

## STRATEGIC

## NOTES

### STRATEGIC AFFAIRS SECRETARY OF THE PRESIDENCY OF THE REPUBLIC

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#### STRATEGIC NOTE 2 – URBAN MOBILITY: LISTENING TO THE VOICE OF THE STREETS

##### 1. THINKING ECONOMICALLY THE DEMONSTRATIONS ON URBAN MOBILITY IN BRAZIL

The demonstrations held in several Brazilian cities in 2013 made the federal government rethink a number of topics on the agenda of public demands. A primary concern is to understand exactly what was demanded. In terms of urban mobility, was it the improvement of the quality of public transport? Was it about cheaper fares for the poorest population? Was it about the decrease in the travel time? Or, was it transparency on the decisions in the sector?

As requested by the President of the Republic, the federal government has mobilized itself to identify a set of priority measures that could meet the demands of the streets. IPEA and SAE contributed with elements in which they have comparative advantages – especially economic and social analyzes.

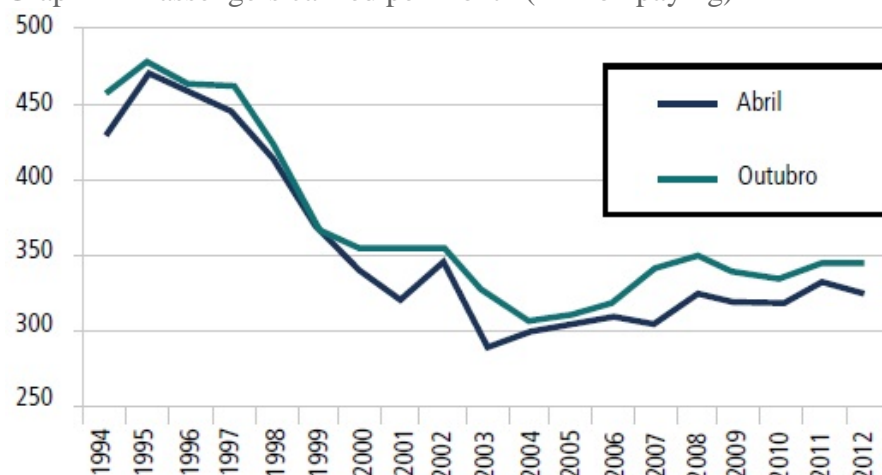
This note summarizes an effort to survey technical and economic information on urban mobility in Brazil and points to a minimum set of policy recommendations consistent with the information. They are contributions to debate, which should be complemented by institutional, political and administrative analyzes, in addition to other types such as urban planning, to be effective.

##### 2. THE CHOICE FOR PRIVATE TRANSPORT

The first observation to be made is that data confirms the fact that: **“the streets are right”**. The fares have risen above inflation, the travel time has increased and the poorer classes have chosen private transport, reflecting the unbearable time of public transport and its quality.

Graph 1 shows the decline in the number of passengers transported per month in urban buses in major Brazilian cities<sup>1</sup>. Such drop is not due to an increase in the purchase of cars by the poorest, suggesting it has more to do with the quality of the public transport per se (time travel, its unpredictability, safety and other factors).

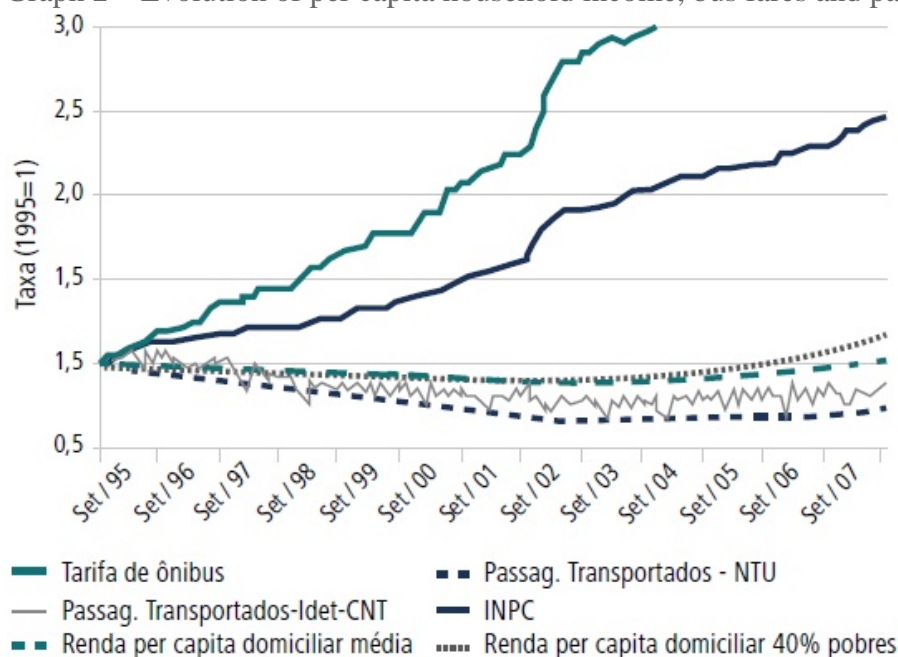
Graph 1 – Passengers carried per month (million paying)



Source: Anuário NTU 2012-2013

Graph 2 shows the very significant relative increase of bus fare – above the National Index of Prices to Consumers (INPC as per its acronym in Portuguese) and family income.

Graph 2 – Evolution of per capita household income, bus fares and passengers 1994-2008



Source: Série Eixos do Desenvolvimento Brasileiro, No. 94 (Ipea, 2011).

Another factor that favors private transport over public transport is the reduction by 5% in the IPI (Tax over Imported Products) tax for cars up to 2000cc. Despite being a subsidy to cheaper cars, this is not a benefit to the poorest, but to a middle class able to buy new cars.

### 3. INCOME COMMITMENT ON TRANSPORTATION

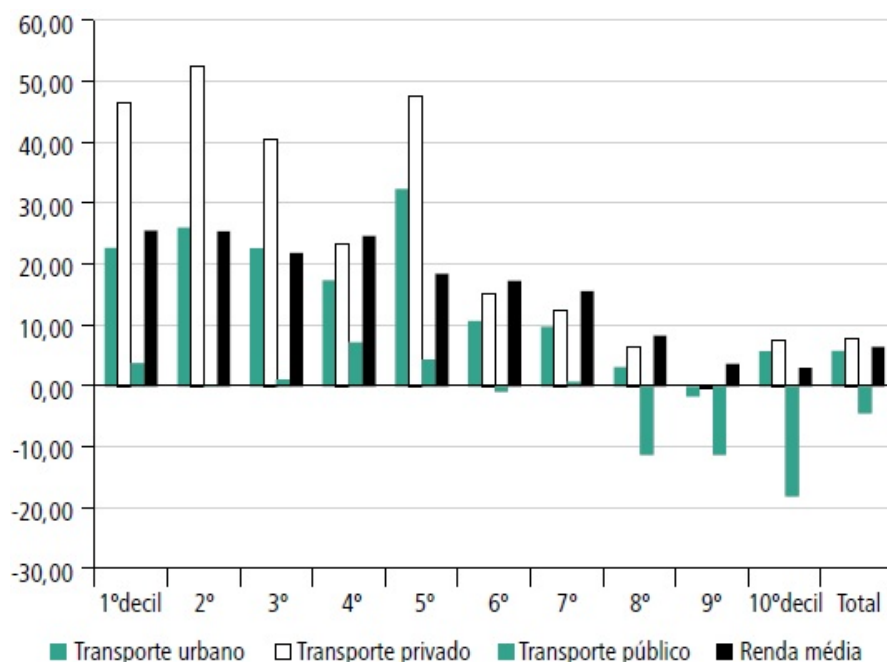
The choices of transport made by the population depend on the costs of private transport and rates of public transport. Chart 1 shows the higher income commitment on transport among poorest families. Graph 3 shows the significantly increase (2003-09) on income commitment in private transport when compared to public transport among poorest families. Moreover, it was also much higher than the actual growth of income of these families.

Chart 1 – Share of public and private transport expenses on average monthly income, by per capita income for each decile, 2009.

Family per capita income	Income commitment (%)		
1º decile	10,3	11,5	21,8
2º decile	7,1	10,6	17,6
3º decile	6,1	10,2	16,3
4º decile	5,6	11,0	16,7
5º decile	4,8	12,4	17,1
6º decile	4,2	12,5	16,7
7º decile	3,5	13,6	17,1
8º decile	2,7	14,0	16,7
9º decile	1,8	15,6	17,4
10º decile	0,7	13,1	13,8

Source: Texto para Discussão No. 1803 (Ipea, 2012)

Gráfico 3 – Variação da renda média e dos gastos das famílias com transporte, por decil de renda per capita, 2003-2009

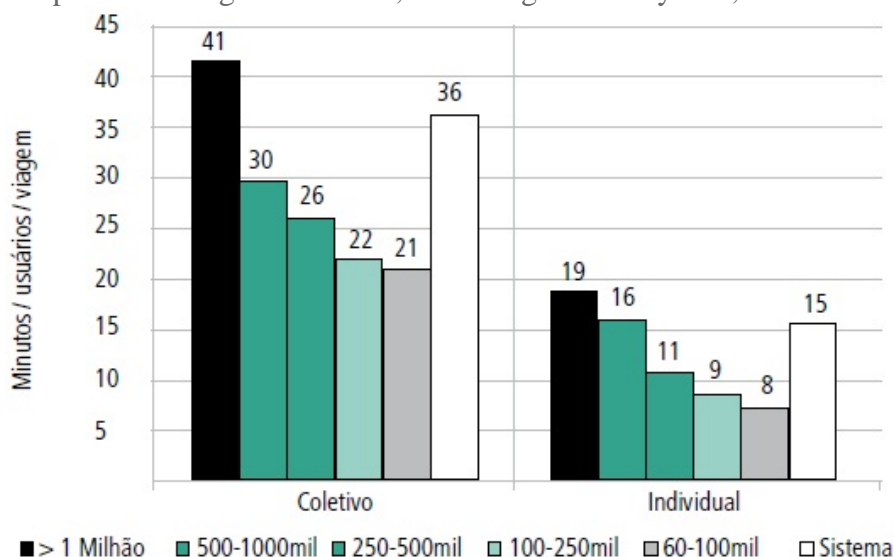


Source: Texto para Discussão No. 1803 (Ipea, 2012).

#### 4. TRAVEL TIME AND DISTANCE

Travel time is critical for passengers. It is observed that, for all sizes of town, the average journey time in public transport is about the double when compared to private transport (graph 4). This difference draws attention to the urgency of reducing travel time in public transport, which involves both increase the bus average speed, and limit and penalize private transport when the traffic reaches its peak.

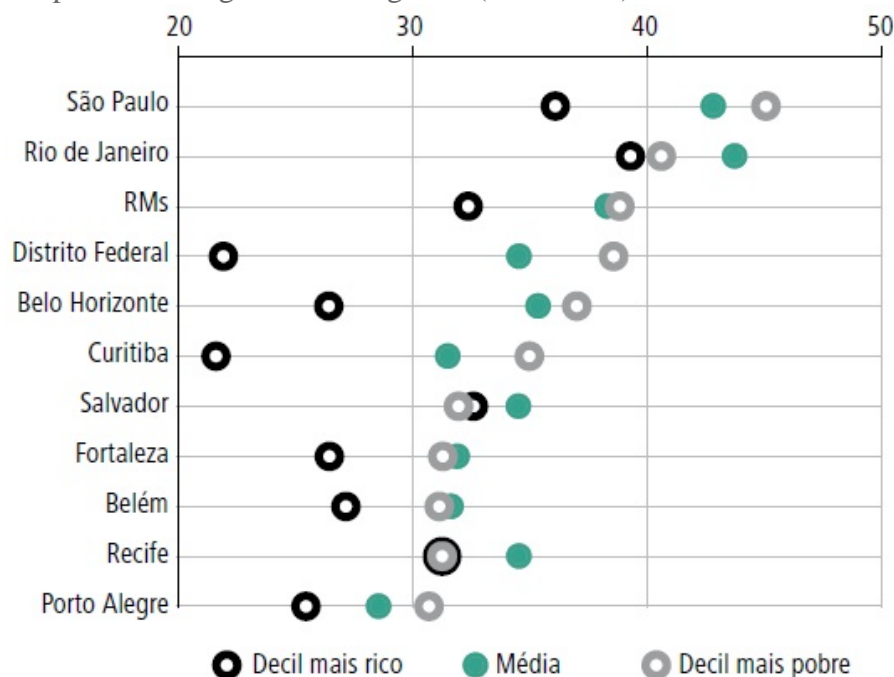
Graph 4 – Average travel time, according to the city size, in minutes / user / trip.



Source: Sistema de Informações da Mobilidade Urbana, Relatório Comparativo 2003-2011 (ANTP, 2012).

It is also important to analyze the differences in travel time according to the income level. Graph 5 examines inequalities between time spent by the richest and time spent by the poorest, pointing minor inequalities in Rio de Janeiro, Salvador and Recife, and the largest in Brasília, Belo Horizonte and Curitiba.

Graph 5 – Average commuting time (in minutes) 2008-09



Source: Texto para Discussão No. 1813 (Ipea, fevereiro de 2013).

## 5. SUBSIDIES: LIMITED AND REGRESSIVE EFFECTS?

Subsidies that affect transportation choices exist along the chain surrounding vehicles (buses and cars), fuels (diesel and gasoline), bus rates and others such as parking lots and spaces on public roads.

The exemption from fuel taxes, commonly referred to as an interesting public policy alternative to lower fares, actually appears to be quite limited. All federal taxes today are zero-rated – CIDE-Combustíveis, PIS/PASEP, COFINS and Import Tariffs.

The remaining two taxes – the state ICMS (tax over circulation of goods and services) and the municipal ISS (tax over services) – add up about 20% (taking the state of São Paulo as an example). As the fuel rate is about 30%, the total exemption of the diesel-transport would still reduce the rate by about 6% (interestingly, assuming an average tariff of R\$ 3, this would correspond to 18 cents, almost identical to the emblematic value (20 cents) heard on the demonstrations in São Paulo).

However, a more thorough analysis reveals that this exemption solves only a small part of the problem. A study from the World Bank<sup>2</sup>, applied to many countries in all regions, suggests categorically that (emphasis added by us)

“”subsidies policy to public transport DO NOT FAVOR THE POOR. Subsidies on supply are neutral or regressive, while the ones focused on demand yield better results, although many do not lead to better income distribution. It is imperative to abandon subsidies on supply towards the ones on demand, and integrate social concerns of transport with general strategies to fight poverty.”

## 6. CONCLUSIONS AND RECOMMENDATIONS

The economic analyzes presented do not include institutional and policy issues, nor urban planning. Despite this limitation, they suggest that the main difficulty faced by public transport to compete with private transport is the quality (time) of the service vis-à-vis the rates charged. Thus, the first priority is to reduce the travel time of public transport. Assim, a absoluta prioridade é diminuir o tempo das viagens do transporte público. This seems to be the main factor in the recent passenger choices to keep changing from public transport to private transport.

The most immediate way to achieve this is to create selective lines that are easy to implement and produce immediate results, and to build BRTs.

“BRT is an attractive alternative of fast and cost-effective transport in any city because of its high speed and reliability, it is attractive to passengers from all social classes as well as for operators and it also has relatively low costs, it is easy to build and operate, flexible and adaptable to deal with specific local conditions “.<sup>3</sup>

To reduce the bus travel time, there must be fewer cars on congested roads. In this sense, it is important not just penalize the possession of the vehicle, but its circulation in areas of heavy traffic and when the traffic reaches its peak. Aiming this, taxing the movement of vehicles in central areas has been adopted in many cities around the world (Singapore, Hong Kong, London) often with positive results.

Another factor is the gas price. In Brazil it has been taxed too little, giving room for taxes in cities with systematically congested roads. This would also be a progressive measure in terms of income distribution.

Recovering the IPI of new cars would be essential, even though the use (and not ownership) of the vehicle the main issue. This is because it is inevitable that individuals have a propensity to use the car, once they have one.

Finally, concerning subsidies and taking into account the lessons of international experience, existing exemptions on diesel tend to make public transport cheaper, especially in relation to

private transport. However, they do not benefit particularly the poor, but all public transport users, including operators. Anyway, with the demonstrations, it is impossible to these exemptions be cut. Therefore, it is suggested that subsidies are focused on the fares paid by the poorest populations. The identification of these passengers may be linked to other social programs like Bolsa Familia and others.

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