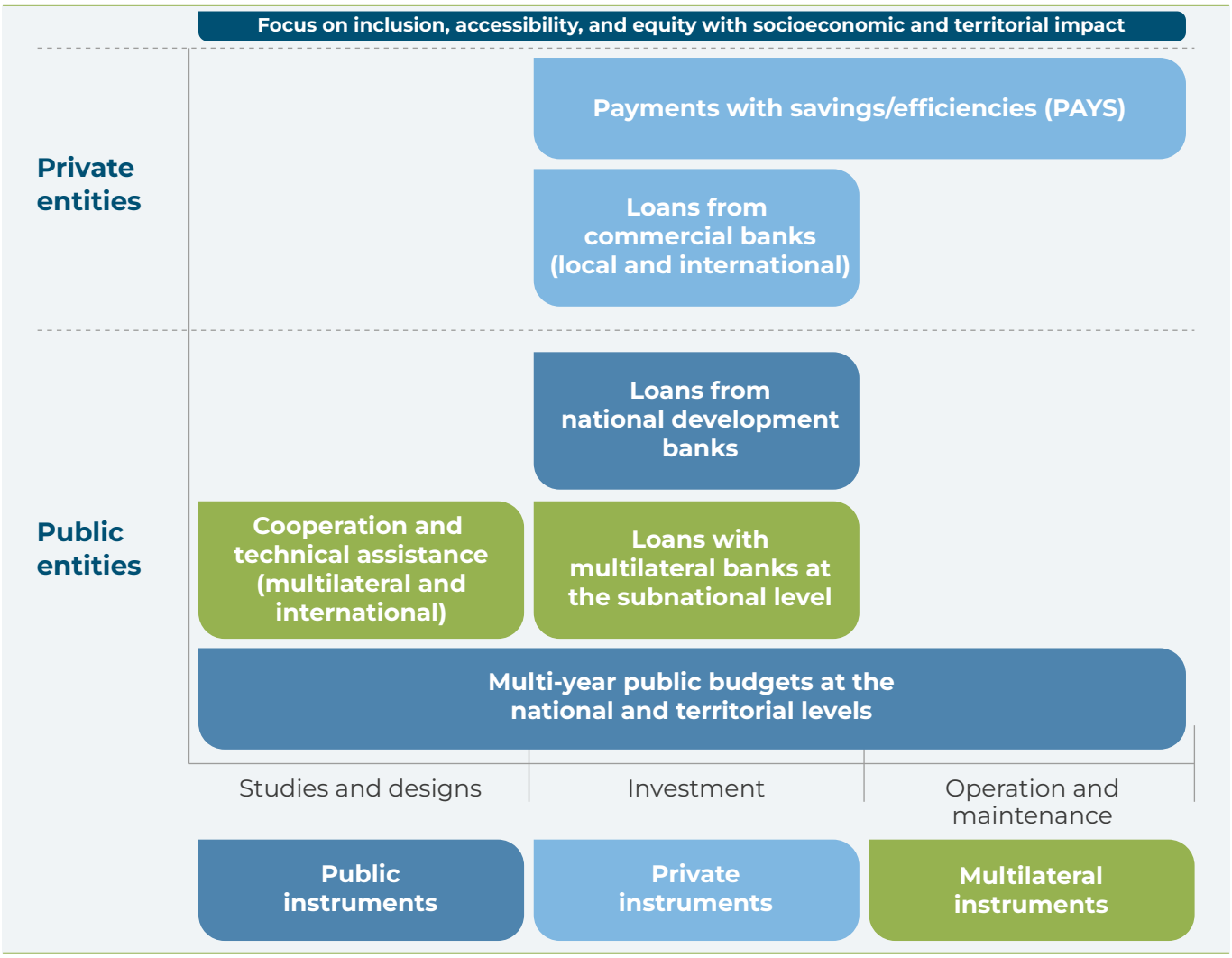


Source: Prepared by the authors.

investment or operation and maintenance phases (when investments associated with fleet renewal or technological upgrades may be required), instruments such as loans from commercial banks and multilateral financial institutions with an emphasis on the private sector become relevant. For their part, public borrowers can rely on multilateral and international cooperation in the study and design stage, and on loans from national and multilateral development banks in the investment stage. In this type of project, once again, multi-year public budgets, both national and regional, are a source of financing that can be used during any project stage.

Projects that generate socioeconomic and territorial impacts—such as last-mile projects—tend to have limited financial returns, which constrains their financing possibilities, especially in the early stages (Figure 3.6). During the study and design phase, when the credit subject is public, financing is mainly directed toward public sources and technical or international cooperation schemes. In the investment stage, if the borrower is private, the most viable options are mechanisms such as pay-as-you-save (PAYS) or commercial bank loans. On the other hand, if the borrower is public, the most appropriate instruments are usually loans from national development banks and multilateral bank loans at the subnational level, without sovereign guarantees. Finally, for the operation and maintenance stage, projects led by private actors can continue to leverage PAYS-type schemes, whereas for public entities, the only stable source available is national or territorial public budgets.

FIGURE 3.6. Potential financial instruments for projects with socioeconomic and territorial impact

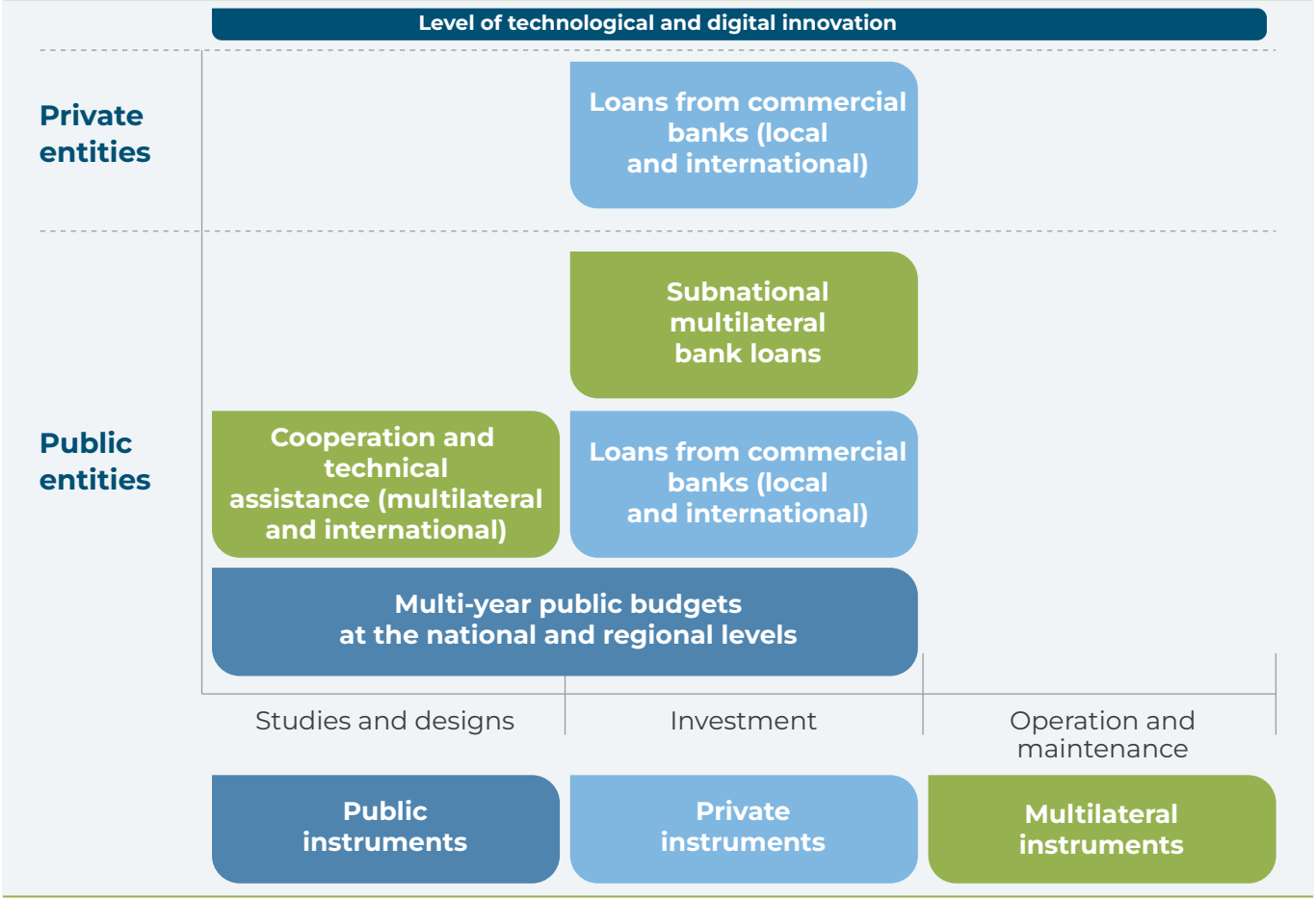


Source: Prepared by the authors.

In the case of projects focused on technological innovation—such as intelligent transportation systems, fleet management platforms, or data-based solutions—the availability of instruments varies depending on the stage of the project (Figure 3.7). In the pre-investment phase, financing options are limited, mainly restricted to public budgets and multilateral or international technical assistance schemes. During the investment stage, the range of possibilities widens, with access to credit from multilateral and commercial banks becoming feasible, especially when the project has a clear business model and revenue generation. However, it should be noted that investments required during the operation and maintenance stage present the greatest challenges in terms of financing, as it is not common to find specific instruments for this phase, either for public or private credit subjects, making it necessary to explore innovative mechanisms and hybrid models that allow this type of solution to be financially sustainable over time.

In summary, the combination of three key dimensions—the type of project, its stage of development, and the profile of the borrower—determines the viability and relevance of the various financial instruments available. This three-dimensional approach helps to visualize that there is no single financing formula, but rather multiple possible combinations, each suited to specific contexts.

FIGURE 3.7. Potential Financial Instruments for Projects with Technological Innovation



Source: Prepared by the authors.

The intersection of these three dimensions also makes it possible to identify areas of opportunity for the development of new instruments or adaptations of existing ones, such as strengthening accessible financing schemes for projects led by subnational or private actors with high levels of technological innovation, or expanding funds targeted at early stages with high public value.

It is also important to recognize that, **usually, there is no single financial instrument capable of meeting all the needs of a project.** Instead, a strategic combination of tools is required to address the specific profile of the project, its stages of development, its sources of repayment, and its institutional framework. This cross-reading of variables allows for more informed decisions and the design of financing schemes that are more sustainable, scalable, and appropriate to the challenges faced by public transport in Latin America and the Caribbean.

3.2. Challenges in Financing Public Transport [41]

Access to financing for public transport projects is determined, to a certain extent, by the quality of the funding sources. Funding is the revenue stream of a transportation project that, among other things, will be used to reimburse the project's financiers. In this sense, financiers are interested in the risk associated with funding sources in order to assess the likelihood of their being repaid in the future. Thus, the financial structuring of a project should seek to minimize such risk. As discussed in Chapter 2, public transport funding in Latin America and the Caribbean faces significant challenges, which in turn restricts financing options. Indeed, if funding is not backed by credible revenue schemes, perceived risks will increase and the credit profile of projects will be affected. Similarly, the lack of sufficient operating revenues can compromise the financial sustainability of the systems, making it difficult to close the financing for new projects.

A predictable and sustainable funding system improves investor confidence, facilitating access to financing for new public transport projects. However, the relationship between funding and financing is not necessarily linear. The availability of and access to financing depends on a wide range of variables related to the country, sector, project, and project sponsor, among other variables. These variables converge to enable or disable the financing of a project. In Latin America and the Caribbean, various studies have shown that access to financing depends to some extent on institutional variables, the rule of law, country risk, and the depth of the financial market, among other factors (Presbitero and Rabelloti, 2016; Chu, 2021).

Thus, access to financing occurs after a thorough evaluation that combines quantitative and qualitative factors of the project. Table 3.7 summarizes the main determinants for public transport projects. It should be noted that, in addition to quantitative factors such as the availability of resources and financing conditions, qualitative factors such as the degree of social acceptance and the environmental impact of the project, or the public transport governance scheme, are also of interest. All these factors play a key role in the degree of risk borne by the project and, therefore, in the design of the financial structure that makes the project "bankable." This depends on the combination of risk and return of the project, which makes it attractive to financiers.

Associated with these determinants, there are various barriers in Latin America and the Caribbean that, to a greater or lesser extent, limit access to financing for public transport projects. According to information gathered through consultations with international experts, the main barriers are

[41] Conducting a comprehensive diagnosis of the state of financing in Latin America and the Caribbean is no easy task. Available data are scarce, and, in many cases, the information is incomplete, outdated, and fragmented. Likewise, the heterogeneity of the public transport sector, which ranges from large projects to microenterprises providing services, amplifies the challenge of obtaining data that fully reflect the reality of the sector. Furthermore, it is common to find that entities do not have unified and updated records of their financing operations. There are several reasons for this, chief among them being that financing is often obtained directly by the service concessionaire and the terms remain confidential, which limits access to this information. Due to these restrictions on quantitative analysis, the authors of this publication, in order to identify the challenges of financing public transport projects in the region, consulted with international experts on the factors that limit the full development of the financial market for public transport in Latin America and the Caribbean.

found in the macro contexts of the countries in the region, which can increase the perception of risk for potential investors; in the lack of institutional capacity, which hinders the development of long-term investment plans and well-structured projects; in local financial market conditions, which impact the terms, amounts, and availability of instruments; and in the characteristics of the public transport sector, with its heterogeneity of actors, complexity of projects, instability of payment sources, and potential social and-environmental impacts, which reduce the attractiveness of investment.

TABLE 3.7. Main Determinants of Access to Financing for Public Transport Projects (1 of 2)

Component	Category	Constraints	Opportunities
Institutional component	Technical and operational capacity Normative and regulatory framework Governance and transparency Institutional stability	→ Incipient development of public finances → Insufficient budget planning → Fragmentation at government levels → Weak governance frameworks → Fluctuations in public policy	→ Strengthened technical capacity → Updated and harmonized regulatory frameworks → Transparent and participatory governance
Financial component	Availability of resources Diversity of instruments Financing conditions Strength of the financial sector	→ Lack of financial sector depth → Restricted capacity of the financial sector → Restrictions on stakeholder participation → Weak sources of repayment (or funding)	→ Availability of resources for projects that use green financing → Established multilateral and cooperative organizations → Growing and consolidating local markets → Experience in implementing payment sources → Increased innovation in financial instruments
Technical component	Complexity of projects Ability to structure projects Technological innovation	→ Complex nature of projects → Weakness of technical teams	→ Linking of tools that enable the optimization of complex project management → Advanced development of more sustainable technologies

TABLE 3.7. Main Determinants of Access to Financing for Public Transport Projects (2 of 2)

Component	Category	Constraints	Opportunities
Social and environmental component	Social acceptance Environmental impact Social inclusion	→ Reputational risks	→ Maturity in social participation processes → Alignment of projects with environmental agendas → Interest in projects that promote social inclusion and equity
Market component	Demand for projects Private sector involvement Market competition	→ Uncertainty in demand estimates → Low levels of private sector involvement → Unequal competition with informal systems	→ Increased demand for urban mobility solutions → Growing interest from the private sector → More competitive markets → Innovative monetization mechanisms → Alignment with global trends
International component	Access to multilateral financing Compliance with international standards Exchange of best practices	→ Difficulty in accessing financing from multilateral banks → Difficulty in complying with international environmental, social, and governance criteria → Restrictions on knowledge transfer	→ Opportunities for access to multilateral financing → Alignment with international standards → Ease of exchange of best practices → Existence of global investment platforms

3.2.1. Institutional Component

The underdevelopment of public finances in various Latin American and Caribbean countries represents a significant structural obstacle to the use of financial instruments geared toward public transport. The ability of governments to generate adequate and sustainable revenues, distribute them effectively, and ensure transparency in their administration, as well as their capacity to have up-to-date and flexible regulatory frameworks, are essential to implement major infrastructure projects. However, the region has fiscal systems with limitations in their development, excessive dependence on indirect taxes, a restricted tax base, and high tax evasion, which limits the availability of public funds for transportation investments.

This restricted fiscal scenario is exacerbated by insufficient budget planning and institutional challenges in the sector that complicate the allocation and procurement of resources for long-range projects. In addition, institutions lack the technical skills to design complex financing schemes, such as thematic bonds, securitizations, or even multi-year funds, which require a high level of organization, planning, and governance. In many cases, the organizations responsible for managing transportation projects do not have the technical knowledge and experience required to, for example, engage with international investors or establish effective financial guarantees and protections.

Fragmentation at the governmental levels (national, regional, and local) complicates the formulation of consistent fiscal policies needed

to facilitate the flow of resources through mechanisms such as multi-year budgets, green funds, or loans from multilateral banks. This lack of coordination diminishes countries' ability to obtain international financing and capitalize on opportunities provided, for example, by multilateral organizations. This is compounded by fluctuations in government policies at each level that create uncertainty for investors, who perceive an increase in the risks associated with infrastructure projects. The lack of clear regulations and the fragility of public agreements within and between administrative levels can also lead to legal disputes, project delays, and extra costs, which can discourage private sector participation.

3.2.2. Financial Component

The shallow depth of the financial sector in many Latin American and Caribbean countries limits the availability and effective use of financing tools in public transport projects. An underdeveloped financial sector reduces the possibilities to mobilize private market resources. For example, the scarcity of varied and affordable financing alternatives, such as thematic bonds, long-term loans, or innovative methods such as asset tokenization, reduces the alternatives to finance projects. In addition, high financing costs, coupled with stringent commercial credit conditions and the difficulty to obtain resources in local currency,[42] complicate the financial viability of public transport projects. Another challenge is limited financial inclusion, which restricts the ability of local participants, such as municipalities and small and medium-sized enterprises, to obtain financing. These entities often face obstacles in meeting credit requirements, such as robust collateral or a solid financial history, which diminishes their ability to engage in infrastructure projects and access financing instruments.

As previously mentioned, one of the greatest difficulties in implementing financing instruments for public transport projects in Latin America and the Caribbean lies in the region's weak or insufficiently justified funding sources. Projects need sustainable financing schemes, where funding sources act as insurance to attract investment and ensure long-term economic viability. However, in many situations, these sources lack solidity, predictability, or legal backing, which causes uncertainty among investors and complicates the configuration of effective financing structures.

3.2.3. Technical Component

The complex nature of some public transport projects is a barrier to the application of financing instruments. Transportation projects, particularly those involving large-scale infrastructure such as metro systems, BRT, or fleet electrification, require a high degree of technical expertise for their design, organization, execution, and operation. This complexity can hinder the proper organization of financial arrangements and inhibit investor involvement. Many public institutions responsible for administering transport projects do not have the personnel and technical resources necessary to deal with the complexity of these projects. The development of feasibility studies, engineering designs, environmental impact assessments, and financial estimates, among other tasks, requires advanced skills and prior experience, which are not always available in local entities. High staff turnover in public entities exacerbates this problem, hindering project continuity and the accumulation of technical expertise. These constraints, common to infrastructure sectors in Latin America and the Caribbean (Infrascope, 2024), also impact the ability of entities to negotiate with financiers, investors, and multilateral entities, as they are not always able to effectively meet the technical and financial demands necessary to obtain financing.

[42] In the case of metro systems, whereas in Asia-Pacific nearly 50 percent of debt is denominated in local currency, in Latin America and the Caribbean this share averages 33 percent.

3.2.4. Social and Environmental Component

Encountering community resistance to projects to be financed can affect the project's reputation. This resistance may stem from aspects related to social impacts (displacement, changes in land use, perception of exclusion, impact on traditional ways of life, absence of perceived benefits, etc.) or environmental impacts (impact on ecosystems, pollution during construction, impact on water, etc.). Thus, the reputational risk for a project includes the adverse repercussions that may affect its public image and that of key participants, such as investors, government authorities, multilateral entities, and local communities. These repercussions can stem from difficulties related to project planning, implementation, or results. The prospect of reputational damage can discourage investor involvement, as investors may perceive a higher financial or legal risk and complicated cooperation with public and private entities, given that all parties prefer to avoid disputes that could harm their reputation. Poor management of reputational risk resulting from potential social and environmental impacts can delay project implementation, increase costs, and limit opportunities to obtain vital financing instruments to implement the project (Suárez-Alemán, Silva-Zuniga, and INERCO Consultoría Colombia *et al*., 2020).

3.2.5. Market Component

One of the most significant barriers to public transport projects is uncertainty in demand estimates because of the difficulty of accurately identifying the impact of aspects such as remote work, the use of applications that connect users directly with service providers, fare evasion, and other aspects that modify mobility patterns. Added to this is competition from already available options, such as informal transport systems or private vehicles (cars and motorcycles), which are generally seen as more practical, versatile, and affordable. If a transport project does not have reliable demand estimates, the financial sector and other actors needed for financing instruments will be reluctant to get involved.

Likewise, low private sector participation in transport financing limits the availability of resources for public transport projects. The private sector faces significant obstacles to participating in financing these projects because of the perception of high risks associated with investment recovery, regulatory uncertainty, and institutional capacity challenges. The lack of clear incentives such as tax advantages or financial protections weakens the involvement of private capital, especially when the expected economic benefits are low and risky. In addition, the lack of clarity in project selection and management procedures, coupled with the limited experience of local companies in large-scale projects, further hinders private sector involvement in the financing and operation of public transport systems.

Market competition from informal transport poses particular challenges to the financial viability of projects. In almost all cities in the region, informal transport systems compete directly with organized public services, reducing their ability to attract users and therefore revenue. This situation is exacerbated by the lack of effective regulation, which encourages unfair practices and hinders the strengthening of formal systems. In addition, the concentration of power in a few participants or the absence of technological and operational integration with existing systems create additional obstacles to the incorporation of new actors and investment.

3.2.6. International Component

Although multilateral banks and bilateral credit agencies can provide advantageous financing lines and technical support, not all countries or projects are able to meet the criteria established to obtain these resources. The lack of technical skills in project development, coupled with institutional volatility and legal restrictions, hinders local and national governments from formulating proposals that meet the requirements of these entities.

Compliance with international safeguards is another major challenge. Multilateral entities and global capital markets require that public transport projects comply with environmental, social, and governance criteria. Although these criteria are essential to ensure the sustainability and beneficial impact of projects, compliance can be costly and technically complex for entities that do not always have the necessary human and financial resources.

3.3. Public Policy Opportunities

The preceding sections presented the financing framework for public transport projects and the challenges in this regard for the region. On this basis, this section presents a set of public policy recommendations to generate the macroeconomic and sectoral conditions that facilitate access to financing for public transport projects (Table 3.8). These recommendations will serve as the basis for the development of a roadmap to be detailed in Chapter 4 to comprehensively improve public transport funding and financing in Latin America and the Caribbean.

There are essentially seven recommendations that can be grouped into two main areas: macroeconomic conditions and sectoral conditions (Table 3.8). It is important to note that these policies must be part of a comprehensive agenda to overcome the funding and financing challenges in Latin American and Caribbean public transport. It is not enough to have technically viable projects; it is also essential to build a fiscal, institutional, and

TABLE 3.8. Public Policy Recommendations to Facilitate Access to Financing for Public Transport Projects in LAC

Axis	Recommendations
1st Area: Macroeconomic conditions	→ Ensure a predictable macroeconomic environment to reduce the financial risk of projects
	→ Improve tax systems to increase public investment capacity in transportation
2nd Area: Sectoral conditions	→ Strengthen intergovernmental coordination to finance public transport projects at the metropolitan level
	→ Promote innovative financial instruments for the transport sector
	→ Develop risk mitigation mechanisms to attract private capital
	→ Strengthen technical and institutional capacity to structure financing
	→ Leverage the support of multilateral organizations as a financial catalyst

Source: Prepared by the authors.

financial ecosystem that allows for the mobilization of resources on a large scale, attracts private capital, and guarantees the sustainability of investments. In other words, having robust financing systems for public transport requires more than resources: it requires an institutional, fiscal, and financial architecture that generates confidence, mitigates risks, and efficiently channels available resources.

3.3.1. First Area: Macroeconomic Conditions

Ensure a Predictable Macroeconomic Environment to Reduce the Financial Risk of Projects

The perception of a solid macroeconomic framework improves credit ratings and allows governments to issue debt on more favorable terms, including instruments such as green or social bonds specific to public transport.

Public transport projects require capital-intensive investments, long-term returns, and predictable income streams. In this context, macroeconomic stability—that is, low inflation, fiscal discipline, and stable exchange rates—reduces the risk premium demanded by investors, facilitating access to long-term capital. This requires:

- Adopting and complying with responsible fiscal rules that limit deficits and structural debt.
- Independent central banks, which allows for control of inflationary expectations and provides certainty to investors.
- Implementing a credible monetary policy coordinated with fiscal policy, ensuring intertemporal consistency in economic management.

Improve Tax Systems to Increase Public Investment Capacity in Transportation

Regressive tax systems, dependent on indirect taxes and with low collection capacity, severely limit the fiscal space available for sustained investment in public transport. Fiscal reforms should aim to broaden the tax base, reduce evasion through the use of technological tools, and improve the efficiency of public spending. There is also a need to design mechanisms to allocate resources to transportation, such as specific taxes (e.g., on fuel, parking, or emissions) that can finance subsidies or capital investments in urban transportation systems. These instruments should be accompanied by transparency and control mechanisms to generate social and political legitimacy.

3.3.2. Second Area: Sectoral Conditions

Strengthen Intergovernmental Coordination to Finance Public Transport Projects at the Metropolitan Level

Public transport infrastructure transcends municipal boundaries and requires vertical coordination (between levels of government) and horizontal coordination (between jurisdictions). To this end, the following must be established:

- Institutional frameworks for metropolitan governance, such as mobility agencies or regional transport authorities with clear technical and budgetary powers.
- Multi-jurisdictional common funds, fed by intergovernmental transfers or proportional contributions from the beneficiary municipalities.
- Joint investment programming mechanisms that allow for the definition of shared priorities and avoid duplication.

Practices such as multi-year planning, medium-term budgets, and intergovernmental agreements with financial co-responsibility clauses should also be institutionalized. This coordination facilitates the eligibility of projects for international financing by presenting consolidated and larger-scale portfolios.

Promote Innovative Financial Instruments for the Transport Sector

Investment in public transport can be leveraged through financial instruments and arrangements that mobilize private capital and optimize the use of public resources. Policies can promote:

- Thematic bonds (green, social, sustainable), which are useful for projects that generate environmental co-benefits (emissions reduction) or social co-benefits (equitable access). These require reporting and certification frameworks aligned with international standards (ICMA, CBI, etc.) (Box 3.3).
- Trusts and/or investment funds and/or SPVs in urban infrastructure, which pool contributions from different sources (government, multilateral, private) and channel resources to priority projects.
- Securitization of future revenues (such as fees, operating subsidies), which allow for the financing of initial investments.
- Land value capture models, through instruments such as capital gains, improvement contributions, or densification charges.

Enabling these instruments requires clear regulatory frameworks, stable legal environments, transparency in resource management, and a financial sector with the technical capacity to structure them.

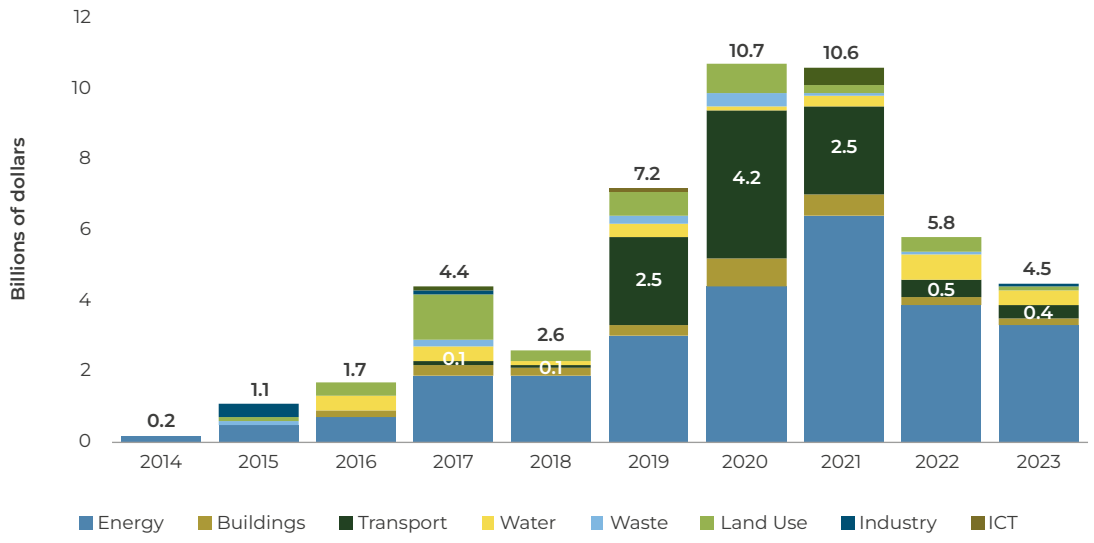
BOX 3.3. Green Transport Bonds as an Alternative Source of Public Transport Financing

Green bonds (also known as climate bonds) are debt financial instruments that provide access to financing specifically for projects that have environmental benefits (e.g., renewable energy, energy efficiency, and sustainable transport). These instruments, in turn, can meet growing investor demand for sustainable, low-risk investment alternatives with long-term returns (Restrepo-Ochoa *et al*., 2020). Green bonds are usually issued by companies, financial institutions, non-financial entities, or public entities, for which the funds raised are used entirely to finance environmental assets and projects.

According to the Climate Bonds Initiative (CBI), between 2014 and 2023, approximately US$48 billion in green bonds were issued in Latin America and the Caribbean, with the transport sector accounting for 21 percent of the total (US$13.3 billion) (Figure B3.3.1). The period with the highest volume of bond issuance for the transport sector was between 2019 and 2021, reaching a total of US$4.9 billion in green bonds issued in 2020.

One of the leading countries in the issuance of green bonds in the region is Chile, where a Green Bond Guide has been in place since 2018 (Bolsa de Comercio de Santiago, 2018). The vast majority of the funds initially raised have been allocated to sustainable transport, such as metro infrastructure and rolling stock, as well as buses (Ministerio de Hacienda, 2020). A recent milestone in the financing of public transport through climate bonds involves the Santiago Metro, which developed a Green Financing Framework for 2024 (Metro de Santiago, 2024). Based on this, in October of that year, the Santiago Metro, seeking to diversify its sources of financing, issued green bonds for the first time in its history for an amount of US$183 million at a nominal annual rate of 1.69 percent in U.S. dollars for a term of seven years.

FIGURE B3.3.1 Green Bonds by Sector in LAC (2014-2023)



Source: Prepared by the authors based on CBI (2023).

Note: Unspecified adaptation and resilience bonds (US$600 million for the period) are not included.

Develop Risk Mitigation Mechanisms to Attract Private Capital

The creation of risk mitigation mechanisms is key to encourage private actors to participate in the financing, construction, or operation of projects, improving their viability and reducing the direct tax burden. Indeed, high macroeconomic uncertainty generates risk aversion among investors, especially for long-term infrastructure projects such as metro railways or BRT systems. To counteract this perception, mechanisms such as the following can be made available:

- Minimum revenue guarantees or availability payments for PPPs.
- Exchange rate hedging or contractual indexation, especially in contexts of external financing.
- Sovereign or multilateral guarantee funds to ensure continuity of payments in the event of fiscal shocks.
- Contractual and institutional arrangements that ensure the allocation of risks to the agents with the greatest capacity to manage them (Box 3.4).
- Contingency funds for specific stages or investments in projects.

BOX 3.4. Innovative Contractual Arrangements to Promote the Technological Advancement of Public-Private Partnerships in Santiago de Chile and Bogota (1 of 5)

1. General characteristics

Innovation in public transport contractual arrangements has been key to enabling the acquisition of electric buses in Santiago de Chile, and Bogota, two cities that are leading the global energy transition in public transport.

In the case of Santiago de Chile, a pioneering model was adopted based on the separation of asset ownership and service operation: electric buses are purchased by energy suppliers (such as Enel X or Copec-Voltex) through long-term financial leasing contracts and then leased to transport operators, who focus exclusively on service provision. This structure reduced the barriers to entry associated with the high initial costs of electric buses and their batteries, while offering certainty to investors through contracts backed by the Ministry of Transport and Telecommunications. In addition, the scheme was complemented by electricity supply and charging infrastructure agreements, allowing for economies of scale and attracting international financing with environmental, social, and governance criteria. This approach demonstrated that, through innovative financial models and a clear allocation of risks between public and private actors, it is possible to accelerate the electrification of public transport in a sustainable and replicable manner in other cities in Latin America and the Caribbean.

Another example of innovation is the model implemented by Bogota. Through a structure that separates the ownership of electric buses from their operation, the city tendered separate contracts for fleet suppliers and transport operators. This approach attracted private investors, including energy companies and financial institutions, which financed the acquisition of buses through leasing contracts backed by stable payments from the district government. In addition, green financing resources were mobilized, such as loans from IDB Invest and thematic bonds. This innovation allowed Bogota to incorporate more than 1,400 electric buses into the system, demonstrating that intelligent risk allocation and a solid contractual architecture can make sustainable investments viable in middle-income urban contexts.

2. Financial Instruments

Santiago de Chile (Red Metropolitana de Movilidad)

As part of the modernization of public transport in Santiago de Chile, an innovative financial scheme has been set up involving new agents, instruments, and structuring modalities. Of particular note is the formation of consortia between public service companies, electric fleet suppliers, and transport operators, which have used financial instruments such as leasing to cover the useful life of the electric buses awarded in the bidding processes.

These consortia not only assume the provision and financing of the vehicles, but also the management of payments associated with the energy supply required for their operation. The financial structure is leveraged through long-term debt instruments, with the participation of multilateral entities such as IDB Invest, which granted financing of up to US$127 million over 13 years to the bus supplier K Cuatro SpA. This operation is complemented by the participation of co-lenders such as the International Finance Corporation and Banco del Estado de Chile, thus strengthening the financial viability of the model.

BOX 3.4. Innovative Contractual Arrangements to Promote the Technological Advancement of Public-Private Partnerships in Santiago de Chile and Bogota (2 of 5)

Bogota (Transmilenio)

In the financing scheme for the electrical component of the Transmilenio system in Bogota, the fleet is provided with public resources through future commitments made by both the national government and the district. The leverage for the acquisition of rolling stock by fleet suppliers combines multiple instruments, including commercial banking, development banking (notably the participation of Financiera de Desarrollo Nacional - FDN), bus manufacturers, and private equity funds that contribute through subordinated debt and equity contributions.

For their part, the agents responsible for the development and operation of depots are financed predominantly through equity and commercial credit. In addition, Transmilenio, in its capacity as the system management entity, has resorted to the securities market through securitization operations, which are backed by budgetary commitments established by the national government and the district (cofinancing agreements), thus strengthening the financial structure of the system.

3. Contract Characteristics

Santiago de Chile (Red Metropolitana de Movilidad)

The operating model for the public transport system in Santiago de Chile is characterized by a clear separation between the ownership of strategic assets (buses, depots, workshops, and loading infrastructure) and their operation. This separation allows operating contracts to focus exclusively on service provision, reducing their size and duration and facilitating better distribution and management of operational risks.

Under this scheme, the government retains functional control over the assets, even though it is not their direct owner, which allows it to exercise powers of supervision and substitution of operators that fail to comply with established service levels by reassigning the fleet and infrastructure to new operators. This approach responds to the principle of public interest in service continuity and is aligned with the policy of strengthening institutionality in transport management, in accordance with the established regulatory framework.

Bogota (Transmilenio)

The model adopted for the Transmilenio system establishes a contractual structure that clearly separates the ownership and management of strategic assets between three different agents: the fleet and infrastructure provider (Intelligent Transport Systems and complementary equipment), the depot provider, and the fleet operator concessionaire. The fleet supplier is responsible for the entire process of incorporating rolling stock: selection and acquisition of the fleet, supervision of manufacturing, importation, management of registrations and licenses, ITS installation , and delivery of the vehicle fleet to Transmilenio for operation. The depot supplier's main function is to supply, manage, and maintain the electric charging infrastructure and other physical elements required for the efficient operation of the depots and workshops. The fleet operator concessionaire assumes the operation and maintenance of both the fleet and the support infrastructure located in the operational depot.

BOX 3.4. Innovative Contractual Arrangements to Promote the Technological Advancement of Public-Private Partnerships in Santiago de Chile and Bogota (3 of 5)

This contractual configuration allows the system manager (Transmilenio) to maintain strategic control over the assets, while promoting private sector participation under efficient risk and return distribution arrangements.

4. Guarantees

Santiago de Chile (Red Metropolitana de Movilidad)

In the Chilean fleet provision model, local authorities representing the public sector provide payment guarantees that back the contractual commitments made with bus suppliers. Although these guarantees are not always explicitly formalized as financial guarantees, financiers recognize the existence of an implicit guarantee based on the government's commitment to the continuity of future payment flows. This backing is materialized through the use of state-guaranteed payments, which gives the scheme a higher degree of bankability by reducing the risk perceived by investors and facilitating access to long-term financing on favorable terms.

Bogota (Transmilenio)

In the financing and operation model of the public transport system, the district government plays a key role in supporting and guaranteeing system operation, especially with regard to the fulfillment of payment obligations to the various agents involved (operators, fleet suppliers, infrastructure, among others). This guarantee is executed through mechanisms such as:

- Long-term budgetary commitments (future terms), which ensure the availability of public resources to cover contractual payments.
- Contracts backed by a regulatory and budgetary framework that builds confidence among financiers and reduces perceived risk.

This institutional backing attracts private investment and facilitates access to long-term credit by generating certainty in the financial sustainability of the system.

BOX 3.4. Innovative Contractual Arrangements to Promote the Technological Advancement of Public-Private Partnerships in Santiago de Chile and Bogota (4 of 5)

5. Concessionaire Payment Arrangements

Santiago de Chile (Red Metropolitana de Movilidad)

Under Chile's public transport system, payments to concession operators are not made directly by the government, but rather through a complementary financial management service provider, an entity that acts as a fiduciary administrator of the system's resources. This agent is responsible for collecting, managing, and distributing the economic flows from both the fees paid by users and public subsidies, ensuring transparency, traceability, and compliance with contracts.

Payment to the concession operator is structured based on a performance and service volume remuneration scheme composed of four main factors:

1. Payment per passenger transported: Calculated as the number of valid transactions multiplied by the price per passenger transported. This component encourages efficiency and service coverage.
2. Payment per kilometers operated: Determined by the kilometers eligible for payment multiplied by the price per kilometer of service unit. This reflects the operating cost of the service and is adjusted for variables such as bus type.
3. Indicator compliance: These are amounts that are added or deducted based on the operator's performance against contractually established service quality indicators, such as punctuality, regularity, and cleanliness, among others.
4. Other items: These include additional payments or discounts associated with the use of non-concessioned infrastructure, operation at additional terminals, electric charging services, reduction of fare evasion, or other specific contractual variables.

This performance-based payment model, combined with professional financial management, has been key to improving system management, mitigating financial risks, and facilitating the entry of private investors.

Bogota (Transmilenio)

The remuneration structure in the public transport model is organized according to the different concessioned roles, seeking to efficiently allocate risks and ensure the financial sustainability of the system:

1. The fleet supplier concessionaire is remunerated through a fixed fee, intended to cover the initial investment, management, and administration of the vehicles. This fee is mainly supported by public resources through long-term budgetary commitments.
2. The operator concessionaire is recognized for variable operating costs, differentiated into two components:

BOX 3.4. Innovative Contractual Arrangements to Promote the Technological Advancement of Public-Private Partnerships in Santiago de Chile and Bogota (5 of 5)

- Per passenger transported, which includes elements such as rates of return and taxes
- Per kilometer operated, which covers operating expenses such as fuel and maintenance, as well as and operating personnel costs (drivers).

These payments are partially financed by the fare paid by users and are guaranteed by public contributions from the district in the event of a deficit.

The depot concessionaire is remunerated through a fare structured as a lease fee, which compensates for the availability and maintenance of the infrastructure necessary for the operation (depots and workshops).

Strengthen Technical and Institutional Capacity to Structure Financing

The viability of projects depends on the public sector's ability to structure well-designed proposals with demand analysis, financial sustainability, contractual engineering, and risk control mechanisms (see Box 3.5 for the example of Bogota). To this end, it is important to:

- Train public officials in financial planning, PPP structuring, risk management, and tariff model design.
- Create project structuring units within governments or specialized agencies with stable, multidisciplinary staff and adequate incentives.
- Adopt standardized methodologies to analyze economic impacts, financial viability and sustainability, and to carry out risk identification, assessment, and mitigation, pre-investment studies, and environmental and social due diligence.
- Promote multi-year planning and alignment between mobility plans, public budgets, and financing strategies.

A technically sound public administration is a prerequisite for building market confidence and leveraging more sophisticated financial instruments.

BOX 3.5. Financial Structuring: Bogota Metro Line 1 (L1MB) (1 of 4)

There are emblematic cases in the region where the public sector has structured sophisticated financing strategies for public transport projects that can serve as a reference for how to leverage resources through various financial instruments. One of the most representative examples is Bogota Metro Line 1, for which the financing scheme combines public contributions from the national and district governments (channeled through future public budget appropriations) with multilateral bank loans and commercial financing from local banks.

Repayment of this financing structure is expected to come from the system's fare revenues and the resources generated by the commercial exploitation associated with the project. The participation of multilateral organizations was made possible by the Colombian national government granting Empresa Metro de Bogota (EMB) authorization to contract external credit operations with sovereign guarantees up to a specified maximum amount. This guarantee facilitated obtaining loans from entities such as the World Bank, and European Investment Bank (EIB).

1. Resources for Payment of Empresa Metro de Bogota Obligations – Public Financing

The financing model for the L1MB project, structured around a public and multilateral financing approach, includes the following resources:

a) Budgetary resources through future terms:

The backbone of the financing arrangement consists of long-term budget commitments from the national government and the capital district.

- The total amount as of December 31, 2017 was COP 22.3 trillion in constant terms, distributed in the following proportions:
  - 70 percent, national government: COP 15.1 trillion
  - 30 percent, District of Bogota: COP 7.2 trillion

b) Multilateral credit resources with sovereign risk:

To complement the commitments outlined above, the project is leveraged by external credit operations, managed with sovereign backing from the national government, through the following loans:

- IDB: US$600 million
- World Bank: US$600 million
- EIB: US$448 million

BOX 3.5. Financial Structuring: Bogota Metro Line 1 (L1MB) (2 of 4)

c) System fare revenue:

Once the pre-operational stage is complete, the EMB will have its own revenues derived from system ticketing (fares paid by users). In addition, the contractual model provides for the EMB to receive 60 percent of commercial operating revenues (non-tariff activities), which will be transferred monthly by the concessionaire.

d) Temporary cash flow mismatch – Need for credit operations:

Given that the schedule of disbursements derived from contractual obligations (particularly payments to the construction concessionaire) does not align perfectly with the revenue profile associated with future terms, it is necessary to anticipate these resources through credit operations. This bridge financing mechanism ensures the timely availability of resources for the fulfillment of contractual obligations, mitigating illiquidity risks during the project execution phase.

2. National Government (Sovereign) Guarantees

The national government authorized the EMB to contract external public credit operations backed by sovereign guarantees, in accordance with the guidelines of Consejo Nacional de Política Económica y Social (CONPES) Document 3900 of 2017 and the provisions of the Medium-Term Fiscal Framework.

The contracting of external debt was authorized for up to the equivalent of COP 7.8 trillion in constant December 2017 terms, with a guarantee from the national government. This value does not constitute a limit on the total indebtedness of the project, but rather represents the maximum amount that can be covered by a sovereign guarantee.

3. Project Capital investment

The estimated investment cost for the construction and commissioning of L1MB amounts to COP 12.3 trillion in constant 2017 values, covering civil works, rolling stock, railway systems, associated infrastructure, and project management and auditing costs.

4. Type of Contract

The contractual arrangement adopted corresponds to a comprehensive transfer concession model that provides for the concessionaire's responsibility for the design, financing, construction, operation, maintenance, and subsequent transfer of the asset to the grantor at the end of the contractual period. This model seeks to maximize efficiency in all stages of the project life cycle, assigning risks and responsibilities to the party with the greatest capacity to manage them.

BOX 3.5. Financial Structuring: Bogota Metro Line 1 (L1MB) (3 of 4)

5. Financing Modality

The financing arrangement adopted for the project is mixed in nature, combining public and private resources. On the one hand, the EMB manages a public financing package, intended to cover a significant proportion of the payments required during the pre-operational stage. On the other hand, the concessionaire contributes its own resources (equity) and structures credit operations to finance construction and the acquisition of equipment and systems, and to secure the resources required during the operation and maintenance phases of the project.

This arrangement seeks to distribute financial risks efficiently, taking advantage of the concessionaire's leverage capacity, while ensuring the active participation of the public sector in the financial viability of the system.

6. Arrangements for Payments to the Concessionaire

Payments made to the concessionaire under the project are structured according to specific components associated with the investment, clearly differentiating between the construction stage and the operation and maintenance stage.

Contractual payment commitments are denominated in Colombian pesos and U.S. dollars, depending on the nature of each component (Table B3.5.1). Values are initially expressed in constant prices for the base year 2017 and are subsequently indexed to current prices for the year in which they are incurred, in accordance with the adjustment mechanisms provided for in the contract.

TABLE B3.5.1. Empresa Metro de Bogota Payment Commitments by Project Phase

Payments during the construction phase	
Component	**Payment**
A	**Payment in COP** for completion of Implementation Unit
B	**Payment in U.S. dollars** for completion of Implementation Unit
C	Title of Payment for Execution (TPE) for completion of Implementation Unit **(COP)**
D	Networks, detours, and intersections (unit prices) **(COP)**
E	Traffic Management Plan (unit prices) **(COP)**
F	Commission incentive **(COP)**

Payments during the operation and maintenance stage	
Component	**Payment**
C	Title of TPE for completion of Implementation Unit **(COP)**
G	Payment for availability (quarterly payment) **(COP)**
H	Payment during operation and maintenance (quarterly) **(COP)**
I	Payment per kilometer traveled **(COP)**
J	Commercial development **(COP)**

BOX 3.5. Financial Structuring: Bogota Metro Line 1 (L1MB) (4 of 4)

7. Payment for Execution Certificate (TPE)

Payment for Execution (TPE) Certificates are financial instruments issued by the EMB as a payment mechanism to the project concessionaire within the framework of the concession contract. Their main characteristics are described below:

- **Legal nature:** TPEs are securities issued by the project's autonomous equity, administered by a trust company, with the EMB as the trustor. Their issuance complies with the contractual provisions to cover the concessionaire's payment obligations.
- **Source of backing:** TPEs are backed by resources from the cofinancing agreement signed between the national government and the Capital District.
- **Form of issuance:** TPEs are dematerialized securities registered with the Centralized Securities Depository of Colombia (Deceval), which acts as their depositary and administrator, ensuring their traceability and transparency.
- **District guarantee:** The District of Bogota guarantees the payment of TPEs by providing a guarantee on the securities, which makes them highly reliable instruments for holders and third-party financiers.
- **Endorsement and flow of funds:** Once a payment obligation to the concessionaire that can be covered by TPEs is activated, the trustee endorses these securities to the concessionaire in accordance with the terms of the contract. The financial flows derived from the TPEs are transferred to the concessionaire's account in the autonomous equity, which can freely disperse these funds.
- **Assignment to third parties:** TPEs are freely endorsable by the concessionaire in favor of third parties, which makes them a potentially useful instrument to structure financing schemes, as they are transferable to financial institutions or investors.

Leverage the Support of Multilateral Organizations as a Financial Catalyst

The participation of multilateral banks in financing public transport projects can catalyze the interest of other financiers by reducing perceived risk. Multilateral banks not only provide financing on favorable terms, but also credibility, technical assistance, and project structuring. In this regard, governments can:

- Consolidate strategic alliances with multilateral banks, taking advantage of their credit lines, guarantee programs, and technical expertise.
- Ensure that projects meet eligibility and financial and environmental sustainability criteria, facilitating their approval.
- Use multilateral backing to structure mixed operations that combine public, multilateral, and private resources, maximizing the impact of financing.

4. An Agenda to Transform Urban Public Transport Systems

The previous chapters provided an in-depth analysis of the challenges faced by cities in the region in terms of urban mobility and its impact on economic sustainability (Chapter 1), as well as the challenges related to public transport funding and financing and the main areas of reform needed to address them (Chapters 2 and 3). Table 4.1 summarizes the areas of action identified—at the general level and in terms of funding and financing—and presents the corresponding recommendations according to their implementation horizon, distinguishing between short- and medium-term measures. This chapter analyzes how these areas can be articulated in a comprehensive and operational agenda to advance the transformation of urban public transport systems in the Latin America and the Caribbean, delving into the proposed reform strategies and their feasibility for implementation.

TABLE 4.1. Areas of Reform to Improve Public Transport Funding and Financing in LAC (1 of 2)

Reform Area	**Short-term** (2025-2027)	**Medium-term** (from 2027)
GENERAL		
Governance and institutions	→ Improve information and transparency regarding public transport funding and financing. → Systematically generate robust information, regional benchmarks, and clear indicators on operational and financial efficiency to promote the dissemination of best practices in the region. → Strengthen institutional capacity and generate political will to ensure effective implementation.	→ Create metropolitan transport authorities to improve the efficiency of transport systems.
FUNDING		
1st Area: Improvements in funding with a focus on operational efficiency	→ Review operator remuneration schemes, prioritizing criteria of efficiency, quality, and safety, beyond the volume of passengers transported. → Progressively reduce implicit subsidies to private transport to correct distortions and negative externalities.	→ Implement complementary mechanisms such as congestion charges, road infrastructure usage fees, or specific environmental taxes.

TABLE 4.1. Areas of Reform to Improve Public Transport Funding and Financing in LAC (2 of 2)

Reform Area	**Short-term** (2025-2027)	**Medium-term** (from 2027)
2nd Area: Improvements in the use and targeting of subsidies	→ Improve transparency and social and political acceptance through distributive impact analysis, correcting errors of inclusion and exclusion.	→ Target subsidies at vulnerable or interested groups, ensuring equity and efficiency. → Implement personalized "micro-subsidies" to improve targeting accuracy. → Condition subsidies on supply through explicit criteria of performance and service quality.
3rd Area: Development of new funding sources	→ Strengthen institutional capacity and generate political will to ensure effective implementation.	→ Diversify funding sources to reduce dependence on government transfers, promoting financial stability. → Implement instruments to capture the real estate value associated with improvements in public transport. → Effectively internalize externalities through specific fees (congestion, parking, road use). → Establish innovative sources linked to climate and public health objectives (emissions pricing, low-emission urban zones).
FINANCING		
1st Area: Macroeconomic conditions		→ Ensure a predictable macroeconomic environment to reduce the financial risk of projects. → Improve tax systems to increase public investment capacity in transportation.
2nd Area: Sectoral conditions		→ Strengthen intergovernmental coordination to finance public transport projects at the metropolitan level. → Promote innovative financial instruments for the transport sector. → Develop risk mitigation mechanisms to attract private capital. → Strengthen technical and institutional capacity to structure complex financing. → Leverage the support of multilateral organizations as catalysts for financing.

Source: Elaboración de los autores.

1. Prioritize investment in public transport as an essential part of improving the quality of life in Latin American and Caribbean cities

Public transport is a fundamental element in building more livable, equitable, and competitive cities. Ensuring adequate funding and financing schemes for public transport projects not only responds to the need to offer more sustainable mobility alternatives, but is also a decisive factor in improving the quality of urban life and social inclusion, and boosting local economies. Indeed, adequately funded and managed public transport systems:

- Facilitate equitable access to employment, education, health, and recreation opportunities, reducing gaps between different socioeconomic and territorial groups.
- Reduce congestion in cities by decreasing the excessive use of private vehicles, which translates into shorter travel times, less stress for people, and greater access to opportunities. Analysis conducted for a sample of cities in Latin America and the Caribbean indicates that the partial absence of public transport increases the total costs associated with congestion by approximately 30 percent.
- Improve air quality and public spaces by reducing noise and pollution associated with individual motorized transport and promoting more environmentally friendly forms of travel.
- Boost urban growth and productivity by reducing the costs of transporting workers and goods and improving the overall efficiency of the urban mobility system.
- Promote planned urban development by encouraging densification around mass transit corridors and preventing the disorderly expansion of cities.

Therefore, public transport should be understood as a key investment for sustainable urban development, with significant returns in terms of social welfare, territorial cohesion, economic development, and sustainable development of cities. In this sense, budget allocations should be consistent with the prioritization of public transport in the public policy agenda. In particular, public transport should be placed at the center of urban and social development programs, ensuring that its funding and financing are considered part of the basic infrastructure of cities, just like water, electricity, or sanitation. An important task in this context will be to promote a clear narrative that communicates the value of public transport as a collective good that improves quality of life, reduces inequalities, and makes cities more attractive places to live, invest, work, and develop.

2. Formulate explicit, sustainable, and socially equitable fare policies

Public transport fares play a central role in the financial sustainability of the system, but also in ensuring equitable access and quality of service. Without well-designed fare policies, transport systems risk becoming financially unviable, generating an unsustainable fiscal burden for cities or becoming inaccessible to large sectors of the population. In many Latin American and the Caribbean cities, fare schemes are outdated and any adjustments have generated considerable political and social sensitivity. Establishing fare policies based on clear and transparent principles, as well as formal and technical mechanisms for their review, is key to strengthening the legitimacy and social acceptance of the decisions to be made. Fare policies can be evaluated independently and include mechanisms to defer fare adjustments in exceptional circumstances, making them more flexible (ITF, 2024c).

An important principle is to balance the financial sustainability of systems with affordability for users. To this end, a tariff level should be sought that optimizes user contributions without placing an excessive burden on them that ends up affecting lower-income groups or discouraging the use of public transport. If resources are limited and the main objective of subsidies is to ensure access to

public transport for lower-income persons,[43] new technologies exist that allow for the implementation of differential and targeted tariff schemes. Likewise, new technologies are facilitating the expansion of integrated or distance/zone-based tariff schemes to better reflect actual system usage and associated costs, which is optimal when funding services is the main objective of the tariff scheme.

An effective fare policy requires strengthening collection and control systems, as these are fundamental both for the financial sustainability of the system and for ensuring agile and equitable access. On the one hand, it is essential that these systems facilitate integrated and multimodal payment, allowing users to travel without interruptions or barriers between different modes and transport operators. This not only improves the user experience, but also enables the implementation of targeted fare schemes, such as targeted subsidies or the differentiated fares mentioned above. On the other hand, a robust and well-managed fare collection system helps minimize losses due to fare evasion, for example, through the use of controls such as electronic validators, surveillance cameras, and mobile inspection equipment, as well as tracking and data analysis technologies to detect patterns of fare evasion and more effectively target control and enforcement actions. Finally, the modernization of fare collection systems reduces operating costs by reducing cash handling, simplifying revenue management, and providing valuable information for operational management.

3. Develop new sources of public transport funding beyond fares

Although fares paid by users are an essential source of revenue for public transport systems, **international and regional experience shows that no sustainable, high-quality system can be financed solely from this source.** Even when managed efficiently and equitably, fares rarely cover the total cost of operation, let alone the investment needs for expansion, modernization, or renewal of fleets and infrastructure. It is therefore essential to adopt innovative complementary financing mechanisms that provide public transport with stable, predictable resources commensurate with the system's strategic role in improving the quality of urban life. As mentioned in Chapter 1, land value capture, charges to indirect beneficiaries, earmarked taxes, and levies on private vehicle use, among other measures, can provide significant additional resources to improve the quality of public transport.

4. Reformulate the urban mobility pricing scheme

To build more sustainable, accessible, and efficient cities, it is necessary to comprehensively rethink the urban mobility pricing scheme so that the use of public space and resources by all modes of transport adequately reflects their costs and benefits to society. In most Latin American and Caribbean cities, private vehicle use remains relatively inexpensive, despite the social costs it generates (congestion, occupation of public space, pollution, road safety). This imbalance in the pricing structure discourages a modal shift and limits the ability of public transport to offer quality service. It is therefore essential to design and implement integrated pricing strategies that combine fares, charges, and subsidies in a coherent manner, avoiding distortions that perpetuate dependence on cars. For example, revenues from urban tolls, congestion charges, on-street parking fees, or fuel and emissions taxes can be allocated to projects to improve public transport systems. This will generate additional resources and also contribute to more balanced and efficient mobility. Of course, implementation of these measures must be accompanied by communication and awareness programs that explain to citizens the benefits of a fairer pricing system that is aligned with the collective interest, as well as an appropriate regulatory and fiscal framework that allows for the creation and allocation of these charges, with clear control and accountability mechanisms.

[43] As noted in Chapter 2, in addition to their social objective, public transport subsidies also play a key role in demand management by helping to discourage the use of private transportation.

5. Improve the use and efficiency of subsidies

As part of efforts to rebalance urban mobility prices, there should be a gradual transition toward subsidies directed directly at demand, focusing on stakeholder groups. This strategy optimizes the use of public resources by ensuring that the benefits effectively reach those who need them most. To reinforce the accuracy of targeting, new technologies enable the implementation of personalized "micro-subsidies," with greater targeting that takes into account the specific socioeconomic characteristics of each household or individual. This modality allows for greater flexibility and sensitivity in adjusting state support to the actual conditions of the beneficiaries. At the same time, supply subsidies must be conditioned by explicit performance and service quality criteria, ensuring that the allocated resources translate into tangible improvements for users. Likewise, to strengthen the legitimacy of the subsidy system and increase its social and political acceptance, it is essential to incorporate distributive impact analysis. These analyses make it possible to evaluate the real impact of subsidies on different social strata and are key to identifying and correcting errors of inclusion (ineligible beneficiaries) and exclusion (people who should receive the subsidy but do not), thus improving the transparency and fairness of the system.

6. Improve the efficiency of investments and the provision of public transport services

Improving public transport systems in Latin America and the Caribbean requires not only investing more, but investing better. More efficient systems reduce the need to increase subsidies and allow each dollar invested to generate greater impact in terms of coverage, quality, and accessibility. In this sense, investments should be framed within comprehensive planning of transport systems, rather than being approached as isolated projects. Integrated system planning ensures long-term sustainability by addressing key aspects such as multimodal connectivity, fare integration, affordability, service quality, and transport service coverage.

Improving efficiency begins at the stage of planning and prioritizing investments. Investment decisions should be based on sound cost-benefit analyses and criteria that maximize the social value of projects. This involves prioritizing projects that generate the greatest impact in terms of coverage, reduced travel times, social inclusion, and better quality of the urban environment, using multi-criteria assessment tools that consider social, environmental, and urban benefits in addition to financial indicators. It also involves promoting integration between urban development and transportation investments, avoiding the sprawling expansion of cities that reduces the efficiency of public transport and encouraging densification around mass transit corridors.

The provision of public transport services must be geared towards efficiency. This can be driven in part by (i) the implementation of pro-competitive reforms, either through competition for the market (well-designed tenders) or in the market (in contexts where this is feasible), which stimulates improvements in service quality and performance; (ii) operating contracts and remuneration schemes based on performance indicators to align operators' incentives with service quality, safety, coverage, and user satisfaction objectives; (iii) technologies for intelligent systems management, incorporating demand management and information transparency tools for users; (iv) monitoring and benchmarking systems that allow performance to be compared between operators, cities, or corridors; (v) periodic operational efficiency evaluations to ensure informed decisions to correct deviations and optimize results; and (vi) tools for transparency and accountability in the use of public resources that allow for reporting information on the systems—such as annual reporting on all sources of public transport revenue—which helps to build trust among citizens and decision-makers.

7. Improve coordination between different levels of government

The financial sustainability of public transport requires effective coordination between different levels of government, especially in contexts where transportation and urban development competencies are decentralized but the fiscal and financial capacity of subnational governments is limited. Lack of coordination and clarity of responsibilities can lead to inefficiencies, duplication, delays in project implementation, and inadequate resource allocation. To overcome these challenges, it is essential that national and local regulatory frameworks precisely define the roles and responsibilities of each level of government in the planning, financing, implementation, and operation of public transport projects. There is also a need for formal coordination mechanisms, such as intergovernmental mobility councils or committees, that allow for the alignment of objectives, policies, and resources across different levels of government.

Given the magnitude of the investments required for efficient public transport, it is essential to promote multi-year cofinancing schemes that combine national, regional, and local resources, ensuring the financial sustainability of projects throughout their life cycle. To this end, it is important to have legal and financial instruments, such as framework agreements or inter-institutional agreements, that specify the financing commitments and obligations of each party. Likewise, at the central level, specific funds or conditional transfer mechanisms to subnational governments can be established that are linked to meeting performance, social inclusion, or sustainability goals. Mechanisms can also be explored that allow for the joint collection and management of resources from new sources, such as land value capture or green taxes, ensuring that they are allocated to public transport.[44]

The development of effective strategies for funding and financing public transport requires strengthening the institutional capacity of subnational governments. It is important to invest in the technical and administrative strengthening of local and regional governments, providing them with the tools and human capital necessary to efficiently plan, structure, execute, and supervise public transport projects. Similarly, international experience shows the key role that metropolitan or regional transport agencies can play if they have the capacity to integrate mobility systems, coordinate different operators, and manage resources in a unified manner.

8. Diversify and strengthen public transport funding as a mechanism to leverage higher levels of financing

An effective and sustainable financing strategy for public transport projects must be based on a clear understanding of the available sources of payment—that is, the expected revenue streams to cover the costs of investment, operation, maintenance, and renewal of the system throughout its life cycle. Payment sources not only determine the financial viability of a project, they also condition the type of financial instruments that can be used, the risk structure, and the conditions under which the necessary resources are mobilized. Thus, the more diversified, stable, and predictable a project's payment sources are, the lower the risk perceived by financiers, which will allow access to better credit conditions.

[44] Land value capture includes instruments ranging from voluntary contributions from developers—as compensation for high-rise construction permits—to more structured schemes, such as adjusting property taxes based on the level of public transport service and periodically revaluing them. While voluntary mechanisms tend to be more widely accepted, more technical approaches, especially if they also apply to residential properties, can face strong political resistance.

9. Promote the use of less-common financial instruments in public transport projects

Investment in public transport can be leveraged through financial instruments that mobilize private capital and optimize the use of public resources. These instruments include thematic bonds (e.g., green, social, sustainable), which are useful for public transport projects that generate environmental co-benefits (emission reduction) or social co-benefits (equitable access). The use of trusts, investment funds, and/or SPVs in urban infrastructure can pool contributions from different sources (governments, multilateral, private) and channel resources to priority projects. Finally, as seen in metro projects, securitization of future revenues (such as fares, operating subsidies, or land value revenues) is useful to advance such resources to the initial phases of projects. Enabling these instruments requires clear regulatory frameworks, stable legal environments, transparency in resource management, and a financial sector with the technical capacity to structure them.

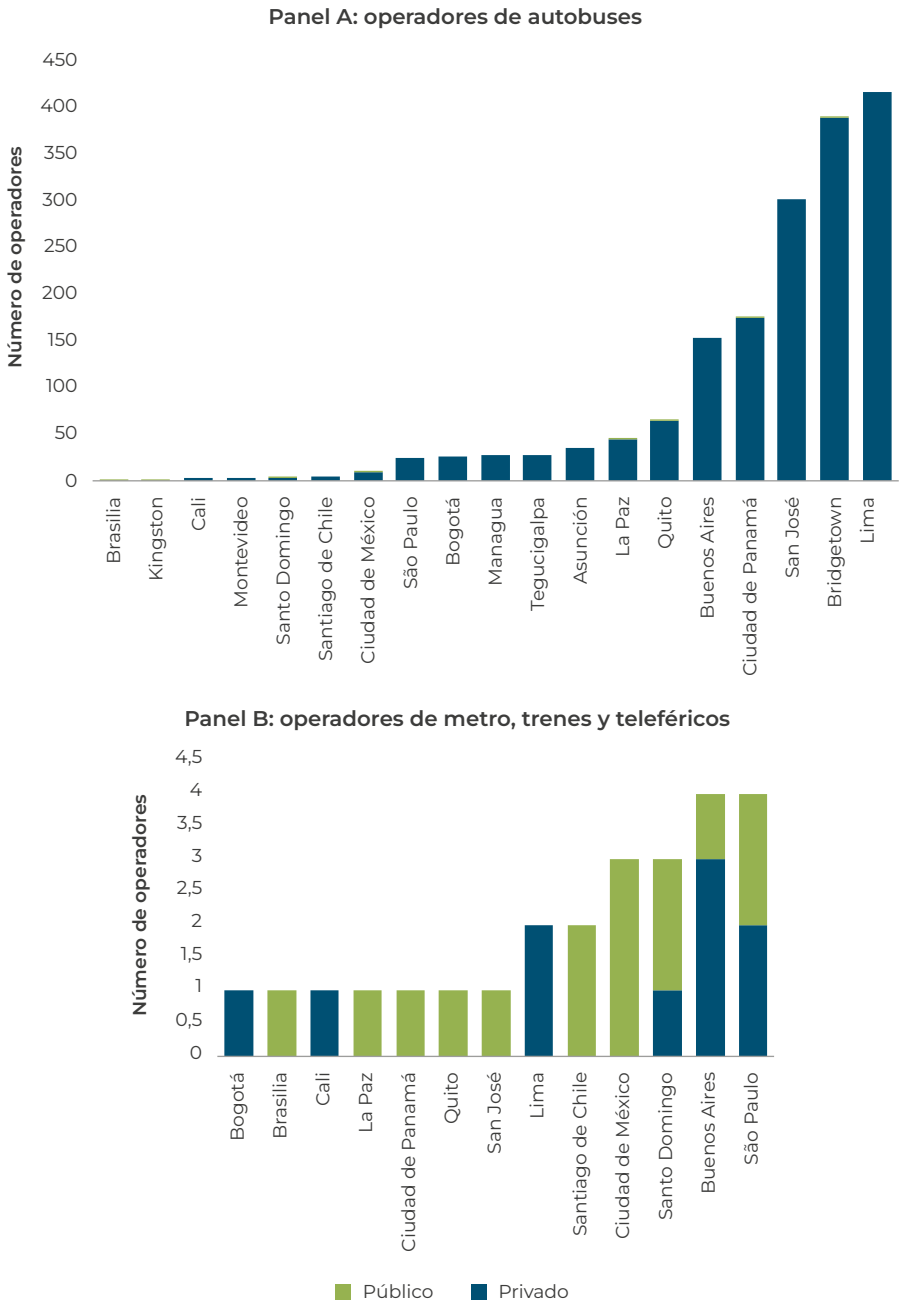
10. Develop risk mitigation mechanisms to attract private capital

The creation of risk mitigation mechanisms is key to encourage private actors to participate in the financing, construction, or operation of projects, improving their viability and reducing the direct fiscal burden (Box 4.1). Indeed, high macroeconomic uncertainty generates risk aversion among investors, especially in long-term infrastructure projects such as metro or bus rapid transit systems. To counteract this perception, mechanisms can be made available such as minimum revenue guarantees or availability payments for PPPs; currency hedging or contractual indexation, especially in contexts of external financing; sovereign or multilateral guarantee funds, which ensure the continuity of payments in the event of fiscal shocks; contractual and institutional arrangements, which guarantee the allocation of risks to the agents with the greatest capacity to manage them; and contingency funds for specific stages or investments in projects. Once again, making implementation of these mechanisms viable requires clear regulatory frameworks, predictable legal environments, high standards of transparency in resource management, and a financial sector with the technical capacity to structure and support these solutions.

BOX 4.1. Structure and Organization of Public Transport Operations: Private Sector Participation

The structure and organization of the public transport market has an impact on the particularities of system financing. The spectrum is broad in this regard: some cities have a few large operators, while others are dominated by small companies with few routes (Figure B4.1.1, panel A). In the latter case, access to financing will be more difficult, as it will be in cases involving informal transport. Likewise, most operators are private operators. The modes of transport available will also determine the organization of the market: unlike buses, urban rail, metro, and cable car systems tend to have few large operators (Figure B4.1.1, panel B). While this may facilitate access to financing, the investments required in these systems are more substantial, both for construction and operation. These systems have a combination of public and private operators.

FIGURE R4.1.1 Number of Public Transport Service Operators in Selected Latin American and Caribbean Cities, by Sector and Ownership, 2023



Source: Prepared by the authors based on data from Cavallo, E. A., Powell, A., and Serebrisky, T. (2020) and questionnaires completed by cities in Latin America and the Caribbean. The information only includes formal service providers.

11. Leverage the support of multilateral organizations as catalysts for financing

The participation of multilateral banks in the financing of public transport projects can catalyze the interest of other financiers by reducing the perceived risk. Multilateral banks provide not only financing on favorable terms, but also credibility, technical assistance, and project structuring. In this sense, governments can consolidate strategic alliances with multilateral banks, taking advantage of their credit lines, guarantee programs, and technical knowledge. In addition, such alliances can ensure that projects meet eligibility and financial and environmental sustainability criteria, facilitating their approval. Finally, multilateral support can enable the structuring of mixed operations that combine public, multilateral, and private resources, maximizing the impact of financing.

BOX 4.2. Coordination between Payment Sources and Financing Strategy for Line 1 of the Bogota Metro

Line 1 of the Bogota Metro, currently under construction, is an instructive example for Latin America and the Caribbean of how to design a financing strategy based on clear, diversified, and well-structured payment sources, with strong institutional support and coordination between levels of government.

→ Payment Sources: Shared Commitment and Predictability

From its initial stage, the project was structured under a cofinancing scheme between the national government and the Capital District, based on the provisions of Law 310 of 1996. This law allows the national government to finance up to 70 percent of mass transit projects, provided that (i) the local government contributes at least the remaining 30 percent; (ii) the project is declared eligible by the Ministry of Transportation; and (iii) there are identified and secured sources of payment to cover the obligations. Regarding the latter, the identified sources of payment for Line 1 were transfers from the national government backed by future appropriations (multi-year budget commitments) and contributions from the district, also secured through future appropriations from the Bogota budget. The national government and the district signed a cofinancing agreement that formalized the amounts and disbursement schedules and served as an anchor for structuring the financing. Both parties guaranteed these sources through the approval of exceptional future commitments by the corresponding legislative bodies (National Congress and the District Council, respectively). This made payment flows predictable and reduced the risk for potential financiers.

→ Financing Strategy: Leverage with Public Backing

Once the sources of payment were secured, Empresa Metro de Bogota (EMB) designed a financing strategy that would allow it to mobilize the resources necessary to execute the project, taking advantage of the support of the nation and the district. To this end, it resorted to multilateral financing, obtaining loans from the IDB, World Bank, and European investment Bank. The loans were requested directly by the EMB, with the sovereign backing of the national government, which made it possible to obtain favorable financial conditions, including lower interest rates and long grace periods. The backing of the payment flow committed through the cofinancing agreement and the stability of those sources were determining factors for international creditors.

→ Use of New Instruments Linked to Efficiency in Execution

Having long-term sources of payment enabled the EMB to back negotiable securities that were issued for 23 years to cover payments to the concessionaire in charge of the work. This mechanism links payments to the concessionaire to the progress and fulfillment of specific project milestones, promoting greater efficiency in execution. They were issued by the Autonomous Trust that manages the project's resources and are covered by part of the resources from the cofinancing agreement between the national government and the district, which generates greater credibility and reduces payment risk.

In summary, the transformation of urban public transport systems in Latin America and the Caribbean requires comprehensive vision and planning that positions public transport as the backbone of urban mobility. To this end, it is necessary to articulate equitable fare policies, diversified funding sources, and innovative financing mechanisms. Implementation of these strategies will not only improve the quality of public transport, but also contribute significantly to sustainable urban development, social inclusion, economic growth, and quality of life in the region's cities. The public sector plays a fundamental role as a regulatory authority and facilitator of the necessary transformation processes. Likewise, effective coordination between different levels of government, together with the active participation of private actors, multilateral organizations, and civil society, is essential to ensure both the financial and operational sustainability of transportation systems and the social acceptability of reforms. The agenda presented in this publication offers a clear and actionable guide to achieve these objectives, consolidating public transport as a strategic pillar for the future of the countries of Latin America and the Caribbean.

Appendix: Profile of Public Transport Systems in LAC Cities

BOGOTA

TABLE A1. Bogota: Information Received on Transport Systems

System	Mode of Transport	Indicator	Value
TransMilenio	Buses	Vehicles	10,712
		Vehicle kilometers per year	601,254,132
		Number of service lines	572
		Operators	27
		Annual passenger volume (millions)	942
		Average age of fleet	7 years
		Average commercial speed (km/h)	Trunk line 24.26 km/h; Dual line 18.85 km/h; and Feeder line 17.34 km/h
TransMiCable	Cable cars	Vehicles	163 (cabins)
		Vehicle kilometers per year	10,081,327
		Number of service lines	1
		Operators	1
		Annual passenger volume (millions)	4
		Average age of fleet	6 years
		Average commercial speed	3.5 – 5.5 m/s

Source: Information based on questionnaire completed by TransMilenio. Data from 2023.

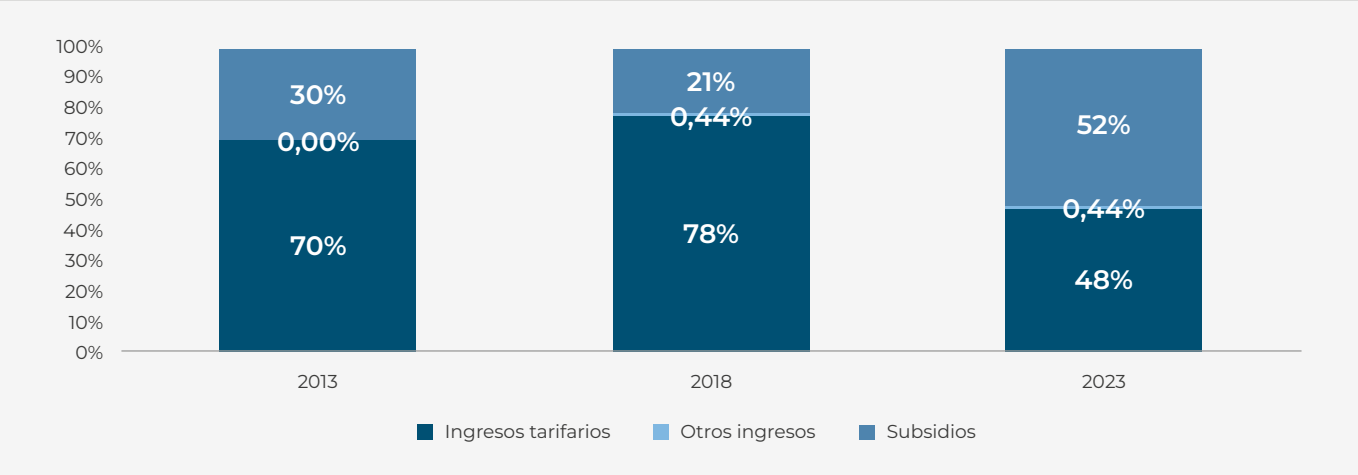
Note: Complementary modes not covered in the form: taxis, shared mobility services, informal transport, public bicycles, metro (under construction).

Public Transport Management

- **System organization:** The District Mobility Secretariat (SDM) defines policies and regulates the system, while Transmilenio S.A. is responsible for planning, regulating, contracting operators, and supervising the system. Transmilenio S.A. also integrates Bogota's different modes of transport, including TransMiCable, under a single system.
- **Authority in charge of public transport management:** The SDM is the authority responsible for passenger transport in Bogota.
- **Fare integration:** Yes.
- **Electronic payment:** Yes.

Composition of Funding Sources

FIGURE A.1. Evolution of the Composition of Funding Sources

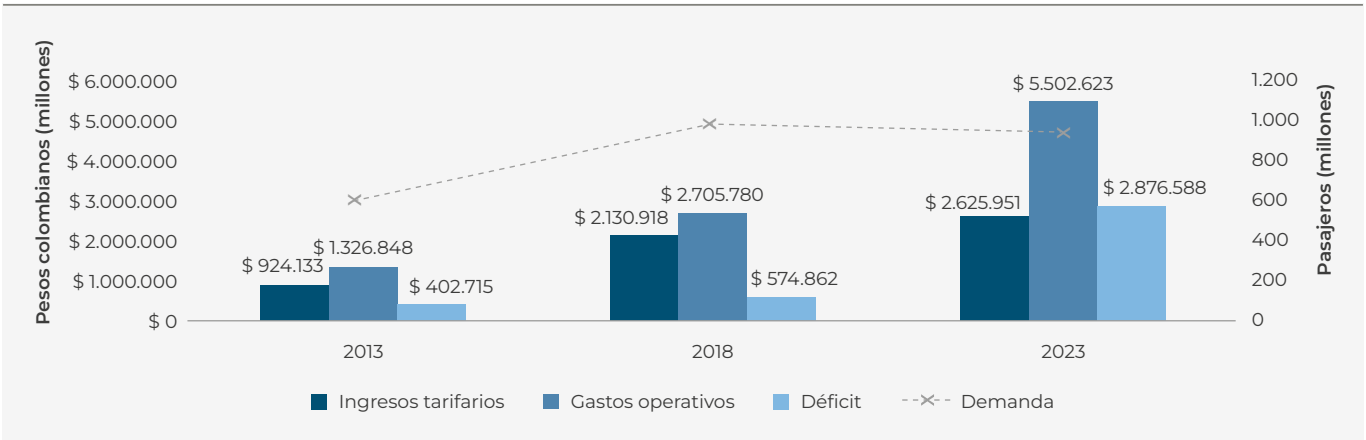


Source: Prepared by the authors based on a questionnaire completed by the cities analyzed.

Note: Other income: Corresponds to income from commercial and advertising space rentals, bus rentals, knowledge transfer and consulting, and brand use. Subsidies: Corresponds to resources from the Capital District, which are transferred to the Fare Stabilization Fund (FET) through the District Finance Secretariat, which is key to the operation of the public transport system (SITP).

Recent Evolution of Demand*, Revenue, Costs, and Operating Deficit

FIGURE A.2. Fare Revenue, Operating Expenses, and Deficit



Source: Prepared by the authors based on a questionnaire completed by the cities analyzed.

****Note:*** This refers to the demand that actually pays for the service, which is the only demand that can be identified and quantified from the annual validation records.

CALI

TABLE A2. Cali: Information Received on Transport Systems

System	Mode of Transport	Indicator	Value
Integrated Mass Transit System (MIO)	Buses	Vehicles	792
		Vehicle kilometers per year	57,588,909
		Number of service lines	Trunk (7), pre-trunk (30), and feeder (64)
		Operators	3
		Annual passenger volume (millions)	78
		Average age of fleet	12.8 years
		Average commercial speed (km/h)	16.3
MIO Cable	Cable cars	Vehicles	60
		Vehicle kilometers per year	n.d.
		Number of service lines	1
		Operators	1
		Annual passenger volume (millions)	0.4
		Average age of fleet	9 years
		Average commercial speed (km/h)	13.7

Source: Information based on questionnaire completed by Metro Cali. Data from 2023.

Note: Complementary modes not covered in the form: taxis, other shared mobility services, traditional and informal collective transport, and public bicycles.

Public Transport Management

- **System organization:** The Western Integrated Mass Transit System (SITM-MIO) is operated by articulated, standard, and complementary buses that run on trunk, pre-trunk, and complementary corridors. In addition, it includes the MIO Cable, an aerial suspension system that offers an alternative means of transportation to the residents of Cali's 20th district, under the management of the managing entity.

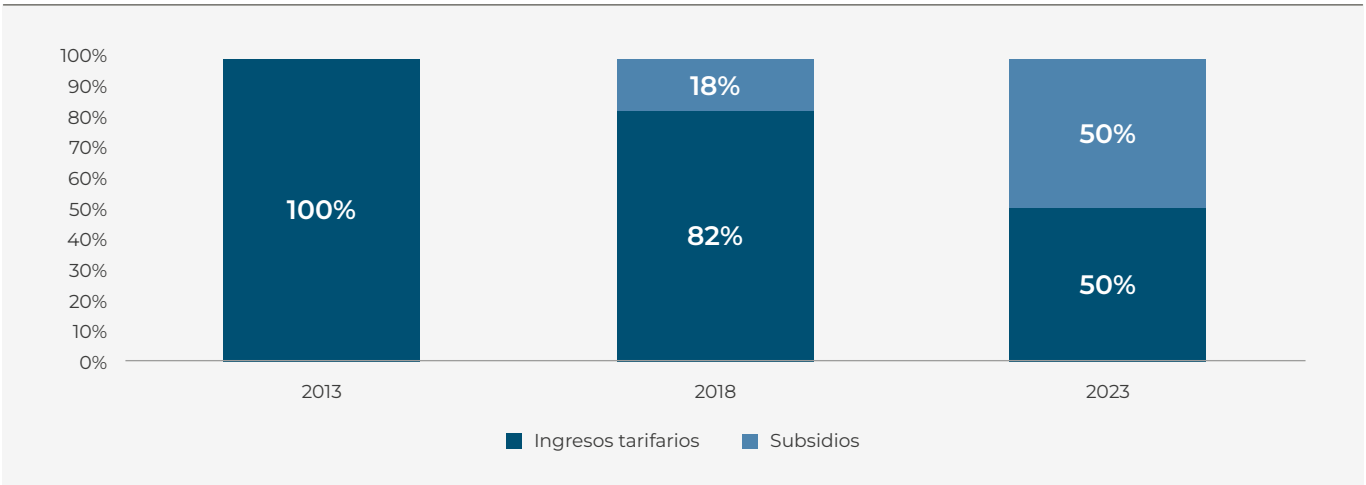
- **Authority in charge of public transport management:** The Municipality of Santiago de Cali, through the Secretariat of Mobility, is the city's transit and transport authority, responsible for regulating, planning, and supervising all modes of urban transport. As for the SITM-MIO, Metro Cali is the official entity that administers and controls the operation of the system.

→ **Fare integration:** Yes.

→ **Electronic payment:** Yes.

Composition of Funding Sources

FIGURE A.3. Evolution of the Composition of Funding Sources

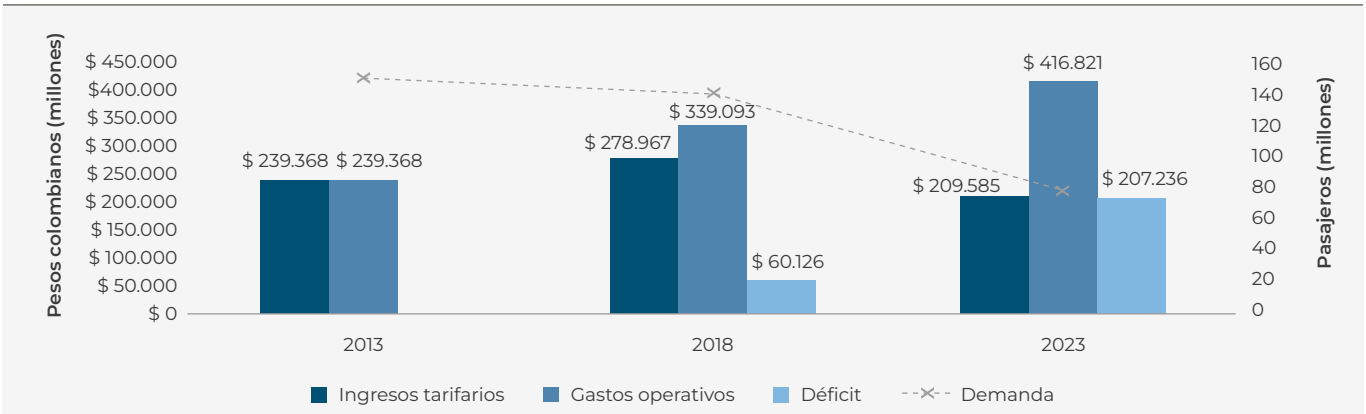


Source: Prepared by the authors based on a questionnaire completed by the cities analyzed.

Note: Cali does not report revenue under "Other Revenue;" nor does it report collateral revenue. Subsidies: In Cali, subsidies come mainly from municipal sources (56 percent for buses and 100 percent for cable cars) and national sources (44 percent for buses). The Demand Stabilization and Subsidy Fund (FESDE) is financed from the sources established in Agreement No. 0563 of 2023, including the congestion tax, capital gains tax, vehicle registration tax, and the public vehicle circulation and transit tax, among other sources and unrestricted current revenues.

Recent Evolution of Demand*, Revenue, Costs, and Operating Deficit

FIGURE A.4. Fare Revenues, Operating Expenses, and Deficit



Source: Prepared by the authors based on a questionnaire completed by the cities analyzed.

Note: This refers to the demand that actually pays for the service, which is the only demand that can be identified and quantified from the annual validation records.

MEXICO CITY

TABLE A3. Mexico City: Information Received on Transport Systems

System	Mode of Transport	Indicator	Value
Passenger Transport Network	Buses	Vehicles	1,332
		Vehicle kilometers per year	49,091,574
		Number of service lines	99
		Operators	1
		Annual passenger volume (millions)	131
		Average age of fleet	6 years
		Average commercial speed (km/h)	20.6
Metrobus	Buses	Vehicles	872
		Vehicle kilometers per year	80,039,910
		Number of service lines	7
		Operators	n.d.
		Annual passenger volume (millions)	210
		Average age of fleet	5 years
		Average commercial speed (km/h)	40
Trolleybus	Buses	Vehicles	462
		Vehicle kilometers per year	16,927,000
		Number of service lines	10
		Operators	1
		Annual passenger volume (millions)	90
		Average age of fleet	23 years
		Average commercial speed (km/h)	12.2

System	Mode of Transport	Indicator	Value
Metro	Rail	Vehicles	393
		Vehicle kilometers per year	35,938,507
		Number of service lines	12
		Operators	1
		Annual number of passengers (millions)	1,115
		Average age of fleet	30 years
		Average commercial speed (km/h)	36
Light rail	Rail	Vehicles	24
		Vehicle kilometers per year	n.d.
		Number of service lines	1
		Operators	n.d.
		Annual number of passengers (millions)	25
		Average age of fleet	22 years
		Average commercial speed (km/h)	20
Metropolitan train	Rail	Vehicles	80
		Vehicle kilometers per year	14,450,800
		Number of service lines	1
		Operators	n.d.
		Annual passenger volume (millions)	4
		Average age of fleet	n.d.
		Average commercial speed (km/h)	n.d.

System	Mode of Transport	Indicator	Value
Cable bus	Cable car	Vehicles	682
		Vehicle kilometers per year	65,78,674,746
		Number of service lines	2
		Operators	1
		Annual passenger volume (millions)	41
		Average age of fleet	n.d.
		Average commercial speed (km/h)	n.d.

Source: Information based on a questionnaire completed by the Mexico City Mobility Secretariat (SEMOVI). Data from 2023.

Note: Complementary modes not covered in the form: taxis and other shared mobility services, bicycles, traditional public transport outside the Passenger Transport Network, and informal transport.

Public Transport Management

- **System organization:** The organization of the public transport system in Mexico City is led by the Mobility Secretariat (SEMOVI), which is responsible for planning, regulating, and supervising transport services. The different actors in the system are the Collective Transport System (STC), which operates the Metro; the Electric Transport Service (STE), in charge of the trolleybus and light rail; the Passenger Transport Network (RTP), in charge of the traditional bus system; the Metrobus (BRT); and the Cablebus, which consists of the cable car system. There are also conventional systems operated by private companies or cooperatives regulated by SEMOVI.

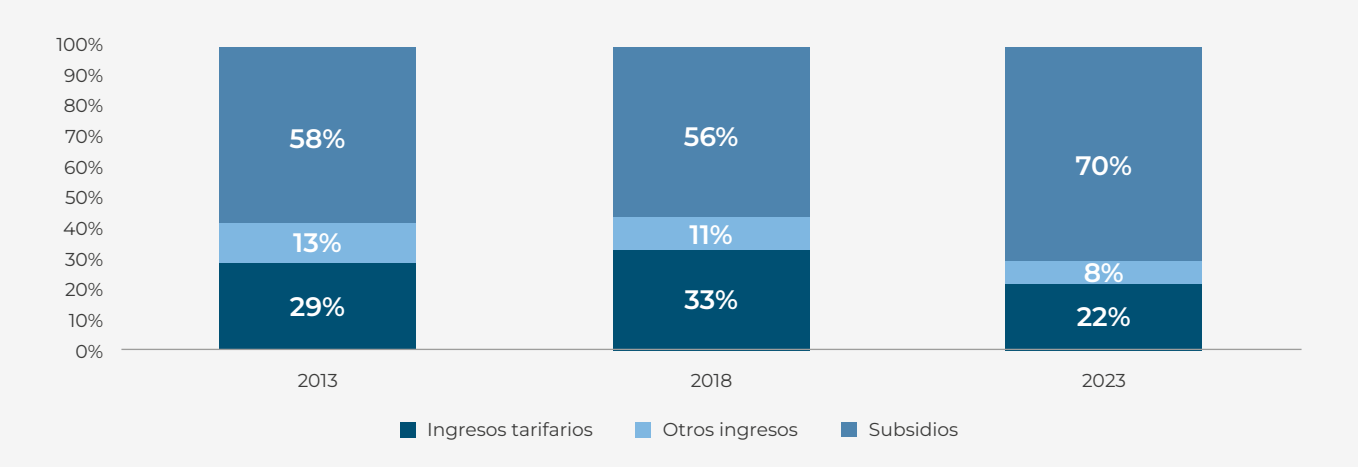
- **Authority in charge of public transport management:** SEMOVI is responsible for regulating, scheduling, guiding, organizing, controlling, approving, and, when appropriate, modifying the provision of public transport services in the city. SEMOVI also grants concessions, sets fares, and defines mobility policies.

- **Fare integration:** There is no fare integration, but there is integration in the means of payment through the Integrated Mobility Card.

- **Electronic payment:** Yes.

Composition of Funding Sources

FIGURE A.5. Evolution of the Composition of Funding Sources

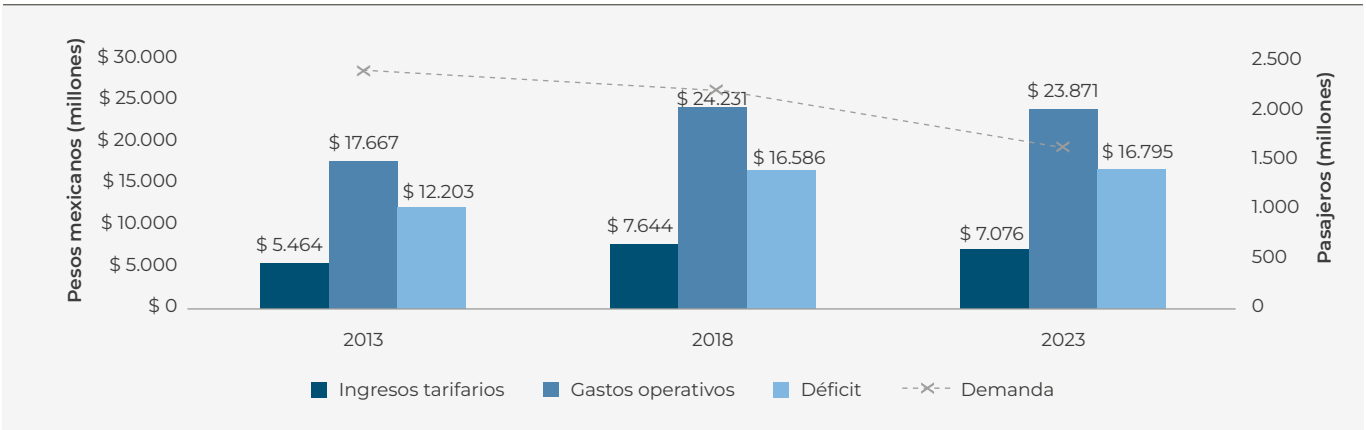


Source: Prepared by the authors based on a questionnaire completed by the cities analyzed.

Note: Subsidies: Operating subsidies come from Mexico City, although the information provided by SEMOVI also includes national subsidies for investment financing (e.g., purchase of trolleybuses), which have been excluded from the calculation of operating subsidies. Other income: Miscellaneous income, surpluses from previous years, and collateral businesses.

Recent Evolution of Demand*, Revenue, Costs, and Operating Deficit

FIGURE A.6. Fare Revenue, Operating Expenses, and Deficit



Source: Prepared by the authors based on a questionnaire completed by the cities analyzed.

Note: Refers to demand that actually pays for the service, which is the only demand that can be identified and quantified from annual validation records.

PANAMA CITY

TABLE A4: Panama City: Information Received on Transport Systems

System	Mode of Transport	Indicator	Value
Mi Bus	Buses	Vehicles	1,436
		Vehicle kilometers per year	57,207,766
		Number of service lines	142
		Operators	1
		Annual passenger volume (millions)	134
		Average age of fleet	14 years
		Average commercial speed (km/h)	14.98
Panama Metro	Rail	Vehicles	235
		Vehicle kilometers per year	24,993,810
		Number of service lines	2
		Operators	1
		Annual passenger volume (millions)	110
		Average age of fleet	7 years
		Average commercial speed (km/h)	32

Source: Information based on questionnaire completed by Mi Bus and Metro de Panamá. Data from 2023.

Note: Complementary modes not covered in the form: taxis and other shared mobility services, traditional bus transport, informal transport.

Public Transport Management

- **System organization:** By law, the Panama Land Transit and Transport Authority (ATTT) administers fares, creation or elimination of routes, stops, concessions, signage, road control, and other elements of the system. Both MiBus and the metro carry out route planning and scheduling within the concession area. The central government, multiple entities, authorities, and ministries promote initiatives and projects to improve the public transport system, from infrastructure to regulation, subsidies, and fares, among others.

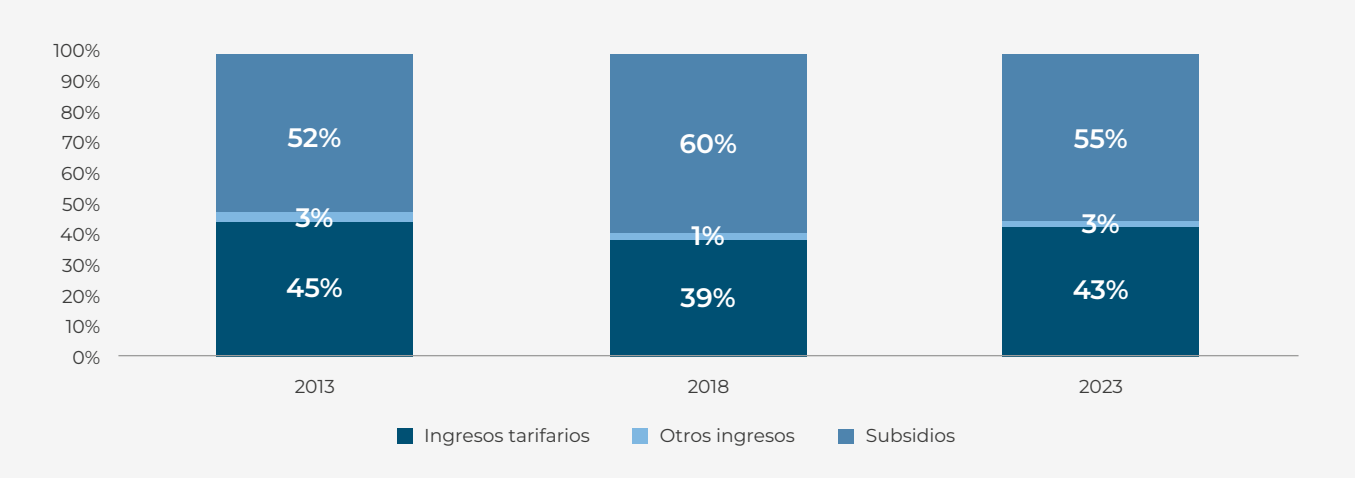
- **Authority in charge of public transport management:** ATTT.

→ **Fare integration:** There is no fare integration between MiBus and the Panama Metro.

→ **Electronic payment:** Yes.

Composition of Funding Sources

FIGURE A.7. Evolution of the Composition of Funding Sources

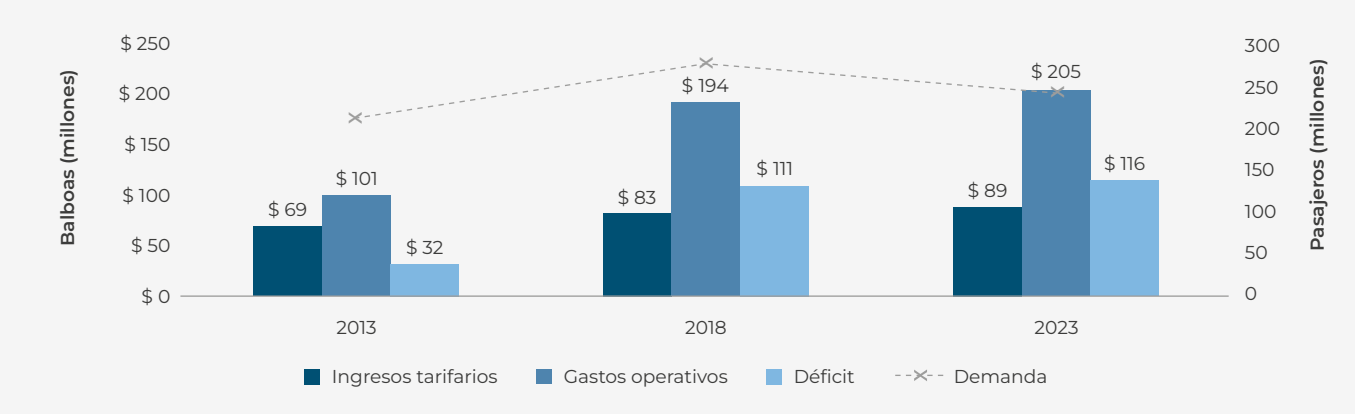


Source: Prepared by the authors based on a questionnaire completed by the cities analyzed.

Note: : In 2013, the results only include MiBus; from 2018 onward, the results of the Panama Metro are included.
Subsidies: In Panama City, subsidies for both MiBus and the Metro come 100 percent from national government sources. Other income: Buses receive income from interest from the savings fund; commercial advertising on the fleet and in-paid areas; and income from the sale of discarded items and the rental of space for vending machines. The metro receives income penalties, advertising, space rentals, telecommunications, and other income consisting of fines to users, suppliers, card issuance, employee discounts, among others.

Recent Evolution of Demand*, Revenue, Costs, and Operating Deficit

FIGURE A.8. Fare Revenue, Operating Expenses, and Deficit



Source: Prepared by the authors based on a questionnaire completed by the cities analyzed.

Note: This refers to the demand that actually pays for the service, which is the only demand that can be identified and quantified from the annual validation records. In 2013, the results only include MiBus; from 2018 onward, the results of the Panama Metro are included.

LIMA

TABLE A5. Lima: Information Received on Transport Systems

System	Mode of Transport	Indicator	Value
Lima Metro	Rail	Vehicles	49 trains
		Vehicle kilometers per year	4,832,373
		Number of service lines	2
		Operators	2
		Annual passenger volume (millions)	172
		Average age of fleet	14.3 years
		Average commercial speed (km/h)	36

Source: Information based on a questionnaire completed by the Urban Transport Authority for Lima and Callao (ATU). Data from 2023.

Note: Modes not covered in the form: Metropolitan (BRT), traditional buses, taxis, and other shared mobility services.

Public Transport Management

- **System organization:** The Lima Metro (Line 1) is operated by the concessionaire Línea 1 S.A. The bus systems are the Metropolitano (BRT), which is operated by private concessionaires under contract with the Urban Transport Authority for Lima and Callao (ATU), and the Complementary Corridors, which are operated by private companies on routes regulated by ATU. Traditional transport is operated by multiple private companies, many of which are still informal.

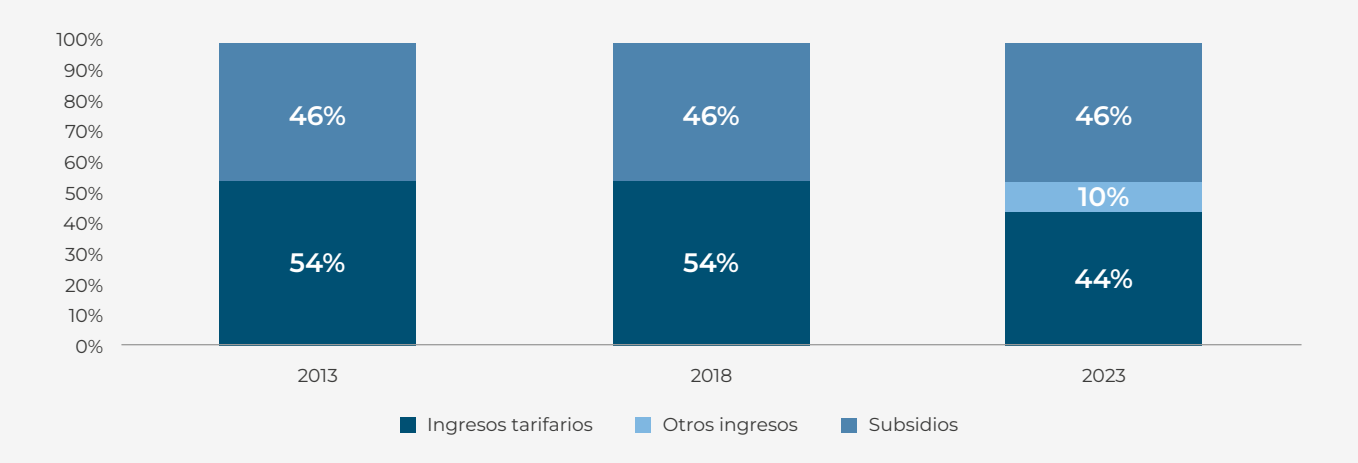
- **Authority in charge of public transport management:** The ATU is in charge of planning and regulating public transport in Lima and Callao.

- **Fare integration:** No.

- **Electronic payment:** Yes.

Composition of Funding Sources

FIGURE A.9. Evolution of the Composition of Funding Sources

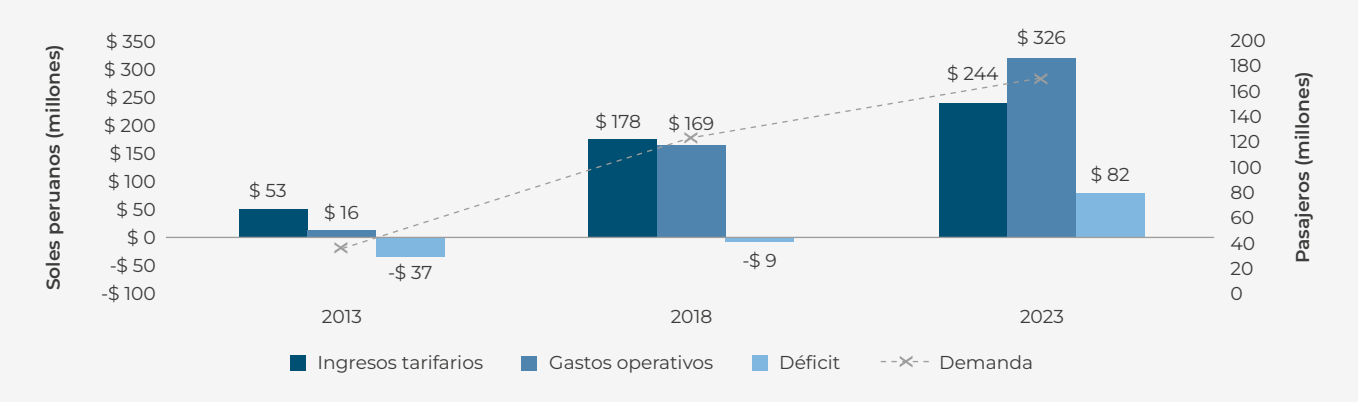


Source: Prepared by the authors based on a questionnaire completed by the cities analyzed.

Note: Subsidies come entirely from national resources.

Recent Evolution of Demand*, Revenue, Costs, and Operating Deficit

FIGURE A.10. Fare Revenue, Operating Expenses, and Deficit



Source: Prepared by the authors based on a questionnaire completed by the cities analyzed.

Note: Refers to demand that actually pays for the service, which is the only demand that can be identified and quantified from annual validation records.

MONTEVIDEO

TABLE A6. Montevideo: Information Received on Transport Systems

System	Mode of Transport	Indicator	Value
Metropolitan Transportation System (STM)	Buses	Vehicles	1,530
		Vehicle kilometers per year	96,167,119
		Number of service lines	135
		Operators	4
		Annual passenger volume (millions)	215.7
		Average age of fleet	9.7 years
		Average commercial speed (km/h)	16.1

Source: Information based on a questionnaire completed by the Municipality of Montevideo. Data from 2023.

Note: Complementary modes not covered in the form: taxis and other shared mobility services.

Public Transport Management

- **System organization:** The Municipality of Montevideo is the regulator and planner of the Montevideo Urban Public Transport System, which is part of the Metropolitan Transport System (STM), and grants system operating permits to public transport companies. The STM also includes public transport companies from the department of Canelones and metropolitan lines, which are also regulated by the Municipality of Canelones and the Ministry of Transport and Public Works. The Municipality of Montevideo is responsible for public transport infrastructure within the departmental jurisdiction of Montevideo, while the operation of the STM is the responsibility of the transport companies.

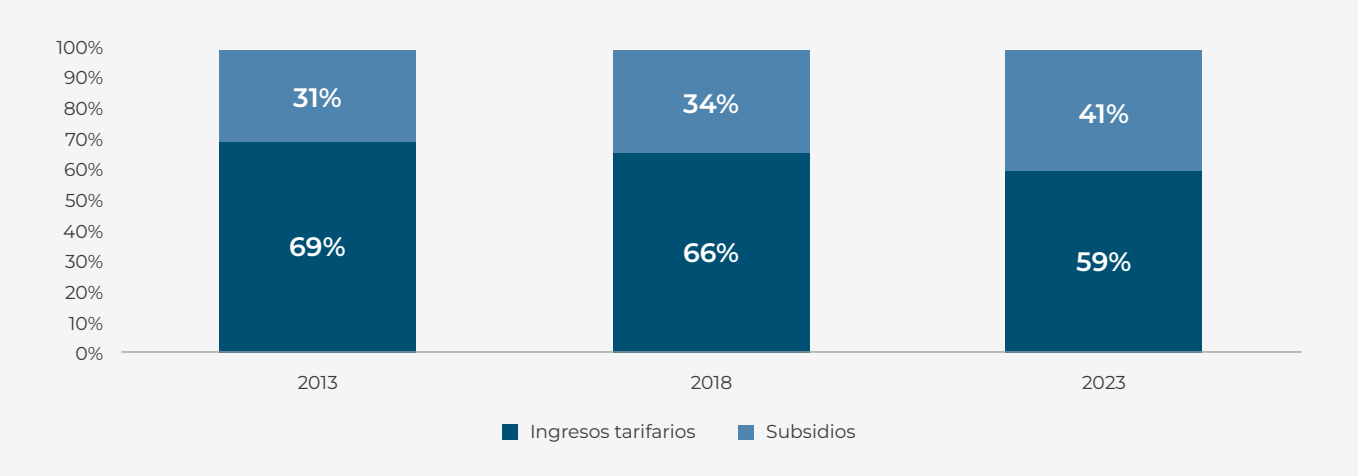
- **Authority in charge of public transport management:** Municipality of Montevideo, Municipality of Canelones, and Ministry of Transport and Public Works.

- **Fare integration:** Yes.

- **Electronic payment:** Yes.

Composition of Funding Sources

FIGURE A.11. Evolution of the Composition of Funding Sources

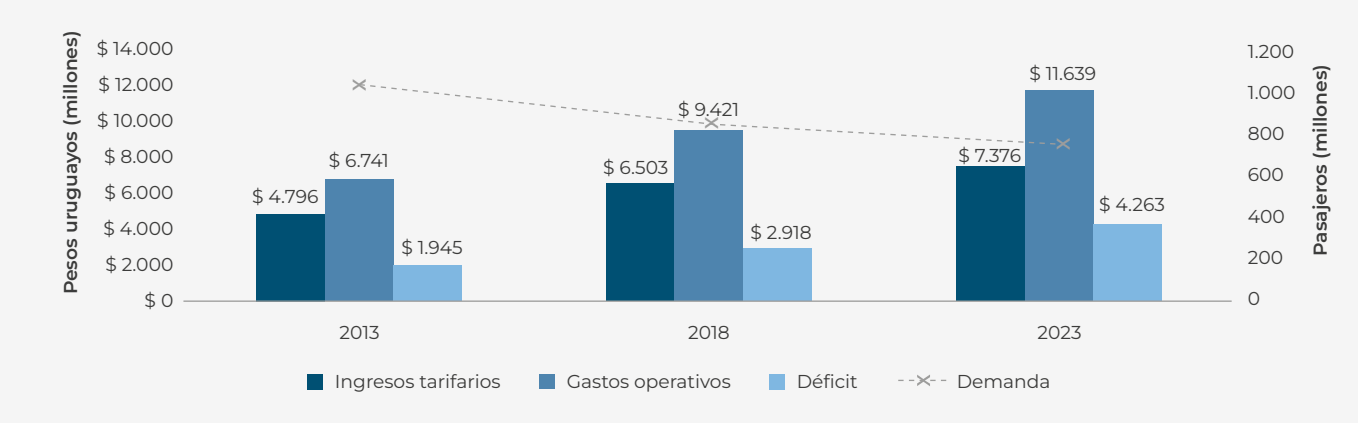


Source: Prepared by the authors based on a questionnaire completed by the cities analyzed.

Note: Subsidies: In Montevideo, subsidies come from municipal (38 percent) and national (62 percent) sources. At the municipal level, subsidies cover (i) the difference between the technical fare and the public fare, (ii) part of student tickets, and (iii) subsidies for retirees, frequent users, and other users on special occasions (e.g., the International Women's Day march on March 8). At the national level, subsidies cover (i) the diesel fuel consumed by operating companies and (ii) another portion of student tickets.

Recent Evolution of Demand*, Revenue, Costs, and Operating Deficit

FIGURE A.12. Fare Revenue, Operating Expenses, and Deficit



Source: Prepared by the authors based on a questionnaire completed by the cities analyzed.

Note: This refers to the demand that actually pays for the service, which is the only demand that can be identified and quantified from the annual validation records.

SAN JOSE

TABLE A7. San Jose: Information Received on Transport Systems

System	Mode of Transport	Indicator	Value
Traditional public transport	Buses	Vehicles	4,524
		Vehicle kilometers per year	183,222,000
		Number of service lines	1,450
		Operators	302
		Annual passenger volume (millions)	462
		Average age of fleet	9 years
		Average commercial speed (km/h)	20
Urban train	Rail	Vehicles	14
		Vehicle kilometers per year	n.d.
		Number of service lines	4
		Operators	1
		Annual passenger volume (millions)	3
		Average age of fleet	20 years
		Average commercial speed (km/h)	33

Source: Information based on a questionnaire completed by the National Institute of Traffic and Land Transportation (INTRANT). Data from 2023.

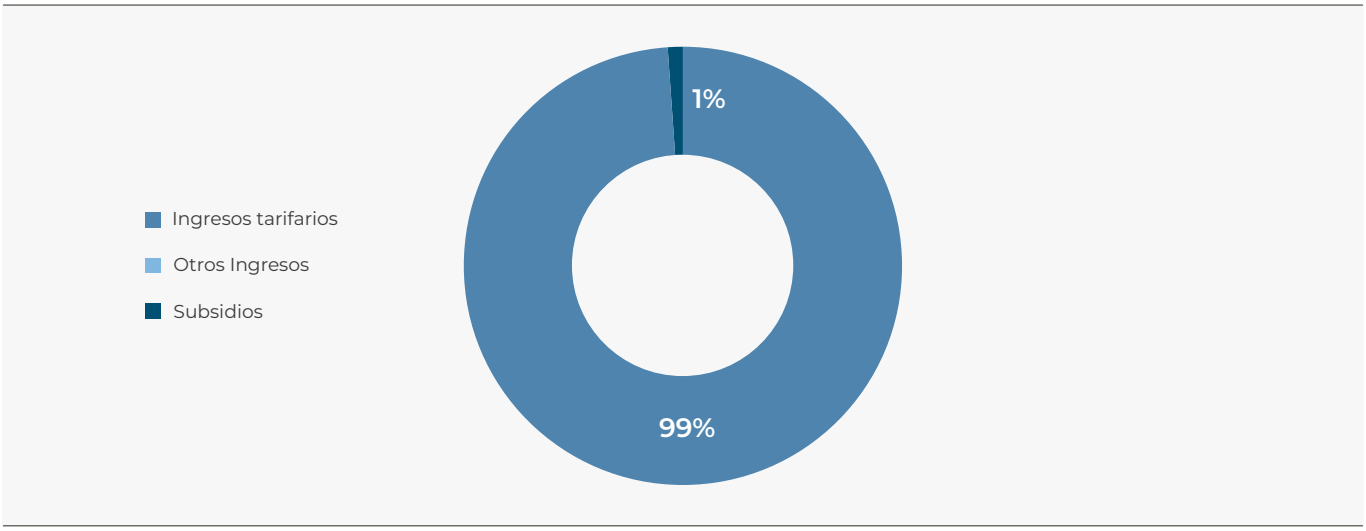
Note: Complementary modes not covered in the form: taxis and other shared mobility services. Bicycles.

Public Transport Management

- **System organization:** The public transport system in San José is mainly operated by private companies under a concession scheme, with supervision by public entities.
- **Authority in charge of public transport management:** The Public Transport Council (CTP) is responsible for defining policies, concessions, and regulating public land transport throughout the country, including public transport in San José.
- **Fare integration:** No.
- **Electronic payment:** Yes.

Composition of Funding Sources

FIGURE A.13. Composition of Funding Sources, 2023 (Percent)

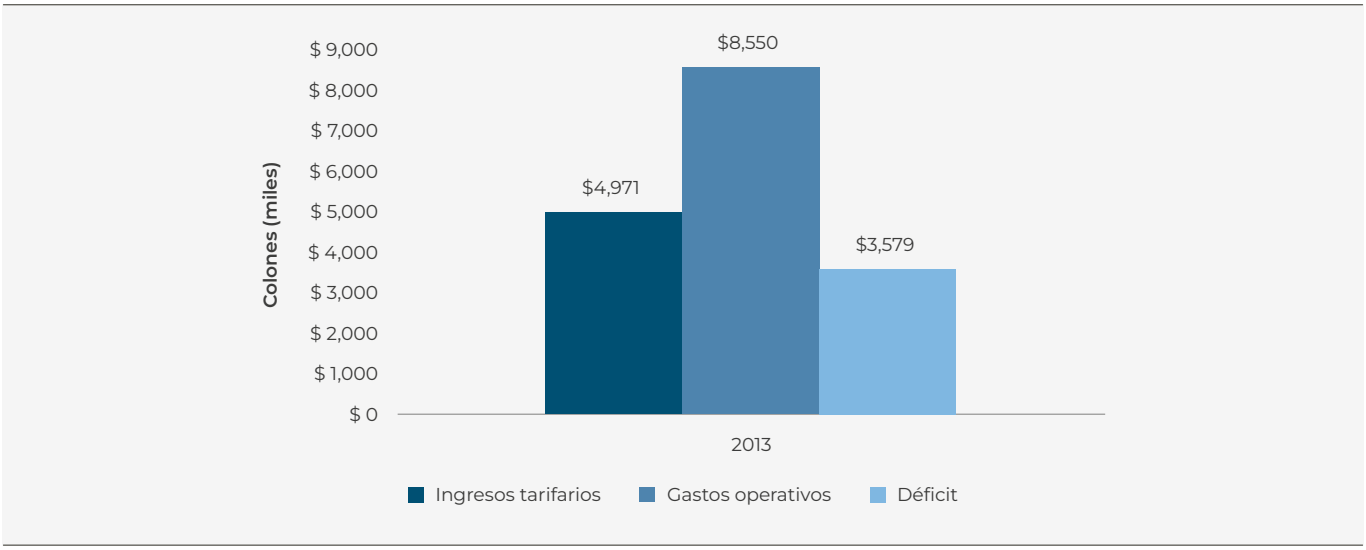


Source: Prepared by the authors based on a questionnaire completed by the cities analyzed.

Note: Only the urban train system receives operating subsidies.

Revenue, Costs, and Operating Deficit (Urban Rail Only)

FIGURE A.14. Fare Revenue, Operating Expenses, and Deficit (Thousands of colones)



Source: Prepared by the authors based on a questionnaire completed by the cities analyzed.

Note: Fare revenue and operating cost information is only available for urban trains.

SANTIAGO DE CHILE

TABLE A8: Santiago de Chile: Information Received on Transport Systems

System	Mode of Transport	Indicator	Value
Metropolitan Mobility Network (Buses)	Buses	Vehicles	7,166
		Vehicle kilometers per year	403,000,000
		Number of service lines	396
		Operators	10
		Annual passenger volume (millions)*	589
		Average age of fleet	4.6 years
		Average commercial speed (km/h)	18
Metropolitan Mobility Network (Metro)	Rail	Vehicles	215 trains and 1,445 carriages
		Vehicle kilometers per year	156,000,000
		Number of service lines	7
		Operators	1
		Annual passenger volume (millions)*	599
		Average age of fleet	n.d.
		Average commercial speed (km/h)	n.d.
Metropolitan Mobility Network (Metropolitan trains)	Rail	Vehicles	22
		Vehicle kilometers per year	3,080,000
		Number of service lines	1
		Operators	1
		Annual passenger volume (millions)*	23
		Average age of fleet	n.d.
		Average commercial speed (km/h)	n.d.

Source: Information based on a questionnaire completed by the Metropolitan Public Transport Directorate (DTPM). Data from 2023.

Note: Complementary modes not covered in the form: taxis, other shared mobility services, and bicycles.
* Corresponds to transactions made by mode of public transport, as it is an integrated system. The number of passengers across the entire system in 2023 was 852 million.

Public Transport Management

- **System organization:** The multimodal system known as the Metropolitan Transportation Network is comprised of buses, subways, and trains that are integrated both physically and in terms of fares. The bus service (10 operators) operates under an integrated system of trunk and feeder corridors. The metro, operated by Metro S.A., has seven lines covering most of the city. The MetroTren Nos, operated by EFE, connects Santiago de Chile with the municipality of San Bernardo.

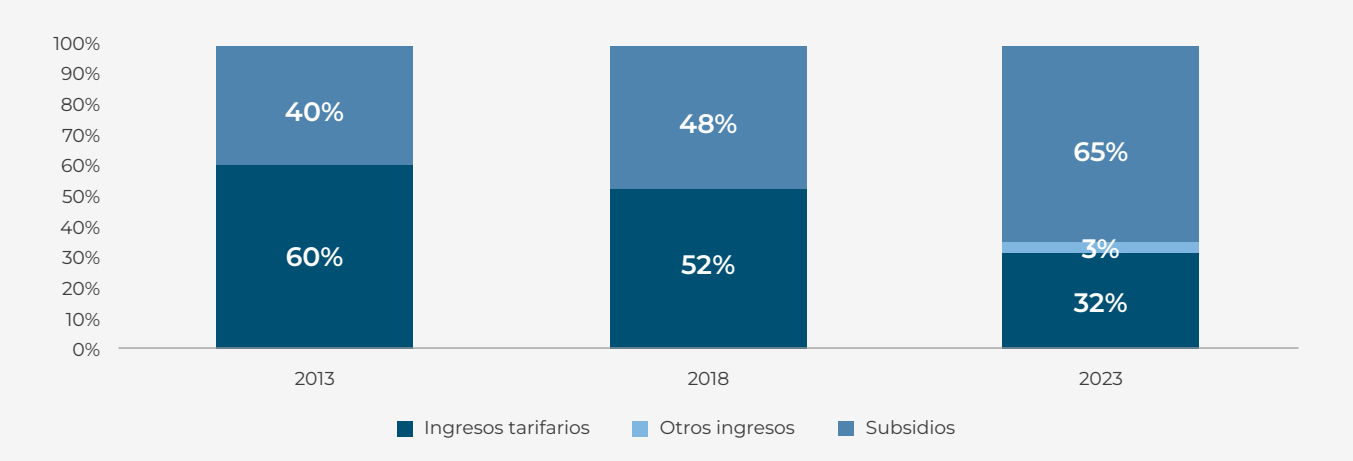
- **Authority in charge of public transport management:** Metropolitan Public Transport Directorate (DTPM), a division under the Ministry of Transport and Telecommunications.

- **Fare integration:** Yes.

- **Electronic payment:** Yes.

Composition of Funding Sources

FIGURE A.15. Evolution of the Composition of Funding Sources

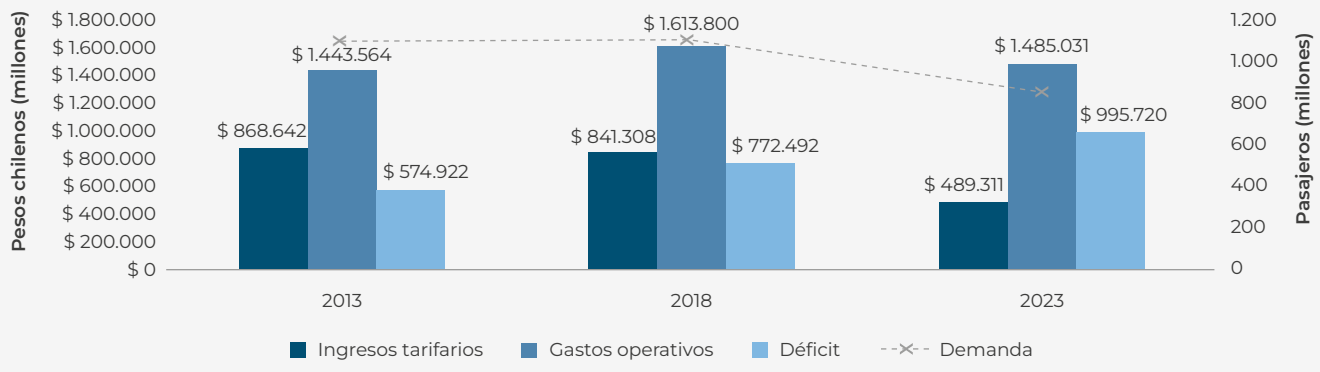


Source: Prepared by the authors based on a questionnaire completed by the cities analyzed.

Note: Subsidies: Corresponds to the national subsidy established in the Subsidy Law (Law 20,378), whose resources come from the fiscal budget approved annually by Congress each year. Other income: Corresponds to the "other income" item for the metro and train systems. No data available for 2013 and 2018.

Recent Evolution of Demand*, Revenue, Costs, and Operating Deficit

FIGURE A.16. Fare Revenues, Operating Expenses, and Deficit



Source: Prepared by the authors based on a questionnaire completed by the cities analyzed.

****Note:*** Refers to demand that actually pays for the service, which is the only demand that can be identified and quantified from annual validation records.

SANTO DOMINGO

TABLE A9. Santo Domingo: Information Received on Transport Systems

System	Mode of Transport	Indicator	Value
Metropolitan Bus Services Operator (OMSA)	Buses	Vehicles	264
		Vehicle kilometers per year	41,997,157
		Number of service lines	11
		Operators	4
		Annual passenger volume (millions)	19
		Average age of fleet	n.d.
		Average commercial speed (km/h)	15
Santo Domingo Metro	Rail	Vehicles	46 trains and 138 carriages
		Vehicle kilometers per year	13,686,773
		Number of service lines	2
		Operators	1
		Annual passenger volume (millions)	103
		Average age of fleet	n.d.
		Average commercial speed (km/h)	65
Santo Domingo Cable Car	Cable car	Vehicles	358 (cabins)
		Vehicle kilometers per year	605,754
		Number of service lines	2
		Operators	2
		Annual passenger volume (millions)	5
		Average age of fleet	n.d.
		Average commercial speed (km/h)	25

Source: Information based on a questionnaire completed by the National Institute of Traffic and Land Transportation (INTRANT). Data from 2023.

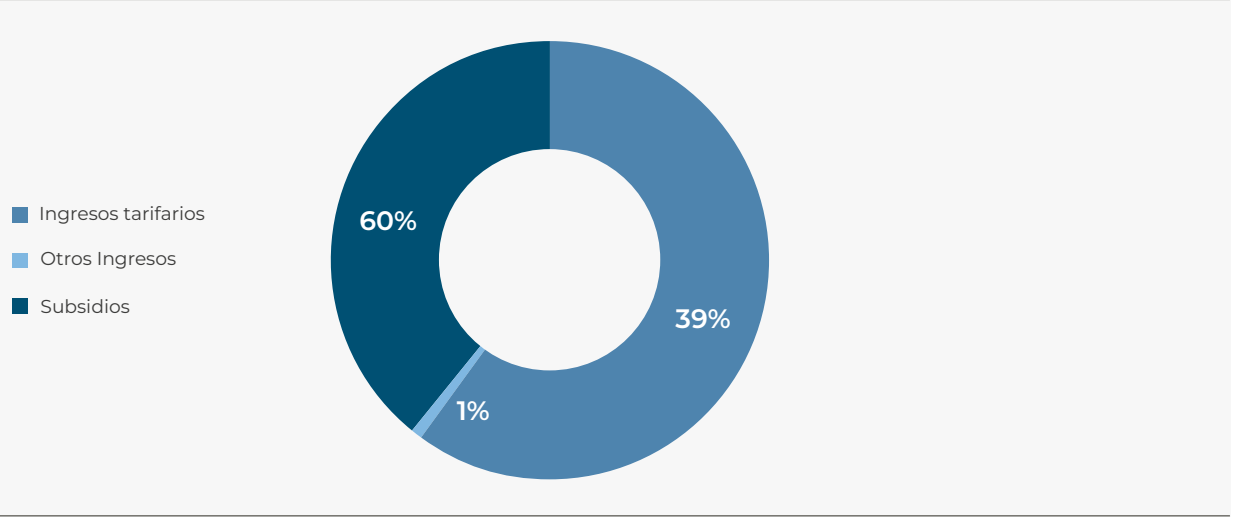
Note: Complementary modes not covered in the form: taxis and other shared mobility services, informal transport.

Public Transport Management

- **System organization:** The Office for the Reorganization of Transportation (OPRET) is responsible for the construction, maintenance, and operation of the metro and cable car systems. The Metropolitan Bus Services Office (OMSA) is responsible for operating the bus network.
- **Authority in charge of public transport management:** National Institute of Transit and Land Transport (INTRANT).
- **Fare integration:** No, although there is partial integration between the L1 cable car and the metro, as well as between buses and the L2 cable car.
- **Electronic payment:** Yes.

Composition of Funding Sources

FIGURE A.17. Composition of Funding Sources 2023 (Percent)

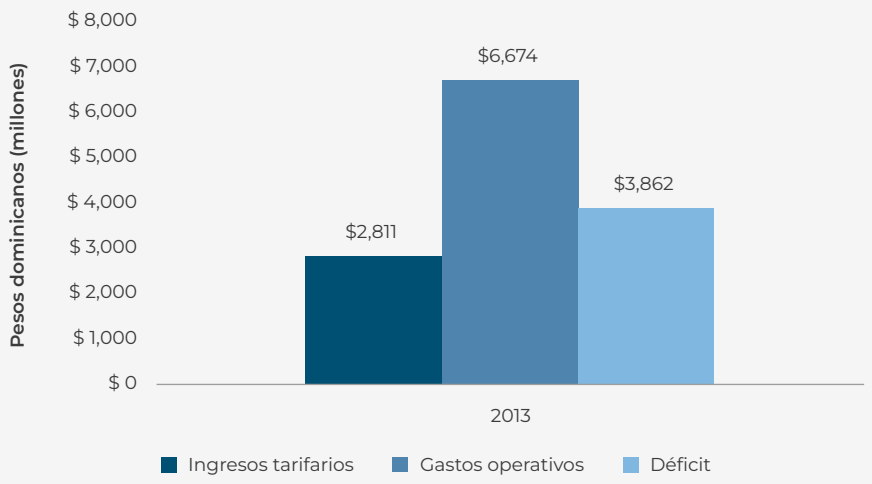


Source: Prepared by the authors based on a questionnaire completed by the cities analyzed.

Note: Other income corresponds to the commercialization of commercial premises and spaces in the metro system. Complete historical information is not available for all modes. Subsidies come entirely from national sources.

Revenue, Costs, and Operating Deficit

FIGURE A.18. Fare Revenue, Operating Expenses, and Deficit (Millions of Dominican pesos)



Source: Prepared by the authors based on a questionnaire completed by the cities analyzed.

Note: Complete historical information is not available for all modes.

SAO PAULO

TABLE A10: Sao Paulo: Information Received on Transport Systems

System	Mode of Transport	Indicator	Value
Municipal buses	Buses	Vehicles	13,300
		Vehicle kilometers per year	732,314,585
		Number of service lines	1,303
		Operators	24
		Annual passenger volume (millions)	2,081
		Average age of fleet	5.3 years
		Average commercial speed (km/h)	16
Metropolitan buses	Buses	Vehicles	3,691
		Vehicle kilometers per year	n.d.
		Number of service lines	522
		Operators	1
		Annual passenger volume (millions)	421
		Average age of fleet	6.8 years
		Average commercial speed (km/h)	n.d.
Metro	Rail	Vehicles	117 trains and 1,026 wagons
		Vehicle kilometers per year	16,200,000
		Number of service lines	4
		Operators	1
		Annual passenger volume (millions)	851
		Average age of fleet	10.6 years
		Average commercial speed (km/h)	n.d.

System	Mode of Transport	Indicator	Value
Urban train	Rail	Vehicles	138
		Vehicle kilometers per year	176,700,000
		Number of service lines	5
		Operators	1
		Annual passenger volume (millions)	458
		Average age of fleet	11 years
		Average commercial speed (km/h)	48

Source: : Information based on a questionnaire completed by the Municipal Finance Department (City of Sao Paulo). Data from 2023.

Note: Complementary modes not covered in the form: taxis and other shared mobility services, and bicycles. Metro considers the lines operated by Companhia Metropolitana de Sao Paulo: lines 1, 2, 3, and 15. It does not consider information on operations of lines operated through concessions/public-private partnerships (ViaQuatro and ViaMobilidade), although financial information was extracted from these companies for the calculation of subsidies and analysis of public transport revenues and expenditures. Bus information also includes trolleybuses.

Public Transport Management

- **System organization:** Multimodal system combining metro, metropolitan trains, municipal and intermunicipal buses, with fare integration through the Bilhete Único (Single Ticket). The metro and trains are operated by state-owned companies (Metro and CPTM) and private operators under concession, while buses are managed by SPTrans (within the municipality) and EMTU (metropolitan area). Although there is operational and fare integration, governance is fragmented between the municipal and state governments.

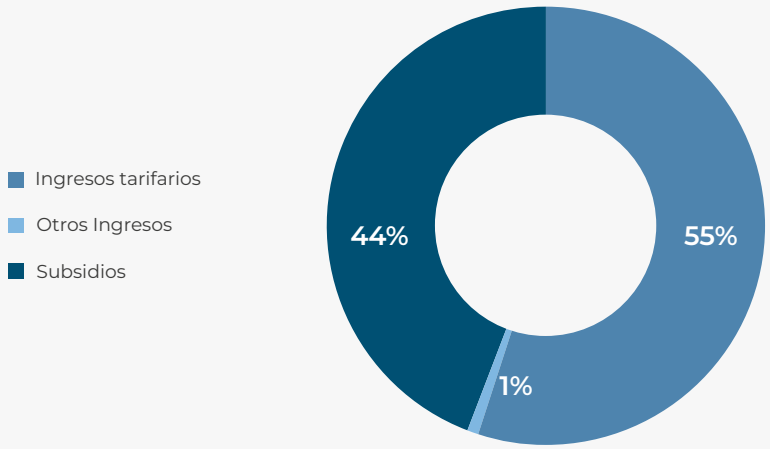
- **Authority in charge of public transport management:** Metropolitan Public Transport Directorate (DTPM)

- **Fare integration:** Yes.

- **Electronic payment:** Yes.

Composition of Funding Sources

FIGURE A.19. Composition of Funding Sources 2023

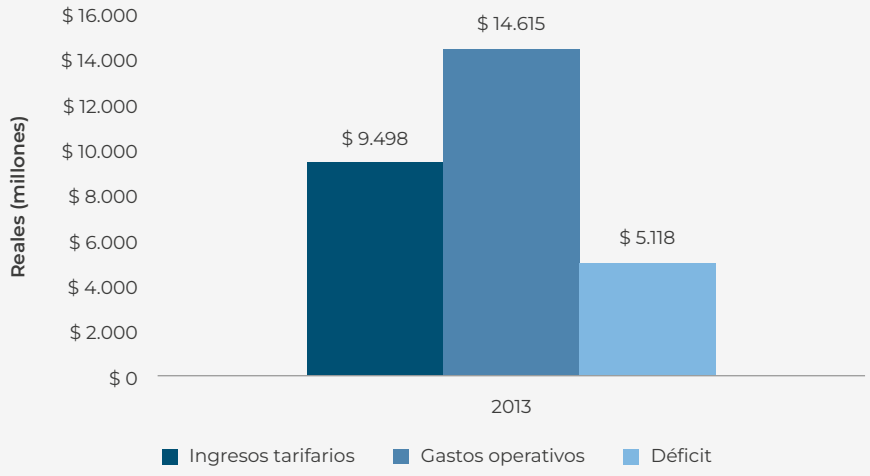


Source: Prepared by the authors based on a questionnaire completed by the cities analyzed.

Note: Complete historical information is not available for all modes. "Other revenue" corresponds to metro and train systems. No data available for 2013 and 2018.

Revenue, Costs, and Operating Deficit

FIGURE A.20. Fare Revenue, Operating Expenses, and Deficit (Millions of reais)



Source: Prepared by the authors based on a questionnaire completed by the cities analyzed.

Note: Complete historical information is not available for all modes.

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