



**OUR  
PUBLIC  
TRANSPORT**

**PEOPLE'S PUBLIC  
TRANSPORT POLICY**



# **PUBLIC FINANCING**



This chapter was written for the ITF by Dr Vera Wegmann at CREW (Centre for Research on Employment & Work) at the University of Greenwich (<https://www.gre.ac.uk/business/research/crew/home>) to inform policy proposals on public financing for the People's Public Transport Policy ([www.OPTpolicy.org](http://www.OPTpolicy.org)). The ITF would like to thank CREW for its contribution.

Each chapter of the People's Public Transport Policy focuses on different policy issues related to public transport. The chapters include case studies, as well as campaign materials and educational resources.

The ITF's Our Public Transport (OPT) programme promotes a social model of public transport. A social model includes organisational and employment rights for workers and requires that any expansion of public transport guarantees decent jobs.

**OPT:**

- works in target cities to strengthen the voices of workers in the development of new urban transport modes, including bus rapid transit (BRT), and in negotiating the transition from informal to formal work
- campaigns to improve working conditions for all public transport workers – informal transport workers in particular – through increasing their industrial power. This includes building union networks in public transport multinational corporations, developing alliances with passengers, communities and other organisations and promoting women's employment in public transport
- works to develop an alternative public transport policy – one that is built on public ownership, public financing, decent jobs and union rights for workers

[www.OurPublicTransport.org](http://www.OurPublicTransport.org)



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# EXECUTIVE SUMMARY

This report offers insights into financing strategies for public transport using 10 international case studies. The lessons from these case studies can be utilised to create better policy coherence. For example:

1.

A number of failed privatisation and Public-Private-Partnerships (PPPs) in major national and international transport services have involved significant financial losses. Unrealistic bids made by the private sector in order to win contracts have led to failure on major routes. Privatisation has led to fragmented and inefficient rail systems. As with PPPs, governments have had to bear the risk, with failure leading to significant subsidies drawn from the taxpayer and passengers.

2.

Private sector financing has proven more expensive than the public sector alternative. Profit has been siphoned off to shareholders, leading to an underinvestment in services. The failure of privatisation and PPPs has led to public transport services being renationalised or run as joint government ventures.

3.

Private sector financing, including PPPs, often come with social costs, such as poorer working conditions and risks to the health and safety of workers and passengers. The sub-contracting of infrastructure work removes the onus from organisations to ensure workforce equality and diversity. This has reproduced labour market inequalities based upon race and nationality, with particular implications for migrant workers engaged in casual work.

4.

Public ownership puts quality of service before profit. Public subsidies are necessary to ensure the urban poor have access to transport.

5.

Coalitions of workers and civil society organisations have effectively campaigned for remunicipalisation. This has repeatedly been shown to lead to both improved working conditions and a better quality of service.

6.

Direct democracy cases have shown that electorates will vote for the funding of public transport and even prioritise it over road construction.

7.

Fuel and road taxes can provide finance for public transport infrastructure. The cross financing of public services can subsidise public transport. Munich's electricity company has promoted renewable energy in metro systems, trams and electro buses via cross financing.

8.

Fare-free public transport increases usage and reduces private car journeys. It can increase tax income for municipalities.

9.

Switching to zero-emission technology may demand higher up-front costs but can be significantly cheaper in the long run. However, the evolution of this sector remains constrained currently because the high initial costs and low profit margins involved do not attract the private sector to finance zero-emission transport.

## 1. INTRODUCTION

The purpose of this report is to provide an overview of different funding strategies for public transport and to examine different models of public transport financing to highlight global lessons that can be adapted to local contexts.

Accessible public transport is fundamental to public health and social and economic equality. It is also integral to ensuring a sustainable environment and addressing climate change. Road traffic is a significant contributor to poor air quality and has reached intolerable levels in many of the world's cities. Around 14 percent of total emissions currently come from transport, and road transport comprises three-quarters of that figure. Road transport emissions are rising faster than in any other sector. Since 2010 emissions have risen by around 18 percent.<sup>1</sup> Globally, air pollution is the fourth highest cause of death.<sup>2</sup> Annually, almost 185,000 deaths can be directly attributed to pollution from vehicles.<sup>3</sup> In the context of global climate change, investment in public transport is a matter of urgency. Research has shown that people that live in areas with high-quality transit tend to own fewer motor vehicles, drive less, and spend less on transport than they would in more car-oriented locations.<sup>4</sup>

The World Bank warns of the 'underfunding trap' of public transport, arguing that cities lack sustainable revenue to implement transportation improvements that will provide long-term savings and benefits. As a solution the World Bank promotes the 'beneficiary pays' principle. At the core of this financing model lies Public-Private-Partnerships (PPPs) that are paid for by passenger fees, and taxes.<sup>5</sup> Like the World Bank, other international financing institutions (IFI) are quick to recommend private sector involvement to address the funding gap. However, research shows that PPPs are an

expensive and risky way of financing public services.<sup>6</sup> This report identifies effective alternative models.

This report will address the following research questions:

- What are the main instruments used to finance public transport?
- What is the experience of privatised public transport/PPPs?
- What are the alternative public financing instruments for public transport?
- In what way are workers benefiting from publicly financed public transport?
- How can trade unions campaign for the public financing of public transport?

## 2. METHODOLOGY

This report draws on reports, policy documents and academic articles, alongside newspapers and blogs, to provide an overview of the different mechanisms that finance public transport. Yet, conditions vary between countries and cities and it is therefore necessary to consider the specific context in which public transport operates and the different funding streams available for it. A case-study approach has been chosen to explore different funding options for public transport in different localised contexts and analyse their impact on service delivery and employment. The report considers 10 case studies across the world and covers different public transport services, such as rail, bus rapid transit (BRT) and metro.

## 3. WHY INVESTMENT IN PUBLIC TRANSPORT IS WORTH IT

A good-quality transport system has multiple benefits that go beyond those to transport users. A functioning public transport system is vital for the economy and increases quality

of life, as it allows people access to work, education and leisure activities and improves air quality. Public transport is also integral to the fight against climate change. Financing public transport means investing in the environment and future generations.<sup>7</sup>

### 3.1 INVESTING IN MOBILITY EQUALITY

In light of the speed of urbanisation, the establishment, maintenance and extension of a high-quality transport system is a priority for cities across the world. More than half the world's population (55 percent) live in urban areas and by 2050 this is expected to increase to 68 percent.<sup>8</sup> Without a functioning and expansive transport system the mobility of poor and marginalised communities is restricted. A two-tier transport system is the consequence in many cities across the globe. For example, while in a car-dependent city such as Los Angeles, US, the urban poor rely on a patchy public transport system,<sup>9</sup> in London, UK, low-paid workers cannot afford the metro and are dependent on buses to travel large distances to work.<sup>10</sup> In many developing cities the poor often do not have access to reliable and affordable public transportation at all.<sup>11</sup> As such, a lack of public transport also fosters inequalities in economic and social advancement.<sup>12</sup>

Transport poverty or mobility poverty are terms that are often used to describe the deprivation that is caused by not having access to transport and to raise awareness about its implications. There is no clear definition of transport poverty, but it usually refers to people or households unable to make the journeys necessary to meet their needs (whether for income-generation, healthcare or participation in society).<sup>13</sup> However, it is unclear from this definition how far transport poverty is the result of a lack of transport supply, personal mobility impairments or financial constraints that prevent people from accessing it.

It is clear that transport poverty is socially, temporally and geographically context-specific.<sup>14</sup> Therefore, there is no one global indicator to define and measure transport poverty.<sup>15</sup> The Organisation for Economic Cooperation and Development's (OECD) International Transport Forum uses the 'Housing and Transport Index' to measure transport affordability. This indicator classifies transport as affordable if households spend up to 15 percent of their income on it (and 30 percent of their income on housing).<sup>16</sup> While there is no indicator to measure transport affordability or transport poverty in low-income countries, the United Nation's (UN) Sustainable Development Goals (SDGs) recognise the connection between a lack of public transport and poverty. In target 11.2 of the SDGs, the aim is to provide access to safe, affordable, accessible and sustainable transport systems for all, improving road safety, notably by expanding public transport, with special attention to the needs of those in vulnerable situations, women, children, persons with disabilities and older persons.<sup>17</sup>

### 3.2 INVESTING IN HEALTH AND SAFETY

Public transport is a health and safety issue. The absence of public transport is connected to transport-related accidents. Globally the number of road traffic deaths was 1.25 million in 2013 alone.<sup>18</sup> This marked an increase of 32 percent in comparison to 2010. Strikingly, road traffic death rates in high-income countries were less than half than those in low and middle-income countries. The poor are especially affected as almost 50 percent of all road traffic deaths occur among pedestrians, cyclists, and motorcyclists.<sup>19</sup>

Investment in transport is also a gender issue. Six out of 10 women in major Latin-American cities report that they have been physically harassed on public transport.<sup>20</sup> Personal security issues constrain women's mobility. As such it is crucial to invest in the security of public transport so that women can access it without the fear of victimisation.<sup>21</sup>

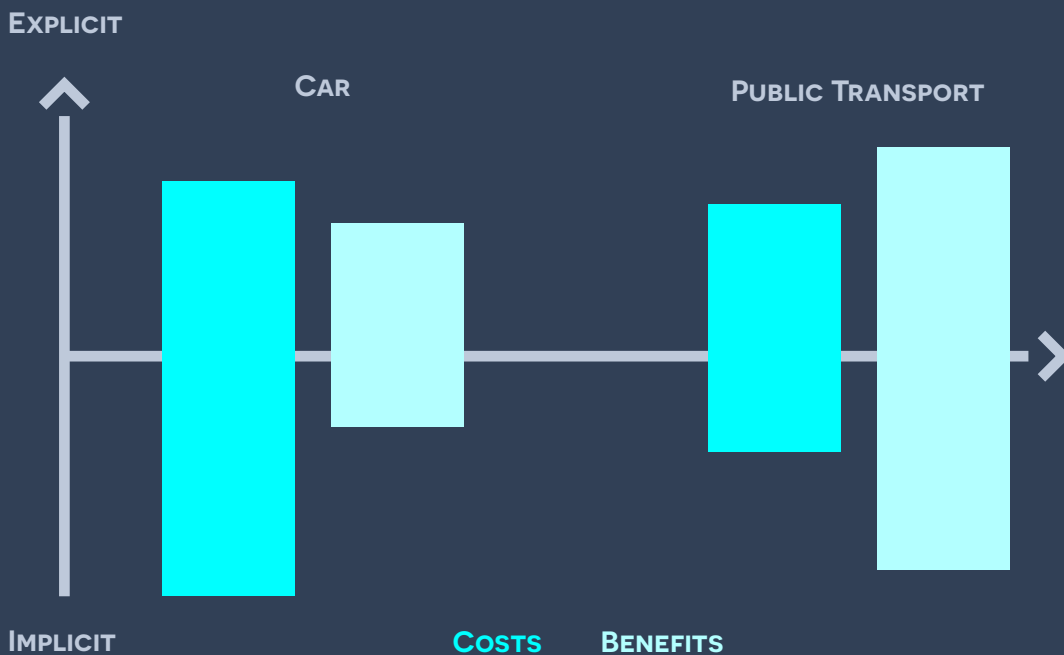
### 3.3 REDISTRIBUTING INVESTMENT FOR A BETTER COST-BENEFIT RATIO

Despite the negative consequences of car usage on road safety and the environment and the relative benefits of public transport, existing subsidies for the road network and private cars far outstrip subsidies for public transport.<sup>22</sup> Car users do not pay for the costs of driving, especially when congestion is taken into account. This raises the question of whether money in transport is well spent. Public transport has a better 'cost-benefit ratio' as it benefits the entire population, while cars benefit a minority of users and trips (See figure 1, which depicts explicit and implicit costs of cars compared to public transport).

When considering investment possibilities for public transport it is therefore necessary to simultaneously critically assess the (indirect and direct) subsidies for cars. It is often the case, that expansion of the road network is funded from the general tax base, while public transport is underfunded. In these cases, it is legitimate to ask if the funding can be re-adjusted towards public transport to achieve a better cost-benefit ratio.

Figure 1: total costs (explicit and implicit) and benefits of cars compared with public transport

Source: The World Bank, Sustainable Urban Transport Financing From The Sidewalk To The Subway, 2016<sup>23</sup>



### 3.4

#### INVESTING IN A DIVERSE AND GROWING PUBLIC TRANSPORT WORKFORCE

A reduction in car travel and a transfer to public transport would result in a net increase in employment. On average, rail and bus travel generates more jobs per passenger kilometre than car travel. For example, research in the United States suggests that investing in public transportation produces twice as many jobs per dollar as investing in roads.<sup>24</sup>

However, rapid urbanisation, especially in middle and low-income countries, has led to a huge increase in the demand for transport services. In many cities across the world, local and central governments have not been able to keep up with this demand. In India, for example, the government has provided public transport services in the form of bus and rail-based transport in only 65 cities out of 7,935 cities and towns (as of 2011). The remainder of cities rely on walking, cycling, personal vehicles and informal public transport.<sup>25</sup> N'Djamena, Chad's capital and largest city, is wholly reliant on the informal public transport sector.<sup>26</sup> It is therefore crucial that cities recognise the existence and the contribution of informal public transport services when developing policies and investment strategies in the sector.<sup>27</sup>

In many countries the transport industry is one of the largest areas of employment but worldwide most transport workers work in the informal sector. For example, in Uganda informal transport services were reported to be the second largest employment sector after agriculture in 2013. In Kampala alone, there were 120,000 boda-boda (motorcycle) operators.<sup>28</sup> Generally, the working conditions for informal transport workers are very poor. Low wages, few benefits or social protections and long and irregular hours, as well as police harassment and criminal extortion are the norm in the sector.<sup>29</sup> The formalisation

of informal transport offers opportunities to extend and improve public transport services by building on existing structures and knowledge. Integration of the informal and formal systems can lead to better-quality transport overall. However, formalisation should not bring costs such as job losses or adversely affect the livelihoods of transport workers. Formalisation should be used as a tool to improve the working conditions of the workers. The example of Bogota (see section 6.2.2) shows that additional government subsidies might be necessary here to strengthen a transport system that serves commuters as well as workers.

Similarly, gig-economy transport attempts to portray itself as a substitute to public transport.<sup>30</sup>

In recent years there has been a steep rise in 'on-demand' transport and services across the world. Uber alone records 3 million drivers worldwide<sup>31</sup> and Lyft has 1.4 million drivers.<sup>32</sup> In other words, these operators have become an integral and fast-growing part of the global transport workforce, yet their drivers face inadequate pay and little-to-no benefits. In Austin, Texas, US taxi drivers – both digital and off-line drivers – organised to campaign for better wages and working conditions. They successfully set up their own taxi cooperative and Uber and Lyft temporarily left the city. The cooperative model enables taxi drivers to control their wages and working conditions.<sup>33</sup> Other examples of cooperative taxis that were formed as an alternative to exploitative players such as Uber and Lyft, include Union Cab in Madison, Wisconsin; Coop Taxi in Montréal, Canada; and COOP Taxi in Seoul, South Korea.<sup>34</sup> These examples highlight the impact that the digital transport economy has had on its workers. Its integration into the existing public transport system will depend on trade union representation and support of these workers.



### 3.5

#### INVESTING IN PUBLIC TRANSPORT

The preceding sections show that investment in public transport is key – but where should it come from? Across the world – whether operated by public or private companies – public transport is subsidised. In the United States, for example, public funding covers 57-89 percent of the operating costs of bus services and in the EU, operating costs are covered by public funds in the range of 23-50 percent, depending on the financing system within the particular EU member state.<sup>35</sup>

The World Bank highlights the ‘underfunding trap’ in public transport. This refers to the shortfall in many cities across the world between the revenue from small-scale transport systems and investment requirements in the infrastructure and assets of the system. International financial institutions (IFI) and the World Bank are quick to call on the private sector to rescue public transport from this ‘underfunding trap’. In section 4, we address why this is a short-sighted solution that will not lead to sustainable public transport for all. In section 5, we showcase alternative funding solutions for public transport.

## 4. THE PROBLEMS WITH PUBLIC-PRIVATE PARTNERSHIPS (PPPs)

A public-private partnership (PPP) is a form of privatisation. A PPP is a contract between government and a private company under which a private company finances, builds, and operates some element of a public service and is paid over a number of years, either through charges paid by passengers (often called a concession), or by payments from the public authority, or a combination of both.<sup>36</sup> In 2018, the UN concluded in a report on poverty and human rights that:

“

**Privatization often involves the systematic elimination of human rights protections and further marginalization of the interests of low-income earners and those living in poverty.”<sup>37</sup>**

Yet, privatisation is encouraged across the globe, based on the belief that the tendering of public transport to private providers reduces costs and increases efficiency. A study by Wallis and Hensher (2005), which covered tendering in public transport (mainly bus services) in 10 countries and 20 separate tender programs, is frequently quoted to support this belief. They found that in the first tendering round, significant cost savings could be achieved. For example, in the case of the UK, between 50-55 percent; in Scandinavia between 20-30 percent; in the USA 30-46 percent, and in Australia 22-38 percent.<sup>38</sup>

However, subsequent research, carried out by the same authors, showed their previous study was overly optimistic. In fact, when they looked at the costs in real terms over a longer time period (beyond the first tendering round), it became clear that there were no significant price reductions. Wallis and Hensher (2005) found that in the second tendering round, costs increased in comparison to the first round. Among other reasons, this was because bidders usually avoided the inclusion of long-term costs in the initial tender, but the subsequent pressure to replace assets became greater. From the third round of tendering, costs remained stable in real terms.<sup>39</sup> As such, beyond the initial one-off price reduction, no sustainable cost savings were achieved through tendering in bus services. More recent research has confirmed that privatisation does not automatically lead to cost savings. In 2011 another wide-ranging study assessed bus services in 73 cities, across all continents, and with different types of bus operators. It concluded there was no significant difference in efficiency between public and private operators.<sup>40</sup>



Where a difference can be seen between public and private operators, however, is in the quality of the service, its safety and the pay and conditions of its bus drivers.<sup>41</sup> When profits and cost reductions became the first priority of a private operator, this was found to be at the cost of wider transit objectives, such as addressing congestion, environmental impact and social equity.<sup>42</sup>

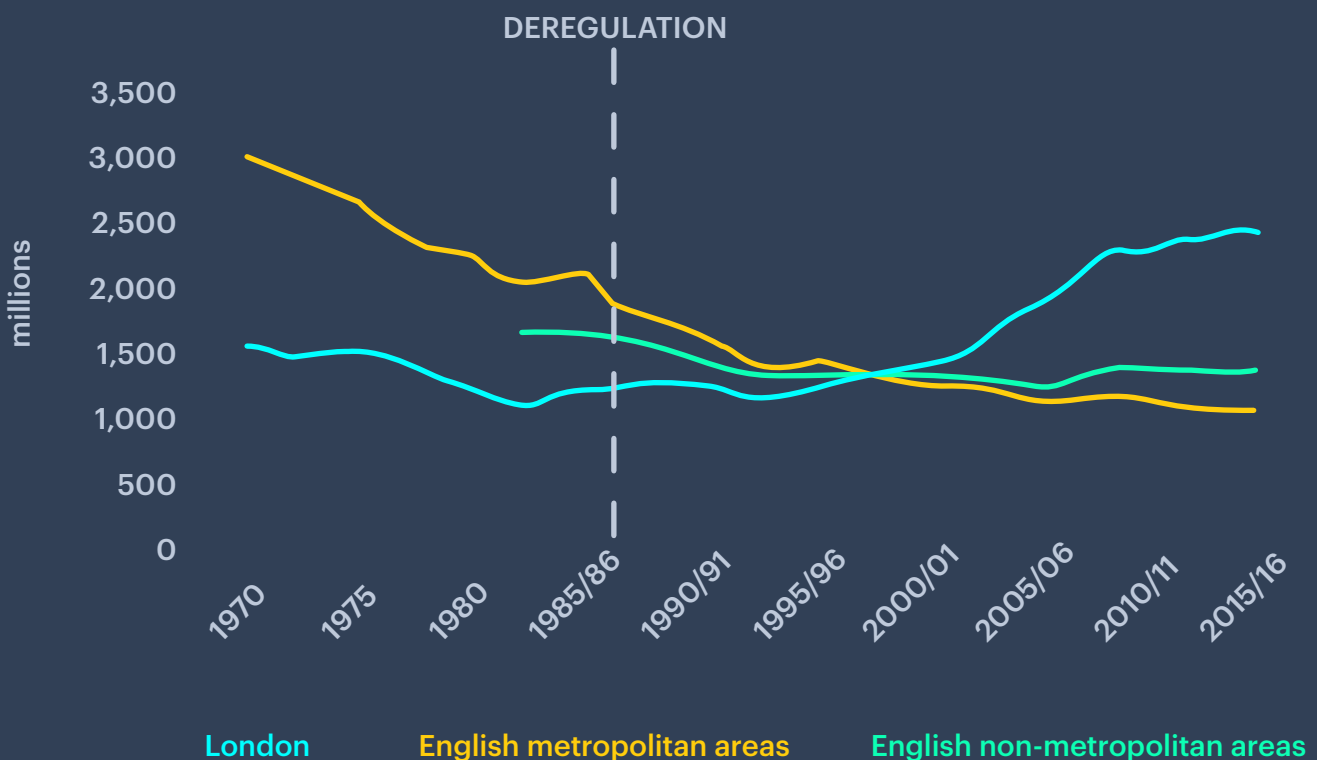
In the USA, a study of over 400 public transport authorities over nine years found that privatisation had produced no significant cost savings. While private contractors were on average 5.5 percent cheaper, the study also found the lower wages in the private sector were equivalent to a reduction in costs of about 18.6 percent.<sup>43</sup> Similarly, research on the privatised BRT in Bogota, Colombia (see 6.2.2) revealed that the operating company prioritised financial savings over good working conditions and service quality.<sup>44</sup>

In addition, private operators often cherry pick the most profitable services. For example, a study carried out in India found that private bus operators appeared to be more efficient but noted that this could have been due to the operator's selection of more profitable routes, as well as cuts to the wages and conditions of its workers.<sup>45</sup>

Research on the benefits of privatisation often focuses on profitable areas such as large cities, while non-metropolitan areas are ignored. A recent study focused on England and showed that privatisation led to fare increases outside of London while services worsened. Consequently, bus use fell. Bus trips in English metropolitan areas outside of London halved from about 2 billion per year in 1985 to 1 billion per year in 2016 (see figure 2). In the big cities outside London, the initial small rise in bus use was replaced by a fall of 13 percent in just one year. This was followed by a continuous downward trend.<sup>46</sup>

Figure 2: annual passenger journeys on local bus services in England

Source: Taylor and Sloman, Building A World-Class Bus System For Britain, 2016: [http://www.transportforqualityoflife.com/u/files/160120\\_Building\\_a\\_world-class\\_bus\\_system\\_for\\_Britain\\_FINAL1.pdf](http://www.transportforqualityoflife.com/u/files/160120_Building_a_world-class_bus_system_for_Britain_FINAL1.pdf)



Fundamental to a privatised, deregulated bus system are the dividends paid out to shareholders – money that could be re-invested to improve and extend the service. In the UK, the bus companies' average operating profit between 2003 and 2013 was GBP297 million per year (USD393 million). Almost all of this – on average, GBP277 million per year (USD366 million) – was paid out as dividends to shareholders. In other words, there was a loss of GBP2.8 billion (USD3.9 billion) that could have been used to enhance the public transport system but was instead paid out to shareholders. In contrast, Reading, a town in southern England, owns its buses municipally. As it does not pay out dividends, Reading is able to invest an additional GBP3 million per year (USD4 million) in the bus network, thus improving the town's bus service. This is one reason why the town enjoys high levels of bus use.<sup>47</sup>

The profit motivation of private bus companies deters them from making the necessary long-term investments required to provide more environmentally sustainable services. This is illustrated in the case of Mexico City (see section 6.4.2).

Regarding rail services, the situation is even more severe. A study of rail PPPs across the globe came to the conclusion that most PPPs ended up as financial failures and thus a constraint upon public budgets.<sup>48</sup> Again, the UK has been at the forefront of rail privatisation and its failure. Not only is it well documented that costs rose after privatisation,<sup>49</sup> but the licensing system was manipulated in a way that allowed public subsidies to be paid out to shareholders, while company debts rose to unsustainable levels and eventually required a bail out by the public. A company – as in the catastrophic case of the East Coast Line (see section 6.5.1) – is able to walk away from a franchise without serious penalty despite overly optimistic projections on which the contract was won

proving to have been fantasy.<sup>50</sup> Moreover, McKay and Moore's report (2017) on the consequences of outsourcing in UK rail found considerable evidence that the outcome for workers, the services they provided and upon wider communities was overwhelmingly negative.<sup>51</sup>

In Brazil rail privatisation led to redundancies – both in preparation for the privatisation and following it.<sup>52</sup>

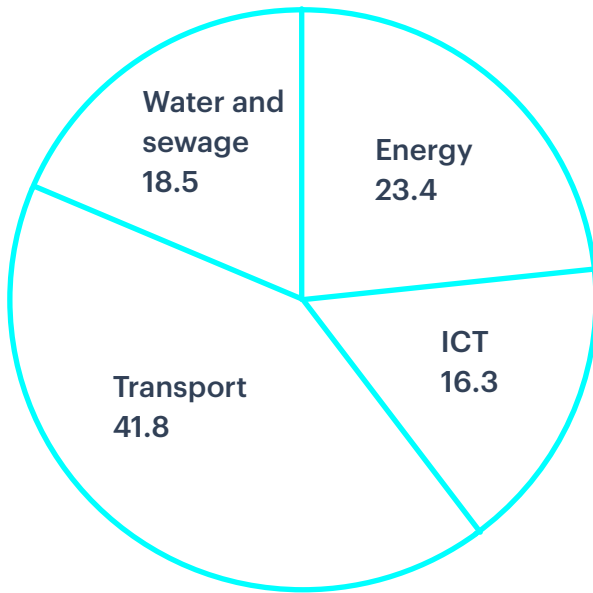
In Estonia a study on rail privatisation found that it led to reduced services for passengers and increased public spending. Profits were directed towards the company owners rather than making necessary investments in the service. Estonia's rail privatisation also led to significant job cuts. Both passengers and workers had protested the privatisation of their rail services before it was carried out.<sup>53</sup>

The Asian Development Bank flags up the high failure rate of PPPs worldwide and especially in developing Asia, where the transport system is most affected (see figure 3). Its analysis is based on the World Bank's private participation in infrastructure database. Between 1991-2015 there were 6,273 PPP projects of which only 216 were completed while 259 PPPs were cancelled by the private sector and 67 were stressed (meaning either the public sector partner or the private sector operator requested a contract termination or international arbitration to settle a dispute). In other words, between 1991 and 2015, more PPPs have failed than have succeeded.<sup>54</sup>

**Figure 3: cancelled PPP projects by sector in developing Asia between 1991 and 2015**

Source: Asian Development Bank, 2018

**SECTOR**



Even the World Bank admits that across urban rail, metros and commuter rail systems, many of the PPP projects have failed, as it concludes:

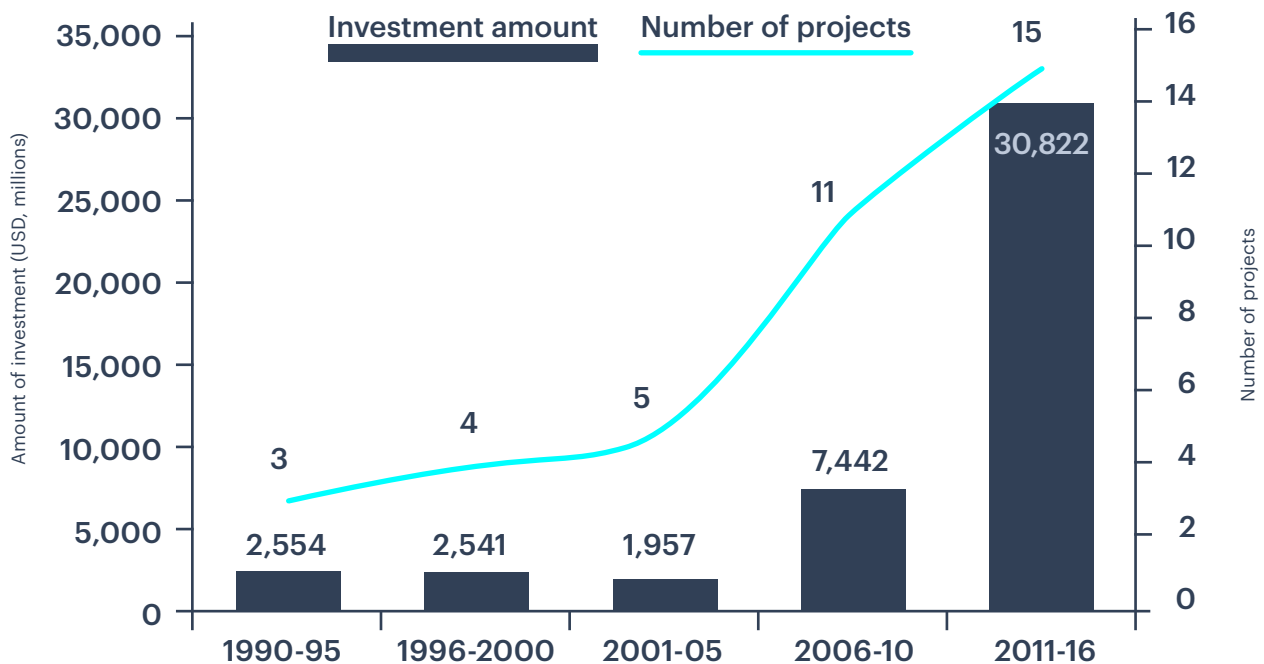
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**Early urban rail projects developed through PPPs in the 1990s and early 2000s were far from delivering optimal VfM [Value for Money] given delays in construction, higher-than-anticipated project costs, or lower-than-expected demand. In many cases, public project implementing agencies had to take over the remaining development of the urban rail project.”<sup>55</sup>**

Despite the many failures of PPPs in urban rail there has been a large increase in the number of urban rail projects with private participation since the early 2000s and the World Bank continues to promote PPPs as a financing option for urban rail. Following this advice, governments both in high-income and in low and middle-income countries are increasingly using public-private partnerships (PPPs) to develop urban rail projects.

**Figure 4: urban rail projects involving private participation in low- and middle-income economies, 1990-2016**

Source: Pulido, The Urban Rail Development Handbook, 2018



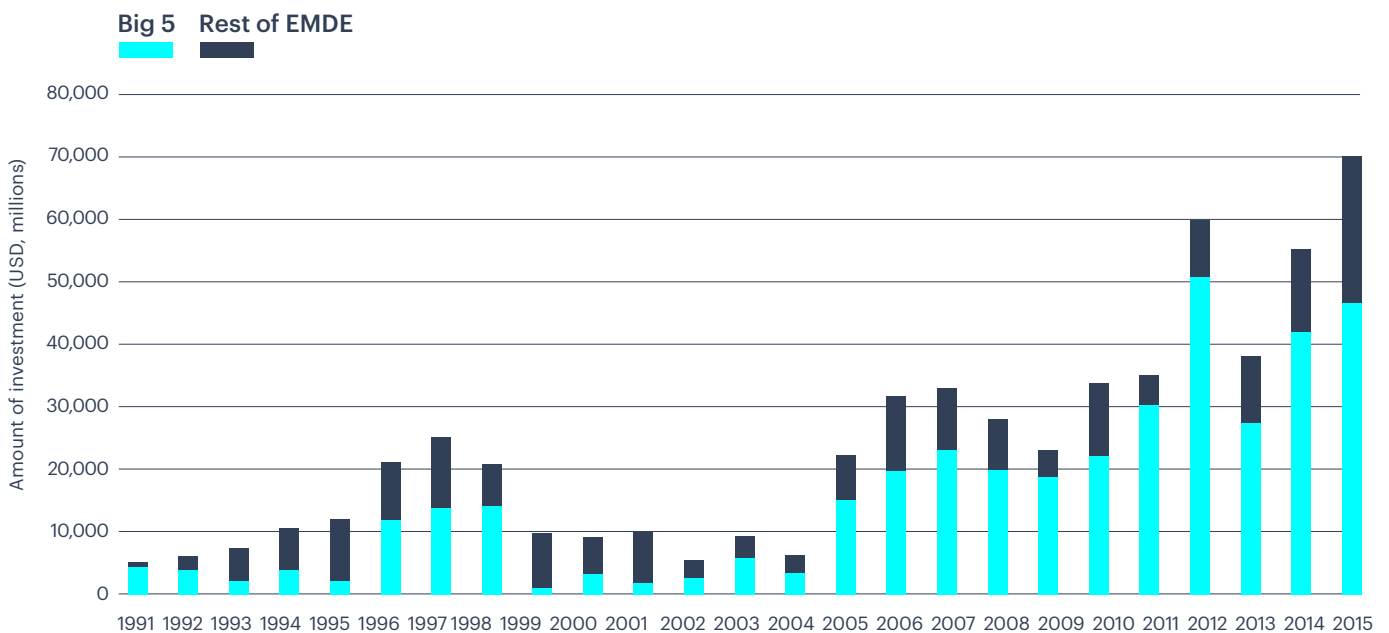
Infrastructure PPPs in transport are rising in emerging markets and developing economies (EMDE) (see figure 4). While most of the PPPs concern road construction (in particular highway programmes in India and Brazil), railroads, seaports, and airports are the next largest destination for PPP investment. The top five countries for PPP investment are Argentina, Brazil, China, India, and Mexico. Brazil closed on 23 mega transport deals topping USD 1 billion each, exceeding all other EMDEs combined.<sup>56</sup>

Despite the well-reported problems with PPPs it is surprising to see that the trend towards PPPs in transport has accelerated rather than reversed. There are several explanations for their continuous rise. First, PPPs are deeply ingrained in neoliberal policymaking, which assumes that market forces and competition will lead to efficiency, innovation and growth and that the government should, therefore, intervene as little as possible. As such, there is an ideological component to their championing; questioning PPPs

may be perceived as doubting neoliberal policymaking as a whole. To avoid that ideological taboo, studies usually excuse the failures of PPPs by suggesting tweaks to the existing model rather than an alternative to it.<sup>58</sup> Second, the 2008 financial crisis added a practical dimension to the continued rise in PPPs, namely that they provide a way to finance infrastructure and public services while keeping (official) debt figures low. This is important for countries bound by donor conditionality or, as in the case of the EU, where countries can be fined for not complying with the Excessive Deficit Procedure (EDP). PPPs still enable money to be borrowed but allows governments to invest while complying with the debt and deficit thresholds established in the Maastricht Treaty.<sup>59</sup> In other words, officially PPPs do not have a direct impact on government debt, even though in reality the government is still paying for the investment through taxation. It is also a more expensive type of borrowing, as elsewhere governments can usually borrow at lower interest rates.<sup>60</sup>

**Figure 5: investments in PPP infrastructure projects in the transport sector, top 5 countries and rest of EMDEs, 1991-2015 (2015 USD million)**

Source: World Bank and PPIAF 2016<sup>57</sup>



## 5. PUBLIC FINANCING ALTERNATIVES

### 5.1 AN OVERVIEW OF FINANCIAL INSTRUMENTS FOR PUBLIC TRANSPORT

Broadly speaking there are three different types of funding streams for public transport:

- beneficiary fees (for example fares, parking fees)
- taxes (for example income tax, property tax, carbon tax, pay roll tax, vehicle tax)
- national and international grants and debt

#### Beneficiary fees

A common mechanism to fund public transport is through fares and increases to fares. However, net social benefits can outweigh whatever additional fares may generate as income. To address inequality, for example, it is crucial that the fare system is progressive, ensuring people from poorer backgrounds are not priced out of using the service. Another net social benefit is the affect of fares upon the environment; increasing fares could incentivise car usage which would have a detrimental affect on the environment. To address these interrelated interests, some cities and countries have promoted free public transport (see section 5.5).

#### Taxes

Earmarking revenue income from specific (local) taxes can be a strategic way to guarantee the continuous funding for public transport. For example, in France the Versement Transport (VT) is a tax placed on employers within a public transport service area. In this way, funds from businesses that profit from good transport links are used to build and maintain the transport services within a certain area.<sup>61</sup>

Similarly, in Vienna the metro has been financed by a local tax on large employers.

This generated an annual income of Eur70 million (USD79 million).<sup>62</sup> In Brazil, the federal government mandates that any employer with more than 10 formal employees, and a home-to-work trip for an employee that costs more than six percent of the employee's salary, must pay the difference between six percent of the salary and the cost of the ticket. Payroll taxes are based on the assumption that employers benefit from good public transport.

Property-related taxes could be used specifically to invest in public transport. Earmarked property taxes to fund public transport are common in the US, for example in Minneapolis and New York. Also, in Mumbai, India, Osaka, Japan, and Barcelona, Spain, revenue from property taxes funds public transport.<sup>63</sup> The underlying assumption is that the value of property increases when it is better connected to public transport. As property ownership increases with income this is a relatively progressive tax. However, such a tax can be very burdensome for low-income households and potentially force them out of the area.

#### National and international grants and debt

National and international grants and loans provide another pathway to making long-term investments into public transport. However, international loans often come with conditions or strong incentives to increase private sector involvement in public transport. As outlined in section 4, private sector loans are usually more expensive than governmental bonds (loans taken out by the government).

The World Bank's 'who benefits pays' framework, recommends that those that benefit from urban transport services should pay for their costs. While the specifics vary between countries and cities the World Bank suggests three types of benefits:

- general benefits, which are received by society in general
- direct benefits, which are received mainly by users of the transport system

- indirect benefits, whereby non users of the system still perceive benefits from the improvements

Table 1 below provides an overview of the different sources of funding associated with each beneficiary group. While these financing instruments may be usefully applied in different local contexts, two major concerns with the 'who benefits pays' framework need to be highlighted:

- a strong inclination for private sector participation
- a tendency to argue for cost recovery

The **who benefits pays** framework is short-sighted. It does not consider the wider societal benefits of public transport, including to the environment and future generations. Instead of aiming for short-term cost recovery (where consumers pay the price), governments could explore redistributing funding from road building towards public transport and/or earmarking specific income streams for public transport (see also section 6.2).

Overall, the financing of public transport could be seen as inseparable from fiscal revenue. Finding the finance for public transport would therefore be integral to progressive tax reform and tackling tax avoidance. It is estimated that globally USD240 billion is lost every year in tax revenue through various forms of tax avoidance and evasion, with the majority of these losses being in low, lower, and middle-income countries.<sup>64</sup> This is money that could be invested in public transport and other public services instead.

The next sections will outline a number of alternative mechanisms for the mobilisation and redistribution of funds for public transport.

**Table 1: financing instruments by type of beneficiary**

Source: World Bank, From Sideways To Subways, 2016

GENERAL BENEFIT INSTRUMENTS	DIRECT BENEFIT INSTRUMENTS	INDIRECT BENEFIT INSTRUMENTS
Beneficiary: general public	Beneficiary: direct beneficiaries (users, drivers, passengers)	Beneficiary: indirect beneficiaries (firms, land and property owners, developers)
Public transport subsidies	Parking charges	Advertising
Property taxes	Road pricing	Employer contributions
National and international grants and loans	Congestion charges	Added value capture mechanisms
Climate-related financial instruments	Fuel taxes and surcharges	Land-value taxes/betterment levies
Global Environment Facility (GEF)	Vehicle taxation	Tax increment financing
Clean Technology Fund	Farebox revenue	Special assessment
Clean Development Mechanism (CDM)	PPPs for urban roads	Transportation utility fees
Public-Private-Partnerships (PPPs) for public transport		Land asset management
		Developer extractions
		Development impact fees
		Negotiated exactions
		Joint developments
		Air rights

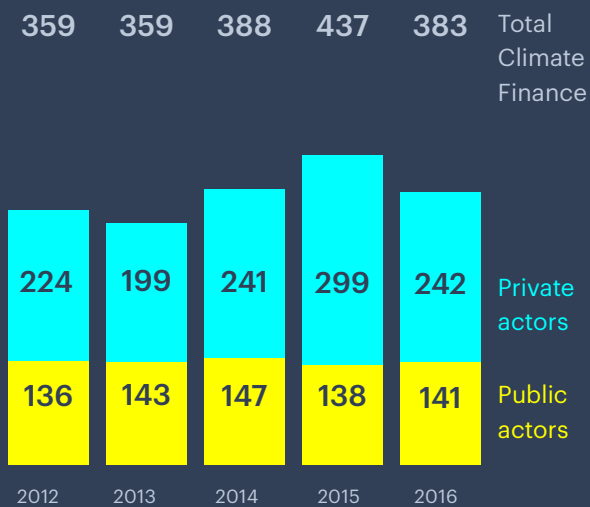
**5.2 CLIMATE FINANCE**

The Kyoto Protocol and the Paris Agreement call for financial assistance from countries with more financial resources to those that are less endowed and more vulnerable. This recognises that climate finance is needed for mitigation, as large investments are required to significantly reduce emissions. The UN refers to climate finance as the local, national or transnational financing – drawn from public, private and alternative sources of financing – that seeks to support mitigation and adaptation actions that will address climate change.<sup>65</sup>

The majority of climate finance comes from private sources. In 2015 private climate finance reached a record high of USD299 billion (see figure 6). In 2015 and 2016 public climate finance commitments of USD139 billion per year were made. However, there are limitations in tracking the data of private finance in transport. Current research suggests that it is mostly public climate finance that is spent on sustainable transport, which is estimated to be around USD22 billion annually (see figure 7). While this is just a small proportion of the climate finance funds, it marks an increase from 2013/2014 when the annual investment in sustainable finance was USD 19 billion.<sup>66</sup>

**Figure 6: Breakdown of global climate finance by public and private actors 2012-2016 (USD billions)**

Source: Global Landscape Of Climate Finance 2017, Climate Policy Initiative



**Figure 7: Accounting gaps in tracking climate finance**

Source: Global Landscape Of Climate Finance 2017, Climate Policy Initiative



All figures in USD Billions

\*Source: IEA WEIO 2017



In the public transport sector, climate finance can be used to support land transport activities that will reduce greenhouse gas emissions. The requirement is that the funds are used for specific climate change mitigation or adaptation interventions. Both developed and developing countries can apply for climate finance.<sup>67</sup> In particular, much climate finance goes into investments for bus rapid transit (BRT) systems, which are mass transit systems using energy-efficient

electric vehicles (EEEEV). BRT systems mimic metro or light rail transit systems and are considered among the most cost-effective public transport systems in the world. For example, 10 percent of the funding for the BRT in Bogota, Colombia was funded through the Clean Development Mechanism (CDM) (see section 6.2.2). Furthermore, the Clean Technology Fund (CTF) provided finance for the BRT in Cebu, Philippines.<sup>68</sup>

**Figure 8: types of climate change mitigation activities that can be supported by climate finance**

Source: Binsted, Accessing Climate Finance For Sustainable Transport: A Practical Overview, SUT Technical Document, GIZ, 2013

	Financing	Technology Transfer	Capacity Building
<b>Concepts &amp; Plans</b> finance of organisation	<ul style="list-style-type: none"> <li>• Integrated urban and transport plans</li> <li>• Guidelines &amp; Rules</li> <li>• Outlining Transport system (e.g. BRT)</li> </ul>	<ul style="list-style-type: none"> <li>• transport modelling</li> <li>• data gathering (e.g. traffic counting)</li> </ul>	<ul style="list-style-type: none"> <li>• organisation development</li> <li>• training</li> <li>• setting up networks</li> <li>• MRV concept</li> </ul>
<b>Infrastructure</b> mainly initial investments	Construction of... <ul style="list-style-type: none"> <li>• bus lanes, rail, stops</li> <li>• NMT networks</li> <li>• interchanges (Integration of models)</li> </ul>	<ul style="list-style-type: none"> <li>• efficient vehicles and retrofitting</li> <li>• e-ticketing</li> <li>• passenger information systems</li> </ul>	<ul style="list-style-type: none"> <li>• green public procurement</li> <li>• building standards</li> </ul>
<b>Operation &amp; Management</b> continuous financial flows	Construction of... <ul style="list-style-type: none"> <li>• Bus lanes, rail, stops</li> <li>• NMT networks</li> <li>• Interchanges (Integration of models)</li> </ul>	<ul style="list-style-type: none"> <li>• Intel. Transport Systems (ITS)</li> <li>• charging systems</li> </ul>	<ul style="list-style-type: none"> <li>• maintenance &amp; inspection</li> <li>• system optimisation</li> <li>• eco driving</li> </ul>

There is a growth in institutions and organisations that provide climate finance. Those that provide financial resources for climate change mitigation activities in the transport sector are listed in order of the size of the funds available:

- Global Environment Facility (GEF)
- Clean Technology Fund (CTF)
- Global Climate Change Alliance (GCCA)
- IDB Sustainable Environmental Climate Change Initiative (SECCI)
- ADB Climate Change Fund (CCF)
- ADB Clean Energy Fund (CEF)
- Japan Fast Start Fund Initiative
- International Climate Initiative (ICI)
- Clean Development Mechanism (CDM)
- Voluntary carbon market

**Table 2**  
**An overview of what type of climate finance support is available by intervention type**

Source: Binsted, Accessing Climate Finance For Sustainable Transport: A Practical Overview, SUT Technical Document, GIZ, 2013

SUB-SECTION OF REPORT	SOURCE OF CLIMATE FINANCE	NATURE OF SUPPORT		TYPE OF INTERVENTION SUPPORTED				MODES SUPPORTED					
		GRANTS	LOANS	TECHNICAL	CONCEPTS AND PLANS	INFRASTRUCTURE	OPERATIONS AND MANAGEMENT	TECHNOLOGY TRANSFER	CAPACITY BUILDING	ROAD	RAIL	URBAN PUBLIC TRANSPORT	NON MOTORISED TRANSPORT
4.1.1	Global Environment Facility	✓		✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
4.1.2	Clean Technology Fund	✓ <sup>a</sup>	✓		✓	✓	✓	✓	✓	✓	✓	✓	✓
4.1.3	Global Climate Change Alliance	✓		✓	✓	N/A			✓	✓	✓	✓	✓
4.1.4	IDB Sustainable Energy and Climate Change Initiative	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
4.1.5	ADB Climate Change Fund	✓		✓		✓		✓	✓	✓	✓	✓	✓
4.1.6	ADB Clean Energy Fund	✓	✓	✓	✓	✓		✓	✓	✓	✓	✓	
4.1.7	Japan Fast Start Fund Initiative	✓	✓	✓		✓		✓	✓	✓	✓	✓	✓
4.1.8	International Climate Initiative	✓			✓	✓		✓	✓			✓	✓
4.2.1	Clean Development Mechanism	✓		✓		✓	✓	✓		✓	✓	✓	✓
4.2.2	Voluntary carbon market	✓				✓	✓	✓	✓	✓	✓	✓	✓

a) it should be noted that grants from this source are only available for project preparation

Most climate finance is directed to local, regional and national governments as well as the private sector. Climate finance, therefore, offers opportunities for the funding of sustainable transport.

Caution is required, however, as it provides an entry point for private sector involvement in public transport. Several climate finance schemes specifically encourage privatisation.

For example, PPPs are one eligibility criteria to access funding from the Inter-American Development Bank's (IDB) Sustainable Energy and Climate Change Initiative (SECCI).<sup>69</sup> This reinforces the research findings of several scholars who have observed a strong trend towards neo-liberalisation within global climate policy.<sup>70</sup>

### 5.3

#### PUBLIC-PUBLIC PARTNERSHIPS

PuPs are the collaboration between two or more public partners to improve the capacity and effectiveness of one partner in providing public services. PuPs are peer relationships forged around common values and objectives, which exclude profit seeking.<sup>71</sup>

The absence of commercial considerations allows partners in PuPs to reinvest all available resources into the development of local capacity. Building mutual trust translates into long-term capacity gains, and incurs low transaction costs.

In practice, the work of PuPs can be divided into five broad categories:

- training and developing human resources
- technical support on a wide range of issues
- improving efficiency and building institutional capacity
- financing services
- improving participation

To date, no study has been conducted on PuPs in the transport sector. However, research on other public services where they have been utilised offers suggestions on how PuPs can be used to finance public services and thus provide lessons for their engagement in the transport sector.

Common ways to initiate PuPs are through city-to-city partnerships. For example, Seville, Spain, developed several PuPs that were motivated by international solidarity. A PuP between Seville and Ciudad Sandino, Nicaragua led to the establishment of a municipal water company with public participation. There are also country-to-country PuPs. For example, a partnership between Finland and Vietnam was developed through the Finnish bilateral development agency (FINNIDA) and led to a more efficient water supply system and workforce training. Between 1990 and 1995, 50 percent of the investment of the Vietnamese water company, Hai Phong Water Supply Company (HPWSC), came from this PuP.<sup>72</sup>

PuPs can also be a means to protect a public company that is threatened with privatisation. For example, in Cali, Colombia in 2016, Emcali, a municipal public service provider of water, electricity and telecommunications, was challenged by the municipal government to privatise its telecommunications unit, as it was deemed unprofitable. However, the trade union, Sintraemcali, resisted the privatisation and successfully proposed the establishment of a PuP. Consequently, Antel, Uruguay's state-owned telecommunications company, which provides the world's most inclusive and America's fastest national broadband network, set up a PuP with Emcali. The privatisation was stopped.<sup>73</sup>

### 5.4

#### PARTICIPATORY BUDGETING

The practice of participatory budgeting was first introduced in Porto Alegre, Brazil over 30 years ago. Its aim is to enable local people to have democratic control over municipal budgets; ensuring public spending is in line with the interests of the community. Since then many municipalities have adopted it across the world. It is estimated that there are currently over 7,000 participatory budgeting projects globally.<sup>74</sup> Research has shown that participatory budgeting has led to improvements in the provision of basic services. Studies have also shown that in cities that have introduced participatory budgeting, tax revenues increased and tax delinquency dropped – presumably because the process allows the population to become aware of municipal resources, their limits and their origin.<sup>75</sup>

Through participatory budgeting in Scotland, GBP500,000 (USD666,000) was allocated to be spent on bus transport in the Western Isles.<sup>76</sup> Switzerland also has a long history of direct democracy and most cantons and communes hold optional or even mandatory referendums on financial matters. This has led to the redistribution of funds to finance public transport (see section 6.2.1).

**5.5**

**FARE-FREE PUBLIC TRANSPORT**

Where a good public transport system exists, the abolition of fares can tackle issues of social exclusion, inequality, and transport poverty. By making public transport accessible and free of charge, the market-oriented focus on profitability and demand management is challenged. Public transport is thus no longer seen as a commodity, but as a common good, similar to public services such as parks, sidewalks, cycling paths, streetlights, libraries and playgrounds.<sup>77</sup>

It is often argued that cities cannot afford to offer public transport for free as the passenger fares are crucial for financing the running and maintenance of public transport. However, nearly 100 cities across the world have decided to make public transport fare-free and the trend continues. With 56 instances in effect, Europe has the most locations of fare-free public transport, of which 21 are in Poland and 20 in France.

Tallinn, Estonia, which is home to about 450,000 people, is the largest city in the world with a fully fare-free public transport system (see section 6.4.1). In the United States there are 27 fare-free public transport systems, yet these are mostly in small towns and colleges where the cost of fare collection would be higher than the income it would generate. Brazil has 11 fare-free systems. There are also two in China and one in Australia.<sup>78</sup> Recently Dunkirk joined this trend and became France's biggest fare-free public transport city.<sup>79</sup> Paris is also considering the introduction of a free-fare transport system<sup>80</sup> and Luxemburg recently announced it would become a fare-free country by 2020.<sup>81</sup>

**Table 3: list of full fare-free public transport systems across the world**

Source: Koblowski, More Than Just Riding Without A Ticket? Exploring The Geography Of Fare, 2017

Year	Full fare-free public transport cases					
	Total	North America	South America	Europe	Asia	Australia
1970	1	1	-	-	-	-
1980	6	4	-	2	-	-
1990	12	8	-	4	-	-
2000	25	16	2	7	-	-
2010	56	24	5	27	1	-
2017	96	26	11	56	2	1

Beyond full fare-free public transport there are several cities across the world where public transport is made freely available when air pollution reaches high levels. Cases in point are Seoul, South Korea<sup>82</sup>, Brussels, Belgium<sup>83</sup> and Salt Lake City, USA<sup>84</sup>. In other words, fare-free transport is a known mechanism to promote the usage of public transport over car usage and thus it is an instrument to reduce air pollution.

Additionally, there are many cases of fare-free public transport systems where specific groups of users (usually children, young people and students, and/or old people) travel for free. For example, in Slovakia the railway network is free for children, students, retired persons and seniors. Also, in England, UK, travel on buses, the metro and commuter rail is free for people over 60.<sup>85</sup>

Experiments across the world show that public transport usage increases when public transport is made free. In Hasselt, Belgium, which had free transport from 1997 until 2013 (16 years), public transport usage increased 1,300 percent and the number of cars decreased. While more cyclists also switched to public transport, the total number of cyclists went up, presumably encouraged by the reduction of cars on the street.<sup>86</sup>

However, following the global financial crisis, free public transport has placed demands on municipal budgets and in some cases cities could not generate enough funds to continue with free transport. In the case of Hasselt, Belgium, the cost of free transport rose from EUR967,000 (USD1.1 million) in 1997 to EUR3.5 million in 2007 (USD3.8 million).<sup>87</sup> Yet, Tallinn, Estonia shows that fare-free public transport can also help to generate new revenue that largely covers the reduced or eliminated income from fares. In Tallinn, the free public transport provided an incentive for previously unregistered citizens to register in order to be eligible to use it. This also meant that they had to pay city taxes and this provided the city

with extra income to finance free transport (see section 6.2.2).

When the social and environmental benefits of free public transport, such as social inclusion and reduced emissions, are taken into account it becomes clear that that fare-free public transport is a political rather than a financial question.

## 5.6 REMUNICIPALISATION

Remunicipalisation refers to the return of privatised local and regional government services<sup>88</sup> to full public ownership, management and democratic control. In 2017 a study reported 835 cases of remunicipalisation of public services involving more than 1,600 cities in 45 countries.<sup>89</sup>

A number of factors drive remunicipalisation. It is usually a response to the failures of privatisation in both high and low-income countries. However, austerity is also leading trade unions and governments to explore more effective and efficient uses of public money and resources. In many cases, insourcing is the solution.<sup>90</sup>

Another reason to insource a service might simply be that public services are cheaper as they do not divert public money to shareholders. Therefore, local and regional governments can provide the service at a lower cost while continuing to maintain and improve it. Cost benefits have been the main motivation behind a number of remunicipalisation exercises. In Bergkamen, Germany, for example, remunicipalising the waste management service reduced its costs by 30 percent within four years, while service quality remained the same. The price drop was achieved solely by the removal of the profit motive.<sup>91</sup> While there are similar trends in remunicipalisation across all utilities, section 6.2 focuses upon public transport.

## 6. CASE STUDIES – LEARNING LESSONS ON HOW (NOT) TO FINANCE PUBLIC TRANSPORT

### 6.1 EXPENSIVE PRIVATISATIONS

#### Case study: HIGH-SPEED STANDARD GAUGE RAILWAY, KENYA

**Lesson 1:** public transport funding that hinges on the awarding of a contract to a particular company puts that company in a powerful position where the potential for abuse is significant. Workers, communities and the environment are often the victims of this power dynamic.

**Lesson 2:** while conditional 'government-to-government' procurement might appear to save costs, as the case of the SGR railway in Kenya shows, it can prove a costlier way to finance public transport.

High-speed railway projects in Africa are on the rise (see Table 4). In 2017, Kenya opened a high-speed standard gauge railway (SGR) to link the capital, Nairobi, with the coastal town Mombasa.<sup>92</sup> It was the first of a series of planned railway links in the East African region planned, constructed and operated by the China Railway and Bridge Cooperation (CRBC). The 472km project had a cost of USD3.2 billion. It was Kenya's biggest infrastructure project since its independence.<sup>93</sup> The railway was financed through a concessional loan from the Exim Bank of China, which included a condition that the engineering, procurement and construction contract would be awarded to a state-owned Chinese corporation. Following construction, the CRBC would operate the line for 10 years.<sup>94</sup> This kind of financing, where projects are financed through concessional loans

and grants from foreign governments conditional upon contracting a particular company, did not adhere to Kenyan procurement law.<sup>95</sup> The Law Society of Kenya therefore went to the Kenyan High Court. It argued that the procurement method used for the SGR was not competitive and therefore contravened the procurement law. However, the court ruled in favour of the procurement method used for the SGR. This ruling set a precedent in Kenyan law that government procurements arising from negotiated grants or loans are exempt from the country's procurement laws.<sup>96</sup>

Such methods might offer an easy way to source the large-scale funds that are needed to invest in public transport – especially when new infrastructure projects are required. However, the CRBC charges approximately KES1 billion a month (USD10 million) in operating costs for the new railway.<sup>97</sup> Also, the construction cost of USD3.2 billion seems inflated, when compared to similar projects. Tanzania recently awarded a USD1.92 billion contract to a Turkish firm to build 422 kilometres of its rail link (50km less than the Mombasa-Nairobi link). Not only is Tanzania's train line projected to be significantly cheaper in cost than Kenya's SGR, but, running on electricity rather than diesel, it is also predicted to be a faster and a cleaner transport project overall.<sup>98</sup>

Besides the excessive cost of the project the SGR project also raised concerns in terms of:

- lack of transparency: the initial contract and a subsequent one on the Nairobi-Naivasha project included confidentiality clauses, which meant Kenya could not make contract details public unless China agreed.<sup>99</sup>
- dispute settlement arrangements: the contract states Chinese laws will govern the pact with all disputes arbitrated in Beijing. This places Kenya in a very vulnerable position.<sup>100</sup>

- corruption: in November 2018, Kenyan authorities arrested seven CRBC officials for bribing investigators looking into corruption tied to the Standard Gauge Railway.
- racism: allegations of racism and discrimination against Kenyan staff by Chinese managers have been reported.<sup>101</sup>

**Table 4: Selected high-speed railway PPPs in Africa**

COUNTRY	YEAR OF OPENING	CONNECTION	PROJECT COSTS	LENGTH OF PPP	COMPANY	FINANCE
South Africa <sup>102</sup>	2011	Johannesburg – Pretoria	Eur 1.83 billion (ZAR 26 billion)	20 years	Bomblea Consortium (Murray and Roberts 33 percent Strategic Partners Group 25 percent, Bombardier 17 percent, Bouygues Travaux Publics, J and J group 8 percent)	/
Kenya <sup>103</sup>	2017	Nairobi – Mombasa	USD 3.2 billion (KES 380.4 billion)	10 years	China Road and Bridge Corporation, a subsidiary of China Communications Construction Co.	China Exim Bank (90 percent)
Morocco <sup>104</sup>	2018	Casablanca – Tangier	USD 2bn		Morocco's national railway operator ONCF is running the service	French Development Agency
Ethiopia/Djibouti <sup>105</sup>	2016	Addis Ababa – Djibouti	USD 4.5 billion	7 years	A Chinese consortium, the China Railway Group (CREC) and the China Civil Engineering Construction Corporation (CRCC)	China Exim Bank (70 percent) and the Ethiopian government
Tanzania	Planned for Nov 2019	Dar es Salaam – Morogoro	USD 1.92 billion	/	Turkish firm Yapi Merkezi, through a joint venture with Portuguese company Mota Engil <sup>106</sup>	USD 1.46 billion concessional loan from the Standard Chartered Bank's Group

Source: PSIRU

**Case study:  
SEOUL METRO LINE, KOREA**

**Lesson 1:** in comparison to the other publicly run metro lines in Seoul, the privatised metro line 9 resulted in poorer pay and working conditions for workers as well as low levels of passenger satisfaction.

**Lesson 2:** workers and civil society organisations can effectively campaign together to achieve remunicipalisation.

Seoul's metro is the world's longest in terms of passenger-route length. It comprises nine lines, of which one is privately operated – line 9. The other lines are operated by a public corporation called Seoul Metro. Line 9 was built in three phases: a private operator runs section 1 (Gaehwa to Sinnonhyeon station), while the public Seoul Metro now operates sections two and three. Sections two and three were initially privatised but subsequently brought in-house, as the result of a campaign led by the workers and their trade union.

Section one, which began operation in 2009, was financed as a build-operate-transfer (BOT) project, with 50 percent investment by Metro 9, a special purpose company (SPC) owned by a consortium of private companies with Hyundai Rotem and the Australian firm Macquarie as its two largest shareholders. In return Seoul Metropolitan City granted Metro 9 a 30-year concession with exclusive rights to operate line 9.

The original contract with Metro 9 shifted significant risk on to the government – to the advantage of the consortium. For example, the contract included a 'minimum revenue guarantee' (MRG). The projected annual revenue (after tax) was 8.9 percent of the capital invested. The MRG meant the government guaranteed most of this projected after-tax revenue for the first 15 years (to be precise 90

percent MRG for the first five years, 80 percent in the second five years and 70 percent for the remaining 5 years). The MRG clause allowed Metro 9 shareholders to receive very high profits from building infrastructure, financing construction, and operating the metro line (the return on equity was 66 percent in 2009, 84 percent in 2010, and 79 percent in 2011). This agreement meant that although Metro 9 made substantial losses, it received significant financial subsidy from the government.<sup>107</sup> Moreover, the contract gave the consortium a high level of autonomy to renegotiate fares.<sup>108</sup>

As a result of its financial losses, the Seoul government amended the contract with Metro 9 and restructured the project in 2013. The main changes included a complete replacement of Metro 9 shareholders, the recovery of fare-setting rights by the Seoul government, the cancellation of the MRG agreement and a reduction of the guaranteed rate of profit now matched to market interest rates. Since 2013, a consortium of Korean investors has operated Line 9. However, re-contracting has also been an expensive undertaking for Seoul.

The workers and their trade union commissioned research on line 9, which came to the conclusion that EUR9.4 million (USD10.6 million) per year would be saved if the private contract was terminated and the operation provided directly by Metro 9.<sup>109</sup> The outsourcing of the line 9 operation was not only financially expensive, it also came with a social cost: workforce levels were lower and working conditions for line 9 workers were inferior to those on publically operated lines, putting passenger safety at risk. Workers felt conditions were intolerable. As a result, they organised and reached a union density of 90 percent, which is very high in a country where the average union density is 10 percent.<sup>110</sup>



Since 2017, the union has campaigned together with a coalition of civil society organisations to achieve remunicipalisation of the line. Their campaign has included various protest actions including a six-day strike at the end of 2017 with the threat of another in 2019, outreach to and surveys of passengers, press and media work and lobbying of the city government. Line 9 workers also received international solidarity from workers facing similar conditions in other countries.<sup>111</sup>

As a result of these efforts the Seoul City government and Metro 9 announced the cancellation of the operation contract with Seoul Line 9 Operation. Metro 9 will now directly operate line 9's section one with greater oversight from the city government.<sup>112</sup>

This marks a first step towards remunicipalisation. The union and civil society are developing plans for the next phase of the campaign.<sup>113</sup>

## 6.2 GOVERNMENTAL SUBSIDIES AND TAXES

### Case study: SWITZERLAND

**Lesson 1:** despite the EU's drive for the liberalisation and privatisation of transport, railways in Switzerland (that is not in the EU) are mostly publicly owned. This has meant Switzerland has been able to maintain and extend public transport services that place service quality before profit.

**Lesson 2:** Switzerland's system of direct democracy facilitated investment in public transport. The Swiss electorate repeatedly voted for the funding of public transport and even prioritised it over road construction.

**Lesson 3:** a proportion of the income gained from a federal gas tax and roadway tolling is earmarked for public transport.

Switzerland is renowned for its high-quality and expansive public transport network. One of the biggest systems in Europe, Swiss cities and rural towns and villages enjoy well-maintained and regular transport connections. The network keeps on extending and so do passenger numbers. Passenger journeys saw an increase of 35 percent between 2004 and 2014. In the same time period, railways were expanded by nearly 29 percent, the local tramways increased the number of journeys made by 18 percent and bus traffic increased by 21 percent. Switzerland's public transport system also stands out due to its integrated nature. Passengers are able to buy one ticket for multiple forms of transport, including trains, buses, ships and mountain cable cars. Moreover, services run on time: train punctuality is stable with exceptionally high rates of nearly 90 percent in 2012.<sup>114</sup>

Switzerland provides an example of an efficient, publicly-run rail system. The main railroad lines are operated by Swiss Federal Railways and owned by the Swiss Confederation. And while EU policies to promote liberalisation have led to the introduction of privately run rail companies in its member states, the Swiss Confederation, the cantons (federal states), and communes hold the vast majority of the capital of its railway companies (typically more than 90 percent).

Switzerland's system of direct democracy facilitated investment in public transport. The Swiss population has a direct say over public transport budgets at federal, cantonal and communal level. Citizens repeatedly backed the financing and extension of public transport. In 1998, for example, people voted in favour of the Federal Decree on Construction and Financing of Public Transport

Infrastructure Projects (FinPTO). This enabled Switzerland to significantly expand its rail infrastructure through large-scale projects. The projects included Rail 2000, the New Railway Link through the Alps (NRLA),<sup>115</sup> a new connection to the European High-Speed Rail network (HSR) and rail noise reduction. The four projects' combined cost of CHE31.5 billion (around USD34 billion; 1995 prices) was financed through a combination of a heavy goods vehicle charge, revenue from mineral oil tax and VAT (0.1 per cent).<sup>116</sup>

Additionally, in 2016 the Swiss electorate backed a proposal to use the entire proceeds from the mineral oil tax from the federal coffers to fund public transport rather than road building. This signifies a significant amount of funding, as taxes on petrol have risen consistently (by 178 percent between 1990 and 2012) and make up almost half of Switzerland's retail petrol price.

Public funding for public transport is drawn from general budgets as well as passenger fares (see figure 9). Currently public transport generates enough revenue to cover more than half of its costs. The rest is drawn from public subsidies and infrastructure contribution.

**Case study: BRT INFRASTRUCTURE, COLOMBIA**

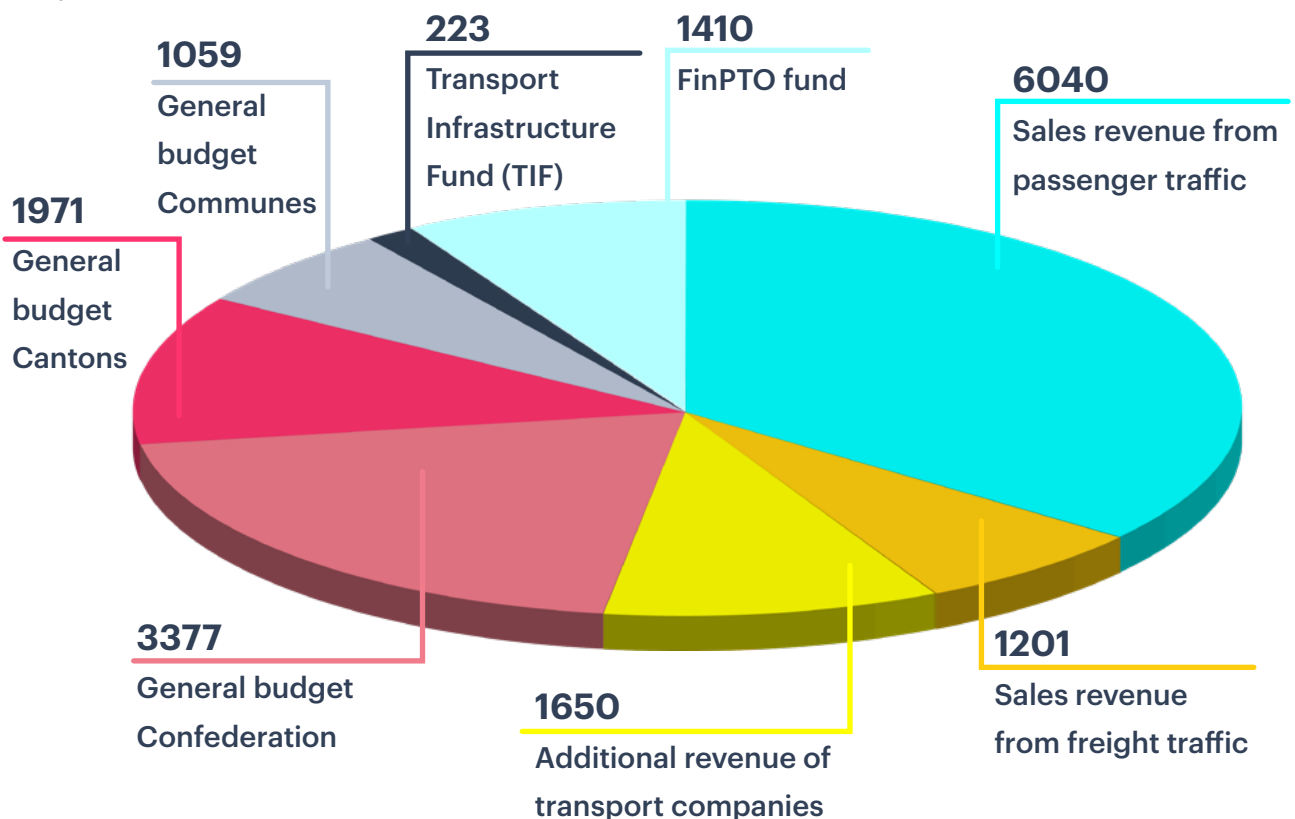
**Lesson 1:** the initial BRT infrastructure was to a large extent financed through a fuel tax.

**Lesson 2:** the BRT in Bogota is operated by private companies and operates at near cost recovery. Despite a pro-poor subsidy scheme most of the urban poor are excluded from the system.

In 2000, Bogota, the capital of Colombia, opened a BRT, also called Transmilenio. Today the network covers over 100km and transports 2 million passengers per day.<sup>117</sup> The total cost of the initial infrastructure of the BRT was USD240 million. This

**Figure 9: funding of public transport in Switzerland**

Source: Federal Office for Transport, Swiss Transport Policy From A To Z, 2016



was financed to a large extent through a fuel tax (46 percent), local revenues (28 percent), a credit from the World Bank (6 percent) and grants from the national government (20 percent).<sup>118</sup>

For stages 2-4 in the development the BRT, Bogota also received climate finance through the Clean Development Mechanism (CDM) and the sale of Certified Emission Reductions (CERs) on the compliance carbon market. In 2006 it received USD360 million through CDM, which had predicted 246,563 (tonnes of CO<sub>2</sub> equivalent) in estimated annual emission reductions. This was used for infrastructure measures (dedicated bus lanes and bus stations to support transfer to feeder services), and new and larger buses with improved fuel efficiency per passenger transported. The CDM covered 10 percent of total project cost; the rest of the funding came from the national and regional government.<sup>119</sup>

A city-owned company manages the BRT; TransMilenio S.A awards concession contracts to private companies that operate the system and are responsible for fare collection. The bus operating companies are granted concessions for certain routes and paid on the number of kilometres they operate. TransMilenio sets the schedules and routes for the service. The private companies maintain their operations through fare collection. As no public subsidies were provided to fund equipment acquisition or operation, TransMilenio is designed to recover 100 percent of its operational costs through passenger fares. Any increase in revenue from expanded ridership goes directly to the operators.<sup>120</sup> In order to extract the maximum profits, the operating companies put a lot of emphasis on financial savings, which had detrimental effects on working conditions and service quality.<sup>121</sup>

This system also led to high levels of transport poverty. In 2011, 66 percent

of the households in Bogota belonged to the lowest income ranges, with a household income of less than USD680 per year. These households spend more than 20 percent of their income on transport and in some areas this reached 28 percent.<sup>122</sup> The housing and transport indicator recommends a 15 percent spend on transport (see section 3), which is considerably less than the 28 percent spent by Bogota's citizens. To address the issue of transport poverty, Bogota introduced a public transit subsidy system. The subsidy amounted to a 45 percent discount for trunk services, and 53 percent discount for feeder services. It remains capped at 40 trips per month. However, research suggests that an estimated 68 percent of the intended beneficiaries of the subsidy system are still excluded.<sup>123</sup> This stands in stark contrast to the publicly owned and operated BRT in Quito, Ecuador where fare prices (USD0.25 per journey) are very low.<sup>124</sup>

As part of Bogota's 2006 mobility masterplan, an Integrated Public Transport System (SITP) was developed to complement the Transmilenio with feeder services and further citywide bus routes operating in normal traffic. In addition to this formal public transport system, an informal bicycle system, bicitaxis, has operated in the city. Research in 2013 found that around 8,000 people worked in the informal bicitaxi sector. In reality, the number of workers is likely to be much higher. Since 2004 there have been several attempts to regulate the bicitaxi sector, but so far this has not happened. While bicitaxis are not allowed to operate everywhere (especially where formal transport routes exist) they are tolerated in side streets and feed into the BRT stations. The bicitaxis address a demand that is currently not, and unlikely to be, covered by the integrated public transport system SITP even when fully implemented.<sup>125</sup>

### 6.3

#### CROSS-SUBSIDISING AND PUBLIC-PUBLIC-PARTNERSHIPS

##### Case study: MUNICH, GERMANY

**Lesson 1:** Munich, like other cities in Germany, experienced a decrease in national funding for public transport, leading to an increasing deficit in the Munich Transport Company (MVG). Its parent company, Munich's public utility (Stadtwerke Muenchen-SWM), balanced this debt with the surplus achieved in its electricity sector.

**Lesson 2:** since 2015, Munich's public utility, which is not only in charge of public transport but also electricity supply, provides renewable energy for all of Munich's metro, trams and electro buses.

Munich is reversing the tide of privatisation. In the words of Munich's mayor, Dieter Reiter:

“

**In an alarming number of cases, the results of privatization were highly problematic and do not seem to indicate that privatization can be seen as a silver bullet. That is especially true for sectors that are prone to producing monopoly or oligopoly structures such as energy supply, public transport or water supply. [...] In the history of privatization of local public transport, more often than not, the services provided were reduced dramatically and the prices saw steep increases.”<sup>126</sup>**

In order to decrease individual motorised transport and to reduce CO2 emissions, Munich developed a high-performing, publicly-run, local, public transport system. In Munich, public transport is 100 percent owned and operated by the municipality. Munich's Transport

Federation (MVG), which is a subsidiary of Munich's public utility (SWM), is Germany's second largest municipal transport enterprise.

Public transport in Germany is funded by federal, state, and local governments, as well as through passenger fares. Legislative changes to the organisation of public transport in Germany in the 1990s, alongside EU regulations calling for more competition between operators, increased pressure upon local authorities. The German Railways (DB) was transformed from an administrative unit of the federal government to a private company owned by the German federal government, and cities and counties became responsible for the planning and funding of public transport.<sup>127</sup> While the demands on public transport increased, the federal funding for public transport largely remained the same.

To deal with federal budget constraints, the SWM subsidised public transport by using the surplus made in its electricity supply division. This covered the MVG's deficit. In Germany such municipal cross-financing of public services provides a common form of funding for public services that cannot be funded by passenger fares alone and remain equitable. Public swimming pools are subsidised in a similar way, for example. The integration of different public services also allowed Munich to become a forerunner in green transport. Since January 2018, all trams and the metro have run on renewable electricity, produced by Munich's public utility. In other words, trains and trams are now 100 percent CO2 free. Moreover, Munich's fleet of electric vehicles is growing and with MVG Rad it has also developed a public bike-rental system.

**Case study:**  
**INTERNATIONAL RAIL LINK,  
FRANCE-SPAIN**

**Lesson 1:** failed PPPs and bankruptcy forced the two governments to take on heavy financial obligations, which were ultimately absorbed by both taxpayer and service users.

**Lesson 2:** in order to attract private investment the PPP's risk was loaded onto governments, which effectively incentivises private firms to take on projects likely to end in bankruptcy.

**Lesson 3:** the Spanish and French governments set up a joint venture to run the international rail link themselves following the failure of the PPP. This option would have proved substantially cheaper had it been their first choice.

In October 1995, Spain and France signed an international agreement to construct and operate the cross-border section of the high-speed rail (HSR) line in order to connect both countries by rail across the Pyrenees. The Figueres-Perpignan line is 44.4km long, of which 19.8 are in Spain and 24.6 in France. In terms of construction, the most challenging section was the 8.3km twin-bore tunnel (Perthus Tunnel) and for it the countries sought private sector involvement. A number of contractual sweeteners were added to attract a private contractor. For example, it was agreed the company would receive subsidies from both states, as well as from the EU. The concession holder would also be granted the right to charge a toll for traffic on the line (of mixed passenger-freight services) and receive a guarantee of a minimum threshold of traffic in the long-term.

In 2003, the TP Ferro group was awarded the contract for the construction and operation of the HSR line. Two private construction companies jointly owned

TP Ferro: Spain's ACS (50 percent) and France's Eiffage (50 percent). The concession term period was 50 years. Initially the budget for the project was EUR952 million (USD1.1 billion), but its final cost was EUR1184 million (USD1.3 billion). The majority of funding came in the form of direct grants from the governments of France and Spain and both governments contributed additional funding to ensure the viability of the concession. The other main finance came in the form of debt and equity (the shareholders' contribution). It is noteworthy that equity in TP Ferro represented less than 10 percent of total construction costs, and that more than 50 percent of the equity came from third-party loans.<sup>128</sup>

The construction work began at the end of 2004 and was completed in February 2009, but the implementation of the contract was poor. The lack of connections with domestic lines caused compensation payments to the concessionaire and the extension of the concession of three additional years. However, in 2013 it became clear that the forecasted demand for the line was overly optimistic. While TP Ferro had expected to run 24 trains a day on average in the first year of operation and then eventually 30 trains a day, in reality only 12 trains per day ran in 2014's high season.<sup>129</sup>

It was, therefore, unsurprising that, more than a decade after the concession was awarded, TP Ferro entered into financial difficulty declaring financial losses of EUR112.8 million (USD128 million). Again, the Spanish company ACS (the effective leader of the PPP) sought compensation from the Spanish government in the form of EUR80 million (USD90 million) and a 25-year extension on the concession (until 2082). However, both governments refused to grant this. In 2016, TP Ferro went into liquidation, the concession was cancelled, and a new joint venture

involving the French and Spanish governments took over the international high-speed rail link between the two countries.<sup>130</sup>

## 6.4 CLIMATE CHANGE AND THE FUNDING OF PUBLIC TRANSPORT

### Case study: TALINN, ESTONIA

**Lesson 1:** free transport in Tallinn increased the city's tax incomes. As more people than previously officially registered in Tallinn in order to benefit from free transport, they therefore had to pay a city tax, which roughly covered the cost of fare-free transport.

**Lesson 2:** public transport usage increases and private car usage decreases as a result of fare-free transport options.

Tallinn, with approximately 420,000 residents, is the first European capital and the largest city in the world offering fare-free public transport. After a referendum in which 75 percent of the people said that they were in favour of fare-free public transport, Tallinn made its public transport free for residents in 2013. Residents had to register and for an administrative charge of EUR2 (USD2.30) received a 'green' card with which they could access the five tram lines, eight trolley bus lines and 57 bus lines in the city.

In 2012, before introducing fare-free public transport, 40 percent of all trips in Tallinn were made by public transport and 30 percent of the trips were made on foot. By international standards, this was high usage and largely due to tickets being cheaper compared to other European cities; a ticket cost EUR1 (USD1.3) in December 2012. Additionally, Tallinn had already operated fare exemptions for

certain groups, such as children and the elderly people.<sup>131</sup>

Despite their low cost, fares were the main reason for user dissatisfaction with public transport according to a satisfaction survey carried out in 2010. In addition, the trend of public transport usage was negative. Public transport trips had decreased dramatically over the previous two decades. At the same time, the motorisation rate had more than doubled: in 2012 there were 456 cars per 1,000 residents.<sup>132</sup>

One year after the introduction of fare-free public transport, the number of trips by public transport increased by 14 percent. People's satisfaction with the public transport system increased. Financially, the fare-free public transport system almost paid for itself. It is estimated that 42 percent of residents were previously un-registered for tax. In order to attain the green card for fare-free travel they registered and Tallinn gained 11,000 new taxpayers. On average, each newly registered person paid Eur 1,000 in income tax to the city. Approximately EUR11 million (USD12.4 million), almost equivalent to the lost income from tickets, was made through the additional income tax.<sup>133</sup> While Tallinn is an example of how free transport can generate additional income by providing an incentive for people to pay their taxes, it is too early to tell if the system is sustainable, especially when infrastructure investments need to be made.

**Case study:**  
**MEXICO**

**Lesson 1:** switching to zero-emission technology demands higher up-front costs but is significantly cheaper in the long run.

**Lesson 2:** climate finance initiatives promote private-sector involvement. However, the World Bank also points out that the high initial costs for sourcing the bus fleet and low profit margins are a disincentive to private operators. As such, the public sector is better positioned to engage with financing zero-emission buses.

Mexico is among Latin America's most carbon-intensive economies, and its transport sector is one of the main causes.<sup>134</sup> Research suggests that while heavy-duty vehicles make up only 5 percent of the on-road fleet in Mexico, two-thirds of the health impacts are caused by the on-road transportation sector.<sup>135</sup> Urban buses produce one-quarter of black carbon emissions from road transport, despite constituting only 1 percent of the global on-road vehicle fleet.<sup>136</sup> Several international organisations and lobby groups advocate for electric buses, such as the World Bank, the Climate & Clean Air Coalition (CCAC), International Council on Clean Transportation (ICCT), United Nations Environment, C40 Cities, and Centro Mario Molina-Chile (CMMCh). As part of the C40 cities (a network of over 90 mega cities backed by financial data and media company Bloomberg) Mexico City was one of the first mega-cities across the world that committed to de-carbonise the transport sector by switching to electric buses.<sup>137</sup> The bus corridor on Eje 8 Sur will be 22km long and serve an estimated 160,000 daily trips, providing connections with five Metro lines and one Metrobus Bus Rapid Transit line.

In order to finance the shift to sustainable mobility, Mexico's central government created the Public Transportation Federal Support Program (PROTRAM) in 2009. PROTRAM offers grants to subnational governments for up to 50 percent of the infrastructure costs of public transportation projects.<sup>138</sup> Climate finance matched this from different institutions. For example, the Global Environment Facility's (GEF) Sustainable Transport and Air Quality Program released a USD5.4 million grant, the World Bank's International Bank for Reconstruction and Development provided USD150 million and the World Bank's Clean Technology Fund USD200 million which, via the National Bank for Public Works and Services (Banco Nacional de Obras y Servicios Públicos, BANOBRAS), makes loans to states, municipalities, and the private sector to complement PROTRAM. PROTRAM's has planned 40 projects (of which seven are already in operation) with total investments of around USD3.5 billion.<sup>139</sup>

While switching to zero-emission technology does demand higher up-front costs, it is significantly cheaper in the long run.<sup>140</sup> Yet, instead of highlighting the comparative advantage of a publicly operated zero-emission bus service, the World Bank recommends pilots with large private operators, who may then send positive signals to the rest of the market and to transfer technology risks onto public authorities.<sup>141</sup>

## 6. 5. INSOURCING PUBLIC TRANSPORT: RENATIONALISATION AND REMUNICIPALISATION

### Case study: EAST COAST, UK

**Lesson 1:** rail privatisation in the UK led to a fragmented and inefficient rail system. This is clearly demonstrated by the East Coast train link, which has had to be taken back into national ownership twice following failed privatisations.

**Lesson 2:** motivated by profit, rail operators made unrealistic bids in order to win the contract. While shareholders benefitted, debt increased and eventually the government renationalised the service only to make it fit for re-privatisation.

**Lesson 3:** during the time of renationalisation, the East Coast line ran on a surplus and punctuality and customer satisfaction improved.

In the UK, franchising (the breaking up of the rail network to facilitate a competitive market for private providers) was part and parcel of the UK's rail privatisation strategy that was introduced in the 1990s by the Conservative government. It was believed that this would improve the service and reduce the government's subsidies for rail transport.<sup>142</sup>

The story of the East Coast line is an example of the failure of rail privatisation in the UK, as operators – in order to win tenders – made overoptimistic calculations leading to a decline in the quality of the service. The private operators of East Coast Rail entered into difficulties and pulled out of the contract three times.<sup>143</sup> First, in 2005, East Coast line was subcontracted to Great Northern Eastern Railway (GNER) after it agreed to a premium payment of GBP1.3 billion (USD1.7 billion) over 10 years, assuming

annual revenue increases of nine percent. But passenger numbers did not meet the projected expectations. Consequently, GNER left the contract when its parent company, Sea Containers, faced bankruptcy.<sup>144</sup> In 2007, National Express replaced GNER, but faced the same problems in that revenue was not as high as expected. National Express incurred high indebtedness and ultimately abandoned the contract. The East Coast line was taken back into public ownership in 2009 by the then-Labour government.<sup>145</sup>

During the years that the East Coast line was publicly owned and managed – from 2009 to 2015 – the service improved significantly. Customer satisfaction and punctuality rose, despite existing infrastructure problems. Moreover, the operation was more financially stable. Costs were saved since it did not need to pay dividends to shareholders – it managed to return GBP1 billion (USD1.3 billion) in premium payments to the government.<sup>146</sup> Despite the success of the public ownership and management of the East Coast line and the previous bad experience with its privatisation, the Conservative-led government decided in 2015 to privatise the East Coast line again. Stagecoach and Virgin signed a deal to run the East Coast line from 2015 to 2023, promising to pay the government GBP3.3 billion (USD4.4 billion) to run the service. Stagecoach owned 90 percent of the joint venture and Virgin owned the remaining 10 percent. Two years later, at the end of 2017, Stagecoach and Virgin withdrew from operating the service three years early, after running into difficulties.<sup>147</sup> However, just shortly after dropping out of the East Coast line contract due to financial difficulty, it became public that Virgin and Stagecoach shared GBP51.2m (USD68 million) worth of dividends from the West Coast main line railway, which they also operated.<sup>148</sup>



**Case study:**

**BRT, FORT MCMURRAY, CANADA**

**Lesson 1:** privatisation of the bus transit led to understaffing and frequent delays and bus cancellations.

**Lesson 2:** following remunicipalisation, the quality of the bus transit service improved and the staff benefited from better working conditions.

In 2013, the company Tok Ltd won a 15-year contract to run the standard and specialised transit services for Fort McMurray. Services started to deteriorate shortly after the privatisation. Within the first six months of 2014, there were 1,853 delays and 59 missed trips reported. Customer complaints rose drastically. Just two years after the privatisation, a public audit found that Tok Transit Ltd was not following staffing requirements, had not kept to the timescale for constructing a bus facility and customer complaints had risen to an unacceptable level.<sup>149</sup> The local government's transit service branch was not in the position to monitor the private contractors' finances and system utilisation. Following the results of this audit, in February 2015 the Regional Municipality of Wood Buffalo exercised a contract provision allowing for cancellation without reason at 90 days' notice. Following remunicipalisation, (supported by the system's workers) fares and the bus schedules remained the same<sup>150</sup> and service quality improved.<sup>151</sup>

## 7. CONCLUSION

While funding options for public transport will vary between countries and cities, there are a number of general lessons that can be learned about the financing of public transport detailed in this chapter.

First, PPPs do not guarantee better value for money. While the World Bank and other institutions are keen to argue that the private sector has the capacity to catalyse the investment needed for public transport, PPP's are usually expensive, as profits are siphoned to shareholders. The case of metro line 9 in Seoul, South Korea and the East Coast rail line in the UK clearly demonstrate that the service can be run more efficiently and cheaply when publicly owned and managed.

As shown by the example of the East Coast rail, private operators are quick to abandon a contract when they cannot make sufficient profit. Consequently, there is a high rate of PPP failures in transport. According to the Asian Development Bank, the failure rate of PPPs is especially high in the Asian transport sector, which has seen more failed than completed PPPs. To counter this, the World Bank and other financial institutions recommend better risk sharing between local, regional and national governments. Yet, the consequences of this strategy are overly optimistic projects that overestimate the private operator's financial capacity, which are ultimately financed by government and international institutions, although the private operator (and its shareholders) reap the profit. This is illustrated by the example of the France-Spain international rail-link, where the equity of the contractor, TP Ferro, represented less than 10 percent of total construction costs. The shifting of risk on to the state also brought about minimum revenue guarantee (MRG) clauses in contracts. The case of metro line 9 in Seoul, South Korea showed how the contractor could take advantage of this clause to make

excessive profits while simultaneously being compensated by the government, as 'expected' revenues were not achieved.

PPPs come at a social cost, with even the UN highlighting that privatization often involves the systematic elimination of human rights protections.<sup>152</sup> In public transport, privatisation has undermined working conditions, led to a deterioration of the service and higher fare prices. Poorer populations have been priced out of the services. In Fort McMurray, Canada the privatisation of the bus rapid transit (BRT) immediately caused a sharp rise in delays and cancellations and a worsening of working conditions with, for example, the company not meeting basic staffing requirements. Also, in the case of metro line 9 in Seoul, the working conditions were worse than on the eight other publicly run metro lines. In Bogota, Colombia, the privately operated BRT is unaffordable for most of the urban poor. In contrast, in Quito, the capital of neighbouring Ecuador, the BRT is publicly run and prices are low.

Another myth about PPPs is that they ensure complete transparency. In fact, the opposite is often the case, as contracts are kept secret from the public. Elsewhere, Public Services International Research Unit (PSIRU) research has shown that PPPs provide an incentive for corruption, as they offer a one-off opportunity to secure a government-backed revenue stream often lasting for decades.<sup>153</sup> This is also illustrated by the case of Kenya's high-speed standard gauge railway (SGR), where the contract was kept confidential allowing corruption in the project process. In Kenya's case, the PPP contract was conditional on awarding the contract to a particular (Chinese) company, putting the company in a very powerful position to the detriment of the workers, the environment and the general public.

Yet, despite the negative consequences of PPPs, the use of PPPs in public transport is rising, especially if transport infrastructure is taken into account – usually Build Operate

and Transfer (BOT) contracts and in urban rail projects. The private sector may have an increased interest in these areas as they are regarded as two areas in the public transport sector that are profitable. There are two main reasons for the continued increase in PPPs. First, their continued promotion (in transport and other public services) by the World Bank and other international financial institutions appears to have an ideological component attached to it. Questioning the efficacy of PPPs may be seen as questioning neoliberal policymaking as a whole.

Second, PPPs may be used for tactical rather than sustainable reasons, as they offer government a way to finance infrastructure and public services while keeping official debt figures low. This is a significant matter, especially for countries where donor obligations or other multinational agreements bind them to keep debt level low. Of course, in reality the government is still liable for the investment through taxation, but PPPs offer a simple method by which debt can be kept off the books.

Amid the championing of private-sector involvement, alternative models of finance are often dismissed. Yet to create and extend public transport that meets the requirements of rapid urbanisation, is accessible to all and is environmentally sustainable; a publicly owned and controlled public transport system is the only answer.<sup>154</sup> Switzerland's model provides the best example of this, where public transport remains in public hands. Switzerland maintains and has expanded a public transport network that puts the quality of the service before profit. Switzerland's system of direct democracy has repeatedly backed investment in public transport and this confirms research on participatory budgeting that suggests the funding of basic services is a vote winner and that, if given a say, people will back it.

In Tallinn, Estonia, a referendum led to the introduction of fare-free public transport.



Tallinn's case demonstrates that the funding of public transport is a political decision rather than a financial one. Tallinn is not alone in this experience. Due to the many social and environmental benefits of public transport, a number of cities across the world are opting to make public transport fare-free. The move involves a change of perspective that recognises public transport as a common good and not a commodity similar to other public services.<sup>155</sup> Tallinn's experience illustrates that fare-free public transport is both popular and has enabled Tallinn to mobilise additional city income tax. The additional income from that tax provided a significant proportion of the finance for the fare-free transport policy.

By drawing on examples across the world this chapter showcases some creative ways of how public transport can be financed in a sustainable way and that does not come at a cost to workers, the urban poor and rural populations.

One opportunity to fund public transport lies in Public-Public Partnerships (PuPs) that are based on solidarity rather than profit seeking and have offered a vital funding opportunity in other public services. Another way to mobilise finances for public transport is to cross-subsidise across public services. As the Munich case study illustrates, this is a successful way to fund public services that if financed by user-fees alone would exclude the poorer population.

Climate finance provides an emerging funding stream for the financing of public transport if it addresses specific climate change mitigation or adaptation interventions. The BRTs in Bogota, Colombia, and Mexico City, Mexico were, in part, funded by climate finance. However, caution is required here, as climate finance often encourages, or even requires, private-sector participation.

Public transport is fundamental to public health and social and economic equality. It is also integral to addressing climate

change and creating a sustainable future economy. This report demonstrates that the public sector has a comparative advantage in delivering public transport services that reflects the needs of the users, the environment and the workers. Workers within their trade unions and users can join forces in campaigns for better public transport for all. In the cases of metro line 9 in Seoul, South Korea and the BRT in Fort McMurray, Canada people power brought about the remunicipalisation and subsequent successful operation of the transport services.

## 8. POLICY RECOMMENDATIONS FOR TRADE UNIONS

- 1.** Trade unions can defend public transport from privatisations. The evidence presented here demonstrates that private-sector involvement hinges on the pursuit of profit and that this results in fare increases often coupled with wage cuts and poorer working conditions for workers.
- 2.** If public services are already privatised then trade unions can join forces with passengers and civil society organisations to campaign for their renationalisation or remunicipalisation. Scheduled contract renewal periods or private operator bankruptcy offer key opportunities to campaign for the insourcing of services. However, a case-specific cost-benefit analysis can also reveal that it is cheaper to remunicipalise/renationalise mid-contract even when facing compensation costs.
- 3.** The financing of public transport always needs to be seen in a wider context. Public transport – regardless of whether it is privatised or not – will be dependent upon government subsidies and will therefore reflect general budgetary decisions and fiscal policies. As such, progressive and redistributive taxation and measures to combat tax evasion are central to raising funds for public transport.
- 4.** Unions should cost private transport. In most countries, public subsidies for road networks far outstrip those for public transport, despite the negative consequences of road travel for the environment and health and safety. In comparison, public transport has a positive impact upon the economy, environment and people's quality of life.
- 5.** Earmarking specific income streams/ taxes could guarantee a sustainable income for public transport. For example, incomes from fuel tax or toll roads have been used to finance public transport in Switzerland, Colombia and the USA.
- 6.** Employers benefit from public transport and can therefore also be made to contribute to it, either through a special tax or by making them responsible for subsidising employees' transport costs.
- 7.** Cross subsidy of public services offers another opportunity for sustainable public transport. Munich's transport system is part financed by its electricity sector. This form of cross subsidisation has another advantage: the publicly-owned and controlled electricity sector provides green energy for the public transport system.
- 8.** In many cities across the world a more integrated and expansive public transport system can be established by formalising an existing informal sector. However, formalisation policies must consider the needs of informal sector workers. While additional subsidies may be necessary for the formalisation of the informal sector so that it benefits passengers as well as workers, in many cases it would offer an efficient way to expand the public transport system.
- 9.** Public transport is an equality issue and thus highly relevant to current and future trade union members. Accessible public transport improves public health, contributes to social and economic equality and mitigates climate change. It is therefore crucial that financing public transport is a policy priority.

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