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Bus Politics: Reform or Regulatory Capture in Urban Latin America

A dissertation submitted in partial satisfaction of the

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in Political Science

by

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A mi mamá y a mi papá

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ABSTRACT

Bus Politics: Reform or Regulatory Capture in Urban Latin America

by

Ariana Salas Castillo

This dissertation tells a story of social and climate action in urban Latin America. It is a study of policy reform, taking bus public transportation as the sector of analysis and Santiago of Chile and the Greater Metropolitan Area (GAM) of Costa Rica as the case studies.

Relying on inductive qualitative methods –cross-case comparison and process tracing–, and based on field research with 47 interviews conducted and official and non-official document analysis, this dissertation project finds the importance of urgency and salience around the need of a bus reform to attend social and climate concerns, as well as the capacity of policymakers to insulate the policy from organized interests, as factors that trigger the bus reform. Moreover, it portrays cases where policymakers also play the role of policy entrepreneurs bringing salience to the need of a reform.

The analysis here provided acknowledges that the launch of a bus reform is not the final step to achieving social and climate action, thus it narrates the whole gradual process: from inaction to the moment when the topic is brought to the political forefront to when reform starts. It continues studying the evolution of this reform, analyzing how it shapes institutions, interest groups organization and social and climate outcomes. This research compares a case

of a successful reform where oversight and monitoring mechanisms are in place and where the bus service works in an integrated and systemic way –Santiago– to one where inaction and old poor-working structures are maintained throughout time and where the bus service works in an atomized and chaotic way– the GAM. It shows how, through positive feedback, sustained action leads to the strengthening of the institutions governing the sector and data transparency, while sustained inaction leads to a deterioration of the institutions and to structurally powerful interest groups.

Even though they tackle environmental, social and climate concerns and the bus is the main public transportation mode used in Latin America, bus reforms embody a type of reform that is electorally unappealing. Sectoral economic capture is focused on mega-projects in the global South and, in a region where there is a culture of automobile consumption such as Latin America, infrastructure investments for private vehicles are particularly appreciated by voters. Therefore, this dissertation provides evidence on why and how action can take place even when pushing for electorally unattractive policies and when that means redistributing power and going against entrenched organized interests.

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Acronyms

General

BPTA: Bus Public Transportation Action
BPTI: Bus Public Transportation Inaction
BRTs: Bus Rapid Transit
ECLAC: Economic Commission for Latin America and the Caribbean
GDP: Gross Domestic Product
GEF: Global Environmental Fund
GHG: greenhouse gas
IDB: Interamerican Development Bank
IPCC: Intergovernmental Panel on Climate Change
LAC: Latin America and the Caribbean
NGO: Non-governmental organization
OECD: Organization for Economic Cooperation and Development
PM_{10}: Particulate Matter 10 micrometers or less in diameter
PR: Proportional Representation
UITP: International Association of Public Transportation
USD: Dollars of the United States of America

Case of the Greater Metropolitan Area, Costa Rica

AMSJ: Metropolitan Area of San José
ARESEP: Regulatory Authority of Public Services
BCIE: Central American Bank for Economic Integration
Canatrans: National Chamber of Carriers
CCSS: Costa Rica Social Security Institution
CONARE: National Council of Rectors
COSEVI: Road Safety Council
CTP: Public Transportation Council
FONAFIFO: National Forest Financing Fund
GAM: Greater Metropolitan Area
INCOFER: Costa Rican Railroad Institute
MEP: Ministry of Public Education
MINAE: Ministry of Environment and Energy
PAC: Civic Action Party
PES: Payment for Ecosystem Services
PIMUS: Comprehensive Sustainable Urban Mobility Plan for the San José Metropolitan Area
PLN: National Liberation Party
PRUGAM: Regional and Urban Planning Project for the Greater Metropolitan Area
PUSC: Christian Social Unity Party
RN: Restauración Nacional
SINAC: National System of Conservation Areas
TRP: Fast Passenger Train
UCR: University of Costa Rica

Case of Santiago, Chile

AFT: Technological and Financial Administrator of Transantiago
DTPM: Metropolitan Directory of Public Transportation
DTPR: Division of Regional Public Transportation
ETCE: Company of Collective Transportation of the State
GORE: Regional Government
MAA: Ministry of Environment
MINVU: Ministry of Housing and Urbanization
MTT: Ministry of Transportation and Telecommunications
PPDA: Atmospheric Prevention and Decontamination Plan for the Metropolitan Region
PTUS: Urban Transportation Plan for Santiago
SECTRA: Highway and Urban Transportation Program
SEREMI: Regional Ministerial Secretariat
SEREMITT: Regional Ministerial Secretariat of Transportation and Telecommunications
SERVIU: Housing and Urbanization Service
Sochitran: Chilean Society of Transportation Engineering
UOT: Traffic Control Operative Unit

Chapter 1. Conceptual framework

1.1 Synopsis of the dissertation

Improvements in public transportation represent social, environmental and climate actions as public transportation plays a decisive role in the consolidation of more equal, livable, and clean cities. In countries with prevalent poverty, inequity and injustice, as many in the global South, adequate public transportation turns into a powerful environmental, economic and social mobility tool.

Nevertheless, while some countries have realized this potential and have taken action to ameliorate this sector, others have not. Therefore, we see countries that have reformed their bus sector so that it works in an integrated way between the different modes of transportation, providing safety, reliability and accessibility to the users while not contributing to the global rising greenhouse gas emissions. But other countries and cities, who have not acted on the matter, have public transportation services that work in an atomized, un-systemic, quasi-informal, polluting, unsafe, unreliable, unintegrated and inaccessible way.

Interestingly, countries that have historically been pioneers in the adoption of environmental and social progressive policies regionally and globally are lagging behind, while other more environmentally and socially regressive countries are taking the lead towards a more inclusive and cleaner public transportation. This dissertation asks what drives these disparities, even in these cases when one would have expected opposite outcomes.

Costa Rica's Greater Metropolitan Area (GAM) and Chile's Santiago serve as the case studies for bus public transportation inaction (BPTI)– where a reform has not taken place neither its outcomes have become visible– and bus public transportation action (BPTA)–

where a reform has taken place and its outcomes have become visible–, respectively. Even though these countries share similarities (e.g., they are both Latin American middle-income countries and they have turned into regional climate leaders setting the goal to become carbon neutral by 2050), they have historic differences in terms of how they have approached their social and environmental sectors. Costa Rica is internationally known as an environmental and social progressive actor, achieving universalism in its public health system in the 1980s and reversing deforestation in the early 2010s through the pioneering of a Payment for Ecosystem Services (PES) scheme and the implementation of national protected areas. On the contrary, Chile's international reputation consists of a country that has been a regional leader in the adoption of neoliberal policies since the 1980s, leading to social regressive outcomes- as the pensions system and social security- and the boosting of high polluting sectors, such as the coal and mining industries.

In this context, one would have expected that social and environmental progressive Costa Rica would have taken BPTA and Chile would have disregarded the sector. However, the opposite happened. Santiago has become a global exemplary city of how bus public transportation can fulfill social, environmental and climate goals, while Costa Rica's GAM still has an atomized, polluting and chaotic bus sector.

In this dissertation, I find that there are some series of sequential elements that can play a role in explaining a successful urban transit reform. First, the urgency and salience of an environmental or social matter linked to public transportation can serve as the trigger for action. However, this critical issue must be accompanied by the presence of institutional capacity, which grants policymakers the power and the ability to push through the implementation of a policy by isolating it from societal pressure and influence. When these

two aspects are combined, the bus reform starts. But the reform is a gradual process. It begins with the restructuration and reorganization of the institutions governing the sector and the interest groups involved it. More enforcement and state capacity leads to constant improvements and reviewing of the related policies and its monitoring and accountability mechanisms. Then, BPTA takes place: an integrated, safe, clean, accessible and inclusive bus public transportation sector, that works for its users.

In the case of Santiago, we see a city that was categorized as one of the most polluted in Latin America in the 1970s. Pollution became so bad that in 1996 the area was ruled as an "*ozone saturated zone, respirable particulate matter, suspended particles and carbon monoxide, and latent zone for carbon dioxide*" through the Supreme Decree No. 131 (currently repealed). Salience on the need for a bus reform was brought by Ricardo Lagos, the Chilean president at the time of the beginnings of the reform, who also serves as the policy entrepreneur. Moreover, another important fact that enabled Santiago to have BPTA is the presence of institutional capacity. President Lagos and President Bachelet both pushed for Transantiago, the name of the bus public transportation reform, amid a myriad of difficulties and criticisms. They were able to do this because they could keep the reform insulated from societal pressures and interest groups' influence through the use of the rights granted to the Chilean executive installed in the Constitution. The power enjoyed by the Chilean executive, one of the strongest executives in Latin America in terms of formal policymaking powers, allowed President Lagos to use the State Security Law (Law Nº 12.927) to deal with a boycott by powerful and organized bus operators. It also enabled President Bachelet to invoke the "Constitutional 2%" —article 32, fraction 20 of the Chilean Constitution— to declare Transantiago a public calamity, granting the public service additional budget.

Even though the beginnings of Transantiago were rough, improvements were gradual. Little by little, the reform implied a gradual restructuration of the institutions governing the sector and a reorganization of the interest groups involved in it. Currently, BPTA in Santiago is reflected in a subsidized, integrated, clean and more accessible bus public transportation service. Certainly, there are still challenges to deal with, such as safety and accessibility concerns, but externalities caused by public transportation, such as pollution, noise and accident rate have reduced.

In contrast, in this dissertation I also find a series of sequential elements that explain BPTI, reflected in the case of Costa Rica's GAM. In a context of weak institutions and poor state and fiscal capacity, as in many countries in the global South, the lack of a social and environmental urgency linked to public transportation makes the government disregard the sector and its need for action. The state decides to focus its attention on other more prevalent matters and withdraw or poorly perform its regulator and inspector role from public transportation. In this context, the interest group involved in bus public transportation, bus operators, take advantage of the weak institutions in place. This situation allows bus operators to engrain their political power and make reversal hard.

In the case of the GAM, pollution and greenhouse gas (GHG) emissions associated to transportation did not represent a pressing matter until the 2010s, when their pollution and climate change contribution became evident. Education, public health and deforestation were the main national social and environmental concerns. The public transportation sector was left in the hands of bus operators at that time, while the government focused on private transportation by building infrastructure for cars. The institutions in charge of regulating public transportation started to appear until the very late 1990s and early 2000s. However, the specific

role of these institutions regarding public transportation was not clearly defined, leading to rivalry, institutional fragmentation and competence and redundancy of tasks. Moreover, bus operators were able to be part of the Executive Board of the main institution that regulates the sector, the Public Transportation Council (CTP), under the argument that incorporating the private sector facilitates its participation. By creating alliances with other members of the Executive Board of the CTP, funding political campaigns, lobbying and using revolving doors, this interest group has been able to embed its power in the political institutions that should be governing the sector.

Currently, transportation, embodied mainly by private and freight transportation, has become the main contributor to Costa Rica's GHG emissions, inhibiting its climate mitigation goals for 2050. A couple of policymakers from the executive branch have brought salience on the need of a bus reform and have tried to implement it, though Costa Rican institutions did not grant them the capacity to insulate the reform from interest groups and other opponents. These policy entrepreneurs are 2014-2016 vice Minister of Transportation and 2018-2022 Costa Rica's president. Both failed. Vice Minister Urbina was fired after bus operators complained directly with the president at that time. President Alvarado could not pass its public transportation reform, which relied largely on the creation of an electric urban train and its integration with bus services, through the legislative Assembly.

This dissertation speaks to different literatures in the Latin American, environmental and urban politics disciplines. Regarding Latin American politics, this research delves into the study of weak institutions, prevalent in the region. There is an increasing need to study more the subject of institutional weakness as a conscious political strategy, and thus an object of study, rather than a "random error" that obstruct proper institutional analysis. Additionally,

this dissertation puts in the forefront an example of how weak institutions can be overcome and strengthened gradually throughout time, reflected in the case of Transantiago. Moreover, it adds to the discussion of veto authority in the executives, something that varies along the region and that might act in favor or against social and environmental policies. Lastly, this dissertation takes as a basis the role of colonial and authoritarian legacies. Colonial legacies established mobility patterns in Latin America, and the global South more broadly, where routes and means of transportation were brought to move goods, not people. Authoritarian legacies are still prevalent in Latin America, affecting their citizens' participation and institutions. In the Chilean case, authoritarian regimes permeated institutions that are still in place, such as the Constitution, and negatively affected the organization of civil society towards societal and environmental demands.

In relation to environmental politics in the global South, the discipline focuses largely on extractive and agricultural practices which usually take place in rural and isolated settings. However, the global South is currently experiencing one of the highest and most rapid urbanization rates in the world. Therefore, environmental issues resulting in urban contexts should also become a focus of environmental politics. In this regard, public transportation has been recognized by both the Intergovernmental Panel on Climate Change and the United Nations as a key sector to tackle climate change and achieve sustainability.

Lastly, regarding urban politics, there is a lack of political economy and critical perspectives in mainstream transportation research, where the subject has been mainly approached as a technical and apolitical matter. There is a need of empirically grounded analysis of the political dynamics around transportation reforms, including who benefits, who loses, and the political pathways through which the different groups assert their interests. This

dissertation fills part of this gap of critical political and historical analysis of transportation projects.

1.2 Structure of the document

This dissertation is structured in five main chapters, which are the following:

1. Introduction
2. Latin American context
3. Empirics on Costa Rica's GAM
4. Empirics on Chile's Santiago
5. Conclusion and reflections

The Introduction, the present section, provides the foundational information of this dissertation. First, it addresses these thesis' research questions and the methods used. It then provides the theoretical framework in which this research is grounded. It also describes the pathways that lead to BPTA and BPTI. It provides a justification for the cases selected, Santiago and the GAM, and addresses possible rival explanations. It concludes by signaling the contributions of this dissertation to different disciplines, and by providing the bigger picture into which this dissertation is embedded.

The second chapter provides background information about urbanization and (public) transportation in Latin America, also referring more broadly to the global South in some instances. This chapter states the (normative) importance of studying bus politics in this part of the world by describing the transportation landscape in Latin America.

Chapters three and four elaborate on the empirics. These chapters contain detailed information on why Costa Rica is a case of BPTI and Santiago is one of BPTA. Background and context information, explanations on how the reform (or lack thereof) took place, the actors

and institutions involved and the evolution of the bus sector throughout time are provided for both cases.

Chapter five concludes by comparing the cases- the triggers for action, the presence or absence of state capacity and enforcement, and the final outcomes (i.e., BPTA and BPTI). It addresses the question of why was Costa Rica able to tackle deforestation but not take BPTA, as well as provides some reflections on what the pathway to BPTA might entail for democracy. It concludes by signaling some policy recommendations and reflecting on a future research agenda.

1.3 Research questions

Broadly speaking, this dissertation asks how cities in the global South, normally embedded in contexts where interest groups enjoy instrumental and structural power and where *de facto* policies prevail over *de jure* policies, are still able to implement reforms in a public service in order to improve its provision.

Looking particularly at bus public transportation, a public service that comprehends social, environmental and climate aspects, this dissertation addresses two main questions:

1. Under which circumstances do we see cities in Latin America reform their bus sector?
    - More specifically, why have some cities embarked on a bus reform, while others have not?
2. How does the bus sector evolve and look like when a reform takes place and when it does not take place?

While looking for answers to these questions, this dissertation analyzes the institutions governing bus public transportation and how they have evolved throughout time. It also studies

the agents present in the bus public transportation ecosystem in the GAM and Santiago, the power they enjoy and how they use it. This research reveals the political and contextual factors that explain these over-time shifts in the political economy of public transportation policy, which can also be used to understand public policy action and inaction in other sectors in the region.

Even though this dissertation focuses on Santiago and the GAM as the two main case studies, the results have relevance for cities and countries across Latin America and the global South, more broadly. Public transportation experienced widespread deregulation and privatization in Latin America throughout the 1980s and 1990s. It is only from the late 1990s onwards that Latin American countries and cities started to pay attention to the sector and reform it. However, not all countries have done it nor have they all been successful. Some urban transit systems still operate in an atomized, unsubsidized, quasi-informal, and un-systemic way. This situation is also common to other countries in the global South.

1.4 Methods

This dissertation project reconstructs the process of BPTA and BPTI in the public transportation sector across two urban areas, Santiago of Chile and the Greater Metropolitan Area (GAM) of Costa Rica. It is thus a comparative analysis of transportation policy processes (e.g., policy design, enactment, and implementation-or lack thereof) that relies on multiple sources.

This research project leverages stakeholder interviews, official and non-official document analysis, and descriptive statistical analysis with secondary data to shed light on the dynamics of Latin American public transportation action. Collecting data systematically from different sources affords the opportunity for triangulating information. The result is inductive, theory-

building research that is grounded in the historical institutionalist, process tracing, and path dependence traditions.

This Methods section addresses the three main traditions under which this dissertation is based (i.e. historical institutionalism, process tracing, and path dependence) and why they pertain to this research project. Moreover, it explains the methodological tools used (i.e., interviews, review of documents, and use of secondary data) and the sources obtained to elaborate this dissertation.

1.4.1 Methodological approaches

Historical institutionalism is critical for the study of institutional arrangements, such as transportation policies, as they cannot be understood in isolation from the political and social settings in which they are embedded through time.[1] The historical institutionalist tradition pays particular attention to the role institutions play in distributing power unevenly across social groups,[2] something prevalent in Latin America, where political systems favor elites and insiders who further reinforce existing institutions.[3]

Process tracing refers to the examination of intermediate steps in a process, such as sequences and conjectures of events, to make inferences about hypotheses on how that process took place and whether and how it generated the outcome of interest.[4] It is ideally used in within-case analysis and to test hypothesized causal mechanisms. While studying and understanding BPTA and BPTI in Latin America in an inductive way, it became clear that a variety of factors had to be put together, as they acted jointly as mechanisms, to explain those outcomes. The mechanisms shown in the introductory section of this dissertation, presented as

[1] Thelen, 1999
[2] Hall & Taylor, 1996
[3] Fairfield, 2015; Schneider, 2013
[4] Bennett & Checkel, 2015

sequential and causal factors, are thus based on the process tracing method as they constitute all the intervening steps of both outcomes, BPTA and BPTI.

Interlinked with the process tracing theory, path dependence focuses on the timing and sequence of social processes, considering not only moments of institutional selection and institutional change, but also moments of processes of institutional development unfolding over significant periods of time.[5] It considers the positive feedback generated by certain events, even by little ones if happening at the right time,[6] making reversals hard due to their self-reinforcing nature.

In the political science discipline, research has made extensive use of these methods to study the advancement of social and environmental policies. For instance, Hochstetler (2020) studies the energy transitions from non-renewable sources to renewable ones in Brazil and South Africa. Her main conclusion reinforces the importance of path dependence forces and historical institutionalism to explain these environmental policies. As the author states: "*renewable energy does not emerge in a vacuum. Its fate inevitably reflects path dependencies from existing contexts that may have little to do with electricity. Better understanding of such historical institutional dimensions is a major component of the merging research agenda on energy transitions*."[7]

Furthermore, Jacobs (2011) carries out historical within- and cross-case analysis in Germany, Britain, the United States, and Canada to investigate the conditions under which democratic governments invest in long-term social benefits at short-term social cost, using the example of pension funds. His research concludes that timing and institutions, namely the

[5] Pierson, 2004
[6] Pierson, 2000
[7] Hochstetler, 2020, p. 9

degree of institutional insulation of policymaking from societal influence enjoyed by ministers (i.e., institutional capacity) matter for policy investment.[8]

1.4.2 Methodological tools: interviews and document and secondary data analysis

From the decade of 1970 through the 1990s, the public transportation sector of Latin America was very secretive with its information on supply and demand. During those years, there was no ample source of urban mobility data in the region, with exception of the one provided by a few metro and bus systems in large Brazilian cities.[9] Since bus public transportation was mostly unregulated at that time, the service was seen as "a market issue" and bus operators kept the data to themselves.[10]

This situation began to change in the early 2000s, when two main Latin American urban mobility observatories were created. The first one was SIMOB, which was created in 2003 by the Public Transport Association of Brazil. It included data on 500 Brazilian cities larger than 60,000 inhabitants. The second one was OMU, and it was created in 2007 by CAF (Development Bank of Latin America). It initially gathered data on 15 large cities in the region, but by 2014 it collected data on 29 of them.[11]

Even though currently data on bus public transportation in Latin America is more available, transparent and systematized that in the 1990s, the representation of the region is partial. Most of the public transportation studies are focused on Chile, Brazil and Colombia, precisely because their data are more reliable.[12]

[8] Jacobs, 2011
[9] Estupiñán et al., 2018
[10] Estupiñán et al., 2018
[11] Estupiñán et al., 2018
[12] Vecchio et al., 2020

Some cities and countries are still keeping the secrecy of the 1980s, such as Costa Rica. This characteristic demands an in-depth qualitative immersive type of study. Therefore, this research project leverages stakeholder interviews, the use of secondary data, and the review and analysis of official and non-official documents, such as national policies and laws, news media, and academic articles. These different sources allow for triangulation, bringing different forms of data to try to answer the same questions.[13]

Interviews

Interviews are valuable tools for theory building but also for theory testing.[14] For this dissertation project, a total of 47 semi-structured interviews were conducted by the author between May 2022 and July 2023. The interviews lasted between 35 minutes to 1 hour and 15 minutes, with an average of 45 minutes.

A first round of 30 interviews was carried out between May and November 2022 in Costa Rica and Chile based on the criteria of theoretical sampling, which seeks to collect information that allows the identification of relevant analytical categories.

After a critical reflection stage to actively think on the information obtained so far, it became crucial to move to a second round of interviews. This second part of interviews took place between November 2022 and July 2023. It was based on the criteria of theoretical saturation, aiming to avoid the collection of information that was already available or that did not add analytical value. It consisted of 17 interviews to key stakeholders in Costa Rica, Chile, and in international organizations (i.e., World Resources Institute and the International Association of Public Transport).

[13] Kapiszewski, MacLean, & Read, 2015; Mosley, 2013
[14] Martin, 2013

Only two people were interviewed twice. For both cases, the first interview was based on the theoretical sampling criteria, while the second time was based on the purpose of theoretical saturation.

The identification of the interviewees was made through systematic sampling, trying to draw on all classes and types of actors relevant to the research and, thus, obtaining balanced information from a wide variety of perspectives.[15] Key stakeholders to interview were initially contacted based on purposive sampling, identifying them in pre-existing materials, such as newspaper articles, policies, plans, and international, national, and local reports.[16] Usually at a later stage, interviewees were identified using snowball sampling, many times recommended or put into contact by a former interviewee.

Table 1 summarizes the type of stakeholders interviewed both in the GAM and Santiago, who range from high-level public officials (e.g. ministers, Congress members, and public transportation directors) to activists and representatives from international organizations. Some of these actors have played different roles related to the transportation sector during their professional career. However, they were assigned in the category of their most recent job.

Interviews with bus operators resumed to only one. In the case of the GAM, these actors are reluctant to grant interviews. In the case of Santiago, four companies of bus operators (i.e., Buses Vule S.A., Subus, Metbus S.A., Redbus Urbano S.A.) out of the six operating were contacted. Two replied to the email and only one granted a final interview.

[15]Bleich & Pekkanen, 2013
[16] Kapiszewski, MacLean, & Read, 2015

Table 1. Stakeholders interviewed

Number of people interviewed from		The GAM	Santiago	Other Latin American places
Government		**12**	**8**	**0**
	Executive branch	8	7	0
	Legislative branch	3	0	0
	Other	1	1	0
Academia		**2**	**5**	**0**
Civil society		**12**	**5**	**2**
	Associations of users	4	1	0
	International organizations	1	1	2
	Aid agencies	2	0	0
	Think tanks/ consultant agencies	5	3	0
Bus operator		**0**	**1**	**0**
TOTAL: 47		**26**	**19**	**2**

Even though face-to-face interviews are preferred to virtual ones, the presence of the COVID-19 pandemic made difficult in-person interactions, particularly in Costa Rica. For this case, more than 95% of the interviews were carried out virtually, via Zoom. On the contrary, for the case of Santiago, 74% of the interviews were made face-to-face.

The interviews were conducted in Spanish, the national language. During the interviews, data was collected through notetaking. For the case of Santiago, all interviews were audiotaped. However, for the GAM's case study, recording only happened in some instances due to the privacy preference of the interviewee.

Official and non-official document analysis and secondary data

An exhaustive collection of written Costa Rican, Chilean, and international plans, strategies, road maps, policies, laws, and bylaws were reviewed. If the document dealt with environmental, climate, transportation, energy, housing, or territorial development issues, it was considered in the review. Moreover, many times one document referred to another document as the primary source and, in that fashion, the documentation review expanded.

Documents emitted by the national governments and its ministries were considered, as well as those published by international and regional organizations, such as the Economic Commission for Latin America and the Caribbean (ECLAC), the United Nations Environment Programme (UNEP), and the Interamerican Development Bank (IDB). Other documentation reviewed were newspaper articles from the main newspapers in Costa Rica (e.g. La Nación, La República, El Semanario Universidad, and Delfino.cr.) and Chile (e.g. El Mercurio, La Nación). Lastly, audio documentation was also reviewed, including podcasts, conferences, and interviews.

Regarding the secondary data, they were mostly obtained either from national Chilean and Costa Rican entities (e.g. ministries, climate and mobility think tanks) or from international organizations (e.g. ECLAC, IDB). Whenever secondary data is used in the dissertation to support an argument, the source is indicated.

1.5 Theoretical framework

This section provides the theoretical framework into which this research is embedded. It starts by reviewing what the literature has signaled as related to public transportation and its relationship to social inclusion, public health, the environment and climate change. Then, it delves into the literature of institutions, interest groups and legacies to sustain the arguments

made in the empirical chapters of this dissertation. Institutions play a big role in determining the steps to implement a policy and the compliance guidelines, as well as inhibiting or enabling organized interests to permeate them. Interest groups also play a role in pushing for their interests even though sometimes that means undermining institutional capacity. Legacies and path dependencies can make policy action harder and keep the status quo. Lastly, this subsection addresses the concepts of BPTA and BPTI.

1.5.1 The very encompassing role of public transportation

Urban transport plays a decisive role in the consolidation of more equal, livable, and clean cities.[17] Terrestrial transport infrastructure, including private, freight, and public transportation, influences the layout that towns and cities adopt, "*thus determining where people live, work, shop, go to school, and carry out their leisure activities*."[18] Moreover, the Intergovernmental Panel on Climate Change (IPCC) has signaled public transport and biking as one of the cheapest and key infrastructure actions to address climate mitigation, air quality, health, employment, and energy security.[19]

Still, the social costs of poor transport and the benefits of reducing these as part of a welfare agenda are often poorly understood and even more poorly monitored. The outcome seen is the location of essential services, such as jobs, hospitals, schools, and supermarkets, in places that are virtually impossible to access without a car.[20]

Furthermore, citizens who experience transport disadvantage tend to be those that experience social disadvantage, leading to the hindering of accessibility to opportunities for low-income and disadvantaged people, generating and exacerbating existing conditions of

[17] Scholl et al., 2022; Estupiñán et al., 2018
[18] Lucas, 2004, p. 9
[19] IPCC, 2023
[20] Lucas, 2004

social exclusion.[21] Evidence shows that people in the lowest socioeconomic stratum can spend between 20%-30% of their monthly income in transportation and are also the people who use transportation the least.[22]

In this context, it is important to study the role that public institutions and interest groups can play in creating these disparities in accessibility and affordability, among others.

1.5.2 Institutions as an explanation for policy (in)action in Latin America

Institutions are defined as "*a set of rules, compliance procedures, and moral and ethical behavioral norms designed to constrain the behavior of individuals in the interests of maximizing the wealth or utility of principals".*[23] They provide the framework within which humans interact and establish societal cooperative and competitive relationships.[24]

While institutions shape and restrict interests and preferences of individuals and groups,[25] they can also play a big role in creating power asymmetries and providing policy-making access points to the more powerful interest groups.[26] And it is precisely this feature of institutions, how much they shield policymakers and policies from the influence of powerful interest groups, that matter for the purpose of this dissertation.

Since this research delves into the presence of (1) institutional capacity/ policy insulation for policymakers and (2) weak vs strong institutions in Latin America governing the bus public transportation sector, the following subsections will address those concepts and the literature associated to them. First, institutional capacity plays an important role by providing policymakers the capacity to implement and enforce laws and policies. Institutional capacity

[21] Lucas, 2012
[22] Rivas, Suárez-Alemán, & Serebrisky, 2019
[23] North, 1981, p. 201-202
[24] North, 1981
[25] Steinmo, 1989
[26] Pierson, 2004

becomes thus necessary as it shields policymakers from the influence and pressure from societal groups. For instance, the presence of multiple veto players can be a barrier to institutional capacity. Second, weak institutions matter because they are prevalent in Latin America and lead to forbearance, defined as the intentional and revocable nonenforcement of law.[27] Latin American weak institutions do not accomplish what they are supposed to and open channels for untransparent and corrupt practices. There is an increasing need to study more the subject of institutional weakness as a conscious political strategy, and thus an object of study, rather than a "random error" that obstruct proper institutional analysis.[28]

Institutional capacity/ Policy insulation

Institutional capacity is defined by Jacobs (2011) as "*the degree of institutional insulation of policymaking from societal influence*".[29] It can be understood as the political institutions that lend proponents within the state the capacity to enact policy investment. In Mexican municipalities, policy insulation was a key factor that allowed mayors to implement reforms to improve water provision by shielding these contentious changes from political conflict.[30] Therefore, if a policymaker is able to insulate the policy from external pressure, such as the one exercised by powerful interest groups, it is more likely that policies that do not favor these organized interests get implemented.

Institutional capacity is related, then, to how political institutions accommodate the interests of organized groups into policymaking. In this regard, there is a wide literature in climate policymaking that show how corporatist versus pluralist systems integrate external

[27] Holland, 2016
[28] Brinks, Levitsky, & Murillo, 2020
[29] Jacobs, 2011
[30] Herrera, 2017

actors into climate policies.[31] For instance, carbon polluters have direct influence over climate policy design in corporatist systems and, consequently, policy proposals shield them from burying the costs and tend to prioritize policy carrots over policy sticks. On the contrary, since carbon polluters lack a guaranteed influence on climate policymaking in pluralist systems, climate reforms can end up imposing the costs on them.[32]

Institutional capacity is also related to the presence of veto power enjoyed by the executive and the number of veto points outside the executive. Veto players are defined as "*individual or collective decisionmakers whose agreement is required for the change of the status quo*".[33] An institution or state can have one or several veto players. Their quantity can play a role in the implementation and compliance of a policy, or the lack of them. The wider the dispersal of veto authority, the greater the risk of policy rigidity and gridlock; conversely, the tighter the concentration of veto authority, the greater the risk of policy volatility. Therefore, having more than one veto player helps to reduce the likelihood of policy volatility, but there is some point of inflexion after which additional veto players become unwelcome, serving only to increase the likelihood of policy rigidity.[34]

In this regard, superpresidential regimes, taking place in the 1990s in ex-Soviet and Latin American countries, represent a case of strong veto power enjoyed by the executive. This type of regime posits strong powers on the executive in detriment of representativeness, accountability, and the overall quality of democracy.[35] Although in this case the executive might have the capacity to insulate policies, superpresidential regimes can lead to policy

[31] Finnegan, 2022; Lipscy, 2020
[32] Mildenberger, 2020
[33] Tsebelis, 2000, p. 442
[34] MacIntyre, 2001
[35] Svolik, 2008; Beliaev, 2006; Fish, 2005; Linz & Stepan, 1996

volatility and, if not having enough and stable checks and balances, it could lead to authoritarianism.

Latin America's strong executive powers tend to enjoy large veto authority, although there is variation between the countries in the region. O'Donnell (1991) coined the term "delegative democracy" to describe Latin American countries in the 1990s, where presidents presented themselves as being "above" parties and being the sole responsible person for the country's policies. The legislative and judicial branches of power were viewed as "a nuisance." For instance, in the Brazilian presidentialist system, presidents have a great deal of power over not just the composition but also the functioning of national institutions. In this case, the adoption and compliance of climate policies can be strongly shaped by individual presidents to the extent that climate institutions are federal state agencies. Therefore, Brazilian national presidents exercise a decisive influence on their climate ambitions and capacities.[36] Something similar happens in Chile. The presidential system of this country allows the executive branch to have much more power than the other branches. Chilean executives are among the strongest in Latin America in terms of formal policymaking powers.[37]

Nevertheless, Latin America's model of presidentialism combined with proportional representation (PR) legislative elections has also been signaled as an unappealing combination for democratic quality.[38] It can cause serious gridlock when presidents do not have majority support in their legislatures,[39] leading to policy rigidity. This is pertinent to those Latin American countries where executives are not that strong, thus not enjoying veto authority. Costa Rica is one of those cases.

[36] Hochstetler, 2021
[37] Fairfield, 2015; Mainwaring & Shugart, 1997
[38] Lijphart, 1991
[39] Mainwaring, 1990

Weak institutions

A weak institution is defined as a formal institution that "*achieves little or nothing either because it fails to achieve an ambitious goal or because it never set out to accomplish anything*".[40] There can be three types of weak institutions: (1) those that are not complied with, either because state officials decide not to enforce or because of problems of state incapacity and societal resistance, (2) those that are instable (i.e., excesively high rate of institutional change) and leave political actors unable to implement clear strategies, and (3) those that rely on judicial interpretations as a way to provide "legal" cover and legitimacy for what is clearly a rule violation.[41] As a result, the weakness or strength of an institution is a function of the extent to which it actually matters to social, economic, or political outcomes. The expectation is that a strong institution redistributes and refracts power or authority in order to achieve an outcome that diverges from what the preinstitutional outcome would have been.[42]

This research focuses on the first type of weak institution, meaning that these are institutions that suffer from non-enforcement and state incapacity. In this case, non-enforcement is a result of (1) a purposeful decision of the competent public authorities not to enforce and (2) a problem of incapacity from the institution to enforce, either because it suffers from a lack of personnel/ specialists/ resources or because of the incapability of its personnel to enact the law and the respective policies.

Weak institutions are poorly shielded from the influence of interest groups. Since non-enforcement is one of their features, powerful networks of organized interests are not confronted over their disrespect of the law and policies. Moreover, state (in)capacity plays a

[40] Brinks et al., 2020, p. 7
[41] Brinks, Levitsky, & Murillo, 2019
[42] Brinks et al., 2019

role in the implementation of social, economic and environmental policies. For instance, it has been studied how in contexts of weak policy capacity, related to state capacity, business influences policymaking and institutions via the provision of policy capacity to lawmakers. In the US, this situation is more common when lawmakers and business share ideological affinity and when states are governed by conservative lawmakers.[43]

It is important to study institutional weakness in Latin America, and the global South more broadly, because of its prevalent existence,[44] "*after more than three decades of democracy, formal institutions only weakly shape actors' behavior in much of Latin America, creating a sizeable gap between the parchment "rules of the game" and their expected, or at least stated, outcomes"*.[45] Problems of institutional poor enforcement or short durability can be linked to Latin America's problem of institutional borrowing from the global North, many times in the form of one-size-fits-all type of policies promoted by multilateral agencies. Moreover, socioeconomic inequality and the persistence of weak state capacity are features of Latin American states that reproduce this institutional weakness.[46] However, these conditions are thought to be, at least in part, a function of institutional weaknesses. Therefore, the region "*may be suffering from a self-reinforcing cycle in which social inequality and economic and political instability generate institutional weakness, which, in turn, reinforces inequality and instability*".[47]

Weak institutions are difficult to measure and there is a gap in the literature on the subject.[48] Measuring noncompliance often requires strategies that capture it in an indirect way,

[43] Hertel-Fernandez, 2014
[44] Levitsky & Murillo, 2013
[45] Brinks et al., 2020, p. 2
[46] Brinks et al., 2019
[47] Brinks et al., 2020, p. 169
[48] Brinks et al., 2019

either by assessing outcomes or relying on measurement strategies that deal with social desirability bias.[49] Some suggestions are the direct observation of violations and sanctions, although these indicators are generally difficult to obtain in a context of secretiveness and untransparency. Precisely this lack of data availability to the public can act as a reflection of how weak the institution is. Other possible strategies are measuring enforcement efforts (i.e., an increase in state investment in bureaucratic capacity, such as professionalization and resources) and using societal corproduction of enforcement.

1.5.3 Power asymmetries and organized interests as explanation for policy (in)action in Latin America

Interest groups and their access to policy-making decisions can determine which policies get implemented and when, as well as the establishment and evolution of social institutions.[50] Organized interest can exercise different types of power over policymaking and institutions. It could either be *instrumental* (a direct, political form of power) or *structural* (an indirect, agenda-setting and investment related form of power).[51]

Schattschneider (1975) coined the term *mobilization of bias* to describe how policymakers respond to the organized, intense, and well-informed groups instead of the median voter. Contexts of imbalanced partisan polarization and rising income inequality become particularly relevant for the study of the role that interests groups play in shaping institutions and policymaking.[52]

Organized interests have played an important role in defining the establishment (or lack thereof) of social, economic, and environmental policies in the global South. For instance,

[49] Brinks et al., 2020
[50] Knight, 1992
[51] Hacker & Pierson, 2002; Lindblom, 1982
[52] Hacker & Pierson, 2014

renewable energy transitions in South Africa not only required expensive changes in existing electricity grids but also the displacement of a powerful entrenched actor in the traditional energy sector, Eskom. The result saw Eskom and its allies fighting against this transition and turning it into a disruptive and politicized process.[53] In regard to economic policies, Fairfield (2015) shows how business— whether as individual firms and investors or as organized political actors— played a central role in tax politics and economic policymaking, particularly in an instrumental way. In the case of Chile, for instance, economic elites had cohesion and ties to right parties that discouraged governments from attempting to legislate anything but marginal tax increases.

In the case of interest group power related to transportation in the global South, many transportation policies, projects, and practices have favored the interests of exclusive and powerful networks of actors.[54] Examining the case of the adoption of Bus Rapid Transit (BRT) systems in four African cities, Klopp, Harper and Quarshie (2019) conclude that the modernization of public transportation in these settings, disguised as a technical and depoliticized action, is truly leading to a reorganization of power, authority and accountability. The end result is the displacement and replacement of popular transportation, a prevalent sector in the African continent.

Keeping the light on business groups and its power is crucial to advance the field of Latin American political economy.[55] A study carried out by the United Nations for Development Programme in 2004 for the case of Chile agrees with this former statement. Besides showing that the economic, political, symbolic, and social elite in Chile is mainly

[53] Hochstetler, 2020
[54] Klopp, 2012
[55] Schneider, 2013

masculine, largely determined by the socioeconomic origin of its members and very entrenched, this study signals that there is a predominance of entities related to the economic area among the top ten more powerful Chilean elite groups. The Chilean economic elite is constituted by the ministries related to economics affairs (e.g., Ministry of Economics and the Treasury), large business groups, the Central Bank, business associations, and banks.[56] This study also shows how the large business groups get in contact with the ministries related to economics affairs in an indirect way, mostly through business associations and political parties. Research centers and the Senate also serve as connecting points.[57]

1.5.4 Legacies from the colonial past, economic models and authoritarian regimes as explanation for policy (in)action in Latin America

Colonial legacies and their path-dependent feature can largely relate to the weak institutions and powerful interest groups prevailing in the Latin American region and the global South, more broadly. Path dependence and its characteristic of positive feedback can explain the stickiness of certain institutions and why institutions develop in some way instead of another. As stated by Brinks et al. (2020, p. 288), "*the political instability that characterized much of twentieth-century Latin America may have been rooted, in part, in an institutional instability trap created by the postcolonial strategy of designing aspirational rules sustained by weak coalitions*".

Looking at Africa, for instance, colonialism inhibited the continent's development not only by European countries grabbing Africa's resources and restricting the region's economic potential capacity,[58] but also by establishing a way of planning based on exclusion. Racial

[56] UNDP, 2004, p. 197
[57] UNDP, 2004, p. 198
[58] Rodney, 1972

segregation evolved into the current social segregation, perceived in the distribution of settlements, access to services and exposure to pollution of cities.[59] There is a continuing colonial legacy in place of channeling public resources to promote the culture of automobile consumption of a few, with the repercussion of undermining investments in other transport modes used by the majority.[60]

These exclusionary mobility patterns can also be associated with the economic and extractive models adopted in Latin America, such as the agro-export model in the late 1800s. This region became from early on an important exporter of raw materials and agricultural goods to the global North. This economic model required displacing these materials from a variety of regions in the country, often isolated and poorly inhabited, to the ports. The resulting development of the road network in Latin America, thus, sought to move the extracted resources, not its citizens. The prioritization of transporting commerce over people can be still considered something prevalent in the region. An example is the Atlantic railroad built in Costa Rica in the late 1800s. This train connected San José, the country's capital, to Limón, the coastal city where the main port was located with the aim of bringing coffee and bananas to the harbor, not of moving around its inhabitants who were concentrated in other areas of the country. Currently, cities in the global South exhibit a heavy reliance on the automobile, a marker of status and a need for mobility in many cases.[61]

Nevertheless, countries in the global South are not only affected by colonial and economic development legacies but also by legacies of past authoritarian regimes. In the case

[59] Uteng & Lucas, 2016; Klopp, 2012
[60] Boateng & Klopp, 2022
[61] Boateng & Klopp, 2022; Mattioli et al., 2020

of Latin America, many countries in the region went through dictatorships starting as early as 1954, in the case of Paraguay, and ending as late as 1990, in the case of Chile.

Authoritarian regimes set up institutions and behaviors in civil society that permeated them for years. In the case of Chile, Pinochet's regime was able to leave a Constitution that sustains a strong executive and allowed the entrenchment of an elite. This Constitution included extreme countermajoritarian provisions in favor of the army and the sectors benefited during the dictatorship.[62] Moreover, this dictatorship was able to profoundly weaken civil society forces, quietening social movements and the conformation of unions.[63]

Another example of the role of authoritarian regimes in Latin America is visible in the emergence of the environmental movement in Brazil. Even though the rise of environmentalism took place in the 1980s and 1990s in many countries in Latin America with international actors playing an important role, environmentalism in Brazil emerged earlier, from domestic factors and as a politicized movement. Brazilian environmentalism, at least its first wave, was political because it happened during the democratic transition, when Brazil went from military to civilian rule.[64]

1.5.5 Concepts: Definition of Bus Public Transportation Action (BPTA) and Bus Public Transportation Inaction (BPTI)

Bus public transportation action (BPTA) is equivalent to a sustainable urban transit. BPTA is characterized by a bus network that works in a systemic, integrated, reliable, safe and accessible way, while generating low to no pollution. This urban transit is regulated and has oversight and monitoring mechanisms in place with clear guidelines and standards for bus

[62] Alberts, Warshaw, & Weingast, 2012
[63] Flores Dewey, 2013
[64] Hochstetler & Keck, 2007

operators and the respective regulatory public entities. BPTA has as an aim to create a bus public transportation system that serves the city and its citizens, not bus operators. Therefore, it seeks to increase its coverage and integrate the participation and interests of citizens when designing expansions.

Even though BPTA has happened in some Latin American countries and cities, BPTI is still seen in many other places. In these cases, BPTI is equivalent to a bus sector that operates in an unregulated, unintegrated (fare and operationally wise), chaotic and atomized way. In here, there is no, or very little and poor quality, monitoring and oversight mechanisms in place, as well as a lack or deficiency of guidelines and standards that define the operators' and public authorities' responsibilities. This form of operation acts in detriment of the users and, many times, in favor of the operators. Therefore, coverage expansion nor local participation are pursued goals in the design of the service.

Table 2 addresses the characteristics that distinguish BPTA and BPTI.

Table 2. Aspects that characterize bus public transportation action (BPTA) and bus public transportation inaction (BPTI)

BPTA characteristics	**BPTI characteristics**
Operation and fare integration of public transportation	Operation and fare unintegration of public transportation
Public transportation functions as a system and not as isolated operational units.	Public transportation functions as isolated operational units and not as a system.
Existence of contracts for bus operators that establish the operational guidelines and	Inexistence of contracts for bus operators that establish the operational guidelines and

standards, such as the definition of the routes, the characteristics of the fleet (e.g. year, size) and an assigned limited period to enjoy the license.	standards, such as the definition of the routes, the characteristics of the fleet (e.g. year, size) and an assigned limited period to enjoy the license.
Contracts are revoked and/ or not renewed if bus operators do not follow the conditions set in them.	Contracts are not revoked and even get renewed, even though bus operators do not follow the conditions set in them.
Establishment of bus tariffs by a public authority	Establishment of bus tariffs by operators or "the market"
Public funding in the form of supply-side subsidies (i.e. transfers of resources from the public sector to operators) and/or demand-side subsidies (i.e. transfers of resources from the public sector to users)	Lack of public funding (e.g. subsidies) for public transportation
Electrification of the bus fleet	Bus fleet is old and highly pollutant.
Community participation in designing the public transportation system and its expansions	Communities are not considered when designing the public transportation system and its expansions.
Network coverage, particularly in poor and underserved areas. Coverage increases throughout time.	Poor coverage of routes, particularly in poor and underserved areas. Coverage does not increase throughout time.

Monitoring and oversight mechanisms put in practice by a public authority.	Lack of or poor monitoring and oversight mechanisms put in practice by a public authority.

1.6 Scope conditions and pathways to bus public transportation action (BPTA) and bus public transportation inaction (BPTI)

This research delves into the political explanations that lead to BPTA and BPTI, namely the presence of interest groups and the power they enjoy, as well as the existence of public institutions that govern the system and how they evolve throughout time.

In this subsection, I explain the scope conditions that apply to this theory, as well as the enabling conditions or triggers for BPTA –or their absence in the case of BPTI–, and the pathways (i.e., mechanisms and sequence of events) that lead to BPTA and BPTI.

1.6.1 Scope conditions

This research takes place in an urban context in the global South. Beyond being a story of bus politics, this dissertation considers the enactment and implementation (or lack thereof) of policy's reforms embedded in contexts where organized interests enjoy instrumental and structural power,[65] where informal institutions might prevail over formal institutions, where *de facto* policies might prevail over *de jure* policies,[66] where formal institutions might have strong interests in maintaining the status quo,[67] and where endemic corruption and a lack of transparency add variation in the theorizing of these countries' social and environmental performances.[68] Therefore, this story does not only pertain to bus reforms in the GAM in Costa

[65] Fairfield, 2015; Schneider, 2013
[66] Brinks et al., 2020; Bayer & Urpelainen, 2016
[67] Hochstetler, 2020
[68] Economy, 2010; Weinthal, 2002

Rica and Santiago in Chile, but it also relates to other social and environmental reforms made in other Latin American cities such as Mexico,[69] Brazil[70] and Peru,[71] as well as other countries in the global South, such as Ghana,[72] and South Africa.[73]

Policies directed towards the improvement of the bus sector might differ from policies oriented to other transportation modes, particularly the ones directed towards private vehicles, in terms of their electoral gains. In general, sectoral economic capture is focused on mega-projects in the global South. Since policymakers know that large investments are flashy and, thus, electorally attractive, they focus the investments on them. For instance, building expensive public means of transportation, such as subways and (inter)urban trains, is more popular than reforming the bus sector. Moreover, in a region where there is a culture of automobile consumption, infrastructure investments for private vehicles, such as modern highways, are particularly appreciated by voters. In contrast, bus reforms, even though much cheaper, are less striking and, thus, less electorally attractive.

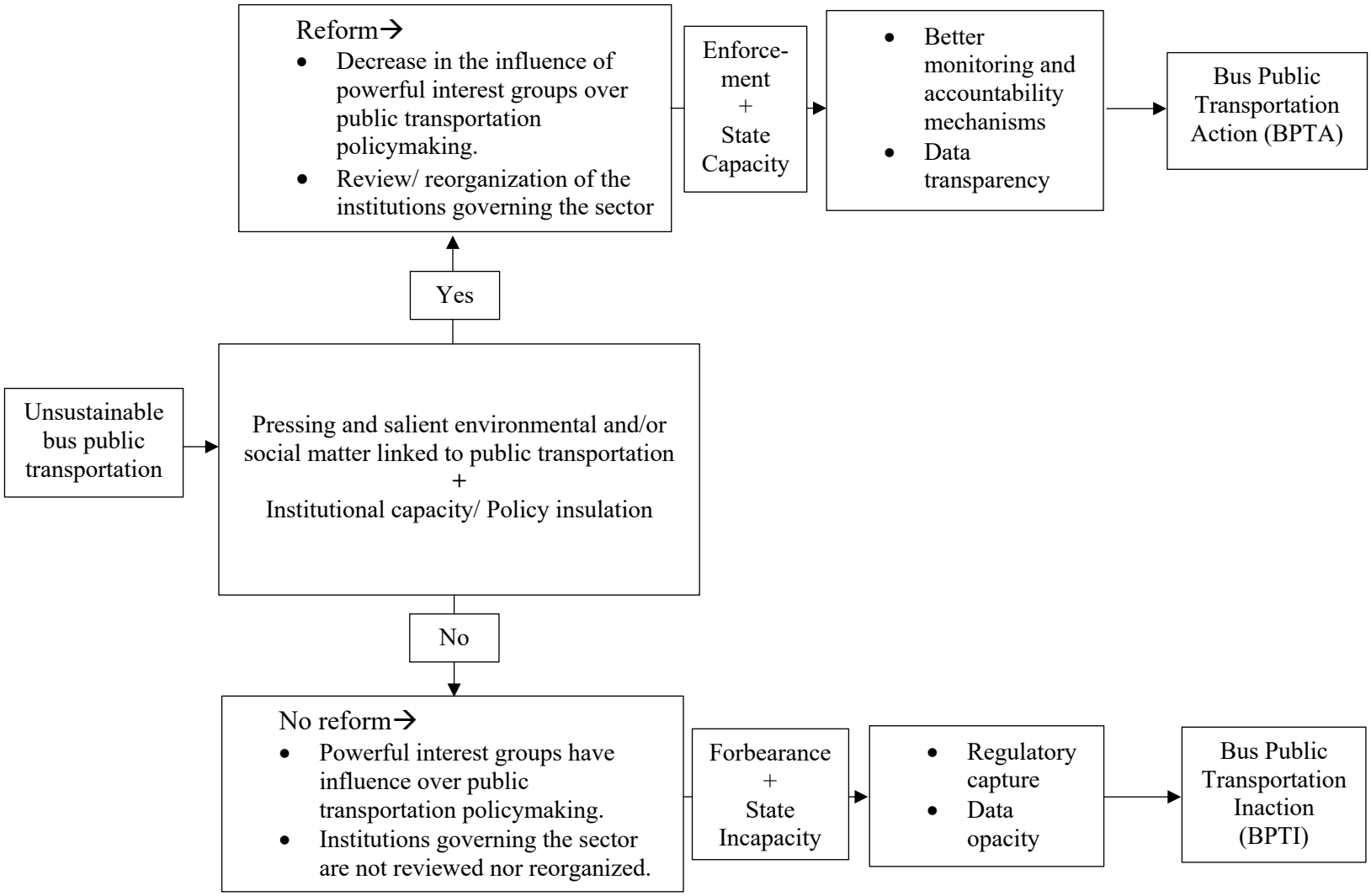
Bus public transportation action can be linked to active mobility policies and other more electorally unattractive policy innovations. Active mobility policies include biking and walking. Therefore, building bikeways, sidewalks and putting in place better road's signposting are actions oriented towards active mobility. Other urban planning and climate policies that can be associated to this case are planting trees and building green areas in cities. All these policies are cheaper than large infrastructure projects but are less electorally attractive, since they take space away from cars and businesses (e.g., shops, malls).

[69] Herrera, 2017; Flores-Dewey, 2013
[70] Hochstetler, 2021
[71] Holland, 2017
[72] Boateng & Klopp, 2021
[73] Hochstetler, 2020

1.6.2 Pathways to BPTA and BPTI

This dissertation addresses the pathways that lead to BPTA and BPTI. Figure 1 summarizes this sequence of events, both for BPTA and BPTI.

Figure 1. Pathways to BPTA and BPTI



BPTA sequence

First, for BPTA to take place, there must be a couple of enabling conditions that trigger the reform. The first enabling condition is the occurrence and salience of an environmental, climate or social pressing matter that is directly associated with the bus sector. These pressing matters can be unbearable traffic congestion, strong citizens' demands or public health issues due to high local pollution or high mortality rates caused by the bus public transportation sector, among other reasons. Moreover, the issue's salience, bringing it to the political forefront, can be motivated either by citizens, companies, scientists, international authorities or even policymakers. Politicians can act as policy entrepreneurs, identifying early opportunities to bring salience to an issue and use it as a way to compete against other politicians.[74] In both of the cases studied in this dissertation, for instance, politicians operated as policy entrepreneurs bringing salience to the need of a public transportation reform. Even though the narratives differed in some aspects in the GAM and Santiago, policymakers focused on the modernization side that a reform in the public transportation sector could bring to the city.

The second enabling condition is institutional capacity, which refers to the capacity institutions grant to policymakers to insulate their policies from societal influence and pressure and, thus, act on the urgent and salient matter. Policy insulation is necessary for reform implementation. Studies have shown how autonomous and insulated agencies perform the necessary activities associated with an efficient and well-functioning government.[75] In the case of reforms for water provision in Mexican states, Herrera (2017) finds that the primary

[74] Bonardi & Keim, 2005
[75] Geddes, 1990; Evans, 1995

mechanism through which reforms are converted into service improvements is the reformers' ability to create policy insulation, effectively shielding reforms from political conflict.

Once the pressing and salient matter is directly linked to public transportation and the policy is insulated from societal pressures, the reform starts. The reform is a gradual process. It starts by a restructuration of the institutions governing the sector, as well as of the interest groups involved in it. Old institutions in charge of managing and regulating the public transportation sector are revised, resulting in the possible disappearance or reorganization of old institutions and the creation of new ones. Moreover, the organization of the interest groups involved in the public transportation sector is also reconfigured, leading to a situation where their power becomes more restrained and they have less influence over public transportation policymaking.

Over time, the reformed institutions governing public transportation will be able to implement better enforcement mechanisms and will enjoy more state capacity. The reorganization of bus operators will also allow better enforcement. Overall, the sector will enjoy better monitoring and accountability mechanisms, for example reflected in the creation of contracts with aligned incentives between the public authority and the bus operators. Bus operators now must share their data and finances with the public authority, leading to data openness and transparency.

The result will be BPTA: a bus urban transit that works for the users. It will be integrated, reliable, clean, safe, and accessible, as well as operate in a systemic way.[76] The case of Santiago reflects a situation of BPTA and it will be explained in the following section, "Case selection". Even though Santiago is an outstanding regional case, it is not the sole successful instance of

[76] For more characteristics on how BPTA looks like, go to section 1.5.5 and Table 2.

BPTA in the region. Probably the most emblematic case is Curitiba, the fastest-growing city in Brazil from the 1950s through 1980.[77] Curitiba was able to "metronize" bus public transportation in the 1970s, implementing what was later named a BRT system. Jaime Lerner, a skillful urban planner and three-times mayor of Curitiba, was a crucial policy entrepreneur who could also insulate the reform from opponents. He was able to integrate land use and transportation policies through incremental changes in the legislation and the creation of institutions.[78] Even though there are some current criticisms related to sustainability and the incapacity of change of the institutions governing public transportation,[79] its urban transit system is recognized as a leading example worldwide.

BPTI sequence

For BPTI to take place, the couple of enabling conditions must be absent. This characteristic means that environmental, climate or social pressing matters are not directly linked to bus public transportation nor is the association between the issues salient. Still, if policymakers are able to bring salience on the issue and decide to act on reforming the sector, it will not be possible for them to do it as the institutions present do not grant them the capacity to insulate the reform from the influence and pressure of organized interests. Policies are not insulated from political conflict. For instance, it could be the case that bus operators are able to influence policymaking and take back the idea of the reform.

Since the two enabling conditions are not present, a reform of the bus sector does not take place. The lack of a bus reform allows the old and poor performing institutional structures and interest groups present in the sector to persist. If the institutions governing the sector are weak

[77] Rabinovitch, 1996, p. 52
[78] Rabinovitch, 1996
[79] Follador, Duarte, & Carrier, 2022; Giacomini Martínez et al., 2016

and the interest groups are powerful and influential, forbearance and state incapacity (e.g., few economic resources, poor professionalization in the institution) will continue and even intensify, probably increasing gradually as part of the process in the form of positive feedback. The result will be a sector that has poor to none monitoring and accountability mechanisms, as well as data opacity and untransparent practices.[80] Interest groups, such as these bus operators, take advantage of these weak institutions and their poor functioning to engrain their power in the sector. Their power can become so entrenched that it could lead to a case of regulatory capture.

The result will be BPTI: a bus urban transit that works in the interest of operators, not users. It will be unintegrated, unreliable, polluting, unsafe, and inaccessible, as well as operate in an unsystemic way.[81] The case of the GAM reflects a situation of BPTI and it will be explained in the following section, "Case selection". However, the GAM's situation might share similarities even with cities in the global North, where regulatory capture by powerful bus operators is also present. Bus public transportation outside London was deregulated and privatized in the 1980s. This action enabled market domination by a few large operators, who act as monopolists in many local areas. Attempts to regulate back the market have been fiercely opposed by these private bus operators. "*This suggests that privatization and deregulation, once enacted, are to some extent locked-in by the fact that 'incumbents' lobby against reforms that would threaten the status quo*".[82]

[80] Pazos, 2016
[81] For more characteristics on how BPTA looks like, go to section 1.5.5 and Table 2.
[82] Mattioli et al., 2020, p. 10

1.7 Case selection

Comparison has largely been used as a method of political inquiry in the Political Science discipline, regarded as a way for discovering empirical relationships among variables, not as one of measurement.[83] When relying on this method in comparative politics, case selection becomes crucial to avoid selection bias. The main mistake to carry out is selecting the comparative cases based on the dependent variable, as stated by Geddes (1990, p. 132): "*the only things that can actually be explained using a sample selected on the dependent variable are differences among the selected cases*."[84] This section thus addresses important aspects that distinguish the bus sector in the GAM and in Santiago, identifying differences in the independent variables and not the dependent one.

The GAM in Costa Rica and Santiago in Chile serve as a strong set of cases to study bus public transportation (in)action. These two metropolitan areas concentrate most of the population in the country, with the GAM being home to close to 60% of the national population while Greater Santiago hosts 40%. Certainly, the GAM and Santiago show variation in their urban transit systems in terms of their level of modernization, governance and funding structure. However, they also show differences in their drivers and the actors involved, which leads to opposite outcomes in the dependent variable.

Costa Rica and Chile share several characteristics, though being different in their sizes, as shown in Table 3. They are both middle-income countries of Latin America with annual GDP per capita, direct foreign investment and literacy rate levels well above the region's average. Poverty is also much lower in Chile and Costa Rica than the Latin America's average.

[83] Lijphart, 1971
[84] Geddes, 1990, p. 132

Moreover, these two countries are amongst the only four Latin American countries, jointly with Mexico and Colombia, that are part of the 38 member states of the Organization for Economic Cooperation and Development (OECD).

Table 3. Demographic and economic variables of Chile and Costa Rica (and in some cases Latin America)

Variable	Country		
	Chile	Costa Rica	Latin America & the Caribbean
GDP per capita in 2021 (in current USD) *1	16,247.4	12,537.3	8,413.3
Poverty headcount ratio at $2.15 a day in 2017 (% of population) *2	0.3	1.2	4.4
Foreign direct investment, net outflows in 2022 (% of GDP) *3	6.9313	5.1426	4.3542
Literacy rate, adult total (% of people ages 15 and above) in 2022 *4	97.16	98.04	94.6
Population in metropolitan area studied (in 2017 in Santiago; 2021 in the GAM) *5	6,254,314	3,290,861	N.A.
Urban density in the metropolitan area studied (inhab/km2)	7,464.36	1,610.01	N.A.

N.A.: Not applied

Sources

*1: World Bank Open Data, accessed on 11/30/2023 from https://data.worldbank.org/indicator/NY.GDP.PCAP.CD?locations=ZJ-CL-CR

*2: World Bank Open Data, accessed on 11/30/2023 from

*3: World Bank Open Data, accessed on 01/05/2024 from https://data.worldbank.org/indicator/BX.KLT.DINV.WD.GD.ZS?view=chart

*4: World Bank Open Data, accessed on 01/05/2024 from https://data.worldbank.org/indicator/SE.ADT.LITR.ZS

*5: INEC (2023)

Climate action is important for both countries. Even though Chile has been the epitome of the neoliberal country in Latin America, it decided to act on climate change since the elaboration of its Nationally Determined Contributions (NDCs) at Conference of the Parts (COP) 21 held in Paris in 2015. During the second presidency of Piñera, from 2018 to 2022, Chile launched a national climate change agenda where the decarbonization goals increased in ambition, not only in terms of a larger reduction of CO_2 emissions but also in terms of a lower time to achieve the net zero emissions pledge. Because of these actions, the country was even going to host the COP 25 in 2019, which had to be relocated to Madrid due to "El Estallido", the civil uprising happening in Santiago at the time. Chile was chosen as the host country due to its innovative and successful approach to climate change. Costa Rica also presented its goal of becoming carbon neutral by 2050 in the COP 21. The country's commitment to climate change is also reflected on its goal to become a global decarbonization lab, where the private sector, civil society, academia, and the international community would participate.

Even though both Costa Rica and Chile have become regional climate leaders, bus public transportation action has only happened in Santiago. This outcome turns interesting to analyze, not only because tackling the transportation sector is crucial to achieve this commitment, but because Costa Rica has been the country that has adopted social and green policies, and gained that international reputation, while Chile has been a country where the state has had poor participation and the market has dominated.

1.7.1 Santiago, Chile

Santiago represents the case of BPTA. Following the sequence of events shown in Figure 1, it is possible to distinguish the presence of the two triggers that lead to reform. First, there were some serious negative externalities caused by transportation, and particularly public

transportation, in Santiago since the 1970s. Historic pollution records were reached in the 1980s and in the late 1990s, Santiago was one of the most polluted cities in Latin America. Scientific studies proved it, while it became increasingly evident for the citizens who started developing bronchial and skin diseases. A layer of smog was notorious, particularly during winter. Moreover, a national study showed that 71% of material emissions with breathable particles (i.e., particulate matter 10 micrometers or less in diameter– PM_{10}) came from public transport vehicles. The direct connection between a notorious and visible environmental and public health pressing matter and public transportation became then evident, and President Lagos took advantage of this situation in order to bring salience to the issue. He can be identified as the policy entrepreneur who brought salience to the topic of a bus public transportation reform. During his Presidency, Chile celebrated its independence bicentennial and President Lagos wanted to leave something to make Chile a more modern country.[85] The reform of Santiago's transport system became an issue in the government's agenda once Lagos' administration realized that other priority projects might not be implemented due to the lack of financing as a consequence of the Asian economic crisis.[86]

Second, both presidents who pushed for the bus reform, President Lagos and President Bachelet, were able to insulate the policy. They had the power to implement Transantiago, the modernization of public transportation in Santiago, and shield it from the influence of powerful bus operators and citizens who were unsatisfied with the reform at its beginnings. Transantiago was designed in the early 2000s and fully implemented on February 10th, 2007. Public transportation action was detrimental to the status quo enjoyed by bus operators at the time.

[85] Olavarría-Gambi, 2013
[86] Olavarría-Gambi, 2020

The constitutional power granted to the executive branch in Chile allowed former President Lagos to call for the State Security Law (Law Nº 12.927) when the bus union went out to strike and blocked main roads of the capital. This constitutional power permitted President Lagos to pass the project via an executive decree instead of through the Senate. President Bachelet also made use of her executive power by invoking the "Constitutional 2%", which granted Transantiago with additional budget.

The bus reform was officially fully launched in 2007. Even though Transantiago's beginnings were complicated, with failures, incomplete technology, and misaligned incentives that gave an advantageous position to the new operators, the process was gradual. Little by little, the reform implied a gradual restructuration of the institutions governing the sector and a reorganization of the interest groups involved in it. The Metropolitan Directory of Public Transportation (DTPM), entity in charge of regulating buses and articulating integration with other means of transportation, was created in 2013. Moreover, bus operators had to operate under formal firms, turning from *gremialistas* to *empresarios*. They went from being organized in 106 trade associations in the late 1980s to conform around 10 main bus companies that are in charge of providing public transportation for the whole metropolitan area.

Stronger institutions came in place, leading to better enforcement and more state capacity. For instance, an increase in state capacity is seen in the implementation of a supply-side subsidy for bus public transportation– along with the already existing demand-side subsidy–, something rare in the Latin American bus sector. Moreover, better monitoring and accountability mechanisms are included in the contracts between bus operators and the DTPM. There is a constant revision and update of these contracts to avoid perverse incentives that end

up benefitting bus operators in detriment of the users. Buses have GPS and payment is electronic, making data transparent and available in a live fashion to public authorities.

Nowadays, Santiago exhibits a case of BPTA. Certainly, there are challenges such as safety and accessibility concerns in the bus network but public transportation acts as an integrated system, operation- and fare-wise. The negative externalities have reduced over time. Even though Transantiago's beginnings were conflictive and turbulent, as time passed by, this case has proven to be an example of learning-by-doing.

1.7.2 The GAM, Costa Rica

The Greater Metropolitan Area of Costa Rica represents the case of BPTI. Following the sequence of events shown in Figure 1, it is possible to distinguish the absence of the two triggers that lead to reform. First, public transportation has not been directly linked with any pressing environmental, social or climate matter in the GAM. Regarding public health, atmospheric pollution was not properly identified as a public health problem in Costa Rica's GAM until 2008, when the first National Plan to improve air quality was elaborated. Regarding climate change, even though in the early 2010 it became evident that the main contributor to Costa Rica's greenhouse gas emissions (GHG) was the transportation sector, direct associations were made between the GHG emissions and private and freight transportation, while public transportation did not get most of the blame. Interestingly, the topic gained salience during Carlos Alvarado's presidency, from 2018 to 2022, when discussions around the construction of an electric inter-urban train for the GAM started to circulate. The Office of the First Lady, led by Claudia Dobles, Carlos Alvarado's wife and the then First Lady, was in charge of this project as Claudia was an urban architect specialized on climate change. As in the case of Santiago, salience on the issue was brought by a politician as a policy entrepreneur.

Nevertheless, the second trigger was neither present in Costa Rica's GAM. A couple of policymakers tried to push for a reform in the bus sector but were not successful as they were not able to insulate the reform. Before Carlos Alvarado and in the mid 2010s, Costa Rica's then Transportation vice Minister, Sebastián Urbina, tried to push for a bus reform. He made progress in the policy design like no other policymaker before. However, the reform could not be implemented. He, as a vice Minister, could not push through the reform without support from other policymakers and, after bus operators started to exert pressure on the president, he was dismissed from the position. President Carlos Alvarado tried to decarbonize part of the public transportation system by electrifying the urban train during his presidential period. Even though this action did not mainly relate to buses, it would have generated an integrated system between the electric urban train and the bus lines serving the same communities. Carlos Alvarado's political party, Partido Acción Ciudadana (PAC), did not enjoy majority in the Legislative Assembly and the project faced large opposition. The project got stuck in the Legislative Assembly to be later dismissed by the incoming 2022-2026 government of Rodrigo Chaves.

Even though there were two different attempts to reform the bus sector, the absence of the enabling conditions led to a lack of reform of the bus sector in Costa Rica's GAM. This inaction meant that old and poor performing institutions were kept in place, and organized interest groups were not affected.

Therefore, regulatory institutions that have been in place since the late 1990s and early 2000s, characterized by their weakness, continue with their non-enforcement practices and state incapacity features, only intensified through positive feedback. It is important to add that non-enforcement is as much a purposeful decision of the main regulatory institution, the Public

Transportation Council (CTP), as it is a problem of state capacity. For instance, the implementation of the creation of consortiums between the independent bus companies is stipulated as a condition in the contracts between the CTP and the bus operators. However, this implementation is a responsibility of the bus operators and is not monitored by the CTP. Moreover, the institution's personnel are not enough to verify that all bus operators are providing a good quality service and complying with the contract.

The gradually weakening of the regulatory institutions and the strengthening of the power of bus operators have led to a bus public transportation sector that has poor to none monitoring and accountability mechanisms, a situation which bus operators have taken advantage of. This interest group has become increasingly politically powerful by lobbying, funding political campaigns, and permeating political spheres through revolving doors. Moreover, their power has become so entrenched that bus operators are co-directors of the entities that regulate them. They are judge and jury, which has led to a case of regulatory capture. Part of this capture is observed in the current data opacity and secretiveness around the sector. Bus operators submit their data directly to public authorities, deciding what to show and what not to. Moreover, they have opposed the introduction of GPS and electronic payment on buses for many years, as these technology incorporations could translate into a way for the public authorities to access data directly, without bus operators' interference.

Nowadays, the GAM exhibits a case of BPTI. The bus sector acts in an atomized, un-systemic, quasi-informal, unsubsidized, polluting, unsafe, unreliable, (operation- and fare-wise) unintegrated and inaccessible way. Besides congestion, estimations show that the GAM's current transportation system generates lost time, accidents and health impacts, which cost the country around 3.8% per year of its GDP.

1.8 Rival explanations

I would like to emphasize here three rival explanations for BPTA and BPTI that pertain the Latin American case and the global South, more broadly. First, I address the role of civil society, particularly the one of the international community, be it a global hegemony or international organizations, and the one of citizens. Then, I address the explanation of lack of economic sources/ funding. Lastly, I refer to the role that ideology can play as a possible explanation.

My dissertation project does not aim to claim that the misconception of bus public transportation as a social or environmental matter, which leads to weak institutions and powerful interest groups, is the sole explanation for inaction in Latin America. Nor do I affirm that an urgent critical matter and a institutional capacity are the sole factors that trigger action. Other aspects, as the ones mentioned before, can provide reasons for the outcomes seen.

However, in this section I also give reasons, based on evidence, of why these alternative variables might not be as explanatory of the outcomes studied in this research project.

1.8.1 Role of civil society

During the mid 1980s and 1990s, multilateral agencies, such as the International Monetary Fund (IMF) and the World Bank, imposed law reform requirements to Latin American countries to be able to take loans and face their financial crises. The Washington Consensus, as it is formally known, forced Latin American countries to adopt programs of structural adjustment[87] that included policies such as the adoption of free trade, floating exchange rates, deregulation, and the privatization of state enterprises and welfare agencies, to

[87] Gargarella, 2017

name a few. These adjustments might have pushed for the deregulation of the bus sector during these decades.

The international community has also been present in leading social and environmental policy adoption in Latin America and the global South. *Transnational advocacy networks* shaped environmental policymaking in the Brazilian Amazon by providing information, leverage, and accountability to local officials.[88] Moreover, they partially led Brazil's third wave of environmentalism in the 1980s and 1990s. After Rio's summit in 1992, more international funding came to Brazil and it allowed the movement to broaden the range of environmental activities to address.[89]

Nevertheless, it can be argued that precisely the guidelines of multilateral agencies, which tend to condition loans and funding to the adoption of certain policies, have favored road infrastructure for private vehicles over any other type of mobility in the global South. For instance, between 2009 and 2014, the Interamerican Development Bank (IDB) gave more than USD 460 million to the Costa Rican government to build roads.

Furthermore, these donors have promoted one-size-fits-all public transportation policies, such as BRTs, which have been adopted in closed and top-down processes.[90] The Institute for Transportation and Development Policy even elaborated a "BRT Planning Guide". These approaches have excluded users from planning processes, resulting in the expansion of transportation networks that do not address the real needs of local communities. For example, Klopp, Harper and Quarshie (2019, p. 22) write in the context of African countries, "*there is also an entire global political economy to BRT, represented by the international funders,*

[88] Keck & Sikkink, 1998
[89] Hochstetler & Keck, 2007
[90] Klopp, 2012

lobbyists, and consultants, that works to induce local appetite for BRT specifically as opposed to other approaches to bus, rail and non-motorized transport upgrading".

Additionally, international donors and transnational activist coalitions exert pressure over Latin American governments to adopt formally ambitious institutions, with little attention to real-world effects and local characteristics.[91] In the case of transportation, the result is a poor governance of the sector. For instance, the Mexico City BRT system, which started in 2005, had a hard time to be ready to work jointly and in an integrated fashion with all the other informal transportation systems operating in the city. In 2013, eight years after its inauguration, this urban transit system had almost only affected the areas immediately surrounding the selected corridors.[92] The situation has recently changed, as the current Secretaría de Movilidad is making efforts to modernize the services that operate as feeder routes.

The *spheres of influence framework* provides another rival explanation related to the role of civil society. With this framework, Steinberg (2001) explains how the *bilateral activist*, who has access to scientific and financial networks in the Global North but is deeply engaged in the domestic policy processes of their home country in the Global South, can foster social and environmental action. Bilateral activists not only explain why Costa Rica and Bolivia became leaders in tropical conservation in the 1960s and 1970s, respectively,[93] but also why Costa Rica was able to incorporate social-Christian principles in its constitution and implement a universal health care and pension system.[94]

Social movements, another key component of civil society, have been important vehicles advancing social and environmental policies in the Latin American region. In the

[91] Brinks et al., 2020
[92] Flores Dewey, 2013
[93] Steinberg, 2001
[94] Martínez Franzoni & Sánchez-Ancochea, 2018

Argentinian and Brazilian cases, it was precisely large-scale social mobilization from below that allowed for a social policy expansion.[95] In more recent years, social movements have led abortion rights in Argentina and Mexico. Lastly, El Estallido is a movement led by Chilean citizens and the one that propelled the writing for the adoption of a new constitution. However, as Santiago's case will show, reform in their bus sector came from an executive order instead of a social demand.[96] In the Costa Rican case, even though there is an increasing number of NGOs working on transportation and mobility matters, there has not been a massive movement related to public transportation. Social movements have mostly been at a municipal scale and focused on bicycle mobility.[97]

1.8.2 Role of lack of economic sources/ funding

One of the main arguments offered by governments to explain inaction is the lack of economic sources to fund this type of projects. However, international aid and international loans are increasingly directed towards sustainable public transportation, particularly now that the United Nations and the IPCC recognize the need to address efforts towards this sector to achieve sustainability and climate change mitigation. For instance, Goal 11 of the United Nation's Sustainable Development Goals (SDGs) identifies transportation as a major component of sustainable development.[98]

Nevertheless, and as the Costa Rican and Chilean cases will show, action and inaction do not have to do completely with funding problems. In the Chilean case, the reform took place without national funding. It was only after Transantiago started that public authorities realized the need to subsidize the system. On the contrary, Costa Rica's government had secured a GEF

[95] Garay, 2016
[96] Olavarría-Gambi, 2012
[97] Programa Estado de la Nación, 2018
[98] United Nations, 2023

loan to electrify its urban train, the Fast Passenger Train (TRP), and integrate it to certain bus lines. However, inaction resulted in this case where economic sources were available.

1.8.3 Role of ideology

Another key argument given to explain investments in public transportation, an all-encompassing sector that addresses social, environmental, public health and climate concerns, is related to the ideology of the government in power. If a government is left-leaning/ progressive/ green, it will probably invest more on social and environmental matters. The opposite is expected when there is a right-leaning/ conservative government in power.[99] The case of Bogotá proves this explanation wrong. A pioneer in the adoption of BRTs in Latin America, TransMilenio, Bogotá's bus reform, set the example-to-be for the region. This bus reform was, however, implemented by the then mayor Enrique Peñalosa, a center-right technocrat from the city's social elite. Moreover, when leftists won City Hall, they declined to follow the lead of this political opponent, even if it was an egalitarian-minded initiative. But the case of Bogotá does not only prove this rival explanation wrong, Costa Rica's and Chile's do as well.

It was certainly during the far-right dictatorship of Pinochet that liberalization and deregulation of public transportation took place in Chile, contrasting to Allende's left-leaning government that had a public entity in charge of public transportation, the ETCE. However, with the return of democracy in 1990 and the arrival to the government of *Concertación de Partidos por la Democracia*, a party coalition that mobilized against the continuity of Pinochet in power and that is popularly known only as *Concertación*, bus public transportation action was not immediate. Even though bus reforms started to be thought of and very slowly changes

[99] Kalt & Zupan, 1984; Hibbs, 1977

were implemented, it was only after seventeen years that Transantiago took place. On the contrary, the Partido Acción Ciudadana (PAC), a self-proclaimed center-left party, governed Costa Rica for the first time from 2014 to 2018, and a consecutive second time from 2018 to 2022. During both periods, there were a couple of policymakers who tried to reform public transportation under social and climate concerns claims. However, they both failed.

1.9 Contributions of this research to different disciplines

This research fills gaps around neglected topics (i.e., public transportation and bus public transportation) and regions (i.e., Central America) in several disciplines. For instance, this research contributes to the academic literature by studying an uncommon topic to the Political Science discipline (more precisely to political economy and redistributive politics) and to the Environment and Sustainable Development discussions in the global South: public transportation. Moreover, this dissertation delves deeper into the study of neglected topics as it focuses on *bus* public transportation, which is less common to study than larger infrastructure projects, such as subways and urban trains, but happens to be the most used public transportation mean in the developing world and also one of the top-used public services for most urban voters. Furthermore, this research considers the case of bus public transportation in Costa Rica, a region of the world which is not commonly included in this type of analyses.

To start with the contributions to the Political Science discipline, there is a lack of political economy and critical perspectives in mainstream transport research, where the subject has been mainly approached as a 'technical' and 'apolitical' matter.[100] However, as it also happens and has been studied in other sectors such as energy and climate change, politics matter for public transportation as well. Questions typically inquired by the political economy discipline are

[100] Boateng & Klopp, 2022; Mattioli et al., 2020

particularly relevant, considering the inequity impregnating the global South. We need empirically grounded analysis of the political dynamics around bus public transportation reforms, including who benefits, who loses, and through what political pathways do these groups assert their interests.[101] This dissertation helps to fill this gap of critical political and historical analysis of transportation projects.

Furthermore, this research delves into the study of weak institutions, prevalent across the global South. There is an increasing need to study more the subject of institutional weakness as a conscious political strategy that leads to forbearance, thus as an object of study rather than a "random error" that obstructs proper institutional analysis. This research project precisely shows how weak institutions in the public transportation of the GAM are a conscious strategy as affected interest groups are judge and jury, participating in their own regulation. Simultaneously, this dissertation proves that the developing world is not doomed to this type of institutions. Transantiago exemplifies the case of how weak institutions can be overcome and strengthened constantly throughout time, even though powerful interest groups and path-dependent forces were pushing against it. Transantiago exhibits an increase in the enforcement effort, as increases in state investment (e.g. the subsidy) and the constant review and update of contracts to bus operators shows.

Second, sustainable development is at the heart of every public transportation policy, something that has been recognized by the IPCC 6th assessment report and the UN's SDGs. This research contributes to this conversation by studying why, in the shadow of this promise, we still do not see enough of the social justice and climate power embedded in public transportation flourish in Latin America.

[101] Klopp, Harper & Quarshie, 2019

Third, research on environmental and redistributive politics in the global South has often neglected the public transportation sector. Generally, environmental politics analyses focus on extractive and agricultural practices in rural and isolated areas of the developing world, while redistributive politics studies concentrate on health, education, or public pensions.[102] However, the global South is currently experiencing one of the highest and most rapid urbanization rates in the world. Therefore, environmental issues resulting in urban contexts in the developing world should become a focus of environmental and urban politics[103]. This is particularly relevant since public transit is the predominant mobility solution for low-income populations and transportation is among the world's and Latin America's top polluting sectors.

Furthermore, this dissertation project focuses on the politics of *bus* public transportation instead of other more commonly studied means of public transportation, such as the metro or the urban train. Building a metro (or a metro line) is more appealing than reforming the bus sector. Therefore, these massive urban transits are generally preferred by politicians since they are linked to more recognition and electoral gains. This deliberate public transportation policy tends thus to be heavily subsidized, publicly owned and highly standardized. This dissertation branches out from the study of these means of public transportation and delves deep into the study of a neglected but the most used public transportation mean in the global South: the bus.

Lastly, even though studies and data on (bus) public transportation in the global South are scarce, they lack even more in certain countries and regions of the global South. For instance, when focusing on Latin America, it was until the early 2000s that observatories were created to gather urban mobility data in the region.[104] Before that, information was scattered and

[102] Brinks et al., (2020
[103] Herrera, 2024
[104] Estupiñán et al., 2018

collected by national and local authorities in each country. Moreover, evidence shows that small states in Central America, South America and the Caribbean are completely absent from the academic literature.[105] Part of the explanation for this partial academic representation of Latin America has to do with the scarcity of reliable data referred to transportation and mobility matters in these countries. This dissertation project contributes by bringing evidence on this topic in Central America.

1.10 Conclusions: What is this a case for?

This research project tells a story of social and climate progress and action in the global South. It is a study of policy reform in comparative politics. The launch of the reform is, however, not the final step. Reforms can take place *in paper*, but its expected outcomes might not be achieved *in practice*.

This dissertation, however, narrates the whole gradual process: from inaction to the moment when the topic is brought to the political forefront to when reform starts. It continues studying the evolution of this reform, analyzing how it shapes institutions, interest groups organization and social and climate outcomes. This research compares a case of reform, thus when action takes place, to another when inaction is sustained throughout time. It shows how, through positive feedback, sustained inaction leads to a deterioration of institutions and to structurally powerful interest groups.

Weak institutions– characterized by state non-enforcement and state incapacity, and which are highly present in the global South– can be overcome, even when pushing for electorally unattractive policies and when that means redistributing power and going against entrenched organized interests. However, and as evidence shows, the strengthening of the institutions and

[105] Vecchio et al., 2020

the weakening of vested interest groups happens in a gradual way. It is a process that takes time and that has a self-reinforcing nature to it.

Zooming in the case of bus public transit in Costa Rica's Greater Metropolitan Area and Santiago of Chile, this dissertation studies the pathways for public transportation inaction and action, respectively. As stated in the scope conditions, the bus sector has exceptionalities but also commonalities with other sectors. Comparing policies oriented to improve the bus sector with other transportation, mobility and urban planning policies, the former are generally cheaper but also less electorally attractive than the latter. If compared to investments on highways, policymakers will prefer these flashy highways that attract voters than a bus reform that might appeal to less people. In contrast, policies oriented towards active mobility and increasing trees for shade in cities, even though offering important mitigation action, are less electorally attractive.

According to Jacobs (2011), the prospects for policy investment depend on a set of informational, ideational, and institutional conditions that make a particular choice-definition more likely than the alternatives.[106] Public transportation investment in Latin America is no exception, and so are many other policies in the global South.

The political economy analysis offered in this dissertation, where institutional and interest groups' origins and evolution have been studied in depth, offers an understanding of how institutions can be strengthened and power can be reassigned in the global South. This dissertation proves how valuable climate, environmental and social policies that (1) are not supported by powerful interest groups that will be affected if action is taken and (2) that might not be the first option for policymakers since they are electorally unattractive can still be put

[106] Jacobs, 2011

in place. This dissertation proves that climate, environmental and social justice are possible to achieve in the global South, overcoming weak institutions and vested organized interests.

Chapter 2. Latin American context

Even though urbanization in Latin America is quite recent in comparison to other parts of the world, this region is nowadays the most urbanized in the developing world, with 80% of its population living in urban areas and 90% expected to do so by 2050. An example of this situation is the increasing quantity of cities: in 1950, there were eight cities in Latin America with 1 million inhabitants or more, but by 2010 there were a total of 56 cities with this characteristic.[107] The region must get prepared for a more-and-more urbanized life.

The current urban picture shows cities that suffer from high sprawl and inappropriate territorial planning, housing precariousness, high social and economic inequality, and high poverty rates, even more exacerbated by the COVID-19 pandemic.[108] Cities are also experiencing high levels of traffic congestion and pollution, with half of the trips being made in collective public transportation and half on private vehicles.[109]

Furthermore, Latin America's high levels of income and wealth inequality stymie access to sustainable transit, particularly among women, children, elderly, citizens with disabilities, LGBTQ+ population, and low-income communities.[110] Each year, more than 300,000 people die prematurely in the region due to air pollution, caused mainly by transportation.[111] Furthermore, 15% of the Latin America's GHG emissions come from the transportation sector.

In such a context, public transportation translates into a comprehensive and necessary public policy that addresses social, climate, and public health issues. The key role played by public transportation in all these realms has been recognized by international organizations.

[107] ECLAC, 2012a
[108] Scholl et al., 2022
[109] Estupiñán et al., 2018
[110] Scholl et al., 2022
[111] UNEP, 2020

Goal 11 of the United Nation's Sustainable Development Goals (SDGs), named Sustainable Cities and Communities, identifies transportation as a major component of sustainable development.[112] More recently, the 2023 IPCC Sixth Assessment Report signals an increase in the use of public transportation, biking, and walking as a key measure to reduce emissions in urban settings.[113]

The Oliver Wyman Forum and the University of California, Berkeley developed a Public Transit Index. To measure the performance of public transportation systems, the index considered thirteen aspects: commute speed, affordability, rail network, station density, length of walk to public transit, strength of multimodal network, diversity of modes, operating hours, time of arrival, multimodal app maturity, utilization, share of time in public transit, and autonomous transit in operation.[114]

Cities in Asia and Europe pop-up as leading examples in urban transit.[115] The disparities between developed and developing countries are, however, large. Whereas over 75% of the population in Australia, New Zealand, Northern America, and Europe have access to a convenient mode of public transport, only 50% do so in Latin America and the Caribbean, and under 35% enjoy it in sub-Saharan Africa.[116] Moreover, there are only two cities in the developing world which rank in the top 30 Public Transit Index developed by the Oliver Wyman Forum and the University of California, Berkeley: Kuala Lumpur in Malaysia (ranks 23rd) and Buenos Aires in Argentina (ranks 30th).[117]

[112]United Nations, 2023
[113] IPCC, 2023
[114] Oliver Wyman Forum, 2022
[115] Oliver Wyman Forum, 2022
[116] United Nations, 2021
[117] Oliver Wyman Forum, 2022

What we see in some Latin American countries are public transits that are poorly regulated, working in an atomized, un-systemic and quasi-informal way. This mode of operation dates to the 1980s and 1990s, when the bus sector experienced widespread deregulation and privatization, leading to an oversupply of bus operators, often with overlapping routes and fierce competition for passengers.[118] Later, many of these public transits were legalized by putting contracts in place but their informal structure was maintained. The result has become poor-quality coverage of transportation infrastructure, traffic congestion, longer travel times, unsafety and a larger number of transfers when traveling to main activity hubs within urban centers.[119]

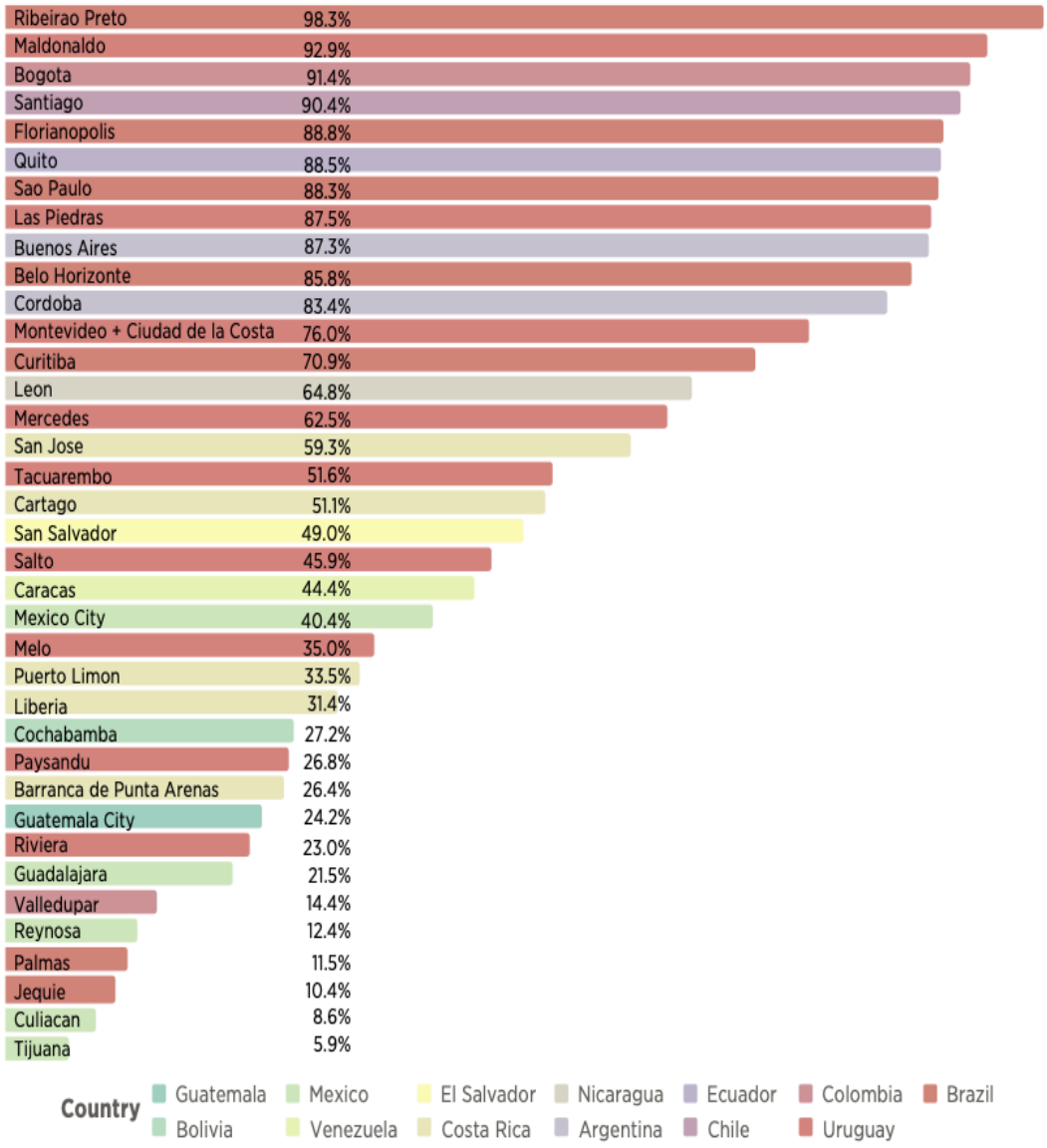
This is not the case for all Latin American cities and countries, though. Many of them have made substantial improvements to their public transportation. The region has become a pioneer in the adoption of BRT systems and cable cars as means of public transportation.[120] For instance, Curitiba (Brazil) implemented the first BRT in the 1970s and Bogotá, with the TransMilenio, went a step further by enabling the system to operate on a larger scale. Medellín (Colombia) inaugurated the first cable car with a public transportation purpose in the region in 2004, followed by Caracas (Venezuela), Cali (Colombia), Mexico City (Mexico), Rio de Janeiro (Brazil) and La Paz (Bolivia). Currently, La Paz enjoys the largest cable car for public transportation in the world.[121]

[118] Yañez-Pagans et al., 2019; CAF, 2016
[119] Scholl et al., 2022
[120] Rivas et al., 2019
[121] Yañez-Pagans et al., 2019

2.1 Setting up the stage

These descriptions show large disparities between Latin American countries. While some metropolitan areas in the region have been able to transform and adopt modern public transportation systems, others have remained laggards and are still operating in the 1980s-1990s atomized and informal ways. Furthermore, when state-provided and regulated transportation does not fulfill its purpose, popular means of transportation start to flourish. The new ways of moving around tend to be even less regulated, and more atomized and unsafe, but also more frequent, more adaptable and with higher coverage. A recent study of the Interamerican Development Bank shows the regional disparities in access to formal public transportation, with some Brazilian cities taking the lead while Mexican and other Brazilian cities appear at the bottom (see Figure 2).

Figure 2. Percentage access to formal public transportation for 45 Latin American cities (in percent)



Source: Scholl et al., 2022, p. 236

Looking at the countries that have done well, Brazil comes as an outstanding case. Not only did Curitiba set the example in the region, but also Sao Paulo and Rio de Janeiro have been able to move around their large population through buses, subways and urban trains. Also, the TransMilenio of Bogotá (Colombia) became a regional example in the early 2000s with

the implementation of BRTs, so much so that Santiago (Chile) emulated large part of this policy and named it Transantiago.

On the contrary, other cities have bus systems that still work poorly regulated. In these cases, what we see are lots of old and different type of buses running in the cities, at undefined times, polluting the areas. The Greater Metropolitan Area (GAM) of Costa Rica and Guatemala City are examples of a bus sector operating mostly under these conditions.

The focus on public transportation of this dissertation is on buses. 68% of the daily collective transportation of passengers in Latin American cities is carried out by buses, making it the predominant mean of public transportation.[122] Moreover, not all cities have a subway, urban train or cable car. Most of these systems are only concentrated in very large cities, to justify the investment.[123] By 2017, 19 cities in 9 countries (out of 33) in Latin America and the Caribbean had a subway.[124] Therefore, subways, cable cars and (sub)urban trains are mostly excluded from the analysis.

Even though most of the Latin American population relies on buses as a public mean to move around cities, the service is largely unsubsidized. In 2014, out of 13 cities in the region, 11 covered 70% or more of their operative costs through the fee. Only Buenos Aires and Caracas funded 50% or more of these costs through subsidies.[125] The most significant policy in this regard has been the implementation of subsidies to the demand, focused on specific groups of the society such as students, the disabled and the elderly.[126] Some cities that have implemented this type of subsidy are Bogotá and Santiago. Moreover, according to an

[122] Yañez-Pagans et al., 2019; Estupiñán et al., 2018
[123] Rivas et al., 2019
[124] UITP, 2018
[125] CAF, 2016
[126] Rivas et al., 2019

interview made to an expert on public transportation in Latin America, the pandemic has increased the number of subsidies to the sector. However, they tend to be local and for punctual cases, such as specific groups of a community.

The situation for subways, cable cars and urban trains is the opposite. Either as a deliberate government policy or as an inevitable consequence of the collapse of public bus companies, public transportation in Latin America became segregated in two coexisting service regimes: one publicly owned, heavily subsidized and highly standardized, usually the subway, and the other privately run, under-financed and unregulated, usually the buses.[127] Therefore, since the 1980s, when buses received no public funding, subways and urban trains were largely subsidized.[128] This practice continued during the 2010s, when transportation investments were directed towards subways and urban highways.[129] The more recent cable cars, even though they cannot transport as many people as subways and trains, tend to be highly subsidized as well.[130] To justify these subsidies, proponents often claim the ability of these systems to have a transformative effect on the city and stimulate job growth.[131] However, it is also argued that the focus of governments on these more massive modes of transportation has the unintended consequence of reinforcing the fragmentation of the bus industry. "*As public authorities invested scarce resources to build and operate incipient subway networks, the need to tolerate an informal (but unsubsidized) private surface transport industry grew*".[132] The result can be the two systems acting as competitors instead of complements.

[127] Flores Dewey, 2013
[128] Thomson, 1982
[129] Tiznado-Aitken et al., 2019
[130] Yañez-Pagans et al., 2019
[131] Yañez-Pagans et al., 2019
[132] Flores Dewey, 2013, p. 21

Under this condition of highly unsubsidized bus service provision, passengers face affordability problems. Estimations show that people in the lowest economic step of the ladder can spend between 20% to 30% of their monthly income on public transportation.[133] For instance, in Brazil's metropolitan areas, monthly spending on public transportation represents 25% of the minimum wage.[134] The result is that citizens in the lowest socioeconomic strata use the system less regularly, are less mobile and rely on informal modes due to their lack of financial resources.[135]

[133] Estupiñán et al., 2018
[134] Yañez-Pagans et al., 2019
[135] Scholl et al., 2022

Chapter 3. Bus public transportation inaction (BPTI): The case of Costa Rica's Greater Metropolitan Area (GAM)

3.1 Synopsis of the case

Social and green Costa Rica has gained a global reputation of a fighter for social justice, environmental conservation and climate change. In the 1940s, the government implemented a series of progressive policies called "the social guarantees" (*las garantías sociales*), which had to do with the creation of a national pension and health care system, the first public university and the labor code. Costa Ricans enjoyed public education and a pension and healthcare system that achieved universal outputs in the 1980s like almost no other country in the global South. The country was able to reverse deforestation in the 2010s, returning forest cover to the 1960s-levels of more than 50% of the territory compared to the 40% (or less) in the late 1980s. Moreover, in 2015 the Costa Rican government presented ambitious Nationally Determined Contributions in the COP21 in Paris, which led to a 2018-2050 National Decarbonization Plan that set the aspiration for the country to have "*a green, resilient and equitable economy without emissions*"[136] by 2050.

Nevertheless, not much action has been taken in the transportation sector, the current main contributor to the national GHG emissions. This sector accounts for more than 50% of Costa Rica's GHG emissions, which increased almost 250% from 1990 to 2015. It is important to add that three out of the ten goals set in the 2018-2050 National Decarbonization Plan are transport-related: one addresses freight transportation, another light vehicle transportation and

[136] Presidencia de la República de Costa Rica, 2018, p.16

a third one public transportation and active mobility. So, how come that this environmental-, social- and climate-progressive country has not tackled this sector yet?

This chapter looks particularly at the lack of action in bus public transportation in Costa Rica's Greater Metropolitan Area (GAM). This area concentrates more than 60% of the national population, although it only occupies 4.3% of the national territory. However, 50% of the labor force in the GAM has to travel to another area than the one they reside to attend their jobs. The resulting generation of congestion, lost time, accidents and health impacts is estimated to cost the country around 3.8% per year of its GDP. In this context and even though action in the GAM becomes a need, the result is BPTI: Citizens count on an atomized, un-systemic, quasi-informal, unsubsidized, polluting, unsafe, unreliable, unintegrated and inaccessible urban transit.

BPTI in the GAM can be explained by a series of factors. First, transportation did not represent a social, environmental nor climate matter until more recently. However, health, education, forests' and biodiversity's endangerment were seen as national concerns. Health and education are part of "the social guarantees", while deforestation became a severe problem in the 1980s and its conservation anticipated economic revenues in the form of tourism. Therefore, national funding was allocated to these matters, accompanied by the creation of a more structured governance for these sectors. Public transportation, on the contrary, was left in the hands of private actors.

Second, the couple of policymakers who have tried to reform the sector were not able to insulate the policy from the involved interest groups. Interestingly, salience on the need of a bus reform was brought by two policymakers in the last decade. 2014-2016 vice Minister of the MOPT, Sebastián Urbina, attempted to pilot the sectorization of the bus sector in an area

of the GAM to later replicate it to other areas. Bus operators complained to the president at the time, Luis Guillermo Solís, which resulted in the dismissal of Mr. Urbina. Moreover, 2018-2022 President Carlos Alvarado and Claudia Dobles, his wife, designed and looked for international funding for the electrification of the urban train that crossed the GAM. This policy was part of the actions pursued by the 2018-2050 National Decarbonization Plan that tackled public transportation. Even though this project was focused on the train, it aimed at integrating the bus service lines with the train in some communities. This project got stuck in the Legislative Assembly and the new government of Rodrigo Chaves, 2022-2026, cancelled it.

As a consequence, the legal framework and institutions surrounding bus public transportation are not reviewed nor reorganized. Laws governing the sector are certainly numerous, as transportation is the second sector with more laws created in the country between 1950 to 2017. However, the main law governing bus public transportation is completely outdated. It was written in 1965, when Costa Rica was still mainly rural and the GAM as a concept did not even exist. Moreover, this law contains legal loopholes caused by problems of language interpretation.

Furthermore, as this is not a problem of a lack of laws governing the sector, it is neither a problem of a lack of policies that address the sector. Public policies regarding bus reforms started to appear in the late 1990s. Multiple iterations have updated and improved the former versions in the consecutive decades. However, they have not been implemented, exemplifying a case of forbearance.

Institutional weakness in the transportation sector becomes also evident as there is a historic rivalry and a duplication of tasks (using different methodologies) between the two main regulatory public authorities. For instance, the bus service is evaluated by both entities

in different ways and, more importantly, these results do not affect contract renewal. Moreover, even though the CTP and the ARESEP are the two main entities in charge of bus public transportation, there are more than thirty additional entities involved in different aspects of transportation and mobility in the country.

Currently, the bus public transportation institutional framework is permeated by private actors' interests, who exert an increasing instrumental power. Powerful bus operators lobby, fund political campaigns, and rely on revolving doors to enter political spheres. More importantly, they are judge and jury, as they are part of the Executive Board of the entity that should be regulating them, the CTP. The political power of bus operators has led to a problem of regulatory capture.

Therefore, bus public transportation in the GAM is unsustainable and does not fulfill its social, environmental nor climate role. Maybe, the costs and the environmental, social and health risks that transportation is imposing nowadays might transform into an urgent matter to be tackled, as it happened with deforestation. This is particularly necessary if the country wants to sustain its global reputation of a socially progressive and green country. Even though no national action seems to be oriented to the sector in the present, some local governments of the GAM are leading progressive active mobility actions, such as building bicycle lanes and green and safer paths for pedestrians.

3.2 Background and context

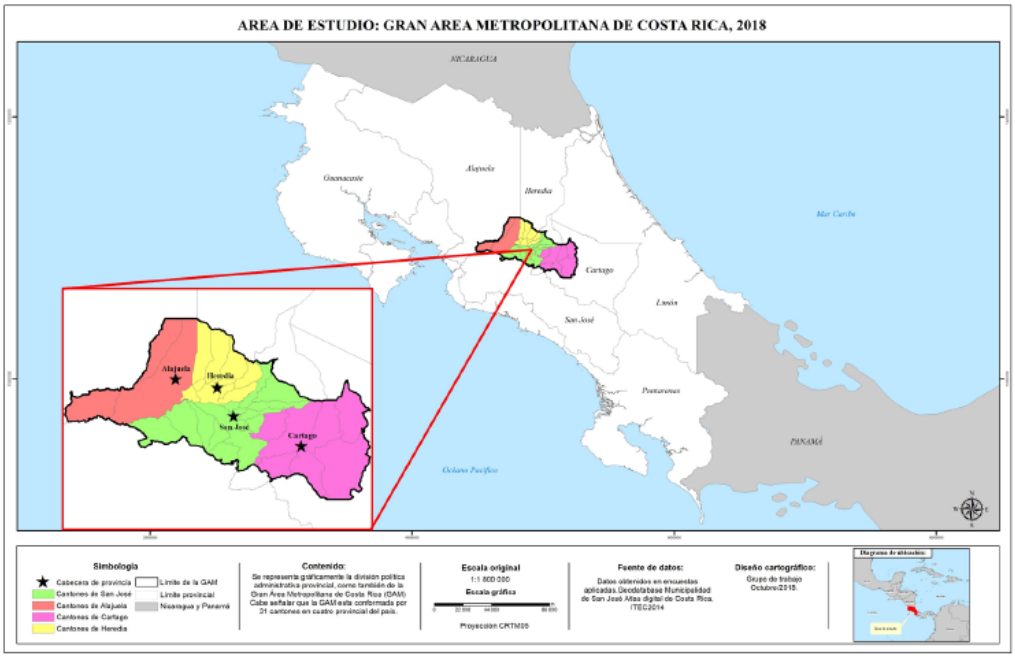
3.2.1 Urbanization in the GAM

Costa Rica is a small country of 51,100 km^2 located in Central America with a population of around 5 million inhabitants, 81% of whom live in urban areas.[137] However, this country's population was mostly rural until the 1970s, when the urban population started to increase steadily.[138] The oil crisis of that decade and the neoliberal economic model adopted in the 1980s increased the migration of people from rural to urban areas.[139]

Costa Rica's Greater Metropolitan Area (GAM), established as a concept in 1982, is the area that concentrates the most important commercial, industrial and political-administrative activities in the country.[140] As Figure 3 shows, it encompasses 31 cantons[141] [142] and four provinces, the totality of San José and the urban areas of Heredia, Alajuela and Cartago.

[137] "Urban population in Costa Rica," World Bank, accessed January 26, 2023, https://data.worldbank.org/indicator/SP.URB.TOTL.IN.ZS?locations=CR
[138] León Sánchez & Arroyo Blanco, 2021
[139] Gensler, 2017a; Fumero, 2009
[140] Arias & Sánchez, 2012; Collado Chaves, 2004
[141] Costa Rica is administratively divided into 7 provinces, which are subdivided into 84 cantons. Each canton has its own local government, known as municipality, where the mayor is representatively elected every four years.
[142] The cantons are San José, Escazú, Desamparados, Aserrí, Goicoechea, Alajuelita, Vásquez de Coronado, Tibás, Moravia, Montes de Oca, Curridabat and parts of Mora and Santa Ana in San José; Alajuela, Poás and Atenas in Alajuela; Cartago, Paraíso, La Unión, Alvarado, Oreamuno and el Guarco in Cartago; and Heredia, Barva, Santo Domingo, Santa Bárbara, San Rafael, San Isidro, Belén, Flores and San Pablo in Heredia.

Figure 3. Costa Rica's Greater Metropolitan Area (GAM) in 2018



Source: Guillén-Montero et al., 2021, accessed 07/25/2023, https://www.revistas.una.ac.cr/index.php/geografica/article/download/12493/20502?inline=1

The GAM has increased in size and population drastically over the last few decades, currently covering an area of 2,044 km^2, less than 5% of the national terrestrial area, where more than 60% of the national population resides.[143] Table 4 and Figure 4 show, though, how the GAM's size and population has expanded since the 1960s. Data indicates that in the early 2000s, its size was only of 406 km^2, it solely comprehended 24 cantons and half of the national population lived there. Its current average density is of 12.2 inhabitants per hectare, varying among cantons with the highest canton having a density of 79.5 inhabitants per hectare but most of them have a density lower than 10.[144] This low density contrasts with the one of other Latin American metropolitan cities, such as Sao Paulo with a density of 204.5 inhabitants per hectare and Medellín with 197 inhabitants per hectare.

[143] Guillen-Montero et al., 2021
[144] Programa Estado de la Nación, 2018

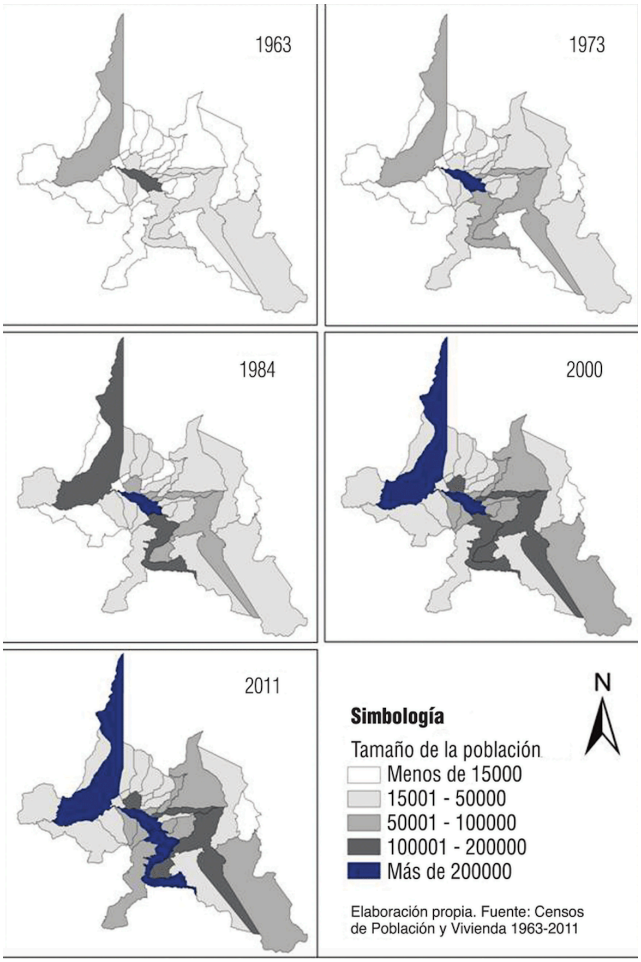
Table 4. Evolution of the population and size of Costa Rica's Greater Metropolitan Area (GAM) from 1963 to 2021

Variable	Year					
	1963	1973	1984	2000	2011	2021
Population Costa Rica	1,326,930	1,871,870	2,416,809	3,810,179	4,301,712	5,226,362
Population GAM	653,849*	955,718*	1,288,082	2,067,475	2,268,248	3,290,861
% population living in the GAM	49%	51%	53%	54%	53%	63%
Size GAM (in km2)	NA	NA	NA	406	1967	2044
GAM as % of national territory	NA	NA	NA	0.9%	4.1%	4.3%

*Even though the GAM was not established as a concept in this year, the population refers to the people living in that area.
NA: Not available

Sources: INEC (2023); Arias and Sánchez (2012); Collado Chaves (2004)

Figure 4. Spatial and temporary evolution of the GAM population by canton (1963-2011)



Source: Arias & Sánchez, 2012, p. 137

The GAM's urban population growth, as in most of the Latin American countries, happened in a rapid and exponential way with poor territorial planification. Large economic and social disparities between urban and rural areas, in favor of the former, were key drivers of this migration throughout the 1970s until the 1990s. For instance, in Costa Rica in the mid 1990s, 3 of every 4 poor lived in the rurality.[145]

This urbanization has happened in a complete divorce between employment and residence locations, making transportation an everyday activity and enabling its negative externalities.

[145] Programa Estado de la Nación, 1995

In conclusion, Costa Rica enjoys a poorly planned and infrastructure-based urbanization, where the transportation sector acts as one of the main contributors to this disconnection.

3.2.2 Unsustainable (public) transportation

The transportation sector as a whole, comprehending public transportation as well, has behaved in an unsustainable way in Costa Rica for the last decades. While the GAM started to increase in size and population, the transportation sector did not adapt to the changing features of the area.

This section addresses this aspect of unsustainability in the transportation sector by providing a brief overview of (1) public transportation in urban San José (and later GAM), (2) the increase in private transportation and the negative externalities it generates and (3) the inequalities generated by the sector.

Premise/ Antecedent of public transportation

San José had an urban mean of transportation since the 1900s, initially being a tram to later switch to buses. In 1899, an international company was able to set a tram to move people around the city. It continued expanding branches until 1922. This tram had a 14-kilometer route and transported more than three million people annually in the 1920s,[146] decade in which motor buses started to appear in San José. In 1948, the company's 50-year contract expired and the administration of the tram was supposed to be overtaken by the municipality of San José. However, the event led to the closure of the tram under the premise that it was not a profitable activity anymore and, thus, it did not make sense to invest in its modernization.[147]

[146] León Sánchez & Arroyo Blanco, 2021
[147] León Sánchez & Arroyo Blanco, 2021; Botey Sobrado, 2005

At that time, the tram was facing increasing competition from buses as a mean of public transportation.

When private urban bus operators started to appear in San José's urban area in the 1920s, there were very few suppliers of the public service. These providers operated the public transportation service in an artisanal and rudimentary way. Buses were known as "cazadoras", which consisted of truck chassis at the bottom assembled locally with a box with seats at the top. By the 1960s, buses represented only 5% of the motor vehicle fleet running in the country.[148] The average number of buses per owner was less than two, and there were very few operators who owned a fleet larger than 6 buses.[149]

Even though throughout the decades, the GAM experienced an increase in population, size and motor vehicle fleet running in it, by 2001 only 2% of the vehicles circulating were buses, representing a decrease of 3 percentage points in comparison to four decades ago.[150] Paradoxically, the bus was the most popular mean of transportation.

Currently, even though the GAM's public transportation is composed of buses, taxis, and train, the share of buses on public transportation trips is 80%,[151] making it still the main modal participant. For instance, 34% of Costa Ricans use the bus to go to work, while only 6% rely on taxis to do the same. Moreover, 41% Costa Ricans attend their education centers by bus, while 3% do so by taxi.[152] The train represents less than 1% of the collective public transportation trips.[153]

[148] D'Alolio Sánchez, 2006
[149] León Sánchez & Arroyo, 2021
[150] D'Alolio Sánchez, 2006
[151] Gensler, 2017a
[152] Programa Estado de la Nación, 2018
[153] Gensler, 2017a

By 2017, there were around 3,330 bus units circulating in the GAM, divided in 252 different routes and with an average age of 6.7 years.[154] It is estimated that there are 2.2 million trips a day made on public transportation in the GAM, mostly for study and work purposes.

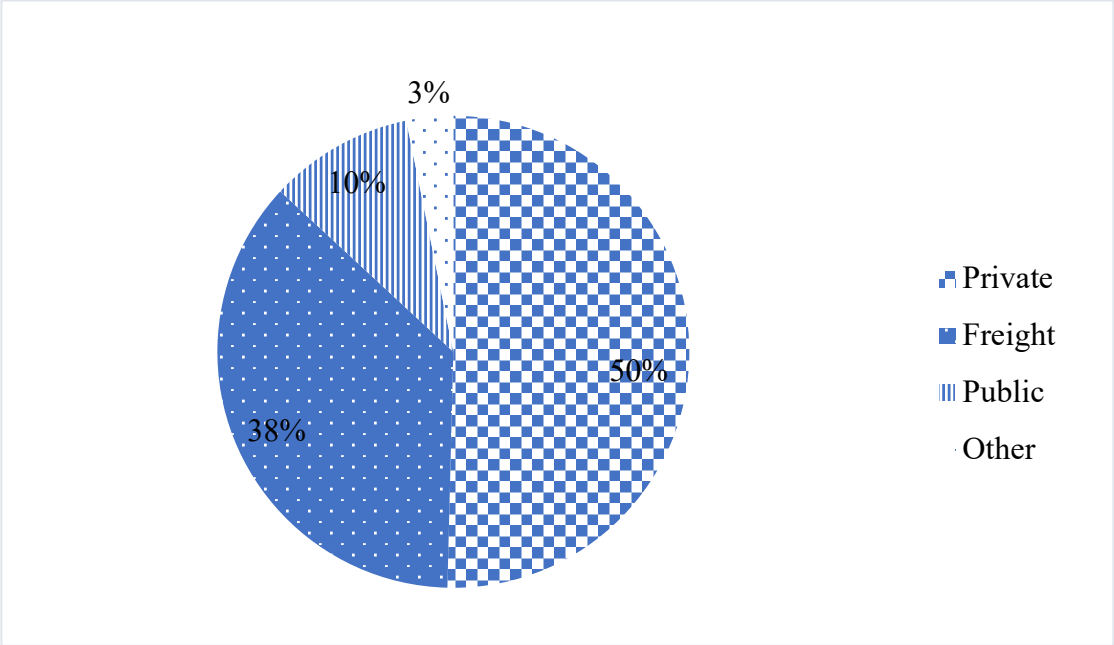
Nevertheless, bus ridership has decreased throughout the years. Whereas 75% of the Costa Rican population used public transportation in the 1990s, 54% did so in 2007, and 34% in 2018.[155] Accessibility and the long traveling times, which can be 70% greater by bus than by private vehicle,[156] partially explain the decrease in public transportation ridership.

Increase in the use of private transportation and the negative externalities generated

The transportation sector is responsible for 50% of the country's GHG emissions, which grew 243.4% from 1990 to 2017.[157] Even though Costa Rica's energy matrix is highly renewable, one of the main reasons for this dramatic increase of GHG emissions is due to the fact that the transportation sector relies 99% on fossil fuels (i.e. oil). However, as Figure 5 shows, private cars are the ones demanding half of this oil, while public transportation consumes only one tenth.

[154] Programa Estado de la Nación, 2018
[155] Programa Estado de la Nación, 2018
[156] Gensler, 2017b
[157] IMN, 2021

Figure 5. Final energy consumption in the transportation sector by mode in 2017

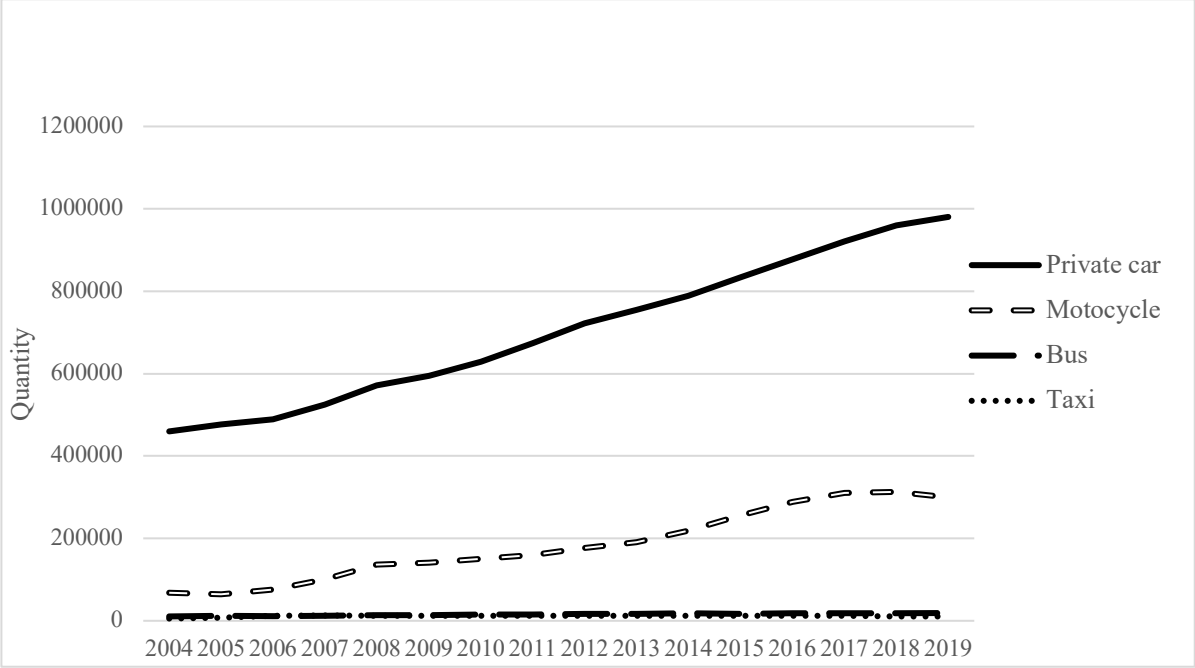


Source: MOPT, 2019

Private vehicles and motorcycles are the major culprits in contributing to GHG emissions within the transportation sector, while public transportation is the subsector contributing the least. The number of private vehicles has increased throughout the years in Costa Rica, turning it into the third country in Latin America with the highest vehicle density (231 vehicles per 1000 inhabitants), only after Argentina (315 per 1000 inhabitants) and Mexico (278 per 1000 inhabitants), respectively.[158] Not only did the car fleet grow at an average rate of 7.6 per cent per year from 1989 to 1999,[159] but as Figure 6 shows, this growth has sustained from the early 2000s until the present. Moreover, the average age of private cars is 17 years, turning it into an old and polluting fleet.[160]

[158] Programa Estado de la Nación, 2018
[159] Alpízar & Carlsson, 2003
[160] Programa Estado de la Nación, 2018

Figure 6. Motor vehicles circulating in Costa Rica, excluding freight transportation (2004-2019)



Source: MOPT (2021), RECOPE (2018)

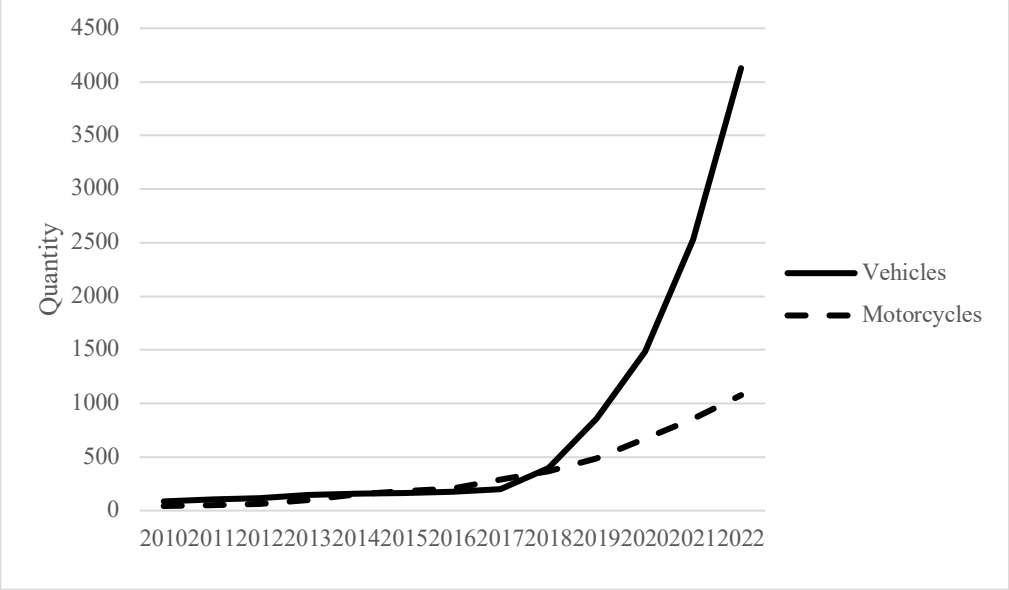
It is important to add that there is a link between the lack of urban planning in the GAM and the increase in private vehicles. The GAM's polynuclear urban configuration is not accordingly served by the public transportation system, making an increasing number of citizens rely on private vehicles to move around.[161] The GAM has five main metropolitan centers, with all except one being in the province of San José. As a result, and according the 2008 Regional and Urban Planning Project for the Greater Metropolitan Area (PRUGAM), 40% of the automotive flow of the GAM crosses San José in a weekday. Moreover, 50% of the labor force in the GAM works in another canton as the one they reside.[162] For people living in cantons such as Barva (in the province of Heredia) and Vázquez de Coronado (in the province of San José) while working in another canton, congestion costs them around USD

[161] Gensler, 2017a
[162] Programa Estado de la Nación, 2018

4000 to USD 5000 per capita annually.[163] On average, it is estimated that congestion in the GAM costs workers around 3.8% of national GDP.[164]

Interestingly, Costa Rica is experiencing an increase in the quantity of electric vehicles circulating in the country. As Figure 7 shows, this increase has become exponential since 2018 and even more so during the pandemic. According to the interviews and literature reviewed, this increase in private electric vehicles is greatly explained by the 2018 creation of the Law Nº 9518, the first law of electric mobility in Latin America. The Law Nº 9518 was successful in providing incentives as well as charging infrastructure to electric means of transportation. However, the increase in electric motor vehicles comes from private cars, motorcycles and public institutional fleets (e.g. ministries, public universities, governmental agencies), not from buses nor taxis.

Figure 7. Electric vehicles in Costa Rica (accumulated) (2010-2022)



Source: MINAE, 2024

[163] Programa Estado de la Nación, 2018
[164] Programa Estado de la Nación, 2018

The increasing GHG emissions are not the only problem caused by poor transportation governance in Costa Rica. Even though the mortality rate caused by road traffic injury achieved its lowest value in 2011, it later increased by 2019. Moreover, the negative externalities caused by the current transportation system cost the country an estimate of USD 2,864.4 millions annually, 65% of which belong to traffic accidents.[165]

Inequalities in transportation

In 2017, the government commissioned the Comprehensive Sustainable Urban Mobility Plan for the San José Metropolitan Area (PIMUS), made for the metropolitan area of San José (AMSJ), which is smaller than the GAM. For instance, the AMSJ only comprehends three provinces, 21 cantons and a population of 1.5 million people. However, it accounts for the more populated and metropolitan sector of the GAM.

The PIMUS made evident the large amount of inequalities in mobility and transportation patterns and means of transportation of the population of AMSJ, according to their socioeconomic level (see Table 5). Whereas only 26% of the people belonging to the lowest socioeconomic level own a car, 82% do so for the highest socioeconomic level. Moreover, people in the lowest socioeconomic level travel less and, when they do, rely more on active modes of mobility (i.e., biking and walking) than its wealthier counterparts. Lastly, whereas people in the low and middle socioeconomic levels use buses, only 11% of the inhabitants of the high socioeconomic level take them.

[165] Gensler, 2017b

Table 5. Transportation and mobility patterns and mechanisms among the population of the metropolitan area of San José in 2017

Variable		Socioeconomic level		
		Low	Middle	High
Does the person travel?	Yes	77%	86%	84%
	No	23%	14%	16%
Does the person own a vehicle?	Yes	26%	54%	82%
	No	74%	46%	18%
Does the person take buses?	Yes	43%	46%	11%
	No	57%	54%	89%
Use of active modes	Yes	48%	35%	19%
	No	52%	65%	81%

Source: Author's elaboration based on data from Gensler, 2017a

3.3 Lack of presence of enabling conditions

As stated in section "1.6.2 Pathways for BPTA and BPTI", the latter is likely to occur when two enabling conditions are not present: (1) when severe environmental/ social problems are not salient nor associated to public transportation and (2) when policymakers do not enjoy institutional capacity. These two conditions are necessary and should happen jointly. Each happening individually is not a sufficient condition.

In Costa Rica, public transportation has not been perceived by the government as a social, environmental nor climate policy.[166] There has been a sharp contrast between how health, education, forests and biodiversity, on the one hand, and public transportation, on the other

[166] It has been only very recently when the government realized that transportation is a key sector to look at to achieve the international climate commitments. This was recognized in the country's 2018 Decarbonization National Plan.

hand, were approached. Since the former four were seen as social and environmental matters, public funding was allocated to them and more structured governance was created. Public transportation, on the contrary, was left in the hands of private actors. The legal framework and institutions surrounding it, consequently, are less robust and more permeable to private actors' interests. Moreover, when members of the executive branch have tried to address policies to improve public transportation, their actions were undermined by private interests.

The following subsections address the lack of presence of the two enabling conditions in Costa Rica's GAM, which eventually have led to BPTI.

3.3.1 Public transportation has not been conceptualized as a social nor environmental matter but health, education and conservation have

Costa Rica enjoys a global reputation of a social, environmental and climate leader because of its actions in certain sectors, though disregarding public transportation. This social positive notoriety was built based on the country's policies in education and health care since the 1940s, while Costa Rica's green actions dominated the decade of the 1990s. However, this has not been the case for public transportation. Transportation matters have been handed to private individuals, either through prioritizing public policies that favor private transportation or leaving public transportation in the hands of the operators.

Regarding its social policy progressiveness, Costa Rica is a regional outlier because of its high investment in health care, education and pensions. The country was an early implementer of three fundamental social pillars: (1) the first (and today largest) public university, the University of Costa Rica (UCR) (1940), (2) a system of social insurance for health care and pensions, Caja Costarricense del Seguro Social (CCSS) (1941), and (3) the Labor Code

(1943).[167] Between 1950 and 1980, Costa Rica's public health care system achieved outputs of universalism as large as almost none other country across the South.[168] Moreover, the army was abolished in 1948 and its budget was reallocated to education. Costa Rica's 1949 constitution signals kindergarten and primary education as compulsory, free, and funded by the State. It also states the government's obligation to dedicate 8% of the country's GDP to education.

Costa Rica's environmental progressiveness is reflected in its actions favoring natural resources and biodiversity conservation. These actions started in the 1940s with the promulgation of the Law of Waters No. 276, which turned water into a public affair with very few instances of private domain. This country obtained additional worldwide recognition not only for establishing 169 protected areas since 1955 and a system of national parks, but also for pioneering a Payment for Ecosystem Services (PES) scheme to deal with deforestation.[169] Costa Rica achieved amazing results in recovering its forests. While in 1987 only 40% of the national territory was covered by forest, deforestation was reverted and more than 52% of the land was forest-covered in the early 2000s. Moreover, more than 25% of the territory is classified as a protected area. The creation of the Biodiversity Law No. 7788 in 1998 represented another step for biodiversity conservation. It forbade wildlife trade as a commercial activity, a common practice at the time.

Numerous institutions have been created to surround the education and public health sectors. Looking at education, the Ministry of Public Education (MEP) oversees kindergarten, elementary and secondary education, while the National Council of Rectors (CONARE) is in

[167] Acuña Ortega, 1992)
[168] Martínez Franzoni & Sánchez-Ancochea, 2018
[169] Alpízar, Madrigal, & Salas, 2018

charge of planning state university higher education. In the public health sector, the Ministry of Health is the main institution that coordinates and evaluates strategies for the promotion of health and the prevention and control of communicable and chronic non-communicable diseases. It also regulates the CCSS, which is the entity in charge of managing social security in the country, including the health care and the pension system.

Furthermore, the institutions governing the environment lived an important transformation to reinforce the sector in the decade of the 1990s through the creation of several institutions. In 1994, the National System of Conservation Areas (SINAC) was created, bringing together three formerly distinct entities responsible for supervising national parks, wildlife, and forestry management. One year later, the formerly Ministry of Natural Resources, Energy and Mines (MIRENEM) evolves into the Ministry of Environment and Energy (MINAE) and important institutions adjacent to this ministry are put in place, such as the National Environmental Council, the National Environmental Technical Secretariat, the Environmental Comptroller, the Administrative Environmental Court, and the Regional Environmental Councils. Lastly, through the Forestry Law Nº 7575 elaborated in 1997, the National Forest Financing Fund (FONAFIFO) was created to manage the PES scheme under the wing of the MINAE.

In contrast, actions in public transportation differ from those of the previously mentioned sectors. According to an interview made to a journalist who has studied bus public transportation in the country, "*public transportation was not treated as a public policy in Costa Rica until the Regulatory Authority of Public Services (ARESEP) arrived, right? Until ARESEP appears, there is regulation on the matter*".[170]

[170] The Regulatory Authority of Public Services (ARESEP) was created in 1996.

Furthermore, governments have prioritized public policies that favor private transportation, such as the construction and extension of roads and highways. An example is shown in the National Development Plans from 2010 until 2026,[171] which only allocate, on average, 4.5% of the budget assigned to transportation to public transportation. In contrast, 87.5% of that budget, on average, was assigned to road infrastructure.

3.3.2 Policymakers with no capacity to insulate the bus reform

The need of a public transportation reform gained salience in the last decade. A couple of policymakers from the executive branch brought the topic to the political forefront and tried to implement bus and urban train reforms. These policy entrepreneurs are 2014-2016 vice Minister of Transportation and 2018-2022 Costa Rica's president. However, both failed because Costa Rican institutions did not grant them the capacity to insulate these reforms from bus operators' and other opponents interests.

Sebastián Urbina was vice Minister in the first ever presidential legislature of the PAC, which ended with the alternated presidencies of the Partido Liberación Nacional (PLN) and the Partido Unidad Social Cristiana (PUSC) since 1982.[172] However, the Legislative Assembly was quite fragmented at that time with the representation of nine political parties. Moreover, the majority of seats in the Legislative Assembly did not belong to the PAC, who won 13 out of the 57 seats, but to the PLN, with 18 seats. Other parties with large representations in the Legislative Assembly were the Frente Amplio (9 out of 57) and the PUSC (8 out of 57).

[171] National Development Plans are written by every administration, thus every four years. Therefore, from 2010 to 2026, there are four National Development Plans. These plans do not represent how the budget is spent but the intention of the government on how to allocate the budget when they take power.
[172] The PLN occupied the presidency in the periods of 1982-1986, 1986-1990, 1994-1998, 2006-2010 and 2010-2014. The PUSC occupied the presidency in the periods of 1990-1994, 1998-2002 and 2002-2006.

Mr. Urbina arrived in power with the aim of finally achieving bus sectorization[173] in the GAM, which was in the national plans since 1999 but had not gotten implemented yet. His purpose was to pilot first bus sectorization in Desamparados, a densely populated area in the GAM, to later replicate it to other highly inhabited areas of the GAM such as Pavas. As stated by Mr. Urbina himself during the interview made to him, choosing Desamparados and designing its sectorization was based on three inputs: two previous studies (one commissioned by the government and the other one commissioned by bus operators, both made by two different private consultant agencies) and a student's thesis. He faced strong opposition by the technicians at the CTP, the municipality of Desamparados and the bus operators serving that area. At the time, the president of the municipal council of Desamparados was also the manager of one of the bus companies that served this area. Still, Mr. Urbina managed to make progress in becoming sectorization a reality like no other vice Minister had done before. He had gotten budget from the MOPT, allied with a public university for the design of the routes, a multi-modal terminal and a communication strategy, and gotten into conversations with a construction company to create a public-private partnership for the construction of the terminal and its operation.

Sebastián Urbina was supposed to be vice Minister of Transportation from 2014 to 2018 but he got fired in 2016 after bus operators complained to the president at the time, Luis Guillermo Solís. National newspapers, such as La Nación and El Semanario Universidad, reported the pressure executed by bus operators who were unhappy with this idea coming to fruition. Mr. Urbina could not implement the sectorization in Desamparados nor in any other

[173] Sectorization is the ordering of the bus routes within the GAM in trunk and feeder routes. These division of routes should be allocated to the different bus operators. Since they are atomized, sectorization also requires them to constitute consortiums to agglomerate them.

area of the GAM. The vice Minister that followed, Liza Vázquez, did not continue with its implementation either.

Another attempt for a public transportation reform, though focused on an urban electric train and not buses directly, happened during Carlos Alvarado's presidency, from 2018 to 2022. The project was called Tren Rápido de Pasajeros (TRP), *Fast Passenger Train* in English and popularly known as "tren eléctrico" (*electric train)*, and it was one of Alvarado's flagships and main campaign promises. This policy was part of the actions pursued by the 2018-2050 National Decarbonization Plan that tackled public transportation. Moreover, "*it represented an opportunity for the users to reimagine public transportation in the GAM as integrated, modern and clean*" as stated by a former vice Minister of Transportation interviewed.

The electric train would bring a lot of improvements to rail public transportation, while also integrating the bus service in various cantons. The TRP would be bidirectional, have multi-modal stations, count on a 73 kilometers long railroad and have an area of influence of 216 km^2, connecting four provinces and 15 cantons. Even though this project was focused on the train, it aimed at integrating bus services with the train in the multi-modal stations. Therefore, the TRP went hand-in-hand with the intermunicipal project MUEVE, which involved the 15 municipalities that were going to be connected by the TRP. The electric train would operate 18 hours a day and seven days a week, with a frequency of five minutes. These features contrast sharply with the current urban train, which is not electric, nor bidirectional, and only works during weekdays and peak hours.

To provide some context, it is important to signal that Carlos Alvarado took power in a very contended election for the executive and legislative branches. Carlos Alvarado won in a second round against Fabricio Alvarado from Restauración Nacional (RN) after creating a

ruling coalition in the executive with the PUSC and the Frente Amplio. Moreover, the Legislative Assembly was fragmented and the PAC did not enjoy the majority of seats. During 2018-2022, the Legislative Assembly was composed of 7 political parties. The PLN and the RN, who tend to oppose the PAC, had the majority of seats. The PLN had 17 out of 57 and the RN had 14. The PAC had only 10 representatives out of 57.

In addition, the TRP was a direct project from the Presidency, backed up by the office of the First Lady, Claudia Dobles, but not supported by some other members of the executive. For instance, Rodolfo Méndez Mata, the Minister of the MOPT and who was a member of the PUSC but joined the ministry due to the coalition created, was against the electric train. His transportation policies focused more on infrastructure for cars. Therefore, the project faced opposition even within the executive.

The electric train would be built by concession, although it required a considerable amount of loans and an annual subsidy, both of which had to be approved by the legislative branch. The executive's plan was to start construction in 2021 with a first stage focusing on connecting San José with Cartago. The TRP would cost a total of USD 1,500 million. The government had already gotten a USD 300 millions credit from the Central American Bank for Economic Integration (BCIE) and a USD 250 millions loan from the UN with an interest rate of 0%. The rest was expected to be funded through the concession mechanism. The project also required an annual subsidy of USD 150 millions. The loans and all the budget demanded by the TRP required approval from the Legislative Assembly.

But the TRP faced strong opposition in the Legislative Assembly and other public entities. Some of the main arguments against the TRP were the high infrastructure costs and the annual subsidy it required. Several Congress people dubbed the TRP an extremely expensive and

“capricious project” without technical backup. Moreover, the National Comptroller of the Republic pointed out that the electric train lacked demand studies and fiscal responsibility.

As a result, the TRP never happened. During Alvarado’s presidency, the project progressed very slowly, facing many setbacks in the Legislative Assembly. In May 2022, Carlos Alvarado left the presidency without the final approval of the budget nor the construction of any part of the project. Rodrigo Chaves came to power in 2022 and dismissed the TRP, stating that his government would create another proposal for an urban train. To this day, there is no progress on this project.

3.4 Institutional abandonment and influence of bus operators

The lack of presence of the enabling conditions for BPTA has left abandoned the institutions governing the bus sector in the GAM. These institutions have not been reviewed nor reorganized since their inception in the late 1990s and early 2000s.

Even though there are multiple laws, executive decrees and national plans that relate to transportation, the main law governing public transportation, Law Nº 3505, is outdated and contains legal loopholes that permit bus operators to obtain more licenses than what the law initially intended. Moreover, the main two institutions regulating public transportation have exhibited a historic rivalry and fragmentation. Counterintuitively, the regulation of public transportation is highly centralized in the Public Transportation Council (CTP), where a representative of the bus operators acts as one of its key executive board members. In this fashion, this interest group has secured influence over public transportation policymaking in the GAM.

This section addresses the legal framework and the institutions governing public transportation in the GAM, as well as the problems they exhibit. It also provides a description of bus operators, the interest group that has large influence in the sector's policies.

3.4.1 Legal framework and policies governing public transportation and mobility in the GAM: Rich but old, with legal loopholes and unaccomplished

Transportation is the second sector with more laws created between 1950 to 2017 in Costa Rica, only after the one of land use. Regarding bus public transportation, there are three main laws governing it. Table 6 summarizes these laws, as well as a couple of executive orders and plans related to this sector.

Table 6. Laws, executive orders, and plans governing the public transportation sector in Costa Rica

Year	Type of document	Name	What does it entail?
1965	Law 3503	Law Regulating Paid Transportation of People in Motor Vehicles	This is the main law governing public transportation. After almost sixty years, it is still valid.
1996	Law 7593	Law of the Regulatory Authority of Public Services	Creation of the Regulatory Authority of Public Services (ARESEP)
1999	Public Policy	Sectorization of Public Transportation	First public transportation sectorization plan for the Greater Metropolitan Area. However, it was not established under clear technical, conceptual, and legal frames.
2000	Law 7969	Regulatory Law of the Public Service of Remunerated Transport of People in Vehicles in the Taxi Modality	Creation of the Public Transportation Council (CTP)
2000	Executive order	Executive order 28337-MOPT	Regulation on policies and strategies for the modernization of paid collective transport of people by urban buses for the Metropolitan Area of San José

			and surrounding areas that directly or indirectly affect it.
2009	Public Policy	Regional and Urban Planning Project for the Greater Metropolitan Area (PRUGAM)	Its objective was to promote a change in the GAM's urban development model, going from an extensive and low-density one to a compact, high-density, medium-rise city model. It was never fully implemented.
2017	Executive order	Executive order 40186-MOPT	Consolidation and Execution of the Policies and Strategies for the Modernization and Sectorization of Public Transportation Bus Modality in the Metropolitan Area of San José and Surrounding Areas: It dictates the establishment of a primary network of trunk roads with priority passage for buses, integrating them with other means of transport such as the intercity train.
2017	Public Policy	Sectorial Public Policy for the Modernization of Paid Public Transport for People, Bus Modality	Its purpose is to guide the strategic planning processes and short, medium and long-term action plans carried out by the transport sector institutions, as strategies to solve, attend and guide the problems that currently afflict the users of the paid transport public service of bus mode people, service operators and the institutions involved.
2017	Public Policy	Comprehensive Plan of Urban Sustainable Mobility for the Metropolitan Area of San José (PIMUS)	This plan considers three provinces, namely San José, Cartago and Heredia, and a total of 21 municipalities. Its aim is to create a comprehensive mobility plan for this area, addressing the different users, the different modes of mobility, the prevailing institutional framework, safety, and accessibility.

2018	Law 9518	Law of Incentives and Promotion for Electric Transportation	It creates the regulatory framework for electric transportation in the public, private, and institutional fleets. It also regulates the public administrative organization related to the subject, the institutional competences and the obligations of both the public administration and the importers of vehicles that are part of the private sector.
2019	Law 9660	Law of Mobility and Cycling Safety	It promotes and regulates the use of the bicycle as a means of transport, work and recreation, with the aim of achieving a benefit for human health and developing an alternative to the means of transporting people in urban and rural areas.
2021	Law 9976	Law of Pedestrian Mobility	It encourages owners, local governments, and the central government to develop concrete actions so that the country has safe and decent sidewalks that are comfortably usable for different types of pedestrians.

Source: Author's elaboration

In 1965, the government created the now outdated and problematic Law Nº 3503, which is to this day the main law governing public transportation in the country. This law was written in a period where the GAM did not even exist as a concept, though it is still in place.

Law Nº 3503 stipulates the license granting model with the aim of avoiding industry's concentration and, thus, it sets a maximum of three concessions per company. However, a legal loophole related to a language interpretation dilemma of what constitutes a company belonging to a physical person versus a company belonging to a judicial person has allowed several bus

companies to enjoy more than three licenses. For instance, in 2017 there were 27 bus companies which had four or more licenses, with some having more than twenty of them.[174]

Between the late 1990s and early 2000s, two additional laws were emitted and they both created two separate regulatory entities for public transportation. First, the Law Nº 7593, created ARESEP in 1996 with the task of regulating public transportation, among other public services. Then, four years later, the Law Nº 7969 created the Public Transportation Council (CTP), which is a maximum deconcentrated body of the Ministry of Public Infrastructure and Transportation (MOPT). Between the 1950s and 1990s, the MOPT became a "mega ministry" in charge of transportation and road infrastructure. As a way to decentralize its tasks, several councils, hierarchically dependent but functionally independent, were created. Among them, was the CTP. Since the Law Nº 7593 and the Law Nº 7969 created two different regulatory entities for public transportation, the idea was that the ARESEP was in charge of regulating the financial aspects (i.e., the tariff), while the CTP oversaw the operational regulation.

In the late 2010s and early 2020s, Costa Rica introduced additional laws that favored clean transportation and mobility. In 2018, came the Law Nº 9518, *Law of Incentives and Promotion for Electric Transportation*, which incentivizes electric transportation in all its modes, public, private, and institutional. In 2019, the government introduced the Law Nº 9660 to guarantee cyclists' mobility and security. Lastly, in 2021, the Law Nº 9976 was introduced, which supports pedestrians' mobility and demands actions towards active mobility from local governments.

Two executive orders are of important mention since they address actions for the bus sector. First, the 2000 Executive Order 28337-MOPT, which provides a regulation for the

[174] These 27 bus companies operate routes in the GAM as well as interurban and urban-rural ones.

modernization of buses in the Greater Metropolitan Area. Then, in 2017, the Executive Order 40186-MOPT, revised the previous executive order and dictates the establishment of a primary network of trunk roads with priority passage for buses, integrating them with other means of transport such as the intercity train.

The government of Costa Rica also commissioned the elaboration of different plans and policies to regulate and optimize public transportation in the Greater Metropolitan Area (GAM) since the late 1990s, although none of them has been fully nor mainly implemented. The first plan, known as the Sectorization of Public Transportation, was developed in 1999 and it is the root of the future public transportation optimization plans. The 2009 Regional and Urban Planning Project for the Greater Metropolitan Area (PRUGAM) takes into account this sectorization of public transportation when setting out a new territorial planning for the GAM. In 2017, an update of the 1999-plan came out: the Sectorial Public Policy for the Modernization of Paid Public Transport for People, Bus Modality. This public policy is based on five main principles: sectorization, intersectoral routes, "trunking", integration of services and prioritization of public transport. Also in 2017, the government presented the Comprehensive Sustainable Urban Mobility Plan for the San José Metropolitan Area (PIMUS), a new model on how to organize mobility in the metropolitan area of San José, which is smaller than the GAM.

Sectorization is a cheap public policy to put in place, with lots of measured benefits, but its implementation has been mostly left in the hands of the bus operators and, thus, it has barely happened. It has been estimated that completing the sectorization would lead to a reduction of 540 buses circulating in the GAM, a 61% increase in travel speed and a decrease of 506 tons of carbon emissions per year. Moreover, it would generate an estimated annual saving of USD

6 million for users and USD 4.7 million for bus operators.[175] However, except for the intersectoral bus routes and the demarcation of some exclusive bus lanes, which not all drivers respect, sectorization is non-existent in the GAM. As mentioned previously, in 2016, former vice Minister of Transportation Sebastián Urbina attempted to sectorize the bus routes serving the canton of Desamparados. This action was stopped due to opposition of the bus operators and the vice Minister was fired. According to information given by another former Transportation vice Minister who was interviewed, sectorization is included as an item in the licensing contracts to bus operators but it is left in their hands whether to implement it or not.

Even though the legal framework exhibits more connection between the different legal instruments since the 2000s, "*regulation is disaggregated and dispersed, hindering the operation of institutions, creating barriers in their governance and having little adaption to changes*".[176]

3.4.2 Weak institutional framework: Fragmented and centralized regulatory institutions with poor oversight

Institutions governing the bus public transportation sector in Costa Rica

There are three main institutions governing public transportation in Costa Rica: (1) the Public Transportation Council (CTP), (2) the Regulatory Authority of Public Services (ARESEP), and (3) the Ministry of Public Infrastructure and Transportation (MOPT).

The CTP, a maximum deconcentrated body of the MOPT, regulates the technical and operative aspects of public transportation in Costa Rica. It oversees the planning, contracting, monitoring and evaluating of public transportation services in Costa Rica. This council

[175] Programa Estado de la Nación, 2018
[176] Programa Estado de la Nación, 2018, p. 249

determines who gets which route, what the route looks like, and where the bus stops are, among other tasks. The CTP has an Executive Board, constituted by seven members. Three of these members belong to the executive branch: (1) the Minister of the MOPT, who presides the board, (2) someone of trust named by the Minister of the MOPT, who usually tends to be the vice Minister of Transportation, and (3) the Minister of the MINAE. The remaining four members are a representant of the bus sector, a representant of the taxi sector, a representant of the users, and a representant of the local governments.

The ARESEP, even though it is the regulatory authority of public services in Costa Rica, only regulates the tariff of public transportation. The ARESEP is divided in three main management departments, one of which is the Transportation Management Department. This department establishes the methodology and the tariff to be charged for the use of buses and taxis.[177] Besides the CTP, the ARESEP has also carried out independent evaluations of the bus services.

The MOPT, even though it has the legal power to dictate the governance of public transportation, in practice, it has little influence on the service[178] and mainly provides technical and financial support to the CTP. Employers of the Sectoral Planning Secretariat of the MOPT work for the CTP on particular tasks.

Fragmented and centralized regulatory institutions with poor oversight

Even though the CTP and the ARESEP have both different designated tasks with respect to public transportation regulation *on paper*, *in practice* these two institutions have shown a historic rivalry and competition of tasks, leading to "*an absolute absence of*

[177] Setting the tariff of the interurban train is responsibility of the Costa Rican Railroad Institute (INCOFER).
[178] Programa Estado de la Nación, 2018

interinstitutional planning that coordinates and protects the public interest".[179] For instance, besides the CTP, the ARESEP has also carried out separate evaluations of the quality of the bus services. However, both institutions rely on different criteria and methodology to assess the service. Moreover, the lifespan of a bus is recognized differently by the ARESEP, which establishes the fare and gives them a 7-years depreciation factor, and the CTP, which determines a 15-years lifespan. This difference of eight years ends up favoring powerful bus operators as they are recognized twice in the fare for the value of the bus over the fifteen years. Rivalry and competition of tasks are also present in the realm of sanctions. Even though the CTP is the only institution allowed to grant licenses, both the CTP and the ARESEP can withdraw them and apply fines. This duplication of tasks dilutes authority and causes conflicts, which end up favoring impunity and *de facto* situations.[180]

Furthermore, there are more than thirty-five entities involved in public transportation and mobility planification, regulation, and operation in Costa Rica (see Table 7), adding to the fragmentation of the sector. The Ministry of Treasury, for instance, is in charge of taxing; the Ministry of Environment and Energy (MINAE), through the Direction of Climate Change, is in charge of elaborating plans for GHG emissions reductions, including the transportation sector; INCOFER oversees the train; the bus chambers look after the interests of the providers of public transportation services; the municipalities are in charge of the local roads and their signalization, etc.

According to a former vice Minister of Transportation, "*current transport governance does not allow the implementation, management nor monitoring of all the public policies that*

[179] COPROCOM, 2021*,* 69-70.
[180] Programa Estado de la Nación, 2018

have been written because of how fragmented the system is". For instance, the lack of coordination between the CTP and the Costa Rican Railroad Institute (INCOFER) has partially inhibited the development of an intermodal and integrated urban transit system in the GAM. The fragmentation of the system, thus, perpetuates dynamics of institutional dispersion.

Table 7. Actors with any type of jurisdiction in aspects related to mobility or transportation in the Greater Metropolitan Area (GAM) of Costa Rica

Sector	Main actors	Secondary actors	Actors of third level
Public sector	Public Transportation Council (CTP) Regulatory Authority of Public Services (ARESEP) Ministry of Public Infrastructure and Transportation (MOPT) Ministry of Environment and Energy (MINAE) Ministry of Housing and Human Settlements (MIVAH) Costa Rican Railroad Institute (INCOFER)	Legislative Assembly Municipalities of the Greater Metropolitan Area (GAM) Ministry of National Planning and Economic Policy (MIDEPLAN) Road Safety Council (COSEVI) National Highway Council (CONAVI) National Institute of Housing and Urbanism (INVU)	Ministry of Health Ministry of Education Ministry of Treasury Comptroller General of the Republic Metropolitan Federation of Municipalities of San José (FEMETROM)
Private sector	Bus chambers	Costa Rica Real Estate Development Council (CODI)	
Civil Society	International Cooperation Civil Society Organizations Academia	Ombudsman's Office	

Source: Gensler, 2017a

Even though the regulation of the system is highly fragmented, counterintuitively, it is also highly centralized on the CTP. This regulatory institution has the exclusive responsibility of defining the routes and the number of units necessary to provide the service, granting the licenses, creating the contracts with the conditions and rules for bus operators, and monitoring the service. The ARESEP does not have a say in these actions and the MOPT, which has the legal authority to act in these matters, has little influence in practice. Many times, its orders

are not complied and there are few to no mechanisms to penalize it.[181] Moreover, even though the CTP belongs to the MOPT, its legal figure of maximum decentralization body has allowed it to behave as a sort of autonomous domain. The result is a public transportation council that acts as a rival of the very same institution into which it is embedded.

3.4.3 Interest group: bus operators

The bus sector is a heterogeneous one and all bus owners cannot be classified into one same category. There are small, medium, and large bus companies serving the GAM, interurban, urban-rural and rural routes. For instance, there are bus owners, who own a bus and also drive it, generally providing the service in low-income rural routes. Medium and large bus companies are mostly associated with urban and interurban routes. Large bus operators own many licenses and move thousands of people simultaneously throughout the entire country.[182]

The industry's concentration is high with very few operators obtaining most of the revenues. Out of the 355 bus companies existing in the country in 2017, ten companies were getting 50% of the revenues generated by the sector, and five obtained 33% of the revenues while transporting 24% of the country's bus passengers. Out of these five companies, three operate in the GAM. These companies enjoy fewer concessions than interurban or rural bus companies but provide the service on routes that generate more significant income.

Furthermore, there are bus operators who have enjoyed a service license non-stop since the CTP was created and started tendering these licenses. The CTP, which was created in 2000, licenses the bus routes every 7 years and they can get renovated for limitless consecutive

[181] Programa Estado de la Nación, 2018
[182] Salazar Murillo, 2019

periods. There are numerous bus operators who will have obtained a license for 28 years by 2028.

Public transportation has also become a family business, where grandparents, parents, daughters, sons, nieces, and nephews become shareholders and get licenses for additional routes. Moreover, large bus companies have also become importer of buses and their spare parts, as well as owners of gas stations.

3.5 Forbearance and state incapacity leading to regulatory capture and data opacity

One might wonder why, if Costa Rica became a regional leader as (1) a social progressive country due to its high investment in health care, education, and pensions, (2) an environmental pioneer in battling deforestation and achieving impressive recuperation of forest cover and tropical conservation, and (3) an ambitious climate mitigator looking to turn into a global decarbonization lab, the transportation sector has not been tackled.

The answer is evidently political, and it has to do with its weak and fragmented institutions and the powerful interest group involved. Poor to non-enforcement and state incapacity in the sector have led to problems of data opacity and regulatory capture. The state, as the regulatory entity, has been captured by the actor it should be regulating: heavily economic and politically powerful bus operators. Bus owners and companies rely on their instrumental power to lobby, fund political campaigns, and permeate political spheres through revolving doors.

This section delves into the description of how forbearance and state incapacity are present in the public transportation sector. Moreover, it addresses how regulatory capture has happened in the public transportation sector, where bus operators have become judge and jury. Lastly, it shows how prevailing data opacity around bus public transportation can serve as a measurement of institutional weakness.

3.5.1 Forebearance and state incapacity

Forbearance and state incapacity are reflected in the GAM's public transportation system in several ways. Regarding state incapacity, public transportation does not receive any funding or subsidy from the government, except for the free tariff enjoyed by the elderly, giving leverage power to the bus operators. Moreover, the CTP lacks personnel, particularly to go the field and monitor bus operators' compliance to the contracts.

Regarding forbearance, or the lack of enforcement, the CTP has renewed licenses quite easily to bus operators without paying attention to performance reports. The CTP renews licenses to bus operators every seven years. The first renewal was in 2007, then in 2014 and the most recent renewal happened in 2021. However, the 2021 renewal of licenses was surrounded by inconsistencies.

First, bus operators did not submit the required quality assessment reports that are demanded. In this case, the CTP purposefully decided not to ask for this requirement, since it would add to the costs of bus operators, who were already under financial hardships due to the pandemic.[183]

Second, the contracts for the 2021 licenses demanded bus operators to change their fleet, to introduce electronic payment and to conform consortia among them so that sectorization could be finally implemented.[184] The inclusion of electronic payment in the buses, which was a national intention for more than 20 years, finally became a reality in 2022. However, by the end of that year, only seven bus companies had incorporated electronic payment in their fleets.[185] Moreover, in an interview made to the former vice Minister of Transportation, who

[183] Chacón Soto, 2021a
[184] Madrigal, 2021
[185] Navarro Álvarez, 2022

led the CTP's Executive Board when the 2021 renewals happened, he was asked how the bus operators were going to create the consortia and how likely was the occurrence of this event. He shrugged his shoulders and said: "*We completed our task. We left ready everything that we had to. What follows depends on the concessionaires, who have to form consortia, and the political will of this government*". In addition, the former vice Minister of Transportation recognized that there were no operative changes made in the contracts, in comparison to the ones made in former renewal years.

3.5.2 Regulatory capture

Following the theory of collective action, if interest groups are small and well-organized, they will get the upper hand in negotiations against the public,[186] which is precisely what happens with bus operators. The term *mobilization of bias* is used to describe how policymakers respond to the organized, intense, and well-informed groups instead of the median voter.[187] Bus operators in the GAM are a small and well-organized interest group, who enjoys mobilization of bias.

As mentioned previously, the system does not receive any funding or subsidy from the government, except for the free tariff enjoyed by the elderly, giving leverage power to the bus operators. By taking a variety of obligations related to public transportation that should normally be responsibility of the government, such as the modernization and the electrification of the fleet and the installation of GPS, electronic payment machines and ramps for the disabled on the vehicles, bus operators obtain negotiating power and the upper hand in the provision of such an essential public service.

[186] Olson, 1965
[187] Schattschneider, 1970

This advantageous position enjoyed by bus operators has also to do with their economic and political power, which, according to various interviewees, has been present since their very inception in the 1920s. At that time, the way to get a permit to offer the service depended on the political and economic power of the individual. According to a former vice Minister of Transportation interviewed: "*All bus operators needed at the time to do that business was a permit from the government. Whoever had the greatest political power earned it and got the business. So, from the very beginning, their survival depended on their political power. And the tariff increases are also political. Much of their business scheme required political power*". In addition, a journalist interviewed, who has carried out extensive research on public transportation in the GAM, recounts the first instance where the economic and political power of bus operators became evident: "*The first case of the influence exerted by bus operators is how they put pressure on the municipality so that in 1948, when the municipality was going to take over the tram and put money into it, it ended up turning it off and putting it away. That was the first exercise of political power of this group*".

This power embedded in the sector is still present today. As stated by a former Minister of National Planning and Economic Policy who I interviewed for this dissertation: "*The transport sector is a political and politicized sector. […] There is a patronage logic in this sector, with a lot of informal power. They lobby very strongly, both in the executive and in the legislative*".

Bus owners and companies are known to fund political campaigns and, as described by several interviewees, they have also been large contributors to Costa Rican bipartisanship. Evidence shows that bus owners have been linked to donations made to the PLN, the biggest

and oldest political party in Costa Rica.[188] Moreover, 90% of the 2018 political campaign of the Partido Integración Nacional (PIN) was funded with resources from the third largest bus conglomerate in the country.[189] Lastly, the current representant of the bus sector in the CTP is one of the main contributors to the 2022 political campaign of the Partido Progreso Social Democrático, which was elected for the presidency of the republic.

Nevertheless, interest groups do not only exercise power over policymaking and institutions in the form of *structural power* (an indirect, agenda-setting, form of power) but also, and increasingly,[190] in the form of *instrumental power* (a direct form of power).[191] Through revolving doors, bus interests have been able to permeate national institutions at executive and legislative levels, and in formal and informal ways. People linked to the bus sector enter public service, and vice versa. The problem lies in that, after passing through the public service, contacts and knowledge of internal institutional procedures remain, which can be used within the limits of the law to benefit bus interests.[192] An example is the current Executive Director of the National Chamber of Carriers (Canatrans), who has been in this position since 2015. However, between 2013 and 2014, she was the vice Minister of Transportation at the MOPT, the vice president of the CTP, and the president of the Road Safety Council (COSEVI).[193]

The political power of bus operators has led to a problem of regulatory capture, as bus operators are "*co-directors of the entities that regulate them*".[194] They are judge and jury since

[188] Salazar Murillo & Cascante, 2019
[189] Salazar Murillo & Cascante, 2019
[190] Hacker & Pierson, 2002; Vogel, 1996
[191] Hacker & Pierson, 2002; Lindblom, 1982
[192] Chacón Soto, 2021b
[193] Chacón Soto, 2021b
[194] Programa Estado de la Nación, 2018, p. 249

the Executive Board of the CTP is comprised of a representant from the bus sector. While the initial purpose of this action was to facilitate the participation of the private sector and organized civil society, their incorporation in this board has led to serious conflicts of interests.[195] As mentioned by a former member of this board: "*the voice that has weight within the CTP is that of the public transport operators. They are more belligerent and have more drive since their economic interests are directly affected*".

Furthermore, the additional members of the CTP's Executive Board who are not part of the executive branch (i.e., the representants of local governments, taxis and users) have a history record of aligning with the bus sector. For instance, the current representant of the users, Erick Ulate Quesada, is known for being linked to Canatrans and has earned a reputation of being a cornerstone of the bus owners. In general, the participation of users in the board of directors of the CTP has not been clear. There are few of these organizations and the protocols to select this representant are non-existent, leading an interviewed Congressman to describe this representant as "*a chimera, a scam*".

Results from the interviews depict powerful bus operators as mafias, who enjoy veto power. According to a former president of a climate civil society organization: "*the bus sector is the one who puts and removes ministers and governments*".

These kind of linkages and accusations have led to the start of investigations carried out by the Ombudsman's Office and the Commission for the Promotion of Competition (COPROCOM). In the first case, a citizen denounced to the Ombudsman's Office the concentration of licenses among certain bus companies, which led to an investigation. This complaint was particularly relevant since the tender for new licenses was going to happen in

[195] Programa Estado de la Nación, 2018

September 2021. During this investigation, the Ombudsman's Office found a lack of data collected by the CTP, which does not keep an updated register of the shareholders of the bus companies nor of the classification and geographical location of all the public transportation routes.[196] Public information is not available to the public and it lacks transparency.[197] As a result, the Ombudsman's Office requested COPROCOM to initiate a technical study.

Even though COPROCOM is not allowed to impose sanctions nor orders because of its legal statute, it elaborated a study where they came up with three main observations that were not followed by the CTP.[198] First, the tenders need to be reviewed so that they truly represent a "competition for the market", bring benefits to consumers and eliminate monopolies on certain routes that have been held captive for decades. Second, it acknowledges a legal loophole in the Law Nº 3503, which allows companies to hold licenses for 28 years or more. Lastly, COPROCOM recommended the CTP to establish a limit to the granting of successive renewals of licenses. This action needed to be taken promptly, as the tender was going to happen in September 2021. The CTP decided to deviate from the recommendations issued by COPROCOM. The 2021 tender happened in an untransparent manner, without any sectorization being implemented, and with bus companies getting a renewal for a fourth consecutive 7-years period.

[196] Chacón Soto, 2021c

[197] Secrecy is a problem throughout the different institutions related to transport. It is not only the CTP. For instance, and as mentioned in an interview by a former member of the Executive Bveoard of the CTP, "*when the MOPT elaborated the new sectorization plan, I wanted to share through social media. However, they told me not to publish it unless people asked for it directly, because after they had to be held accountable*". I faced the same problem while trying to access that document.

[198] COPROCOM, 2021

3.5.3 Data opacity as a measurement of institutional weakness

The lack of public transportation data availability to the public, and even to governmental institutions, reflects institutional weakness. The secretive nature of this sector in the GAM makes data scarce, untransparent, and little detailed. This situation has been encountered by public institutions,[199] scholars and consultants carrying out research on transportation,[200] as well as myself.

Data opacity becomes evident since most of the information (e.g., number of passengers and income received per company) is collected by and kept in the hands of bus operators. They share some of these data with the CTP and the ARESEP, but they keep other information to themselves. Additionally, since electronic payment has not been adopted by most of the bus operators, public authorities cannot access financial data on real time.

Furthermore, obtaining data on public transportation from the CTP, its main regulator, is a difficult task. This is a problem of the institution lacking the information, as well as how the information is provided on the CTP's website. In here, one can access administrative forms, such as authorization requests for new routes or temporary changes in the routes. However, there is no information on the current bus service providers, their performance, the sanctions they have received and the contracts signed. Moreover, an investigation of the Ombudsman's Office discovered that the CTP does not even have basic data. For instance, the CTP does not have an updated registry of shareholders of the bus public transportation companies. As a result, the CTP is not able to provide information related to the classification and geographical location of all bus public passenger transport routes.[201]

[199] COPROCOM, 2021
[200] León Sáenz & Arroyo Blanco, 2021
[201] Chacón Soto, 2021c

Personally, as a researcher carrying out interviews, I was denied public information by a former vice Minister of Transportation. First, I requested access to a generic bus operator contract, just to see how it looked like, and it was denied to me. Second, during the 2018-2022, the MOPT, jointly with the CTP and a private consultancy firm, created a new sectorization plan for the GAM. This plan should be public since it belongs to the MOPT. However, it is not available online and when I asked for the plan, or at least a section of it, I was told that they were not allowed to give it to me. Other public authorities who were part of the Executive Board of the CTP got a printed copy of the plan but not a digital one, making its digital circulation impossible.

3.6 BPTI: How bus public transportation looks like in the Greater Metropolitan Area (GAM) of Costa Rica

As mentioned in the previous section, the secretive nature of the public transportation sector in Costa Rica makes data availability scarce, untransparent, and little detailed. Under this reality, a picture-clear depiction of the GAM's public urban transit is not possible, although it can be stated that it is nothing close to an ideal model of public transportation. Some public and investigative journalism data, as well as the information collected from the interviews, allow to elaborate a significant description.

The GAM's public transportation is not integrated between its different modes (e.g., bus and interurban train) nor fare-wise. It does not work as a system but as isolated operational units, where most of the routes start and end at the center of San José, the country's capital city. This rudimentary practice started in the 1940s with the first public transportation routes "*and continues until today, turning San José into a parking spot*" (interview to former vice Minister of Transportation). According to the 2017 PIMUS, the lack of operational and fare

integration in public transportation penalizes bus travel compared to car travel. First, in terms of fare integration, its absence means that each transfer of a public transportation mean implies a new payment. Second, in terms of operational integration, since bus terminals are dispersed throughout San José, users have to walk long distances to transfer from one bus to another bus, generally relying on narrow sidewalks and without safe refuge conditions to wait for the transfer.

Furthermore, the inclusion of electronic payment in the buses, that does not liken to an integrated fare but allows for more control of the location of the buses and the quantity of passengers, was a national intention for more than 20 years. Finally, in 2022, it became a reality. However, by the end of that year, only seven bus companies had incorporated electronic payment in their fleets.[202]

Moreover, this urban transit is not reliable, as there is no digital nor analogue information for the users. Passengers are uninformed about the frequencies of the buses, the location of bus stops, connections and terminals, and routes used by buses. It is a common case that a passenger arrives to the bus stop just to hear "*the bus just passed*".

Even though buses are considered a safer mode of land transportation in comparison to private vehicles, women's harassment in buses is a prevalent problem in the GAM. According to a survey carried out by the German Cooperation Agency (GIZ) in San José in 2018, 70-75% of women had experienced some sort of sexual harassment while using public transportation or walking.[203] As one of the former Congresswomen interviewed recalled "*I was told several times: "the last time they saw her was getting off the bus." That sentence creeps me out the*

[202] Navarro Álvarez, 2022
[203] GIZ, 2021

most", referring to complaints received about women's violence during her legislative period. Some safety measures to tackle this problem have been implemented, such as illuminated bus stops and workshops for drivers on how to deal with harassment. However, these actions have only happened in few isolated routes.

Contrasting to Santiago in Chile (with more than 380 electric buses) and Bogotá in Colombia (with almost 380 electric buses), which lead the Latin American region in terms of adoption of electric buses, Costa Rica has remained a laggard.[204] In 2019, the country had 2 demonstrative electric buses and 3 more were expected to come.[205] This inaction becomes even harder to explain, as Costa Rica enjoys an almost completely clean energy matrix.

Accessibility, described by some as the main aim of transport planning, is a problem throughout Latin America,[206] and Costa Rica is no exception. 43% of the people in the lowest socio-economic group use public transportation[207] and they spend more than 20% of their monthly income in transportation. Moreover, the pandemic exacerbated the inaccessibility problem, not only because of the increase in poverty, but also because more than 100 routes (out of the nationally 355 existing in 2017) disappeared.

According to an interview made to a transportation and mobility expert, public transportation in the GAM behaves as a quasi-formal sector. It is formal because it is recognized by the government, who sets the tariffs and provides contracts. However, in terms of operation, the sector behaves with many characteristics of an informal transit, such as the lack of information provided to users, the poor professionalization of the sector and the automatic renewal of licenses.

[204] UNEP, 2022
[205] UNEP, 2018
[206] Vecchio et al., 2020; Guzman, Oviedo, & Cardona, 2018
[207] Gensler, 2017a

Costa Rica made progress in the late 1990s in terms of regulating public transportation but not in terms of investing in its infrastructure (e.g., bus exclusive lanes, adequate bus stops) nor subsidizing the sector to generate a more efficient operation of the service. Moreover, and as stated by this expert: "*by not subsidizing, the operation is basically at cost, which is very characteristic of informal transportation, because these people must cut costs wherever they can. So, the result are very old, badly damaged bus units, with drivers exploited for working long hours, the service is terrible, they don't have the budget to have a nice website, to provide information to users, to make bus stops. None of that exists here because there is no subsidy and there is no investment for public transportation. So, due to the lack of investment from the government, it is very similar to an informal operation, because it depends 100% on private operators; and if private operators do not have good financial numbers, they will not do anything beyond what they can recover with the tariff. That's all*".

3.7 Challenges

The GAM's bet on improving public transportation does not take place at the national nor metropolitan level, but at the cantonal one. According to several of the interviewees, municipalities have been playing an important role for quite a while, particularly in promoting active mobility. In the GAM, municipalities, such as the one of Curridabat and Montes de Oca, have taken outstanding actions in building bicycle lanes and green and safer paths for pedestrians.

Additionally, the national plan MUEVE, which was part of the larger national project of the TRP, enabled the communication and creation of joint mobility projects among 15 local governments where the train would have passed. Even though the TRP project did not move forward, projects and communication between these 15 municipalities are still going on.

According to an interview made to an expert on transportation and mobility in Costa Rica: "*the national government is not going to do anything transformative regarding mobility, but local governments are already understanding and momentum is being generated on that side. And I think that this is positive because at the end of the day the local government has the capacity to generate results faster and closer to the people, transformations outside the door of their house*".

The role of local authorities in sustainable transportation and mobility has been increasing throughout the Latin American region, more so after the COVID-19 pandemic. According to an interview made to the head for Latin America of the International Association of Public Transportation (UITP), the region has seen an increase in subsidies for transportation during the pandemic. However, most of these subsidies are local ones and very punctual (for specific groups of the population).

Nevertheless, there are new challenges faced when actions that should be taken at a metropolitan level, are taken at a municipal one, such as bureaucratic capacity and budget disparities. First, not all local governments plan their urban growth nor do they all have an integral view around transportation (i.e., one that encompasses transportation, housing and infrastructure). For instance, only 61% of the local governments of the GAM had a regulatory plan in 2019.[208] Second, municipalities do not have the same budgets. Wealthier municipalities will likely take more and better transportation and mobility actions, exacerbating the disparities at the metropolitan level. Moreover, public transportation, and to a lesser extent active mobility, requires large budgets that single local governments in the GAM likely do not have. Lastly, coordination between municipalities can be a challenging task, since they have different

[208] Rodríguez, 2020

interests, population and ruling political parties. If joint work among them is not achieved, the result can be isolated outstanding instances of mobility and transportation improvement.

Chapter 4. Bus Public Transportation Action (BPTA): The case of Santiago, Chile

4.1 Synopsis of the case

Chile, in contrast to Costa Rica, enjoys the international reputation of being the regional example of neoliberal growth. Even though this was not the case before Pinochet's dictatorship when the government in place was a left one, Pinochet and his party brought all kinds of neoliberal reforms to the country in the 1970s. Chile became the most extreme example of the adoption of the monetary orthodox Chicago School.[209] The neoliberal model was not only materialized in the economic sphere, but also in other social spheres. In December 1978, neoliberalism took control of social and labor policies. For example, employment was stimulated through a reduction in the labor force, and education and social security were privatized.

These neoliberal principles were embedded into Chile's constitution written in 1980 during the dictatorship and still in force today, despite two recent plebiscites to change it. This constitution enshrines a strong presidentialism, with the powers of the president once being almost absolute and only limited by the power of the Armed Forces and the legal and technical bodies that it establishes (Security Council, Central Bank, Constitutional Court).[210] Even though the Constitution has suffered several amendments and now, for instance, the military does not count on non-elected senators in Congress, the legacies of the dictatorship have

[209] Vergara, 1985
[210] Fairfield, 2015; Vergara, 1985

allowed for the creation and maintenance of a deeply rooted, sort of socioeconomic predetermined elite.[211]

Therefore, one might wonder why and how in Santiago, this neoliberal country's capital city where around 30% of the national population lives, has BPTA taken place. Currently, bus public transportation in Santiago works in a subsidized, integrated, clean and more accessible way, and it is even trying to include citizens' participation in the design of routes. The current administration of the Metropolitan Directory of Public Transportation (DTPM) is relying on a territorial focus and deliberative participation with members of two low-income neighborhoods to determine the new bus routes and stops that Transantiago will serve in these areas. Externalities caused by public transportation, such as pollution, noise and accident rate have also reduced.

BPTA in Santiago can be explained by a series of factors. First, the urgency and salience of an environmental matter linked to public transportation served as a trigger for action. Santiago was categorized as one of the most polluted cities in Latin America in the 1970s. Pollution became so bad that in 1996 the area was ruled as an "*ozone saturated zone, respirable particulate matter, suspended particles and carbon monoxide, and latent zone for carbon dioxide*" through the Supreme Decree No. 131 (currently repealed). Moreover, the 1998 Atmospheric Prevention and Decontamination Plan for the Metropolitan Region identified transportation as one of the main pollutants of Santiago. An increase in the use of public transportation was one of the recommendations of this report, in order to decrease local pollution. President Lagos took advantage of this problem of air pollution and its consequences

[211] UNDP, 2004

on public health in order to bring salience to the need of a bus reform, thus serving as Transantiago's policy entrepreneur.

Ricardo Lagos, Chile's president from 2000 to 2006, and Michelle Bachelet, Chile's president from 2006 to 2010, both pushed for Transantiago, the name of the bus public transportation reform, amid a myriad of difficulties and criticisms. They were able to insulate this reform from its opponents and critics because of the power enjoyed by the Chilean executive, one of the strongest executives in Latin America in terms of formal policymaking powers. President Lagos used the State Security Law (Law Nº 12.927) to deal with a boycott by powerful and organized bus operators and President Bachelet invoked the "Constitutional 2%" —article 32, fraction 20 of the Chilean Constitution— to declare Transantiago a public calamity and allow for additional budget.

Certainly, the beginnings of Transantiago were rough, full of failures and errors: there was no institutional framework determined to govern the new public transportation system, technology was missing and contracts contained misaligned incentives that favored bus operators and caused shortage of buses. However, gradually, the system has improved. The DTPM, a designed authority exclusively for buses, was created five years after the official launch of Transantiago to regulate, control and supervise bus services, as well as coordinate public transportation integration with the Metro. Moreover, public funding was assigned in the form of demand- and supply-side subsidies to public transportation. Enforcement is observed in the permanent review and update of the contracts with bus operators in order to get the incentives right. The institutions governing the sector have also evolved, currently with the prospective of giving more power to the metropolitan authority.

As a result, Transantiago is a clear case of the strengthening of the institutions in charge of regulation, operation and monitoring, overcoming the problem of weak institutions. Santiago has become a global exemplary city of how bus public transportation can fulfill social, environmental and climate goals, a predominant necessity in the global South.

4.2 Background and context

4.2.1 Urbanization in Santiago and its negative externalities

Chile is one of the countries in the Latin American region that got urbanized earlier, alongside Argentina and Uruguay,[212] with Santiago becoming the main country's commercial center between 1930 and 1940. By 1940, this city had almost 1 million inhabitants, comprising 36% of the urban population of the country and 19% of the overall country's population.[213] Throughout the decades, as the country started to become more urbanized, population in Santiago rose. By the early 2000s, Santiago reached the metropolis status, as it had more than 5 million inhabitants, representing 40% of the national population.[214] Currently, Greater Santiago has 34 boroughs (*comunas*), six additional boroughs (*comunas*) to the 28 belonging to the province of Santiago. Greater Santiago has a population of around 7 million inhabitants, around 40% of the nation's population, while Santiago has around 6 million inhabitants, which represents a bit more than 30% of the national population.

Santiago has been no regional exception in terms of experiencing a high urbanization rate and a rapid increase in the population rate, which took speed in the 1990s. Moreover, the extended form of the city, with tentacular extensions, leads to a compact grouping in the central

[212] ECLAC, 2012a
[213] Herrera, Olivares, & Pecht, 1976
[214] ECLAC, 2012a

nucleus, which hinders the growth and expansion of activities, and generates overloaded radial roads and long routes to link peripheral areas.[215]

These factors, in addition to the increase in automobile ownership and use, have led to several negative externalities, such as traffic congestion, and noise and air pollution. For instance, in 1996 the metropolitan region of Santiago was decreed as a highly contaminated area due to the presence of particulate matter and suspended particles.

Inaccessibility also became one of the consequences, with low income populations having lower accessibility levels. Defined as a measure of the existing facilities that inhabitants have to get from their residences to the areas of the city that concentrate most of the pull factors (e.g. jobs, education and recreation centers), accessibility in the metropolitan region of Santiago started to show a differentiation among the socioeconomic groups from early on. The trend indicated that lower income areas had worse accessibility. For instance, in 1977 the lowest income group in Santiago spent 91 minutes daily in transportation, while the highest income group spent 67 minutes, on average.[216] By 2012, almost 50% of the population in the lowest income group relied on public transportation to travel, while the same percentage but of the population in the highest income group used a private vehicle for the same purpose.[217]

4.2.2 Unsustainable (public) transportation

The transportation sector as a whole, comprehending public transportation as well, behaved in an unsustainable way in Santiago before the reform, not only, but particularly so, during and after the dictatorship years.

[215] Herrera, Olivares, & Pecht, 1976
[216] Thomson, 1982
[217] Tiznado-Aitken et al., 2019

This section addresses this aspect of unsustainability in the transportation sector by providing a brief overview of (1) the public transportation in Santiago, (2) the increase in private transportation and the negative externalities it generates and (3) the inequalities generated by the sector.

Premise/ Antecedent of public transportation

Benzene-fueled and state-regulated public transportation appeared in 1919 under the name of "*góndolas*", although an animal-drawn tram existed since 1857 and an electric tramway was in place since 1900.[218] The *góndolas* were the first vehicles for the collective transport of passengers in Santiago. They could transport up to 25 people, though they used to run overcrowded. It was a private service with state authorization. The central government established fares, authorized routes, and controlled market entry by means of permits.

Although the service provided by the *góndolas* expanded as the city grew, the supply did not meet the demand, making the construction of subway a necessity. The electric tramway was dismantled in 1959, but the 1960s saw the beginning of the construction of Santiago's subway. Its first route was inaugurated in the 1970s. By 1982, Santiago, alongside Buenos Aires, Rio de Janeiro and Sao Paulo, became one of the four LAC cities to have a subway.[219]

In 1945, the National Company of Transportation (ENT), later named the State Collective Transport Company (ETCE), was created with the main task of modernizing urban transportation and making the demand meet the supply. Before the arrival of Pinochet in power, the ETCE built a dual urban transportation system for passengers, in which a public

[218] Olavarría-Gambi, 2012
[219] Thomson, 1982

supply coexisted together with a private one.[220] Though it was strongly regulated by the State, the demand was more than 90% served by private operators.[221]

During the dictatorship, the ETCE was dissolved in 1981 and a deregulation process of collective transport started. It implied the deregulation of fares (left to the market), frequencies, number and routes of buses.[222] Operators could modify fares by simply advertising changes on their windshields, with exception of the discounted student fares which continued to be set by the government.[223] The climax of bus deregulation came in March, 1988, with the passage of Law 18.696, article 3. This article stipulated that "*remunerated transportation services... will be allowed without requiring any authorization, sufficing to have a certified technical revision that establishes that the vehicle is apt for the service it provides*."

This liberalization enabled an increasing supply of the bus service. For instance, the bus fleet almost duplicated in only twelve years, when it went from being 3,244 buses in 1977 to 6,378 in 1989.[224] [225] This action benefitted users in terms of having a denser bus network and decreased waiting times. Data shows that the network was so dense that it was possible to hail a bus after waiting an average of 3 to 4 minutes, and to reach most major destinations without transferring to a different bus.[226]

Nevertheless, deregulation and the proliferation of bus services led to some negative externalities. Congestion and local air pollution became major problems. Moreover, the unregulated bus system featured small, low quality and poorly maintained buses, with poorly

[220] Olavarría-Gambi, 2012
[221] Flores Dewey, 2013
[222] Olavarría-Gambi, 2012
[223] Flores Dewey, 2013
[224] Figueroa, 1990
[225] This data varies according to the source. The most prudent data was used, as other sources suggest that the number of buses and taxis increased more than 250% during that period.
[226] Flores Dewey, 2013

paid drivers racing for passengers (since their salary was directly proportional to the number of tickets sold), high fares and a lot of uncertainty regarding the regularity of the system.[227]

In 1990, with the return of democracy, the state retook a more active role in public transportation and a new regulatory structure was established. "*It began a previously unthinkable process toward reestablishing the state as planner and regulator of public transportation service in Santiago*".[228] The "Yellow Buses" (*las micros amarillas*)- they were all yellow in contrast to the past when buses had different colors- consolidated themselves as the public transport system of Santiago during the last decade of the 20th century and early 2000s.[229] The state repealed article 3 of the Law 18.696, as well as it incorporated open, public and competitive tenders, established as mechanisms for the allocation of fixed-term concessions, to regulate the sector.[230] The conditions of these concessions included aspects such as fixed routes, minimum frequency and maximum age of the vehicles, but not tariff regulation. The bus fleet increased and there was a total of 8,997 buses in Santiago in 1998,[231] with an average of 1.4 buses per owner.[232]

Past behaviors from the unregulated years permeated the system and were still present. For instance, the profits of bus operators were still strictly dependent on demand, which not only led to high pollution, congestion and accident rates in the Avenida Libertador General Bernardo O'Higgins, the main avenue popularly known as La Alameda, but also sustained the race for passengers. On-street competition remained, even between buses of the same service,

[227] Hurtubia & Leonhardt, 2021
[228] Flores Dewey, 2013, p. 207
[229] Hurtubia & Leonhardt, 2021
[230] Hurtubia & Leonhardt, 2021
[231] MTT, 1998
[232] ECLAC, 2012b

as each bus owner managed its own revenues independently.[233] Since the students' and the elderly's fare was lower, drivers constantly discriminated them in public transportation, sometimes not even stopping in the bus stop and treating them poorly. Moreover, bus drivers did not enjoy any type of social guarantee. Therefore, even though regulation was put back in place, the bus public transportation system was still operating in an informal and atomized way. According to a long-time adviser at the DTPM, "*one of the things that failed in the tender from the 90s, for the "Yellow Buses", is that the bus owners continued to operate as the owners of a bus, not as a company, and they competed against themselves*".

Furthermore, the bus sector was still a highly politicized one. Bus owners were known to be politically influential, since they were large contributors to the political campaigns of congressmen of West Santiago.[234] Moreover, bus owners had ties to right-wing technocrats of the dictatorship period[235] who, due to tacit agreements between *Concertación* and *Alianza por Chile* to maintain the return of democracy, were able to keep public roles after the end of the dictatorship. These right-wing technocrats favored the bus sector's status quo.

Bus owners were also organized under trade associations (*asociaciones gremiales*, in Spanish), a figure inserted into the Chilean law in 1979 that enabled members to participate jointly in a productive activity without necessarily sharing ownership of productive assets employed. These organizations served four main purposes: (1) establish informal property rights over a particular set of bus routes, (2) coordinate members to offer regular, stable service, (3) pool resources to gain access to basic services or common infrastructure, and (4) represent member interests when dealing with other trade associations or with the

[233] Hurtubia & Leonhardt, 2021
[234] Olavarría-Gambi, 2020
[235] Olavarría-Gambi, 2012

government.[236] They had an elected governing structure, normally consisting of a president, vice president, treasurer and three to seven directors. By the late 1980s, there were 106 main trade associations in Santiago, aligned under six different federations.

In order to be part of these trade associations, bus owners had to pay some dues. There was a one-time entry fee attached to each bus (sometimes reaching as much as US $3,000 dollars), as well as a daily due per bus that provided access to dispatch terminals.[237] The amount of resources pooled by these *asociaciones gremiales* and their federations were significant, which allowed the leaders to undertake targeted benefits to its members, such as insurance programs, vehicle repair and legal representation services to members involved in accidents.

Through these federations, trade associations colluded in the tenders to each obtain licenses, turning them into non-competitive tenders. According to a long-time adviser at the DTPM, "*this was clearly seen because routes were put up for bids, the bidding set a maximum rate that could be requested and the result of the bids towards the end of the decade was that there was generally one bidder per route charging the maximum rate. Afterwards, the microbus drivers openly acknowledged it, that they agreed before the bidding, divided up the business and then presented their offer, being the only one*". Therefore, this now-regulated system with its tendering processes amounted to little to almost no difference to the years of deregulation, with exception of all the buses now being yellow.

These *asociaciones gremiales* were also known to be reticent to change and their leaders have been called "*mafias*" by government figures, such as former Transportation Minister Germán Correa. For instance, when the law established that buses had to be manual instead of

[236] Flores Dewey, 2013
[237] Flores Dewey, 2013

having gears, they opposed the change. Usually, their leaders pushed to maintain the status quo. They feared that regulation would take them out of the game.

Increase in the use of private transportation

According to the National Automotive Association of Chile (ANAC), the number of vehicles circulating in the country tripled from 1990 to 2010, resulting in a motorization rate of 6.1 people per vehicle.[238] Moreover, the motorized modal participation has varied throughout the country, leading to an increasing participation of the private mode.

In this regard, Santiago resembles the national picture. The 2012 origin-destination survey of Greater Santiago shows that 61.4% of the trips made were motorized ones.[239] As Table 8 shows, most of these trips are carried out in public transportation rather than through other motorized means. However, the quantity of motorized trips made in private vehicles has been increasing exponentially, particularly after the 2000s. Whereas 83.4% of the population used public transportation in 1977, only 46.9% did so in 2012. On the contrary, private motorization has quadrupled during that period.

Table 8. Modal participation of motorized trips in Greater Santiago (in %)

	Year			
	1977	1991	2001	2012
Private transportation	11.6	19.7	39.2	46.4
Public transportation	83.4	70.5	51.9	46.9
Other	5.0	9.8	8.9	6.7

Source: Origin-Destination Surveys SECTRA [obtained from Silva et al. (2018)]

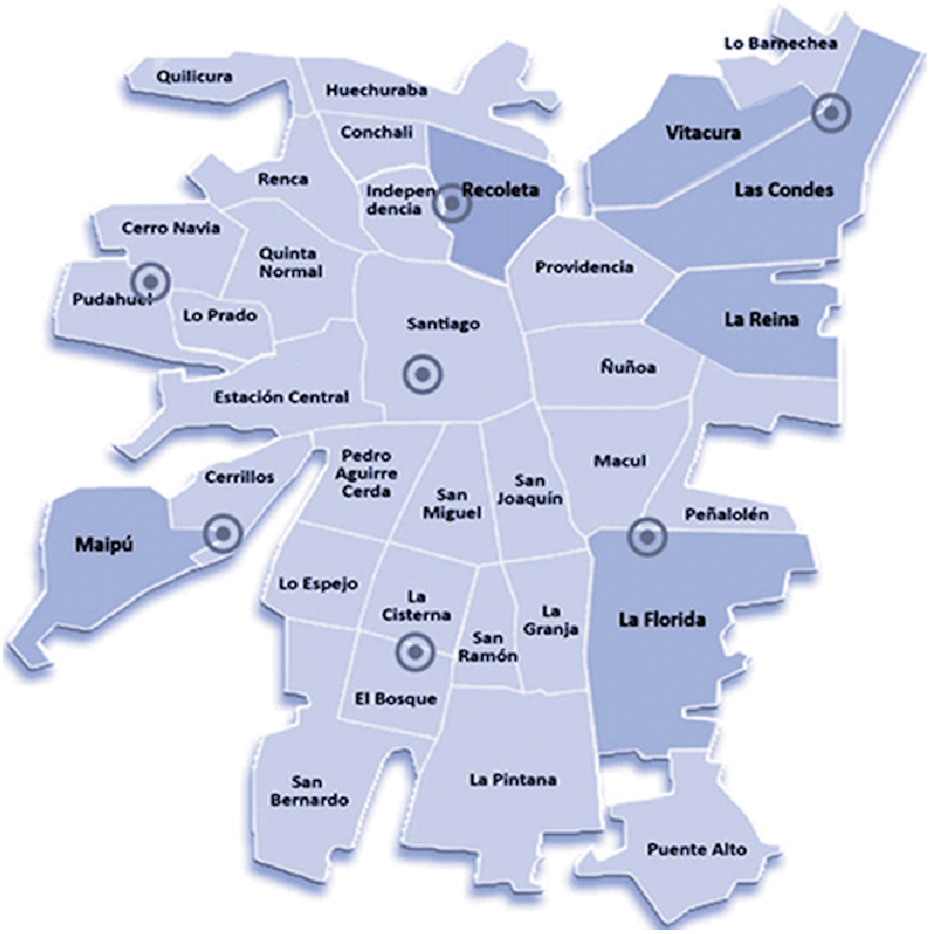
Inequalities in transportation

The capital of Santiago has a total of 32 boroughs (*comunas*), divided in six sectors, namely North (*Norte*), Center (*Centro*), South (*Sur*), East (*Oriente*), West (*Poniente*) and Southeast

[238] ANAC, 2012
[239] SECTRA, 2012

(*Suroriente*). Figure 8 shows these boroughs. Quilicura, Huechuraba, Renca, Conchalí, Recolecta and Independencia belong to the North area; Santiago belongs to the Center; San Joaquín, San Miguel, San Ramón, La Cisterna, La Granja, Lo Espejo, El Bosque, La Pintana are in the South; Providencia, Ñuñoa, La Reina, Las Condes, Vitacura and Lo Barnechea belong to the East; Pedro Aguirre Cerda, Cerrillos, Cerro Navia, Quinta Normal, Estación Central, Lo Prado, Pudahuel and Maipú are in the West; and La Florida, Macul and Peñalolén belong to the Southeast.

Figure 8. Boroughs of Santiago



Source: Criollo et al., 2016, p. 80

Santiago leads the ranking of urban segregation among OECD cities,[240] thus exhibiting large socioeconomic disparities within the province. Table 9 shows some of these socioeconomic differences between Santiago's sectors. In terms of population, the most densely populated areas are the West, the Southeast and the South, while the least inhabited is the Center. The largest percentage of households with the lowest monthly income are in the South and the West, while the wealthier sector is, undoubtfully, the East. The East also counts on the highest motorization rate relative to the population, while the Center has the lowest, which could be explained by its proximity to pull factors and public transportation. The largest percentage of people relying on public transportation on working days inhabit the North and West sectors, while people living in the East rely heavily on private transportation.

[240] Tiznado-Aitken et al., 2019

Table 9. Socioeconomic variables of the province of Santiago in 2012, according to sector

Sector	Population* (in thousands)	Monthly household income level* (in %)			Motorization rate (vehicles per 1000 inhabitants)	Motorized trips* (in %)	Generation of trips on working days, normal season, according to mode of transport (in %)			
		Low	Medium	High			Public	Private	Other motorized	Non-motorized
North	976.0	35.9	60.7	3.4	779	56.9	32.6	19.4	4.7	43.3
West	1412.9	42.7	55.0	2.4	993	58.6	31.9	20.4	4.4	43.3
East	966.2	14.1	45.9	40.1	2439	72.8	17.7	52.8	2.5	27.0
Center	344.8	27.4	64.8	7.9	171	50.0	27.3	20.9	1.8	50.0
South	1236.7	44.4	52.9	2.6	996	54.9	29.2	22.1	3.4	45.4
Southeast	1331.4	34.9	58.8	6.4	564	66.7	29.3	32.7	4.0	34.0

Source: Author's elaboration with data from the Origin-Destination survey, SECTRA (2012)

*Note: Additional boroughs are considered in the North (i.e. Lampa and Colina), the Southeast (i.e. Pirque and Puente Alto) and the South (i.e. Calera de Tango and San Bernardo) sectors.

Additionally, Tiznado-Aitken et al. (2019) analyze how *santiaguinos* are affected by the transport system, finding that the larger social costs are put on the lower socioeconomic groups, while the larger benefits are enjoyed by the higher socioeconomic groups. Using data from 2009 to 2016, their results show that the highest income quintile benefits between 2.5 and 7 times more than the lowest income quintile of diverse aspects related to the current transport system. For instance, the highest income quintile generates 6.7 more pollution, consumes 7 times more energy, concentrates 2.5 times more of the investments in services and infrastructure, and spends between 10% and 45% less of their monthly income in mobility than its lowest counterpart.[241] In this regard, the two lowest quintiles must spend more than 27% of their monthly income to move around exclusively by public transport. If the lowest quintile wished to rely solely on the private car for transportation, it would spend 16.8% times more of its income than its highest counterpart.

4.3 Presence of enabling conditions

As stated in section "1.6.2 Pathways for BPTA and BPTI", the former is likely to occur when two enabling conditions are present: (1) the appearance of a critical and salient social or environmental matter that is directly linked to the transportation sector and (2) policymakers enjoy institutional capacity. These two conditions are necessary and should happen jointly. Each happening individually is not a sufficient condition.

In Santiago, public transportation was perceived in the late 1990s by the government and its citizens as an environmental and public health matter. The smog layer above the city was not only clearly visible but scientific studies also pointed out to its dangers. Moreover, former

[241] Tiznado-Aitken et al., 2019

presidents Ricardo Lagos and Michelle Bachelet, through the power granted to the executive in Chile, were able to insulate and implement the bus reform named Transantiago.

The following subsections address the presence of the two enabling conditions in Santiago, which eventually have led to BPTA.

4.3.1 Urgent/ critical social or environmental matter

Santiago's geographical location and relief, being surrounded by mountain ranges, the increasing urban population, inappropriate territorial planning and the accelerating presence of vehicles led to high local pollution in its metropolitan region. The Highway and Urban Transportation Program (SECTRA) started to carry out studies on how to ameliorate transportation in Santiago in the 1980s but the first regional plan, the Development Plan of the Urban Transport System of Greater Santiago 1995 – 2010, was launched until 1995. However, by 1996, this area was ruled as an "*ozone saturated zone, respirable particulate matter, suspended particles and carbon monoxide, and latent zone for carbon dioxide*" through the Supreme Decree No. 131 (currently repealed). It was estimated that 71% of the material emissions with PM_{10} found in Santiago's atmosphere during the 1980s came from public transport vehicles.[242]

Local pollution became so problematic that in 1998 the Atmospheric Prevention and Decontamination Plan for the Metropolitan Region (PPDA) was launched, signaling transportation as the main source of pollution. In general, this plan recognized four main sources of pollution: (1) fixed sources, such as the ones coming from the industry sector; (2) mobile sources, such as the ones emitted by vehicles running on the streets and highways; (3) area sources, like the ones generated by businesses, services, households, and vehicles not

[242] Fernández Koprich, 1994

running on the streets and highways; and (4) natural sources, such as soil erosion and biogenic emissions. Even though transportation was signaled as the main source of pollution, industries and carbon use for cooking and heating followed.

Consequently, the PPDA established that measures had to be taken, particularly, in the transportation, energy and industry sectors. More specific actions were pointed out, such as an increase in the use of public transportation, paving of dirt roads, implementation of green areas and the cleaning and vacuuming of streets and avenues.

This PPDA endured important updates in 2004 and 2010, which pointed out that time and space congestion, and the poor quality of the service— with the fleet averaging 15-50 years old— were the main problems of public transportation in Santiago. These factors were signaled as the culprits, alongside income increase, of why people preferred to rely on private vehicles instead of public transportation.[243]

Ricardo Lagos, Chile's president at the time, pushed for a reform on the bus public transportation sector. He partially justified this action based on the negative externalities of the existing urban transit, such as high environmental and acoustic pollution, excessive traffic congestion, high traffic accident rate, injuries and deaths, long hauls, inefficient fuel spending, perverse incentives, and poor service.[244]

Furthermore, as a commemoration of Chile's 200-year independence and to show that the country was in the becoming of a developed world nation, President Lagos wanted to leave something that added to Chile's modernization, choosing public transportation.[245] Transformations in other sectors were initially considered. However, the reform of Santiago's

[243] ECLAC, 2011
[244] Olavarría-Gambi, 2012; Briones, 2009; Morandé & Doña, 2007
[245] Olavarría-Gambi, 2012

transport system became an issue in the government's agenda once Lagos' administration realized that other priority projects might not be implemented due to the lack of financing as a consequence of the Asian economic crisis.[246] Even though improvements in public transportation were not a strong societal demand, the service was certainly poorly rated by its users. Another important reason for choosing this sector was that, as it was then thought, a reform of this public service did not require any type of additional public funding. Operational investments were the operators' responsibility.

In 2000, under Lagos' administration, the Urban Transportation Plan for Santiago (PTUS) was launched. This plan represented "*the first time that the bus component of Santiago's public transport system was targeted by a Concertación government in such a comprehensive, ambitious way*".[247] The biggest challenge identified, though, was the existing fragmentation of the private bus operator industry.

4.3.2 Policymakers with capacity to insulate the bus reform

Ricardo Lagos, Chile's president from 2000 to 2006, and Michelle Bachelet, also president of the country but from 2006 to 2010, are identified as the policy entrepreneurs who pushed for the bus reform in Santiago, named Transantiago. President Lagos was mainly responsible for envisioning and designing the reform, while also confronting a powerful bus sector. President Bachelet was in charge of the implementation of this reform, as well as dealing with insurmountable criticism during its launch period. Both presidents were able to stick to this bus reform and go with it, against the interest of organized groups and other opponents even in Congress, because the institutions allowed them to. In the Chilean case,

[246] Olavarría-Gambi, 2020
[247] Flores Dewey, 2013, p. 236

executives enjoy a lot of rights and power. Therefore, President Lagos and President Bachelet were able to use these rights in order to shield the reform and implement it.

Transantiago stems from the Urban Transportation Plan for Santiago (PTUS), and its design and implementation happened in three main phases. Transantiago started to be planned in 2001 and it was implemented gradually, starting in 2003 (see Table 10). 2003 was crucial since the bus operating contracts awarded in the tender of 1998 expired, thus allowing the government a critical juncture to radically change the rules of the game.

Table 10. Phases of implementation of Transantiago

Year	Phase	What was it about?
2003	First	Formalization of firms: From *gremialistas* to *empresarios*. Since the system was atomized and there were around 6000 providers and 9000 buses, the first phase sought to reduce the number of operators by formalizing them into firms. The current routes mesh was kept but the operators were changed. Therefore, the change consisted of new formal firms operating the old routes mesh.
2005	Second	Readjustment of routes. The new formalized firms signed contracts* in which the fare was established mostly based on the quantity of passengers. Firms required to acquire a newer and less polluting bus fleet. The new buses started to run some of the new routes.
2007	Third	Official launch of Transantiago. Big-bang implementation style, as new routes and payment mechanism were introduced abruptly. The network consisted of trunk and feeder routes, something completely unknown for the users. Even though this new route structure integrated the different modes of transportation (e.g. metro and buses), users required to use more modes of transportation since transfers were implemented. Thus, it increased the total travel time (from point A to point B).

*For more information on the contracts, see Table 12.

During the design and the first and second phases of implementation, President Lagos took two major decisions: dealt with powerful bus operators, who were against this reform, and called for an executive decree to start the implementation of Transantiago. As the reform of the bus sector required the readjustment of routes, the formalization of firms,[248] and the acquisition of a modern bus fleet, small bus operators at the time feared to be left out as they would not be able to meet the requirements. "*The clear awareness of their interests, their attachment to the status quo, together with their high capacity for pressure and influence over political power, generated a conflictive relationship with the union*".[249] As an advisor of the Planning Management Office at the DTPM stated in an interview: "*The result was a ferocious fight with the bus owners. There was a lot, a lot of fight*".

On August 12th and August 13th, 2003, members of the trade associations and the federations went on strike and blocked the intersection of two important avenues in Santiago. As the minister of Transportation at the time Javier Etcheberry recalled in an interview made by Onésimo Flores (2013, p. 247): "*We knew they would go on strike but never did we imagine that they would attempt to blockade the whole city. President Lagos was furious*". This strike, popularly known as "*operación candado*", led to massive traffic jams and shortage of public transport.[250]

President Lagos made use of his presidential administrative power by invoking the State Security Law (Law Nº 12.927) to deal with the trade associations. This law, published in 1952, was created to deal with interior State security and public order, among other situations.

[248] The formalization of firms meant that contracts had to happen with formal companies that followed the law in terms of paying taxes and providing social security and insurance to its employers. Moreover, firms could not own one or five buses. They had to be firms with a much larger bus fleet, since the contracts were demanding on, average, fleets of 500 buses.
[249] Olavarría-Gambi, 2013, p. 374
[250] Olavarría-Gambi, 2020

Even though it was frequently used during the Pinochet regime, it was rarely put in place since the return of democracy.[251] The argument used by the President was that trade associations and the federations were blocking main strategic roads and inhibiting free movement. 675 bus drivers were arrested, 663 buses confiscated, and the main five trade associations leaders were convicted.[252]

President Lagos also used his presidential right by calling an executive decree that allowed Transantiago, as a public policy, to avoid having to be discussed in the Senate. If the bus reform had gone for discussion to the Senate, the project's implementation would not only have taken longer, but also probably would have been blocked by some Congressmen. According to an interview made to an academician who studied how the Transantiago was planned and implemented: "*There were many Congresspeople from an area of Santiago, Santiago Poniente, who received funding from the trade associations to campaign. Therefore, every time there was a reform to the transportation law, they used their influence. They defended the interests of the asociaciones gremiales*".

The tender process happened in 2005 and it was opened to national and international firms, allowing then-current bus operators to participate. And this is what happened in some cases. Former bus operators got together and were able to jointly form a firm, while others were left out. Moreover, former bus operators had lower requirements than those asked to international operators, as a measure to mitigate the conflict due to their political and economic influence at the time.[253] The result was that, by accident or design, firms with roots in the trade

[251] Flores Dewey, 2013
[252] Flores Dewey, 2013; Olavarria-Gambi
[253] Olavarría Gambi, 2013

associations retained most of the business units of Transantiago, with their relative size and power apparently acknowledged by the Chilean authorities.[254]

Finally, and after several delays, the Transantiago was officially launched on February 10th, 2007, taking most of the citizens by surprise. Even though the implementation of this bus reform happened in a somehow gradual way, the full and final implementation happened in a "Big Bang" way. This concept means that the mesh of routes, the bus stops and the payment mechanism all changed from one day to the next, from February 9th to February 10th, 2007. This abrupt change led to large citizens' dissatisfaction and feeling of rage.

Michelle Bachelet was in power during this chaotic period, having to deal with a disastrous start. Even though Transantiago's implementation led to a political crisis and even to a public investigation, president Bachelet sticked to the reform. As the current director of the DTPM mentioned in an interview: "*President Bachelet had the character to implement Transantiago. We should acknowledge that to her because the voices of wanting to go back, to stop, to not move forward, were very strong and, nevertheless, the decision, despite the political costs that it entailed, was to continue*".

In 20008, when Transantiago was going through financial hardships, in the middle of public discomfort with the reform and with no implementation of a national subsidy to cover part of the costs, Michele Bachelet relied on the power granted to the executive in Chile and invoked the "Constitutional 2%" by declaring Transantiago a "public calamity". Article 32, Fraction 20 of the Chilean Constitution allows the president of the republic to call for it, after approval from ministers, to respond to needs that cannot be paralyzed or put off since they would cause serious harm to the country. On September 10th, 2008, the Minister of Finance

[254] Flores Dewey, 2013

presented Congress with the Emergency Decree 1178, which authorized the use of up to 453,705 million Chilean pesos for ensuring the continuity of service and the functioning of Transantiago.

President Bachelet lost part of her coalition in the Chamber of Deputies and the Senate due to how she sticked to Transantiago. According to an interview made to an academician who studied how Transantiago was planned and implemented: "*The government of Bachelet, which enjoyed a majority in both the Chamber and the Senate, became a minority government due to this situation. Senators and deputies abandoned the government coalition and went over to the opposition*".

Additionally, she, former President Lagos and other public officials were subjects of investigation by the Chamber of Deputies. This legislative instance created an investigating committee on Transantiago. The five-months investigation and the resulting 731-pages report blamed former President Lagos for launching a policy that constituted a disaster without precedent, with extremely serious administrative, financial and social consequences with long-lasting effects on the Chilean people. President Bachelet was also signaled as a culprit for doing it and not delaying its full implementation.[255]

4.4 Transantiago, the bus reform: reorganization of the institutions and bus operators

Transantiago is the bus reform that was launched in Santiago on February 10th 2007, which involved a reorganization of the operation of the public transportation system, the institutions surounding its governance and the interest groups involved. The bus system was initially divided into two subsystems: the trunk network, consisting of five groups, and the feeder network, being of nine groups. The trunk system takes as a base the Metro network and

[255] Olavarría-Gambi, 2020

the bus services that operate on the main roads of the city, while the feeder system is made up of local bus services that operate on roads located within delimited geographical areas and that feed the trunk network.[256] This system formed by trunk and feeder networks resulted, though, in an increase in bus transfers.

Transantiago was quite ambitious: (1) it changed the organizational structure of the sector by demanding the formation of firms, (2) it reduced considerably the bus fleet circulating in the metropolitan region, (3) it required the establishment of a new fee structure and payment method, as well as an administrative entity to manage it, the Technological and Financial Administrator of Transantiago (AFT) and (4) it implemented a completely new mesh of routes.[257] All these changes, some of which happened very abruptly, were also expected to happen without any funding of the State.

The reform had a very bumpy start, since many aspects were not ready when it was launched– see next section for more information– but it also achieved some major milestones from the beginning. This section addresses the reorganization of the bus operators as the sector became formalized, the operation and fare integration between the public transportation means, the cease in the in the discrimination to subsidized passengers, such as students and the elderly, and the involvement of academia as a major source of guidance and advice to adress public transportation imprivements.

4.4.1 Formalization and professionalization of the bus sector

As part of the conditions to participate as an operator in Transantiago, firms had to become formal, *gremialistas* had to turn into *empresarios*. It is important to remember that before

[256] UITP, 2019
[257] Bowen, 2017

Transantiago bus owners were organized under trade associations (*asociaciones gremiales*), a figure inserted into the Chilean law in 1979 that enabled members to participate jointly in a productive activity without necessarily sharing ownership of productive assets employed.

The introduction of the obligation of bus operators getting formalized entailed that operators must pay taxes, provide insurance and other social guarantees to their employees (e.g. bus drivers, administrative employees, etc.), have places for resting, eating and bathrooms at the bus terminals for the employees, and there was a maximum cap of working hours for drivers, among others.

The constitution of firms inhibited operators from continuing behaving as they were used to. Before Transantiago, public transportation used to be a family business: the bus terminal was the home's garage and maintenance was given by a family member, who could also be the driver, to name a couple of examples. In this fashion, "*a kind of "auto reproduction" of the number of drivers required for the system was produced*".[258] With the formalization of firms, Transantiago separated the driver from the vehicle. Contractual adjustments made to the first 2005 contracts (where bus operators were not taking their buses out of the terminals) allowed the public authority to distinguish "*who among the former trade association leaders that remained as participants in Transantiago had successfully transitioned away from a culture of gremialistas seeking to extract rents, to a culture of empresarios interested in providing efficient services to the public*".[259]

[258] Bowen, 2017, p. 5
[259] Fores Dewey, 2013, p. 342

Also, the payment structure established in the first contracts stipulated that firms would get paid per passenger. This methodology posited more responsibility on the operators in ensuring that users paid for the service.

4.4.2 Operation and fare integration

Regarding integration, Transantiago was able to use one single payment mechanism, the touchless smartcard *Bip!*, that works for buses, the metro and the train. If travelling in one same direction, the user will be charged one single time in a period of two hours with the possibility of combining Transantiago's three means of public transportation. For instance, if a person is travelling from San Bernardo (Southwest of the metropolitan area) to Las Condes (the East part of the city), this person can take the *Tren Nos* to the city center, then take the subway and then the bus to arrive at their final destination, while paying only one time.

A surprising majority of the interviewees agreed that integration is one of the greatest characteristics of Transantiago, leading to more inclusion and even more use of the metro. According to the interviewees, before Transantiago, lower-income citizens did not use much the subway since it increased their final public transportation fare substantially. As a former employee of Transantiago mentioned in an interview: "*Fare integration means that I can move around the city at the same price. I don't have to think that if I'm going somewhere else, I'll have to pay two buses and then better don't go. Using the metro as a structuring system of the transportation system, made that this investment, which is expensive and made by the State, democratic*".

4.4.3 No more discrimination to subsidized passengers

Discrimination to subsidized passengers, such as students and the elderly, was eradicated thanks to the Transantiago. First, drivers have an income determined by law, which is no longer

dependent on the people they transport and how much they pay. Second, since payment is electronic, drivers cannot determine which type of person is getting in a bus (e.g. if the person is a student or not).

4.4.4 Involvement of academia in public transportation policymaking

According to the current president of the Chilean Society of Transportation Engineering (Sochitran), there is a before-and-after Transantiago in the involvement of academia in transportation public policy. Actually, Sochitran revived many of its activities after the disastrous beginning of Transantiago, where scholars started to get consulted on how to improve the system. Currently, many transportation scholars enjoy double militancy, participating in the public sector and academia. For example, the current minister of the MTT is a renowned scholar in transportation engineering. Also, the executive board of Metro S.A. must have an academic among its members.

Santiago also hosts worldwide reknown research centers on public transportation, such as the Bus Rapid Transit (BRT+) Centre of Excellence, the Sustainable Urban Development Center (CEDEUS) at the Pontifical Catholic University of Chile and the Institute of Complex Engineering Systems (ISCI) at the University of Chile. Moreover, public programs are dedicating national funds to support joint projects between academia and the public sector, such as FONDEF.

4.5 Transantiago's early slips at the beginning

Even though Transantiago got important achievements from early on, its start was bumpy. It was so bumpy that Transantiago has been signaled as "*a model of how not to reform public transport*" by The Economist in 2008, "*the worst public policy ever implemented in the*

country",[260] and even former President Bachelet stated in 2007 that "*Transantiago is a bad word*".[261] In March 2007, Transantiago came to occupy the first place among the most important problems for the inhabitants of Santiago and the approval ratings of the government at the time fell to the lowest levels since its term began.[262] It was a very difficult period, characterized by "*bureaucratic turmoil, low intensity war between new and incumbent operators, and widespread confusion on the part of individual bus owners and drivers*".[263]

As several interviewees mentioned, the beginning of Transantiago was so disappointing and traumatic for the citizens of this metropolitan area that people started to purchase cars. As the President of the Chilean Society of Transportation Engineering (Sochitran) stated: "*The beginning of Transantiago generated an even greater stigma in the subject of public transportation. Public transportation is usually used by low-income people, people with money use cars. That's like the 90's vision of all this. And that was accentuated with the Transantiago. There were many people for whom the situation was untenable and bought a car. Then, the completely opposite effect that was expected was generated*".

Table 11 shows the 16% increase rate in car sales in 2007 in comparison to its 4% counterpart in 2006. Even though these data are at the national level, in 2012 more than 40% of the cars in Chile were in Greater Santiago.[264]

[260] Muñoz, Batarce, & Hidalgo, 2014; Emol, 2012
[261] Olavarría Gambi, 2013
[262] Morandé & Doña, 2007
[263] Flores Dewey, 2013, p. 288
[264] ANAC, 2012

Table 11. Increase rate of sales of light and medium vehicles in Chile (in %)

Year	Cars	Increase rate*
2000	108755	4%
2001	98331	-11%
2002	102516	4%
2003	119526	14%
2004	148586	20%
2005	182347	19%
2006	190639	4%
2007	227743	16%
2008	239835	5%
2009	165303	-45%

Source: National Automotive Association of Chile (2012)
*The drop in the year 2001 is attributed to 9/11, while the one of 2009 is attributed to the 2008-2009 Lehman Bros. crisis.

Experts pointed at its errors in design, structure and implementation.[265] The main failures at the beginning of this system are addressed in the following part of this section, namely the poor institutional framework,[266] the full launch of the system when technology and buses were not ready, contracts with misaligned incentives in favor of operators and in detriment of the users,[267] and the initial lack of a subsidy.[268]

4.5.1 Poor institutional framework

The reform of public transportation in Santiago was not accompanied by the creation of a solid institutional framework that guaranteed compliance with its objectives.[269] The Transantiago Investigative Commission of the Chamber of Deputies considered this lack of

[265] Muñoz, Batarce and Higaldo, 2014; Goldenberg, Coeymans, & Melo; Briones, 2009; Morandé & Doña, 2007
[266] Briones, 2009; Morandé & Doña, 2007
[267] Briones, 2009
[268] Morandé & Doña, 2007
[269] ECLAC, 2011

institutional capacity a "*serious political defect*" and "*one of the most serious impediments to the success of the plan*".

In 2007, when the system was launched in its completeness, coordination laid on the Executive Secretariat of the Committee of Ministers,[270] a figure without the legal faculty, technical competence nor financial resources to deal with such a project. Moreover, the Executive Secretary was chosen by the Minister of Transportation and Telecommunications and played the role of General Coordinator of Transportation of Santiago. However, this role was an ad honorem position and it did not provide any type of power or attribution to the Executive Secretary to effectively coordinate the actors involved in the reform.[271]

Furthermore, this lack of institutional framework led to political and administrative diluted responsibilities. When the Chamber of Deputies carried the Transantiago investigation, the interrogated public officials rolled the ball to other fellow colleagues. For instance, ministers, secretaries and coordinators argued that they had fulfilled their duties and, thus, they could not be accountable for the failures. In the end, most of the responsibility fell on the Minister of Transportation and Telecommunications, even though he did not have the full legal faculties to coordinate the whole project.

Other failures lay in the lack of legal formalization of the project and its sectorial approach. First, the PTUS, from where the Transantiago reform stems, did not get formalized into a decree, law nor another type of normative instrument.[272] Then, President Lagos passed

[270] The Executive Secretariat of the Committee of Ministers included ministers from different sectors and representants from different national commissions, such as the Ministry of Transportation and Telecommunications (president), the Ministry of Public Infrastructure (MOP), the Ministry of Housing and Urbanism of National Assets (vicepresident), the Ministry of Planning and Cooperation, the Secretary of Transportation and the President of Metro S.A, among others.
[271] ECLAC, 2011
[272] ECLAC, 2011

Transantiago as an executive decree. The reform was very much implemented based on the discretion of the executive, without any system of adequate checks and balances or accountability. As Briones (2009, p. 73) states: "*The genesis of the Transantiago is not a minor fact. It reveals that in Chile a public policy that involves a radical change in the transportation of an entire city and that generated a financial deficit of such proportions can be forged at the discretion of the Executive through a simple presidential instruction*".

Moreover, Transantiago was mainly handled at the national level instead of at a metropolitan one. Since this is a regional issue that tackles many other urban aspects such as housing and city planning, the ideal governance level would be the metropolitan one and it would have had a territorial approach instead of a sectorial one.

4.5.2 Missing technology and buses, misaligned incentives in contracts and lack of information to users

The unready technology and infrastructure at the launch time, misaligned incentives in contracts that led to an undersupply of buses and drivers, and the sudden change of routes without any prior information to users were some of the key aspects that did not allow for a smooth launch of the Transantiago.

On February 10th, 2007, buses were expected to have GPS and the payment technology installed but that was not the case. Users struggled on how to pay under the new mechanism and the government could not track the frequencies and routes compliance of operators due to the late arrival of these technologies. Public transportation became free during the first week of Transantiago.

In terms of infrastructure, the design included 8 intermodal stations and 35 transfer stations that were not ready when implementation started. By February 10th, 2007, none of the

intermodal stations were ready. Bus stops were also lacking: of the 8626 planned, only 3113 were in place.[273] Moreover, there were only 99 kilometers built of prioritized lanes for buses.[274]

Furthermore, there were more than 1400 buses undersupplied when Transantiago launched.[275] Since buses were overcrowded, they did not stop at the determined bus stops or people had to travel "like sardines". Also, many areas stopped being served.[276] As a couple of interviewees recalled, people could not travel back home after work because there were no buses available. Citizens had to return walking or hitchhiking.

Even though one of the main purposes of the reform was to reduce the bus fleet, the shortage exceeded the amount required due to a misalignment of incentives in the contracts. The Minister of Transportation at the time, Sergio Espejo, attributed the bus deficit to power politics, as bus operators were breaching the contracts by keeping the buses off the streets.[277] In the 2005 tender, the model required 4600 buses. However, by 2007, the authorities realized that this number would lead to a scarcity of vehicles and increased the required fleet to 5600 buses. Although the new operators were able to get these additional buses for the launch, the contracts were written in such a way that they encouraged operators to take out a lesser amount of their fleet. The reason is that operators had a fixed income if they only took 60% of their bus fleet on the streets. The remaining 40% stayed in the terminal and the operators still received full payment. This guarantee of payment under low operation has been described by some scholars as a case of regulatory capture.[278]

[273] Briones, 2009
[274] Bowen, 2017
[275] Flores Dewey, 2013
[276] Briones, 2009
[277] Flores Dewey, 2013
[278] Morandé & Doña, 2007

Shortage of drivers also became a problem. Transantiago demanded the modification of the contractual and labor conditions of the drivers, which generated a deficit of professional drivers between 316 to 431 bus drivers in the short term. This undersupply had to do with the increase in the number of buses and kilometers traveled, the low attractiveness of the sector for the new generations and the establishment of a maximum cap of driving hours.[279]

Lastly, citizens were not informed about the new routes, the new bus stops nor the new fare payment system, leading to users having to spend additional time figuring out how to move around. The introduction of trunk and feeder routes drastically altered the network of routes that had been developed before, which led to more transfers, and less coverage and connectivity in the periphery.[280] Even though they did not have to pay an additional fare for taking a second bus, the transfer experience was a nightmare. This change in the functioning of the system did not only demand more travel time, but also people did not know where to wait for the buses.

4.5.3 Lack of subsidy

Initially, Transantiago did not introduce significant changes to the old financing structure of public transportation, which functioned on the basis of cross-subsidies paid by some users in favor of others.[281] For instance, students previously had and continued enjoying a lower tariff. So, when the reform was launched, it was thought that the system could fully fund its operation with the tariff alone. The lack of public spending was one of the characteristics that made a reform to public transportation preferred over other possible public policies.

[279] Bowen, 2017
[280] Morandé & Doña, 2007
[281] Morandé & Doña, 2007

Nevertheless, the purchase of a new, more efficient and less polluting fleet, and its constant update and maintenance, as well as the installment of new GPS and payment technology within the buses increased the costs more than expected. Only two years after the full launch of Transantiago, it became obvious that the reform would require a subsidy.[282]

4.6 Enforcement and state capacity leading to data transparency and better monitoring and accountability mechanisms

Transantiago is a bus reform that reflects a process of learning-by-doing. It is in constant change and revision, trying to improve and learn from past mistakes. Most of the failures mentioned in the section 4.5 "Transantiago's early slips at the beginning" have been addressed. GPS and payment technology were incorporated, enabling data collection to improve planification, management and oversight of public transportation. For instance, the DTPM has access to the location of buses every 30 seconds and all the transactions made with the BIP! smartcards.

The creation of new institutions more adequately tailored to regulate and supervise public transportation reflects the enforcement now put in place, while high qualified personnel and the creation of a supply-side subsidy visibilize the increase in state capacity. These two elements, enforcement and state capacity, have led to data transparency and better monitoring and accountability mechanisms.

This section delves into the description of how enforcement and state capacity are present in the bus public transportation sector of Santiago in the form of the creation of better and stronger institutions and a supply-side subsidy. This section also shows how data availability and transparency around bus public transportation, as well as the constant review

[282] Muñoz, Batarce, & Hidalgo, 2014

and update of the contracts between the public authorities and bus operators, can serve as a measurement of institutional strength.

4.6.1 Establishment of better and stronger institutions governing the sector

The role of the state as planner and regulator of public transportation was reestablished and enhanced with Transantiago, particularly after the creation of the Metropolitan Directory of Public Transportation (DTPM) in 2013. Public authorities were able to turn an atomized and deregulated private transport system into a more accountable, reliable, and efficient public one. The role of governance, the establishment of strong institutions and the closure of weak ones were key to achieve this.

The governance of transportation is a complex issue, as transportation is linked to urban planning, housing, infrastructure and the environment, among other matters. With the birth of Transantiago, new institutions for public transportation were born, and some old ones remained. Not all of them have survived, others have evolved and some existing currently, were not present at Transantiago's beginning. This section addresses the institutions governing directly Transantiago and transportation, more broadly.

Institutions governing Transantiago: the DTPM

In February 2007, the planning of the buses of the public transportation system of Greater Santiago was left in the hands of the newly created General Coordination of Transportation of Santiago. Transantiago Coordination, as it was popularly known, was under the rule of the Executive Secretariat of the Committee of Ministers, which was created specifically for Transantiago. As mentioned previously, this Secretariat included ministers from different sectors and representants from different national commissions, such as the Ministry of Transportation and Telecommunications (president), the Ministry of Public

Infrastructure (MOP), the Ministry of Housing and Urbanism of National Assets (vicepresident), the Ministry of Planning and Cooperation, the Secretary of Transportation and the President of Metro S.A, among others. The Executive Secretary was chosen by the Minister of Transportation and Telecommunications and played the role of General Coordinator of Transportation of Santiago. However, this role was an ad honorem position and it did not provide any type of power or attribution to the Executive Secretary to effectively coordinate the actors involved in the reform.[283]

In 2012, with the redesign of the system and the reconfiguration of contracts, the need for a new authority of public transportation, with more responsibilities and a more preponderant role in the field of regulation, control and supervision of the system, became evident. In April 2013, through the Presidential Instructive Nº2, the Metropolitan Directory of Public Transportation (DTPM) was created. The DTPM is under the rule of MTT, although it has a more targeted focus of action on the metropolitan area. The DTPM plays the role of manager of public transport services. It is in charge of the planning of the mesh of routes, the passenger load of each service and the dealing with operators (e.g. elaboration of contracts, negotiation, hiring, monitoring and establishing accountability mechanisms, among others).

Furthermore, the DTPM must ensure an adequate and comprehensive coordination of the different modes of public transport in Greater Santiago. Matters such as the connection between the different modes of transportation (e.g. metro with bus, metro with train, bus with train), the location of bus stops and how will the transfers or the combinations be are joint work of the DTPM with SECTRA, Metro S.A. and EFE.

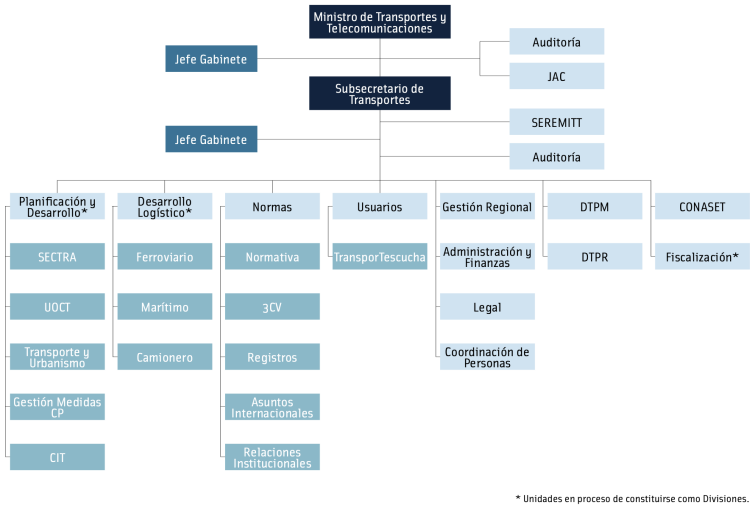
[283] ECLAC, 2011

The DTPM has also allowed for a better performance of Transantiago to its users, taking concern on gender issues and integrating users' participation. One of its most recent goals relates to the inclusion of gender aspects in mobility, which translates not only into increasing the quantity of women drivers but also into diminishing women's harassment in public transportation. Moreover, new routes are being designed with a territorial and social inclusion focus through the program "Creando Redes". This program aims at enabling deliberative participation with civil society, from majors to community members from low-income areas, for the implementation of new bus routes and stops. In August 2023, service 286 was created. It connects directly, without transfers, La Pintana, one of the poorest communities in South Santiago, to Las Condes, one of the wealthiest communities in the East of the capital city.

Institutions involved in matters related to transportation overall

Transportation is under the wing of the MTT and, more precisely, under the Subsecretary of Transportation, known as vice Minister of Transportation in other countries. Figure 9 presents the organization chart of transportation in Chile. Some of the key institutions that act on public transportation are SECTRA, SEREMITT, and the DTPR. Their functions are briefly explained.

Figure 9.Organization chart of transportation in Chile



Source: Subsecretaría de Transportes, 2013, p. 67

The planning of transportation is mostly in the hands of the Highway and Urban Transportation Program (SECTRA). SECTRA plans, but does not implement, urban transport systems in several Chilean cities. These plans include, for instance, investments in road infrastructure, improvement of public transport and automatic traffic control systems. Moreover, SECTRA studies the prefeasibility and social profitability of transportation projects. In the planning phase of public transportation in Greater Santiago, such as establishing the routes of buses and bus stops, SECTRA works together with the DTPM.

Seeking for decentralization, there also some institutions that serve the regions in Chile. The Regional Ministerial Secretariat of Transportation and Telecommunications (SEREMITT) is the representant of the MTT in regions. Similarly, the Division of Regional Public Transportation (DTPR) is the homologue of the DTPM but for all the regions of Chile, except Greater Santiago. SEREMITT works jointly with the DTPR in matters of public transportation in regions.

The DTPR is in charge of managing the "mirror funds" (*fondos espejo*). These funds are for public transportation in regions outside Greater Santiago and "mirror" the funds of Greater Santiago in the sense that the budget allocated to public transportation in Greater Santiago equals the budget given to public transportation to all the rest of the country. The DTPR uses these "mirror funds" particularly for the renewal of a bus or collective taxi fleet, for subsidizing the student's or the elderly's tariff, for building new infrastructure such as bus stops and for creating new public transportation services in isolated areas.

4.6.2 Subsidy implementation

Before Transantiago, public transportation was already partially subsidized to certain sectors of the population, such as students and the elderly. But still, and as mentioned before, these users were often discriminated against and mistreated due to the lower tariff they paid. However, after the implementation of Transantiago, it became obvious that a reform of such magnitude required a supply-side subsidy.

Bachelet's administration was adamant on not increasing fares, which resulted in a contentious and politically charged national debate about the implementation of a permanent subsidy for public transportation, obtaining it in 2009. In August of that year, the National Congress approved the Subsidy Law for Public Transportation (Law Nº 20378). This achievement, getting the subsidy, was crucial, since it gave the MTT the bargaining power to change the rules so that it could implement changes that favored the public's interests.[284] To maintain national fairness, the Law established that this permanent fund for Transantiago would be distributed equally in the other regions of the country. Thus, the "Mirror Funds" (*Fondos Espejo*, in Spanish) were created. They state that whatever subsidy is given to

[284] Flores Dewey, 2013

Transantiago, it will be also given to the rest of the country. So, if USD 1 million is given to fund Transantiago, another USD 1 million will be disbursed to the regions. All the regions of Chile, except for the Metropolitan region of Santiago, should distribute this USD 1 million amongst them.

Currently, the subsidy has three components: the permanent, the special and the special transitory.[285] The three components are inseparable, go to the same final budget and are automatically adjusted each year according to certain variables, such as the consumer's price index, the oil price and the exchange rate. The Law also establishes that the subsidy can increase 10% each year without any Congress approval.

After El Estallido and since 2019, the tariff of public transportation in Greater Santiago has not been modified. Up until the present, the system has not required additional budget to fund this frozen fare. However, if the national budget happens not to be enough, either these components or the tariff must increase.

4.6.3 Data transparency as a measurement of institutional strength

Since the creation of the DTPM in 2012, the institution has elaborated or commissioned three different types of evaluations of the bus public transportation system, which are available to the public on the DTPM's website. These evaluations are:

1. *Ránking de calidad de servicio:*[286] This is a quarterly report of the results of the measurements, evolution and degree of compliance with the frequency and regularity standards required from the bus operators by the DTPM.

[285] The permanent subsidy is guaranteed by the Law Nº 20378. For the transitory and the special transitory components, a shorter law was created. These components are permanently discussed by a Committee of Experts outside the MTT.

[286] These reports are available here: https://www.dtpm.cl/index.php/documentos/ranking-calidad-de-servicio By April 2024, the last ranking report uploaded to the website was the one of the second quarter of 2023.

2. *Estudio de satisfacción de empresas operadoras:*[287] This is a biannual or yearly survey to public transportation users regarding their satisfaction with the service provided. It is commissioned to a private company by the DTPM.
3. *Informe de evaluación externa al sistema de transporte público de Santiago y de las comunas de San Bernardo y Puente Alto:*[288] The Subsidy Law for Public Transportation (Law Nº 20378) establishes that its Panel of Experts should appoint every other year, from 2014 onwards, a special entity to carry out an external evaluation study of the paid public transportation system in the province of Santiago and the communes of San Bernardo and Puente Alto. This report should take as a base the specific objectives agreed between the MTT and the Ministry of Finance. Its main objectives are to evaluate the operation of the system, its efficiency, its costs, as well as revise the need and the amounts of the subsidies and contributions established in this law. Conclusions of this assessment might propose an adjustment to the subsidy amounts, for consideration in the discussion of the corresponding draft Law of Public Sector Budgets. As per the Law Nº 20378, this report must be delivered by August 31st of every other year and be made public.

Furthermore, contracts with bus operators are public and available to any person on the DTPM's website.[289] It is important to state that the bus companies that started operating at the beginnings of Transantiago have changed, meaning that there is a sanction or penalization if the company does not provide a good service. For instance, Inversiones Alsacia S.A.'s contract was terminated by the MTT in 2018, after 15 years of operation. Moreover, and as it will be

[287] These reports are available here: https://www.dtpm.cl/index.php/documentos/estudios
[288] These reports are available here: https://www.dtpm.cl/index.php/documentos/estudios
[289] Contracts with bus operators, Metro and other entities ca be accessed here: https://www.dtpm.cl/index.php/documentos/contratos

shown in the next section, contracts to bus operators are constatly reviewed and updated by the DTPM as part of its accountability mechanisms.

4.6.4 Constant revision and update of contracts as a measurement of institutional strength

Transantiago's contracts have gone through several minor and major changes with the aim of aligning the operators' incentives to the public's interests. By 2014, only seven years after its full implementation, Transantiago's contracts had already endured 17 changes, four of them being structural ones.[290] These constant revisions, updates, minor and major changes reflect the complexity of the contracts in creating the right incentives for the operators and avoiding a problem of regulatory capture, for instance. Table 12 shows the evolution of the contracts of Transantiago, pointing mostly to the cases when new tenders were released.

[290] Muñoz, Batarce, & Hidalgo, 2014

Table 12. Evolution of the contracts of Transantiago

Attributes	Year				
	2005	**2012**	**2017**	**Dec. 2020**	**2023**
Tender or update on contract	Tender	Update on contract	Tender **--> Deserted!**	Tender (1/3 of the system) **--> Complete change of business model!**	Tender (1/3 of the system)
Amount of companies	14	7	4 to become 9	3 to become 6	N.A
Amount of buses owned by each company (on average)	500	1000	N.A	500	N.A
Average fleet of each service	N.A	N.A	15	N.A	N.A
Payment by	By passenger (but truly fixed payment: have 60% demand guaranteed)	70% per passenger transported and 30% per traveled km	75% per traveled km and 25% per passenger transported	Higher % per traveled km than by passenger	N.A
Objective	Make a competitive tender, have many companies interested--> Too soft conditions	*Avoid regulatory capture: no need to take buses out. *Decrease evasion *Increase mantenaince	N.A	*Avoid regulatory capture: they rather pay fine. *Increase mantenaince *Tenders can be shorter because bus lifespan does not have to coincide with operation contract.	Reassess separation between owner and operator
Other aspects	10-year contracts	5-year tenders		*Give more weight to maintenance indicator *State owns terminals. *Separation of bus owners from bus operators	

Source: Author's elaboration with data from Hurtubia and Leonhardt (2021)

The first set of contracts were formulated in 2005 and launched in 2007 with Transantiago. These contracts were for the new 14 operators, 5 trunk and 9 feeder services. The contracts for feeder and trunk routes were different. Some trunk services had to completely renew their fleet and, thus, their contracts were for thirteen years, so they could recover their investment. Feeder services had contracts for five years and trunk services that did not require to get new buses got contracts for six years. On average, each firm owned 500 buses. To give some responsibility to the operators for the fare collection, the payment formula was mostly structured to depend on the quantity of passengers.

To have a competitive tender and attract as many offerors as possible, authorities made low risk contracts with misaligned incentives. The result was "*an extremely gentle model for the firms*", as stated by three interviewed public officials that worked at the beginnings of Transantiago. Operators had the totality of their income guaranteed if they only transported 60% of the passengers. This situation created an incentive for operators to keep buses parked in the terminals and just take out the minimum amount required to get full payment. Since the GPS technology was not ready at the launch of Transantiago, the authorities could not verify that the operators were taking the buses out according to what the contracts stipulated. Therefore, firms could not be penalized.

These contracts were also very rigid,[291] which made it harder to fix them. According to a former employee at the DTPM: "*For a moment it was clear that there was a problem at first, but the worst problem was that later, when you tried to solve the problem, you didn't have the*

[291] Briones, 2009

tools in the contracts to do it […] *The problem was that the contracts weren't flexible enough to take care of those changes; that is, to act quickly with those changes*".

A first change in the contracts came by mid-2007. The 2005 contracts were offset by linking the payment to firms to the buses actually operating. Once the GPS technology arrived, starting in July 2007, oversight also became easier. This change had a dramatic impact on increasing the operating fleet from 4600 to 5800 buses in only three months.[292] The introduction of the subsidy in 2009 also enabled to link the payment to the compliance of the operational plan.

In 2012, with newly elected President Sebastián Piñera in power, new contracts were made. Piñera's administration redesigned the system in such a way that the distinction between trunk and feeder services became more blurred. Consequently, the quantity of firms was reduced in half and their average fleet doubled. As Table 12 shows, firms went from being 14 in 2007 to 7 in 2012. The average fleet owned by each company increased from 500 in 2007 to 1000 in 2012. The payment formula also changed to become a combination of payment by passenger and payment by kilometer travelled. This combination allowed the government to pay for the buses that were truly running on the streets, while also leaving some responsibility to operators to avoid evasion and care for the quality of the service. Sanctions and fines were also established and put in place when firms were not complying to their operational plan.

Nevertheless, since there were only seven firms, that corresponded to only five economic groups (with one of them operating one third of the Transantiago's fleet), operators gained strong bargaining power under Piñera's new tendering model.[293] It started to become

[292] Muñoz, Batarce, & Hidalgo, 2014
[293] Muñoz, Batarce, & Hidalgo, 2014

more financially attractive for bus firms to pay the fines than to follow the conditions set in the contract, such as giving good maintenance to the vehicles. Moreover, since firms were so large and had, on average, a fleet of 1000 buses, operators knew they had the upper hand in negotiations. As stated by several interviewees: "*if a firm were dismissed, who would then be able to supply 1000 buses from one day to the next?*"

A new figure in the contracts was introduced in 2015: the *fleet provision*. Fleet provision established that bus operators would purchase the bus, but the State provided a guarantee that the vehicle was going to be used through all its service life. So, if the operator purchased the bus but did not a get a tender renewed, the State guaranteed that the new operator would acquire their fleet. These mechanisms allowed operators to invest in the fleet without fearing of their tender term.

In 2017, four firms had to renew their contracts and the opportunity was used to address several of the problems of the 2012-contracts. First, to take off bargaining power from the firms, four operators were going to become nine and each service would own, on average, 15 buses. Moreover, and following London's and Singapur's example, the payment formula was changed. Even though it was still going to be a combination of passenger transported and kilometer travelled, the second item would have a larger weight. In this fashion, the authority sought for operators to care more about complying with frequencies and regularity, which were becoming a concern.

Nevertheless, the 2017 tender was interrupted by Piñera's government, who came into power again in 2018. In 2017, there were accusations of collusion between several of the participating firms and the matter went to the Tribunal for the Defense of Free Competition. Before the emission of a statement by the public entity, the government declared the tender

deserted. When the Tribunal pronounced itself and mentioned that no collusion was present in the 2017-tender, the resolution was no longer valid.

A new tender, designed for 1/3 of the system, started to be elaborated in 2018 and came into place in December 2020 during the second administration of Piñera. Only 3 operators participated in these contracts. The 2020-contracts maintained the idea of increasing the quantity of firms and decreasing their fleet. It also kept the balances of the payment formula, giving more power to the kilometer travelled than the passenger transported. However, this payment structure led to the appearance of the "ghost buses" (*buses fantasma*). "Ghost buses" are buses that the operators dispatch and report as a bus-in-service, but that do not stop at the bus stops. Since operators are paid per kilometer, it does not matter to them if people get on the bus or not. According to an interview made to the current lead advisor of the MTT in November 2022: "*Today, the main claim that the system has from users is that buses are not stopping at bus stops* […] *Regarding the percentage of payment per passenger versus payment per kilometer travelled, I think we have not yet found the perfect balance*".

Furthermore, these 2020 contracts sought to increase competition and participation and, thus, they included a major structural change. Instead of the previous one-single contract with the operators, the 2020-contracts recognized three different types of activities: (1) the provision of the fleet, (2) the operation of the buses and (3) the provision of the terminals. A contract was signed for each of these different activities.

The idea behind separating provision of the fleet from the operation was to increase participation in the tender. In the past, operators were in charge of both tasks and, since they required large financial security to be able to acquire the buses through debt with banks, it excluded smaller operators who did not have that financial security. However, and as stated by

several interviewees, the role of the *fleet provision contracts* was to guarantee to smaller and bigger operators that if they would be left out of the business, the next operator would purchase their fleet. The purpose of separating the provision of the terminals was also not to exclude those participants that did not own a terminal. According to several interviews, large firms operating in Transantiago since its conception were usual suspects to obtain new tenders since they owned terminals. Greater Santiago is already mostly built, and it is difficult for new operators to find a centrally located plot to build their terminal, which automatically excluded them from participating in the tender. However, and as stated by several interviewees, since 2017 the State had been renting and purchasing some terminals to avoid the appearance of this problem.

These 2020 contracts also pushed for an electrification of the public transportation fleet. If the firm participated in the tender with the goal of electrifying 50% or more of its fleet, the contract was for 14 years. If the firm participated in the tender with the goal of electrifying less than 50% its fleet, the contract was only for 10 years.

In late 2022, a new tender for another 1/3 of the system was being prepared and expected to be launched in 2023. According to an interview made to the Director of the DTPM, one of the main objectives of this tender was to evaluate the continuation of the 3-contracts structure implemented in 2020, which required a heavy administrative capacity. The separation between the provision of the fleet and its operation was the major revision since the *fleet provision contracts* are supposed to also serve that task. Other challenges imposed by the 2020-tender that will try to be addressed in the 2023-tender is the issue of maintenance of the buses that is now on a grey zone in terms of whether the responsibility falls in the providers of the fleet or the operators.

4.7 BPTA: How public transportation looks like in Santiago, Chile

Transantiago is the state-operated public transportation system that integrates both physically and fare-wise, through the use of a single touchless payment smartcard called Tarjeta bip!, Greater Santiago's urban bus routes, the Metro network and, added later on, the suburban rail service of Tren Nos. The most flexible of these three modes is the bus network, while the train and subway designs are more rigid. The Metro has its own ruling entity, Metro S.A., Tren Nos is managed by the Railway State Company (EFE), and the buses are governed by the Metropolitan Directory of Public Transportation (DTPM). Even though private operators manage the buses, Transantiago is centrally planned by the DTPM. This entity defines the routes, the conditions of the fleet, the frequencies, etc.

Although Transantiago was initially planned with some routes serving as trunk routes and others as feeders, this trunk-and-feeder structure, very disliked by the users, has become more blurred throughout time. Currently, the Metro plays mostly the role of a trunk network, while buses remain mostly feeders.[294] As stated repeatedly throughout numerous of the interviews made: "*The Transantiago of today has nothing to do with the Transantiago of 2007*".

Gender issues in public transportation are currently being addressed by Transantiago. Women's harrassment in public transportation, as in the GAM, is a dominant problem. This is why the MTT, the DTPM and the Regional Government joined forced in 2022 to create a campaign called "*No te conviertas en cómplice*" ("do not become an accomplice", in English). Moreover, the DTPM has set the goal to demasculinize bus driving, an activity that has been historically dominated by men. To achieve this objective, the DTPM created the "*Programa*

[294] Muñoz, Batarce, & Hidalgo, 2014

Mujeres Conductoras" (Women Drivers Program, in English) to train women to become bus drivers. From 2022 to 2023, women's participation as bus drivers increased 51%.[295]

Furthermore, accessibility has also been recently tackled by the DTPM through "*Creando Redes*" (Creating Networks, in English). This program is founded on the principles of territorial equity and aims at enabling deliberative participation with civil society, from majors to community members from low-income areas, for the implementation of new bus routes and stops. As a result, in 2023, for the first since Transantiago's beginnings in 2007, the coverage of buses expanded to include the boroughs of Padre Hurtado and Lampa,[296] both located outside Greater Santiago. Moreover, new direct lines between the East and West of Santiago have been created, so that users do not have to transfer from mean of public transportation.

Currently, bus users complain mostly about poor frequencies, unreliability and waiting times in the bus system. In the annual satisfaction survey made to bus users, users tend to complain mostly about these items. However, positive feedback towards the bus service has increased over time. In the most recent surveys, users graded the service delivered by bus operators better as in the early years. For instance, in 2022, 2021 and 2020, users gave a 5.2, 5.1 and 5.0 (out of 7), respectively, to the service provided by bus operators, while in 2015, 2014 and 2013 it was 4.3, 4.4 and 4.4 (out of 7), respectively.[297]

Lastly, it is important to add that in 2019 Transantiago was renamed as Red Metropolitana de Movilidad, popularly known as Red. Gloria Hutt, the Minister of

[295] https://www.dtpm.cl/index.php/homepage/noticias/942-historico-aumento-de-conductoras-de-buses-del-transporte-publico-en-santiago
[296] https://www.dtpm.cl/index.php/destacados-home/972-mtt-anuncia-historica-expansion-de-red-movilidad-a-dos-nuevas-comunas
[297] Surveys are available on this link: https://www.dtpm.cl/index.php/documentos/estudios

Transportation and Telecommunications at the time, took this decision in order to rebrand the public transortation system and take away the bad connotation that Transantiago once had.

4.7.1 Impacts on externalities

Transantiago is said to have had positive impacts on pollution, noise and accident rate reduction. For instance, only in the first five years of having been implemented, the evolution of the percentage of buses satisfying EURO III environmental standards almost duplicated and went from being 53% of the fleet in 2007 to 92% by May 2012.[298] This is surprising considering the 30% existing in 2006. Currently, Chile is a regional pioneer in incorporating part of its fleet with EURO VI environmental standards, which eliminate $PM_{2,5}$ and NO_X.

Furthermore, Santiago became the city outside China with the largest fleet of electric buses in 2021, now overcome by Bogotá. Santiago expects to have 1/6 of its fleet electric by 2023, which would be around 1000-1500 electric buses. The government's goal is that all public transportation purchases are electric ones by 2035, while all public transportation means circulating in the country will be electric by 2040.

4.8 Challenges

Transantiago has made enormous improvements in its almost seventeen years of existence. Interviewees and reports recognize these achievements. The evolution from being ruled by the Executive Secretariat of the Committee of Ministers, a political committee, to the DTPM, a technical committee, has represented a major milestone in the governance of public transportation in Greater Santiago. Moreover, the coordination and complementarity between the authorities with competences on public transportation, such as SECTRA, MTT, UOT, DTPR and DTPM, has improved. For instance, as the former Executive Secretary of SECTRA

[298] Muñoz, Batarce, & Hidalgo, 2014

mentioned in an interview: "*A lot has been done, there is a lot of coordination, a lot of conversation, working tables. It is very rare that someone designs something alone, as an individual entity because other entities would question you. In the past, definitely, that happened more often. I came across more autonomous works and people from other entities were saying "why didn't they invite us if we're also involved in it?"*".

Nevertheless, high centralization and institutional fragmentation, inhibiting a regional or metropolitan governance of public transportation, remain as some of the main challenges. As summed up by Sochitran (2013, p. 17): "*The proper operation of public transport systems is hindered by insufficient institutionality, segregated between different agencies and, in general, dependent on decisions of the central levels of the Executive Power*".

Other challenges have to do with the funding of the system, the high evasion, its heterogeneity and the pandemic setback. This section addresses these challenges.

4.8.1 Centralization that leads to a lack of metropolitan-level governance

O'Donnell (1991) coined the term "delegative democracy" to describe Latin American countries in the 1990s, where presidents and the executive branch presented themselves as being "above" parties and being the sole responsible person for the country's policies. The legislative and judicial branches of power were viewed as "a nuisance."

In the case of Chile's presidential system, the executive branch has much more power. Chilean executives are among the strongest in Latin America in terms of formal policymaking powers.[299] For instance, the president was the one in charge of selecting the chief of the army, the navy, the air force, and the national police force. Moreover, the president has the power to freely name and remove governors, and it held exclusive initiative on taxation according to the

[299] Fairfield, 2015; Mainwaring & Shugart, 1997

Chilean constitution. In an already highly centralized country, centralization was also strengthened through the 1980 Constitution.

Regional governments lack power. SEREMIs, for instance, are the representants of the central ministries in regions. So, the SEREMITT is the Ministry of Transportation and Telecommunications in the regions. Its chief is named by the MTT ministry and responds to the orders of the MTT ministry. Moreover, until 2021, regions had a Presidential Delegate (*Delegado Presidencial*), who was previously known as Regional Supervisor (*Intendente Regional*). This political figure was named by the President of the Republic and it was their direct representation in regions. Therefore, the Presidential Delegate did not have any accountability obligation to the citizens but only to the President.

Municipalities also lack power, even though they represent the direct contact between citizens and the government. Municipalities are managers but not planners. As stated by an experienced social activist in Santiago: "*The institutionality that governs municipalities empowers them to follow the prevailing policies, not to change them*".

Centralization in transportation is, thus, not rare in Chile. The president of the Republic names the minister of the MTT. This ministry, by law, is the main entity in charge of transportation in the whole country. The DTPM belongs to the MTT and its director is named by the minister. So, public transportation in Greater Santiago, which is a metropolitan matter, is managed by central authorities.[300]

The 2021 democratic election of regional governors is a prospect for positive change in terms of a more regional and metropolitan governance of various issues, such as public transportation. For the first time in history, citizens directly elected their regional governor in

[300] Larraín-Videla, Muñoz, & Briones, 2022; Briones, 2009

2021. The proposed new constitution, which was rejected, also stipulated to give more power to regional governors. Even though the tasks and budget of this political figure are still ambiguous and unclear, and can even overlap with those assigned to the Presidential Delegate, it is expected that Regional Governors can turn into potential better sources of governance for public transportation in the country. For this to happen, regional governments will also have to invest in building technical capacities and have a more integral approach to transportation, instead of a sectorial one.

4.8.2 Institutional fragmentation

Transportation and mobility are complex matters that tackle urban planning, housing, infrastructure and even the environment. Therefore, when actions related to transportation take place, they happen to touch upon many other areas.

When one sees transportation policies that follow a sectorial approach, instead of integral one, it usually means that institutions are fragmentized, and governance becomes thus harder because many approvals are required. This is the case of transportation in Greater Santiago and throughout Chile, where many authorities are involved, directly or indirectly, in transportation.[301] Institutional fragmentation leads to slow action or even inaction, thus the need of a single authority that could simplify the decision process by looking at the system as a whole.[302]

As stated previously, the MTT is the ministry in charge of transportation matters in Chile, although not all actions related to transportation are in its hands. The Ministry of Public Infrastructure (MOP), the Ministry of Housing and Urbanization (MINVU) and the Ministry

[301] Larraín-Videla, Muñoz, & Briones, 2022; Briones, 2009
[302] Muñoz, Batarce, & Hidalgo, 2014

of Environment (MAA) also play important roles. For instance, streets are responsibility municipalities, the Ministry of Public Infrastructure (MOP) or the Housing and Urbanization Service (SERVIU). Moreover, if the DTPM wants to fix roads or create exclusive lanes for buses, it must go first to the MOP or SERVIU. Table 13 summarizes the competences of planning (P), investment (I) and management (M) of each of the agencies related to transportation in Chile, showing the complexity and fragmentation of the issue.

Table 13. Planning, Investment and Management competences of the agencies related to transportation in Chile

Agency	Ministry	Public Transportation			Road management			Demand management			Road safety			No motorized means			Urban development and land use		
		P	I	M	P	I	M	P	I	M	P	I	M	P	I	M	P	I	M
DTPM	MTT	X	X	X															
UOCT	MTT							X		X									
SECTRA	MTT	X			X			X						X					
CONASET	MTT										X								
Audit	MTT												X						
SEREMI	MTT									X									
Metro	Presidency	X	X	X															
EFE	Presidency	X	X	X															
Direction of Licenses	MOP		X			X	X												
DIRPLAN	MOP				X														
Direction of Road Management	MOP					X	X					X							
SEREMI	MINVU																X		
SERVIU	MINVU		X		X	X	X								X			X	
Metropolitan Park	MINVU																		X
DDU	MINVU																X		
SEREMI	MMA							X											
Customs Guard	Ministry of Interior									X			X						

GORE	Presidency and autonomous					X									X		X		
Municipalities	Autonomous					X	X			X		X		X	X	X	X	X	X

Source: [1] Larraín-Videla, Muñoz, & Briones, 2022, p. 15

Furthermore, fragmentation is also territorial.[303] There are at least 40 territorial authorities related to public transportation in Greater Santiago: the mayors of the 34 boroughs, the Presidential Delegate, the Regional Governor, four SEREMIs (the regional coordinating agencies of the MTT, MOP, MINVU and MMA) and the DTPR. Table 14 presents the governance scheme of transportation in Santiago, addressing its national, metropolitan, regional and local territorial features.

[303] Larraín-Videla et al. (2022)

Table 14. Governance scheme of transportation in Santiago (Chile)

Level	Ministry/ National Institution					
	MTT	Other	MOP	MINVU	MMA	Customs Guard
National	MTT, UOCT, SECTRA, CONASET and Audit	EFE	MOP, Licenses, DIRPLAN	MINVU	MMA	Customs Guard
Metropo-litan	SEREMI, DTPM, SECTRA, CONASET and Audit	Metro, EFE	SEREMI, Licenses, DIRPLAN and Road Management	SEREMI, DDU, Metropolitan Park and SERVIU	SEREMI	Customs Guard
GORE	Regional governor, Presidential Delegate, Customs Guard					
Local	34 Municipalities					

Source: Adapted from Larraín-Videla, Muñoz, & Briones, 2022, p. 13

Lastly, fragmentation is also a financial issue as all these institutions have different budgets. For instance, the MTT has a smaller budget allocation than the MOP. Moreover, budget also differs in the municipalities. Usually, those located in the northeast of Greater Santiago tend to be richer than the rest, with exception of the municipality of Santiago. This disparity is reflected in the policies of parks and green areas, for instance.

4.8.3 Evasion

Evasion has been a persistent problem of Transantiago since its birth. Table 15 shows its evolution from 2012 until 2022, with some data not collected in 2020 and 2021 due to the pandemic, and for 2022 part of the data are not yet available.

This fiscal matter became a form of protest since the very beginning of Transantiago, but it turned much more evident during El Estallido. Evasion increased from 2012 until 2016 to then start decreasing. However, 2019 saw a spike in evasion, particularly in the last quarter of the year, due to the social mobilization of El Estallido. Levels of 30% and above had been seen before on rare occasions, like the second quarter of 2016 and the second quarter of 2017. However, since the last of quarter of 2019, they have become a constant. According to a consultant on public transportation and former employee of Transantiago: "*Evasion is unleashed*".

Table 15. Evasion rate in Transantiago (in %)

Year	Evasion
2012	22.8
2013	21.7
2014	24.2
2015	26.9
2016	30.3
2017	27.9
2018	26.7
2019	27.4
2020	35.9*
2021	38.7**
2022	42.2**

Source: Fiscalización Transportes, accessed 07/13/23, http://www.fiscalizacion.cl/indice-de-evasion-de-pago-de-tarifa-en-transantiago/; DTPM, accessed 07/14/23, https://www.dtpm.cl/index.php/documentos/indice-de-evasion
*: The evasion average only contains two quarters of the year. Evasion on the second and third quarters was not measured due to the pandemic.
**: The methodology to measure evasion changed.

According to the transportation authorities, evasion is something expected to happen in public transportation but levels above 20% can start to affect the financial stability of the system. Since buses are mostly paid per kilometer travelled and the DTPM has a guaranteed subsidy to fund public transportation, evasion at higher levels is not as drastic as it may seem. However, it remains an ethical and moral challenge that the transportation authorities are trying to deal with. Evasion also varies throughout boroughs and bus routes. For instance, while Subus Chile S.A. experienced evasion levels of around 58% in 2022, Buses Metropolitana S.A. had average evasion levels of 28.4% during that same year.

Chapter 5. Conclusion

This dissertation analyzes the pathways that lead to social and climate public policy action and inaction in the urban global South by studying the role of institutions and interest groups. It is a study of policy reform in Latin America that narrates the whole gradual process: from inaction to the moment when the topic is brought to the political forefront to when reform does or does not start. It continues studying the evolution of this reform or the lack thereof, analyzing how action and inaction shape institutions, interest groups organization and social and climate outcomes.

Relying on a "one-sector, many places"[304] research strategy, this research project shows that weak institutions– characterized by state non-enforcement, state incapacity and forbearance, and which are highly present in the global South– can be overcome, even when pushing for electorally unattractive policies and when that means redistributing power and going against entrenched organized interests. The strengthening of the institutions and the weakening of vested interest groups happens in a gradual way. It is a process that takes time and that has a self-reinforcing nature to it.

Taking bus public transportation as the sector of analysis offers a representative though simultaneously particular and understudied example for scholars to better understand policy reform in the global South. This sector and the interaction and policy sequencing between institutional evolution and interest group pressure that it exhibits is representative of other

[304] Even though this dissertation only considers two places, the goal is to continue the analysis and include other cities (e.g., Bogotá and Mexico City, for instance) in order to increase the number of observations.

public services' policy reforms and provision in the global South, such as water,[305] energy[306] and public health.[307]

Nevertheless, the bus sector is also particular because of three main reasons. First, public transportation experienced widespread (full) deregulation and privatization across the Latin American region between the 1980s and the 1990s. Therefore, most Latin American countries had simultaneously politically powerful bus operators that worked in an atomized way at some point. This situation has not necessarily happened in other sectors, such as water or energy. Even though there are some countries in the region that have privatized the provision of these public services, it cannot be said that is a common and widespread practice nor that most countries have jointly experienced it at the same time. Second, improvements in public transportation are actions that encompass and intersect many sectors and facets of public policy: social (e.g., equity and poverty concerns), environmental and climate aspects. Improving the performance of the bus sector thus addresses a variety of national concerns. Third and last, reforms in the bus sector are electorally unappealing when compared to investments in other sectors. In general, sectoral economic capture is focused on mega-projects in the global South such as large energy complexes (e.g., hydropower plants) and highways.

This conclusion is divided in five parts. First, the cases of the GAM and Santiago will be compared in each of the steps leading to (in)action: from the triggers to the presence or absence of state capacity and enforcement, to the outcomes of BPTA and BPTI. Second, I address why international leadership in one social and/or environmental domain does not translate into global leadership in all domains by addressing why Costa Rica was able to tackle deforestation

[305] Herrera, 2017
[306] Hochstetler, 2021; Hochstetler, 2020
[307] Martínez-Franzoni & Ancochea, 2018

but not take BPTA. Third, I discuss what the process and achievement of BPTA might entail for the promotion of democratic values. In here, I emphasize the implications such a pathway might have in the current context of populism rising. Fourth, I draw out policy recommendations that can be learned from the cases studied. Fifth and last, I explore topics for future research , particularly the link between this dissertation topic and inconclusive bus reforms and popular transportation.

5.1 Comparing the cases of Costa Rica's GAM and Santiago of Chile

Bus public transportation, and the overall urban transit system, looks distintictively different in Santiago of Chile and Costa Rica's GAM. In the case of the former, urban transit operates in an operation- and fare-wise integrated, clean and accessible way, even enjoying demand- and supply-side subsidies. The use of the Tarjeta bip! allows users to jump from one public transportation mode to another. Moreover, externalities caused by public transportation, such as pollution, noise and accident rate have reduced. Certainly, there are still challenges such as improvements in safety and accessibility but actions are being taken in the form of national campaigns and programs to avoid women's harrassment in buses and the promotion of the participation of communities participation in the design of their routes.

Contrary to Santiago, the GAM counts on an atomized, un-systemic, quasi-informal, unsubsidized, polluting, unsafe, unreliable, (operation- and fare-wise) unintegrated and inaccessible urban transit. Most of the routes start and end at the center of San José, which leads to high congestion in this area. Besides congestion, estimations show that the GAM's current transportation system generates lost time, accidents and health impacts, which cost the country around 3.8% per year of its GDP.

This dissertation analyses the pathways that led to these outcomes and this section compares each of the steps leading to action and inaction in both of these metropolitan areas: from the presence or absence of the triggers that drive the bus reform to the evolution of institutions and interest groups, that either create or improve state capacity and enforcement or lead to state incapacity and forbearance.

5.1.1 Comparing the enabling conditions/ triggers for action

Two joint aspects function as triggers for BPTA: (1) the existence of a salient and urgent environmental or social matter directly linked to (public) transportation and (2) the capacity that institutions bring to policymakers to insulate the reform from societal influence. These characteristics were present in Santiago and absent in the GAM, which explains BPTA in the case of the former and BPTI in the case of latter. In Santiago, atmospheric pollution levels and its impacts on public health have been empirically worse than in the GAM, with the problem arising more than three decades earlier in Santiago and with public transportation identified as its main culprit. Moreover, salience was brought on the issue in the early 2000s and particularly so during Ricardo Lagos' presidency, who served as the policy entrepreneur.

Additionally, presidents in Chile were able to shield the bus reform from the influence and pressure of trade associations and bus operators, while Costa Rican ones were unable. Even though an unchecked executive power does not equalize to institutional capacity, strong executives as a political institution certainly equip better policymakers to insulate their policies from powerful organized groups when their interests push in opposite ways. Chile has one of the strongest executives in Latin America and because of it, President Lagos and President Bachelet were able to confront bus operators and grant public funding to public transportation

in critical times. Costa Rican executives could not avoid the pressure and influence from bus operators, who are even judge and jury.

In this section, I compare the presence and absence of both triggers in Santiago and the GAM, respectively, as well as address how institutions and interest groups evolved in both cases.

Trigger 1: Urgent public health matter directly linked to public transportation in Santiago but not in the GAM.

First, atmospheric pollution reached higher levels and happened much earlier in Santiago than in the GAM, and it was largely caused by the high-polluting public transportation sector. Chile is one of the countries that urbanized earlier in the Latin American region, with Santiago reaching a population of almost 1 million inhabitants by 1940 and becoming one of the most polluted cities in the region in the 1980s and 1990s.[308] Atmospheric pollution started to become a problem in the 1950s due to natural (e.g., the geographical relief, surrounded by mountain ranges, and scarce winds and rain) and anthropogenic factors, and it aggravated in the 1970s with the city's smog levels exceeding the permissible limits up to four times.[309]

Historic pollution records were reached in the 1980s, when the liberal approach of the 1980 Constitution left urban transport unregulated. During this decade, national studies estimated that 71% of the material emissions with PM_{10} found in Santiago's atmosphere came from public transport vehicles.[310] These transport units, which ran mostly on diesel and were 15-50 years old, almost doubled in ten years while population only increased 25%.[311] National newspapers blamed environmental pollution for the alarming increase in bronchial diseases, allergies, and

[308] O'Ryan & Larraguibel, 2000
[309] Biblioteca Nacional de Chile, 2024
[310] Fernández Koprich, 1994
[311] ECLAC, 2011

skin and eye irritations, with some even suggesting future cases of lung cancer and congenital malformation.[312] In 1991, atmospheric pollution was ranked as Santiago's main environmental problem,[313] becoming so problematic that the city was ruled an ozone saturated zone in 1996. In 1998, the Atmospheric Prevention and Decontamination Plan for the Metropolitan Region (PPDA) was launched and it signaled (public) transportation as the main source of pollution.

President Lagos took advantage of this situation to bring this issue to the political forefront and become its policy entrepreneur. Chile celebrated its independence bicentennial and he wanted to leave something to make Chile a more modern country. The reform of Santiago's transport system became an issue in the government's agenda once Lagos' administration realized that other priority projects might not be implemented due to the lack of financing as a consequence of the Asian economic crisis.

In contrast, atmospheric pollution was not properly identified as a public health problem in Costa Rica's GAM until 2008, when the first National Plan to improve air quality in the Greater Metropolitan Area was elaborated. Atmospheric pollution started increasing in San José since the late 1970s.[314] Air monitoring mechanisms in the GAM were implemented until 1993,[315] when the problem was already pronounced in Santiago. By 2011, PM_{10} concentration levels in the GAM exceeded the limits established by the World Health Organization (20 $\mu g/m^3$), although they were below the national levels (50 $\mu g/m^3$) and below the limits permitted by the European Union (40 $\mu g/m^3$)— in this last case, with exception of Heredia, one of the four provinces comprised in the GAM.[316]

[312] Larraín, 1992; Cauce, 1988a; Cauce, 1988b
[313] Meléndez, 1991
[314] Murillo Hernández & Herrera Murillo, 2020
[315] Murillo Hernández & Herrera Murillo, 2020
[316] Alpízar, Piaggio, & Pacay, 2017

Interestingly, salience on the need of an urban transit reform rose to the political forefront during Carlos Alvarado's presidency, from 2018 to 2022, when discussions around the construction of an electric inter-urban train for the GAM started to circulate. The Office of the First Lady, led by Claudia Dobles, Carlos Alvarado's wife and the then First Lady, was in charge of this project as Claudia was an urban architect specialized on climate change. As in the case of Santiago, salience on the issue was brought by a politician as a policy entrepreneur.

Currently, transportation is, by far, the sector contributing the most to Costa Rica's atmospheric pollution and GHG emissions.[317] However, by 2013, buses made the lowest contribution this pollution (less than 1% the transportation sector's emissions), while private vehicles contributed more than 60%, followed by freight transportation and motorcycles contributing more than 10% each.[318] The large, old, and fossil fuel-fed fleet of motorcycles, and private and freight motorized vehicles explains the transportation sector's large contribution to the GAM's atmospheric pollution. The 2018 Law 9518, which promotes electric transportation, could have been a major national step to address this problem. However, its results show an increase in the purchase of private electric vehicles, without solving the traffic congestion and equity aspects delivered by BPTA.

Trigger 2: Institutions grant capacity to policymakers to insulate the policy from societal pressures in Santiago but not in the GAM.

The second trigger for action is the presence of institutional capacity, which refers to the degree of institutional insulation of policymaking from societal influence. If political institutions, such as electoral systems, shield policies from the influence and pressure of

[317] IMN, 2021
[318] Alpízar, Piaggio, & Pacay, 2017

societal groups, then they are granting institutional capacity and allowing policymakers to enact policy investment.

In the case of Santiago, political institutions granted institutional capacity to President Lagos and President Bachelet to insulate the bus reform from the influence of bus operators and other opponents. These presidents made use of the constitutional rights granted to the executive in the Chilean Constitution to confront trade associations and opposing politicians. President Lagos was able to rely on the State Security Law (Law Nº 12.927) to deal with the trade associations who were blocking the main avenues in 2003, when Transantiago was taking its first steps. Moreover, he also used his presidential right by calling an executive decree that allowed Transantiago, as a public policy, to avoid having to be discussed in the Senate. Additionally, President Bachelet invoked the "Constitutional 2%" by declaring Transantiago a "public calamity", which granted emergency fundings to Transantiago.

The case of the GAM is very different, as Costa Rica's political institutions do not grant the same capacity to the executive than the Chileans do. A couple of policymakers from the executive pushed for a reform to the bus sector in the GAM and resulted unsuccessful, largely because they were not shielded from the influence of interest groups and opponents. One of these policymakers, a former vice Minister of Transportation, got fired from his position while trying to initiate a bus reform after bus operators complained to then-President Luis Guillermo Solís. Similarly, Carlos Alvarado, former president of Costa Rica, tried to electrify the urban train and integrate this transportation mode with buses but his project faced many critics from other members of the executive and the legislative branches. In the end, the project could not pass under Alvarado's presidency. It was going to be revised and improved during the current presidency of Rodrigo Chaves, but the project has not been discussed in the recent past.

5.1.2 Comparing state (in)capacity and (non-)enforcement among the cases

State capacity and enforcement characterize strong institutions, while state incapacity and forbearance pertain weak institutions. Both pairs of concepts go hand-in-hand. Moreover, aspects such as financial means and personnel with technical knowledge play a key role in state capacity and enforcement. For instance, additional funding can allow the implementation of new technologies demanded by policies (e.g., installation of GPS on buses, acquisition of an electric bus fleet), as well as enable the possibilities to hire more experts and personnel to monitor policies' compliance.

In the case of Santiago, state capacity and enforcement led to BPTA. Even though the reform's beginnings were bumpy, institutions were gradually revised and improved. The DTPM was created five years after the official launch of Transantiago to regulate, control and supervise bus services, as well as coordinate public transportation integration with the Metro. Moreover, public funding was assigned in the form of demand- and supply-side subsidies to public transportation. Enforcement takes place in the constant review and update of contracts to bus operators. The result is a public transportation system, now named Red Metropolitana de Movilidad, that counts on monitoring and accountability mechanisms and data transparency. For instance, all buses have a GPS, allowing the DTPM to verify the compliance with the routes. Moreover, electronic payment through the Tarjeta Bip! enables the DTPM to collect the money and later pay the bus operators for their service.

In the case of the GAM, even though there are numerous laws and policies governing the transportation sector, state incapacity and forbearance have led to BPTI. Nonenforcement is unintentional as well as intentional. Certainly, the main regulatory entity, the CTP, does not count on enough (trained) personnel to monitor bus operators' compliance. However, the CTP

also renews contracts to bus operators without paying attention to their performance evaluations and stipulates the demand to form consortiums among the service providers without any interest to verify its implementation. The positive feedback and path dependent nature of the constant weakening of the institutions governing the sector and the strengthening of bus operators' power have led to a situation where the bus public transportation institutional framework is permeated by private actors' interests. Powerful bus operators lobby, fund political campaigns, and rely on revolving doors to enter political spheres. More importantly, they are judge and jury, as they are part of the Executive Board of the entity that should be regulating them, the CTP. The political power of bus operators has led to a problem of regulatory capture.

5.2 Why was Costa Rica able to tackle deforestation but not its urban transport agenda?

The failures of Costa Rican public transportation action cut against the country's reputation as a regional social and environmental leader. Why was Costa Rica able to reverse deforestation but not take BPTA? Again, the answer relates to the presence of both triggers previously mentioned. First, deforestation became an urgent environmental matter in the second half of the XXth century, when it reached critical levels and started impacting other (economic) activities. Second, the strong community of national and international scientists and environmentalists present in Costa Rica used an array of tactics to obtain ministerial and presidential support for environmental reforms. Even though ministers and presidents were certainly key for the passing of environmental laws and policies, the institutional setting present at the time –i.e., bipartisanship– granted them the capacity to negotiate with senators and overcome opponent interest groups.

Between the 1950s and 1980s, forest cover decreased to around 40% of the Costa Rican territory, with the country reaching at some point the highest deforestation rate in the Western Hemisphere.[319] This destructive activity was mostly promoted by the expansion of agricultural and cattle activities, as well as logging.[320] The high deforestation rates led to erosion and soil degradation, increased risk of avalanches and flooding, destruction of valuable species of flora and fauna, destruction of the natural environment and watersheds, and scenic value loss.[321] Moreover, deforestation caused serious economic problems with watersheds' reduction impacting hydroelectricity generation and soil sterility leading to loss opportunities for other agricultural activities.[322] The situation became unsustainable.

Certainly, a key factor towards deforestation action was the strong community of national and international scientists and environmentalists present in Costa Rica. This community challenged anti-environmental policies and used an array of tactics to obtain ministerial and presidential support.[323] Moreover, they were facing the powerful lobby from the *Cámara de Ganaderos* (Cattlemen's Trade Association), which was extremely influential in gaining and maintaining governmental support for cattle export production.

Nevertheless, even though a large percentage of Costa Rica's land was dedicated to pastures, the cattle industry's participation in the total agricultural exports and GDP was quite low. Ranching did not only replace more economic profitable activities, such as timber, but its results were also leading specialists to conclude that the beef boom was "underdeveloping" the Costa Rican economy.[324]

[319] Evans, 1997
[320] Evans, 1997; Fournier Origgi, 1991
[321] Fournier Origgi, 1991
[322] Evans, 1997
[323] Steinberg, 2001; Evans, 1997; Fournier Origgi, 1991
[324] Evans, 1997

These social, economic, and environmental impacts of deforestation led Guillermo Iglesias Pacheco, the then Ministry of Agriculture (1966-1970), to appoint a committee to study the significance of the problem and draft a bill that would enable the government to limit deforestation. The result was the first step towards environmental action: the creation of the 1969 Forestry Law. Even though this law was described as "*a monumental turning point in Costa Rican environmental history*",[325] it hardly slowed deforestation as it faced effectiveness and enforcement difficulties.

Particularly between the late mid 1970s until the 1990s, Costa Rica's ministers of environment, presidents and their spouses became crucial to battle deforestation and push for more laws and institutions to protect the environment.[326] For instance, President Oduber (1974-1978) increased the quantity of national parks as he envisioned their future importance for national and international tourism. Costa Rican governments took an active position in legislating environmental protection and increasing state capacity by finding sources to fund enforcement mechanisms. The result was the creation of the SINAC in 1994, with protected areas now covering more than 25% of the territory, a ban on logging in 1996, and the 1997 Forestry Law.

Presidents, ministers and their spouses were largely able to overcome powerful interest groups opposing these environmental actions since the institutional setting at the time allowed for easier negotiations with other policymakers and Congressmen, as they were mainly two ruling parties in the country. Bipartisanship was in the making in Costa Rica since the late 1940s and became a reality from 1986 to 2002, when the Partido Liberación Nacional (PLN) and the Partido Unidad Social Cristiana (PUSC) alternated power in the presidency and had

[325] Evans, 1997, p. 67
[326] Evans, 1997

the largest representation in the Legislative Assembly. Even though bipartisanship *per se* is not a political institution, it certainly granted an insulation to environmental policies and reforms from powerful organized interests, such as the *Cámara de Ganaderos*.

Easier communication within and between the executive and legislative branches due to bipartisanship and the high deforestation rates that were leading to economic problems allowed Costa Rica to act towards its green agenda (e.g. protection of its biodiversity and forests, creation of protected areas). However, it is important to emphasize that this happened in unison with the abandonment of the country's brown and gray agendas, those that relate to agrochemical use, waste management and territorial planning. Investments in the green agenda have granted an international green reputation to Costa Rica, which has delivered economic profits in the form of (eco)tourism, but they have happened in detriment to investments related to urban living and public spaces, where public transportation is comprehended.

Chile also shows these discrepancies in its actions. Even though BPTA was taken in Santiago, the country has allowed the growth of a highly polluting and environmentally damaging mining sector (particularly copper mining but also silver, gold, and lithium). Its 1980 Constitution and the following legislation during Pinochet's years granted certitude to investors about the economic returns of the activity, which led to its subsequent growth. Currently, one the main economic interest groups in the country is one of Chile's largest business conglomerates, whose president ranks amongst the wealthiest people in the world according to Forbes and whose leading economic activities includes copper mining –among others such as media and banking. In this case, institutional positive feedback has led to the settlement of this main economic activity and to the positioning of this powerful interest group.

To conclude, this subsection shows that international leadership in one social and/or environmental domain does not translate into global leadership in all domains. Therefore, this research highlights the importance in political economy analysis of understanding specific constellations of interests and institutions in given sectors and policy domains. By doing this, scholars will better understand the distribution of power in the global South.

5.3 Pathway to BPTA and its relation to democratic values

This dissertation has shown that policy insulation is a necessary condition for social and environmental action. In the case of Chile, a strong executive, as established in the country's constitution, granted capacity to President Lagos and President Bachelet to protect and move forward with Transantiago despite the opposition of bus operators and senators. Bipartisanship was also key for Costa Rica to tackle deforestation by allowing easier communication within and between the executive and legislative branches. Therefore, one could argue that a conclusion derived from this dissertation is that authoritarian or poor democratic practices perform better when delivering social and environmental actions, as some scholarly work has suggested.[327]

But this is not what this research concludes. What it does argue is that there is a need of a certain degree of institutional policy insulation to be used by policymakers in order to get reforms implemented, particularly during the initial stages of the reform as it works as a trigger.[328] There is a sort of trade-off between policy implementation and participation at the beginning phase. If policy insulation is granted at the early stages, it is less likely that the

[327] Thaler, 2024; Mittiga, 2022; Gilley, 2012; Beeson, 2010

[328] Herrera (2017) studied water provision reforms in eight Mexican cities and concluded that reformers improved public services and created better-functioning government institutions by limiting democratic procedures and participation during the initial stages of the reforms. Although the process of securing government improvements was not fully open and participatory, it led to more equity, accountability, and responsiveness in citizens' experiences with their public institutions.

interest groups that will be affected by the policy exert pressure and revert it, while allowing the achievement of social and climate outcomes at the end.[329]

Policy insulation at the early stages allowed Transantiago to be launched in 2007 and get additional funding in 2009. More than seventeen years have passed by, and Transantiago has overcome presidencies in the executive from opposite parties who could have revoked the policy, due to the power granted to this branch in Chile, but instead the public transportation reform's social and climate features have been enhanced. Moreover, Costa Rica's ability to tackle deforestation was not only brought as an issue to the political forefront by civil society but they also participated in the elaboration of the laws and policies, for which experts and scientists were consulted and hired.

The state certainly has to have the ability to mobilize or demobilize interest groups in pursuit of policy goals.[330] Policy insulation is a mechanism for that. However, even though shielding interest groups' influence from policymaking is important to avoid policy gridlock and inaction, there is a fine line to the concepts of institutional capacity and policy insulation when it comes to granting autocratic power to certain policymakers and inhibiting civil society's rights. First, institutional capacity and policy insulation must not be understood as the granting of absolute power. This is particularly important in Latin America's current context, where many (populist) presidents are shielding themselves in the excuse of the need of more power in order to get policies implemented. Under this pretext, executives are becoming stronger and are taking down the national mechanisms of checks and balances. This is the case of Hugo Chávez and Nicolás Maduro in Venezuela, as well as Nayib Bukele in El Salvador. Second, the ability to insulate policies does neither have to be confused with taking

[329] This is a topic that will be interesting to continue exploring.
[330] Meckling & Nahm, 2022

away civil society's rights and channels to get their voices heard. Freedom of speech and the right to protest are still fundamental means for societal groups to express their interests and demands.

5.4 Policy recommendations

With an exponentially increasing urban population, Latin American cities must concentrate efforts in elaborating integrated urban agendas where public transit should be a key component. However, the region continues to approach the matter in a sectorial way, inhibiting the integration of land use, public transportation, active mobility and private transportation policies into a same type of urban policy. In the case of Santiago, the 2021 democratic election of regional governors, the first of its kind where citizens directly designate their governor, makes the idea of an integrated and comprehensive approach to urban matters look promising. Even though the tasks and budget of this political figure are still ambiguous and unclear, and can even overlap with those assigned to the Presidential Delegate, it is expected that Regional Governors will be in charge of a set of urban issues in their region, including transportation.

The need for public transportation funding is also crucial. Without funding, public transportation operators would have to increase fares and, in a region so socially and economically unequal as Latin America, this would make impossible for public transportation to fulfill its social purposes. Transantiago is a clear example of this situation and President Bachelet realized this in 2009. Currently, the supply-side subsidy has three components, one of which refers to a permanent subsidy, and the Law Nº 20378 allows 10% yearly increases without Congress approval. Therefore, subsidies, public-private partnerships, alternative funding schemes, based on the Polluter Pays and Beneficiary Pays principles, should be considered to secure a stable funding framework. In this regard, public transportation is known

to be usually heavily subsidized in the global North, with fares covering only 50% or less of its operative costs. This is not the case for the global South. For instance, only two Latin American cities funded 50% or more of their operative costs through subsidies in 2014.[331]

Furthermore, the fact that much of the public transits in Latin America are not subsidized adds to the discussion of how governments are still not fully perceiving action in this sector as a social nor climate policy. For instance, a 2016 evaluation of BRT projects in Lima, Peru and Cali, Colombia conducted by the IDB concluded that affordability was a barrier for the most disadvantaged to using the system regularly, leading to fewer trips.[332] Current transportation policies are not reflecting the true cost of private versus public transportation,[333] creating incentives for private transportation (e.g. lax credits to purchase new cars, free and numerous parking spots in cities) instead of public transportation (e.g. few to no targeted or supply-side subsidies). Both subsidies and the choice of transport system have efficiency and redistributive consequences.[334]

Decentralization and governance at a metropolitan level seem to also be actions in the right direction. In the case of Santiago, citizens directly elected their regional governor for the first time in 2021. Even though the tasks and the budget of this political figure are still ambiguous and unclear, it is expected that the Regional Governments (GORE) can turn into potential better sources of governance for public transportation in the country. In the case of the GAM, hope lies in the local governments, which have been making increasing efforts towards active mobility.

[331] CAF, 2016
[332] Scholl et al., 2022
[333] Estupiñán et al., 2018
[334] Borck, 2006

5.5 Future agenda

This dissertation studies the enabling factors that lead to policy reforms in urban Latin America, understanding how these reforms look like and the outcomes they generate. This analysis can be applied to other social and environmental policy reforms in the global South that also take place in contexts of weak institutions and weak state capacity.

Nevertheless, there are two aspects that are linked to the topic here analyzed and that deserve future research, thus serving as a continuation of this research agenda. First, I focus on two single cases for the purpose of this dissertation: one where we see a reform taking place and another where we do not see it happening. But there are other cases in the Latin American region, and the global South more broadly, where we see reforms starting, changes begin to be implemented but, at some point, the reform gets interrupted and its expected social and environmental outcomes are not (fully) reached (i.e., BPTA is not achieved). Therefore, expanding the number of cases studied to include those ones where there is an inconclusive reform can enhance the richness of the analysis. Second, the public transportation reforms studied in this dissertation are taken and led by the state, thus they take a top-down approach. However, popular transportation, defined as the privately provided, publicly serving local transportation services and systems, has emerged in nearly every city in the global South and it has been promoted in a bottom-up way, "*created by people to serve people*".[335] It would be interesting to study how bottom-up transportation services have evolved in tandem with these top-down bus public transportation reforms and whether they have complemented each other or they have become rivals. Studying these two different ways of moving people becomes

[335] GNPT, 2024

particularly relevant as bus public transportation ridership has been decreasing over the last decades in Latin America.

The following part of this section addresses more in detail the continuation of this research agenda on the two previously mentioned points.

5.5.1 What about inconclusive bus public transportation reforms?

Bogotá's bus reform, TransMilenio, was launched in December 2000, turning this city into a pioneer in the adoption of BRTs and a global model of progressive urban transportation policy. Even though Curitiba had already experimented with this way of organizing the bus public transportation system, TransMilenio was a first-on-its kind to do it on a larger scale, in a city of more than 6 million inhabitants. "*For a brief shining instant in the early 2000s, it even looked as if the city had solved the great mobility riddle. It hit on a dull but slyly effective strategy to move millions of commuters: rapid buses*."[336] Many cities in the developing world aspired to imitate Bogotá, development banks granted funds for BRTs' implementation and international organizations elaborated guides on how to implement BRTs in cities based on the TransMilenio model.

Even though a partial modernization of the fleet and reorganization of the routes took place in the early 2000s, TransMilenio can now be considered a half-way reform. Certainly, progress has been made: Bogotá counts on the most extensive bus network in Latin America, the electric bus fleet is increasing, and bike lanes are being built and connected to bus stations. However, the initial 71 miles of bus lanes were supposed to grow into 241 miles, but this expansion has not been reached. There are problems of aging buses and overcrowding and unsafety within the buses. Moreover, many of the feeder routes still operate outside of

[336] Kimmelman, 2023

TransMilenio's regulation. According to a former CEO of TransMilenio interviewed "*the informal bus sector was very resistant to taking the step towards formality*".

But Bogotá is not the only city in Latin America that exhibits an inconclusive bus public transportation reform. In other cities, such as Mexico City, progress is being made though it has taken too long. Therefore, these cases beg the question of what about inconclusive bus public transportation reforms? Where, in the pathway to BPTA (see Figure 1), did TransMilenio fail? Was it a problem of poor enforcement or weak state capacity? Moreover, if this dissertation acknowledges that reforms' changes are gradual, that this is a process, how much time is too much time waiting for changes to happen?

By including additional cases where bus public transportation reforms are left inconclusive or are taking too long, such as the one of Bogotá or Mexico City, the research presented in this dissertation can be expanded, address the previously mentioned questions, and obtain more analytical richness and nuance.

5.5.2 What about popular transportation?

Even though many Latin American cities have modernized and reformed their bus sector, public transportation ridership has decreased in the region. On average, 50% of the Latin American urban population used public transportation in the 1990s, while a bit less than 40% did so in the 2010s,[337] when several large cities had already reformed their public transits. Public transportation ridership has even been more effected by the COVID-19 pandemic.

The traveling time in public transportation, which can be twice as large as the time taken by those traveling by car, the high monetary costs for the lowest income passengers and the insecurity experienced in the bus and bus stops are reasons that are driving this decrease in

[337] Rivas et al., 2019

ridership. According to seven interviewees of the Chilean case, one of the main weaknesses of the Red Metropolitana de Movilidad –formerly known as Transantiago – is how unattractive the system has become for the users. Some of the reasons mentioned for this unattractiveness have to do with the lack of good and illuminated bus stops, safe sidewalks to go to the bus stop, facilities for the disabled to access buses and information for users regarding the frequencies of the buses.

Evidence shows that Latin Americans are resorting either to the purchase of cars[338] or to popular transportation, also known as semiformal and informal transportation, to be able to move around the cities.[339] It has been estimated that more than half of public transportation trips are served by popular transportation services in Latin America.[340] These modes of transportation provide high-frequency, high-coverage, and adaptable services with fewer transfers, serving the needs of many users. When relying on popular transportation, users do not generally have to spend large amounts of time waiting in dark bus stops, with fear of being robbed, since these services run constantly. They do, however, operate without effective regulatory frameworks and thus lead to negative externalities such as pollution, congestion, and poor road safety.

Since popular transportation has been promoted in a bottom-up way, "*created by people to serve people*", it would be interesting to expand this research by studying how these bottom-up initiatives work jointly with the top-down reforms. Are these modes of transportation complementing each other, or is public transportation ridership decreasing and popular transportation ridership increasing because public transportation systems are not truly

[338] Yañez-Pagans et al., 2019; Estupiñán et al., 2018
[339] Hein Tun et al., 2020
[340] Hein Tun et al., 2020

serving the needs of the people? Does this mean that the formalization component demanded by the bus public transportation reforms is not leading to competitive services? According to an interview made to the Urban Mobility Director of the World Resources Institute (WRI), "*informality is not necessarily attacked by making the complete leap towards formality, as many understand* […] *Informality is sometimes attacked by really doing a deep analysis of how I include those sectors and those populations that have traditionally worked in public transportation so that they are part of the formal system. Very easy to say, very difficult to implement*."

Studying this type of questions can help us understand better governance and funding practices that address the pressing mobility needs of the population in the global South. In the end, a public transportation system that has been reformed but that is not being used will have a direct bearing on the inability of individuals to escape poverty, as well as hinder climate change mitigation and public health action.

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