

# Public transportation passes and the limits of influencing flows

From the 1970s, mobility authorities started to offer weekly, monthly and annual travel passes. These passes gave their holders unlimited access to the entire public transport network for a single price generally dependent on a geographical criterion (zones). The pass is very convenient for regular public transportation users: it facilitates the use of public transportation by creating a single ticketing system while each mode required a specific ticket before. The pass therefore enables users to make savings on the cost of their travel.



## → THE TRAVEL PASS, A COMMODITY WHICH HAS BECOME THE NORM

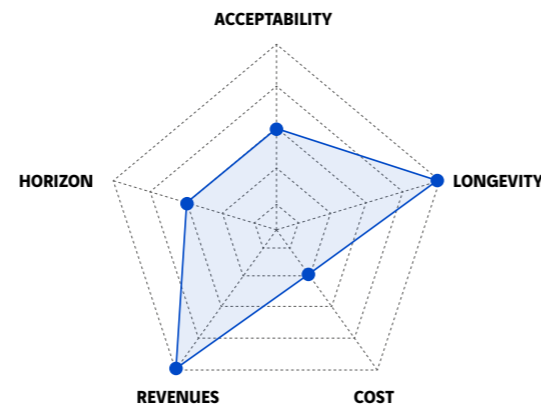
For the operator, this new pricing system has its benefits: it brings about greater revenue predictability, as income is no longer dependent solely on the potentially volatile sale of single tickets. The pass guarantees a revenue over a given period, regardless of whether the holder uses the transportation network.

In Paris, from the *Carte Orange* to the *Pass Navigo*, the pass has changed over the years. Today, it is used for more than 70% of journeys. This major use of the pass can be explained by two factors: the obligation for employers to pay 50% of the price of passes purchased by their employees and, in the case of Paris, the affordable end price of the pass, that the company's contribution makes even more attractive<sup>231</sup>.

## → THE SIDE EFFECTS OF THE TRAVEL PASS IN CITIES

From an economist's standpoint, the pass is not an ideal incentive to use public transportation. It brings about a zero marginal cost for journeys made by public transportation, which means that the cost of an additional journey will be nil. This may lead to an over-use of public transportation, i.e. disproportionate use that does not generate value for the local authority. This is particularly the case when a journey that could have been made by active modes (cycling, walking) is instead made by public transportation.

This trend has implications on the system. It may lead to a saturation of transportation networks at an early stage and some users preferring a shift to other modes, such as the car. Preventing the early saturation of networks is a major challenge: the low cost of transportation in some cities (Rome, Paris) leads users to react to quality of service rather than the cost of transportation. A fixed-price unlimited pass prevents transportation regulation by means of



influencing the price signal. Transportation saturation is thereby the only means of regulating demand.

## → TRAVEL PASSES IN THE DIGITAL ERA

As congestion is worsening in cities and public transportation networks are reaching saturation point at peak times, we can question whether the use of the travel pass is actually appropriate in view of the demand smoothing objectives at peak hours. Is this practice an effective means of combating public transportation network saturation or bolstering the attractiveness of public transportation compared to cars? Nothing could be less certain. However, developments made possible through digital technology (pay-as-you-go, smart pricing according to journeys) and ticketing innovations (paperless tickets) open up new prospects. How can the fixed-rate pass be modified to foster a change in behaviour and to prevent the early saturation of public transportation networks?

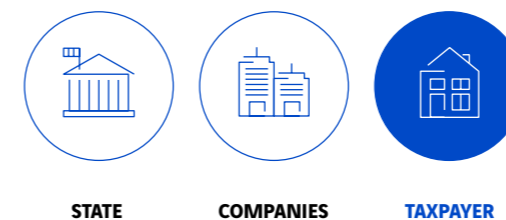
One solution may be to limit fixed-rate pricing to a commuter group between home and work or between home and the user's place of study<sup>232</sup>. Journey data generated each time a travel pass is used can provide more information about a journey than a stamped ticket. This new capacity means that it is possible to introduce a fixed-rate fare restricted to commuters. For other journeys, a usage-based fare may be applied and facilitated through a post-payment system in which customers pay in accordance with their actual use of the transportation network and are billed at the end of the month<sup>233</sup> or pay in advance for a quota of journeys per day. This usage-based pricing is made easier by the use of journey data obtained when a pass or ticket is used (travel pass or NFC device). Unlike the travel pass which does away with the marginal cost of additional journeys, this system gives the option of modulating fares according to the geographical zone and/or the time of day, thereby giving the mobility authority another lever to influence demand regulation: price.

This solution, which requires the roll-out of major education and communication efforts if it is to be accepted, would enable mobility authorities to regulate demand by influencing the price signal and recreating a correlation between actual use of public transportation and ticketing revenues.



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## Who pays?



## What scale of implementation?

