# Effects of privatization of public urban transport—the case of Beograd

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#### Abstract

The transport of passengers has a strong effect on the functioning of the city and for this reason is generally publicly financed. The process of privatization in the field of public urban transport was initiated recently. There is a lack of precise analysis on the effects that this has on the fulfillment of other important urban functions.

Competition in urban transport is welcome, but the profit motive must be put under tight rules. Only a precise set of rules for the competitors in urban transport can bring about the desired social, economic and technological results. The paper presents the model of the privatization of public urban transport in Beograd, which was undertaken under the harsh constraints of lack of funds for subsidy of operators. The effects of the model of privatization are analyzed from the aspects of: (a) city governance, (b) passengers, (c) operators and (d) bus producers.

#### 1 Introduction

In the countries of eastern and southeastern Europe, the problems of the functioning of large cities are increased due to inherited weaknesses and political and economic transition. In these countries, that had a planned economy, economic transition is in progress. In some countries that process has gone far, while in others, like in Yugoslavia, the process is at the very beginning. As a



result of political and economic shifts, changes in behavior, mentality, value systems are evolving within the civil societies that are being formed.

These processes are bearing their first positive results, which are reflected in the slow growth of living standards. The reorganization of foreign trade, the liberalization of prices, the stabilization of the currency, the restructuring of foreign debt etc, are tasks to be still undertaken in some of these countries. Experts agree that the restructuring of the economy is a necessary condition for further economic and social progress. In order to ensure this, it is necessary to provide a competitive environment, a strong and clear economic motivation, extra capital and an adequate economic policy. Efforts to achieve these preconditions have been undertaken, although they haven't yet lead to the hoped for structural changes, which are evolving slowly.

For the success of transition it is necessary to achieve a clear program of economic restructuring based primarily on the concept of broad privatization. This means an obligatory restructuring of huge systems and enterprises. The essence of such a program is to put huge capacities under the profit motive while preparing some of them that need extra capital for foreign capital investment. This holds for communal systems in the large cities as well, which can not continue to function on inherited principles because of ongoing changes.

The economic situation in the countries in transition is a limiting factor in the development of communal services. This especially holds for public urban transport and city traffic in general. The problems in the organizing and managing traffic are evident while problems relating to the construction; maintenance and renewal of infrastructure and means of transport are even greater. For the efficient functioning of the city it is necessary to solve traffic and transport problems in such a way as to meet the needs of partial interests of various groups of passengers. Account must be taken of both those who are oriented towards public urban transport and those who are in a situation to use their own car [3].

The newly elected local authorities have undertaken the responsibility and to a lesser extent measures and rights that had been reserved for state authority. Now, city governments have to meet the needs of the population. Citizens with relatively low wages, used to practically free services (housing, education, health, and transport...) are exposed to a drastic increase in the cost of living. Funds that have up to now been used for the financing of these activities have practically been exhausted and practically the whole burden of the financing of these activities have fallen on city budgets and citizen as the consumers of these services. In this type of situation communal problems have increased.

# 2 Models of privatization of urban transport

For many passengers public urban transport is the only way of satisfying their needs for moving around. However, for a certain number of passengers public urban transport will be acceptable only in situations when its quality approaches that of transport by car. Modern high quality urban transport systems which incorporate coordinated transport at the city and suburban level that is



competitive with private car transport, where created in cities characterized by rational transport policy and sound financing of public companies under the authority of city government. Cities with such public transport have the following characteristics:

- a) Long-term planning
- b) Maximum cooperation between the management of public companies and the local government
- c) Stable sources of finance of public transport
- d) Orientation towards highly productive rail transport systems
- e) Orientation of public companies towards the satisfying of current and potential transport needs.

These type of well organized public urban transport systems are rare and are a privilege of large and wealthy cities with a long tradition (Brussels, Paris, Toronto, Zurich, Rotterdam, Calgary...)[1]. The participation of private transport operators is not necessary since the targeted quality of service that is competitive with other means of transport is achievable with a well-organized public company unburdened by financial problems. In such a way maximum effects are achieved in terms of the environment, land use, the lowering of private car use in the central city zones, etc.

The incorporation of private initiative in the domain of public urban transport in different ways is the practice in cities which have problems in meeting the necessary financial needs of public urban transport. In such circumstances the introduction of the private sector may be very efficient. Many public companies may find it desirable and efficient economically to lease or contract certain tasks to private enterprises. It is possible to privatize jobs and tasks such as the maintenance of vehicles, equipment and infrastructure, the sale of tickets and the like, but under the control of the public sector enterprise which sets the working conditions and the quality of service. In this case we are concerned with the privatization of certain tasks of public enterprises, but not the main jobs of organizing and executing public transport.

The renting out of certain bus routes to private operators is a possible solution and is a controversial model. Experience so far shows that such an approach may be useful only if the public company sets the parameters of service quality and controls its attainment.

The complete liberalization of transport services in passenger transport in the large cities is extremely rare. Total deregulation and the takeover of public transport by the private companies, as is the case in some cities in the United Kingdom, has the effect of lowering direct costs of public urban transport, but at the same time significantly lowers the quality of service and the attractiveness of the system of public urban transport [5]. Deregulation gives the opportunity to cities to pay less for passenger transport, but the savings in urban public transport are usually lost in other segments of the organization of transport as the investment in parking spaces because of the higher utilization of automobiles, the reconstruction or roads, the irrational use of land and the higher level of pollution.



# 3 The legal framework of privatization of communal systems in the FRY

According to the Law on Privatization voted in 1997, the possible privatization of public urban transport or its parts, is accounted for by one article of the Law on Communal Activities which addresses the transformation of property of communal public companies. According to this article it is prescribed that these companies can be privatized up to 49% of state owned capital. The Law prescribes a specific procedure under which public communal companies. (all are state-owned) can be privatized only by the decision of the founders (city councils) and with the consent of the republican government. In the case that the founder decides to go into privatization of communal companies such as city transport enterprises (CTEs) and acquires the consent of the republican government, the employees in the CTE would have the same rights as the employees in socially owned enterprises. Among these is the right to free shares of up to 400 DEM (German marks) per year of employment along with the right of purchasing shares of up to 6000 DEM per employee with a discount (20%) basic discount plus one percent per year of employment). The Law on privatization generally speaking did not bring about substantial privatization of state or socially owned enterprises and will probably be changed.

It is indisputable that communal enterprises have their specific aspects, exactly the reasons for their being public enterprises and even further in the subset of public communal companies. These specific characteristics relate to communal activities as they must be performed respecting certain norms and not to the communal companies per se. The Law on Communal Activities allows all companies including private to perform these activities with the exception characterized by natural monopoly and the economic inefficiency of competition (water supply, sewer system, transport related to the use of rail etc.). The legal framework permitting the entrance of private companies into communal activities, including public urban transport, with the exceptions mentioned above, leads to the conclusion that there was an implicit "strategic decision" to privatize communal public enterprises.

The public urban transport company of Beograd was not privatized according to the model of selling state capital. Instead of this, the entrance of private operators in the field of public urban bus transport was allowed.

# 4 The model applied in the privatization of public urban transport in Beograd

The incorporation of private operators into the system of public urban transport in Beograd enabled the system to sustain itself under conditions of lack of city funds for the normal servicing of the public transport company. When deciding on the way of incorporating private operators into the system of public transport in Beograd the advantages and disadvantages of certain models of privatization were analyzed.

# The following general conclusions were applied:

- Privatization of the public urban transport company is not acceptable because this would mean the destruction of a well-conceptualized public transport company, which in the future should be the main and sole organizer of public urban transport in Beograd.
- There is a need to keep the current network of routes and optimal time schedule, adapted to the demand for transport.
- There is a need to keep the vehicles of the public transport company on all routes and fill these routes with private vehicles in cases in which public vehicles are insufficien
- A common price for transport should be retained.
- Private operators must meet the regulated conditions in terms of number, quality of buses and capacity for their maintenance.

# 5 The effects of privatization

The effects of including private operators in the system of public urban transport can be analyzed on the basis of the real change of quality parameters that the system had undergone.

# 5.1 The organizational logistics of the public urban transport system

The organizational structure of the transport process. In the last two years, since private operators were allowed to become part of the public urban transport system 743 buses of standard capacity were brought into utilization. Aside of the public urban transport company another 56 private operators were brought in with a different number of buses:

up to 10 vehicles 32 operators

11 to 20 19 operators

above 20 5 operators

Table 1. Basic parameters of capacity of the public urban transport company in Beograd (PUTCB) [4]

	1980	1990	2000	
			putcb	private
No. routes PUTCB	91	129	199	
length of routes	1102,1	1482,3	2843,0	
No. of passengers (in 000)	586.000	769.000	1.029.000	
No. vehicles	1167	1380	852	743
No. vehicles in exploitation	779	918	560	428
No. vehicles per km route network	0,71	0,62	0,35	



According to all parameters for the evaluation of the capacity of the PUTCB we can observe that the system is on the verge of collapse. Between 1970 and the year 2000 the number of routes was increased by more than 2,69 times. The length of routes was increased by over 2,4 times, the number of passengers by over 2,72 times, while at the same time the number of vehicles was increased by only 1,5 times. A similar, but more difficult situation can be identified in other areas like maintenance and repair. The state of roads is also much degraded, which directly influences the cost of vehicle maintenance and causes delays in transport.

Available financial resources. Including private operators in the system of public urban transport investment in vehicles were transferred to the private sector which means that the city government acquired the possibility of using its limited resources for other needs.

The number and quality of transport means. The average age of buses used in public urban transport in Beograd is over 15 years. Private operators, led by the profit motive, were oriented to the acquisition of used buses, which were thrown out of exploitation in western cities. In this way the total number of buses in public transport was increased, but their quality is low and is approaching the degree at which the comfort and even the safety of passengers is endangered. The economic strength of the operators and the city government is such that it does not allow for a radical renewal of the vehicle pool with new modern buses that meet the strict regulations relating to pollution.

### 5.2 The advantages to the public urban transport system

-Informing clients. Introducing private operators for various routes did not change the system of route identification. Private operators accepted the system of marking vehicles (the number, color, sign etc.) in such a way as to separate them from public vehicles.

-Tariff system, payment system. All operators have a uniform price (tariff). The unified tariff system, which was based in the previous period, on prepaid tickets for the employed and other privileged categories of clients, was practically suspended because the private operators were not eligible for subsidies from the city budget. The passengers lost interest in prepaid tickets because they were valid only in publicly owned buses and not in the vehicles run by private operators. Certain privileged categories of passengers (pensioners, soldiers, and pupils) did not get privileged treatment from the private operators.

-Comfort of passengers in vehicles and stations. The job of preserving stations and other objects remained under the public urban transport company, which financed these activities using funds from the city government. The comfort of passengers was downgraded because of the obvious imbalance between supply and demand for passenger services. An extra factor that adversely affected the comfort of passengers was due to the poor condition and badly adapted vehicles of private operators. Furthermore, given the way of selling tickets, private operators acquired vehicles with fewer doors in order to reduce manpower for the job of collecting cash.



### 5.3 Availability of the system of public urban transport

-Service accessibility performance. The introduction of private operators the accessibility of public transport was increased. The increase in the number of vehicles shortened the waiting time of passengers at stops. At the same time the "coverage" of routes in the network was increased which added to accessibility at the level of the urban area as a whole.

- Service retainability performance. A huge problem in the introducing of private operators in public transport arose due to the volatility of profits within daily schedules. If rigorous control is lacking (and it is difficult to implement) private operators tend not to abide by the schedules of daily routes, concentrating on peaks and avoiding service when there is less passengers. This is why parameters of quality of service such as punctuality and reliability were at a low level. As a consequence this leads to the loss of attractiveness of public urban transport. Furthermore, under the conditions of poverty due to which a large number of passengers are oriented to publicly owned vehicles, the major consequence is prolonged waiting time with an uncertain outcome.

-Frequency of delays. Given the average age and vehicle quality as well as the quality of the system of maintenance, delays were frequent both in the sector of public vehicles and private operators. In order to lower unplanned delays, investment in new modern buses is necessary. However, this is impossible in Beograd because of the dire economic situation.

-Length of delays. Delays are eliminated either by the substitution of vehicles or an efficient repair at the very place of breakdown so that the delay time would be shortened. Private operators with a small number of vehicles in their pool and generally poor maintenance are generally incapable to substitute a broken-down vehicle. Similarly, they are generally unable to deliver repairs since they do not have the necessary equipment and repair crews. Aside of this, private operators are unable to quickly remove a vehicle from the place of breakdown, thus creating traffic jams with all the related consequences.

#### 6 Conclusion

The effects of the model of privatization of public urban transport in Beograd can be assessed as favorable if we take into account that the city authorities opted for this model aware of the fact that resources for the normal functioning of public urban transport were lacking. Faced with the need to provide service to the citizen of Beograd at an acceptable price, private operators were introduced under conditions, which enabled a certain profit at the expense of lowering the quality of services that can be improved only when other larger problems are solved. In concluding this paper the effects of privatization from the aspects of certain actors are listed:

The city authorities provided for the functioning of the system of public transport at a level that is satisfactory for the majority of passengers that do not have an alternative in the present circumstances. With a parallel liberalization of taxi transport, the city authorities enabled more affluent segments of the



population to attain a higher level of service in transport. The city authorities consciously enabled small private operators with three registered buses and a minimum capacity for maintenance to become a part of public transport thus tapping private resources. This approach has several disadvantages that are reflected in the low quality of service due to the small economic strength of the private operators. The strategy of city authorities in the period to come must be in the direction of stricter conditions that private operators must satisfy above all in the number a quality of vehicles. At the same time, as the economic situation gets better, the city transport company must invest in modern rail transport, which in the future will be the major means of transport.

The passengers and citizen of Beograd aware of the economic situation, accepted private operators in transport, at the same time reducing the number of rides to a minimum. The unified tariff system based on prepaid tickets for the employed was set aside because private operators could not be included in the distribution of resources acquired in such a way. The suspension of the tariff system, caused for passengers to lose their benefits of using the transport system as much as they needed. Certain privileged categories of passengers were affected because private operators could not offer them a lower price.

Private operators got involved in the business of public urban transport under extremely favorable conditions of obtaining a profit. In time the conditions of operating deteriorated meaning that retaining a profit depended on the ability to adapt to theses conditions. The selection of private operators was swift, and the organizing of private operators into a unified organization is still underway. Private operators with a small number of vehicles eliminated themselves as they could not improve their organization and cut costs in order to retain a profitable position. It must be made clear to the operators that their survival in the business will be more difficult since the strategy of public authorities is clearly to strengthen the public urban transport company. Given that the public urban transport company will be looking towards modern rail transport, the possibility remains for successful private operators to remain in the field of bus transport.

Producers of vehicles. In the period before 1990, Beograd acquired between 150 - 200 buses yearly, mainly from domestic producers. The capacities for the production of buses make up a large part of the automobile industry of the FRY [2]. Aside of capable project and construction teams, these producers have a relatively high quality and qualified workforce, technology and experience. Almost all aspects have been conquered except the bus motor. The production capacity, in the long run, significantly surpasses the needs of the domestic market. Local producers are in terms of the technology of production of carrier construction, close or at the level, which exists in the developed countries. They are capable of entering into competition because they can attain the quality criteria of the international market.

The strategy of development of public urban transport in Beograd in the future, must be based on the acquisition of modern reliable buses that meet the standards of emission of polluting gases, regardless of whether or not, private bus operators will be included in the system The producers of vehicles, especially the IKARBUS company whose vehicles make up over 80% of the vehicle pool of public urban transport in Beograd, were at a great disadvantage



as private operators were allowed to participate in public urban transport with vehicles that do not meet domestic or international age, quality and pollution standards. The orientation to the use of used buses should be only temporary.

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