

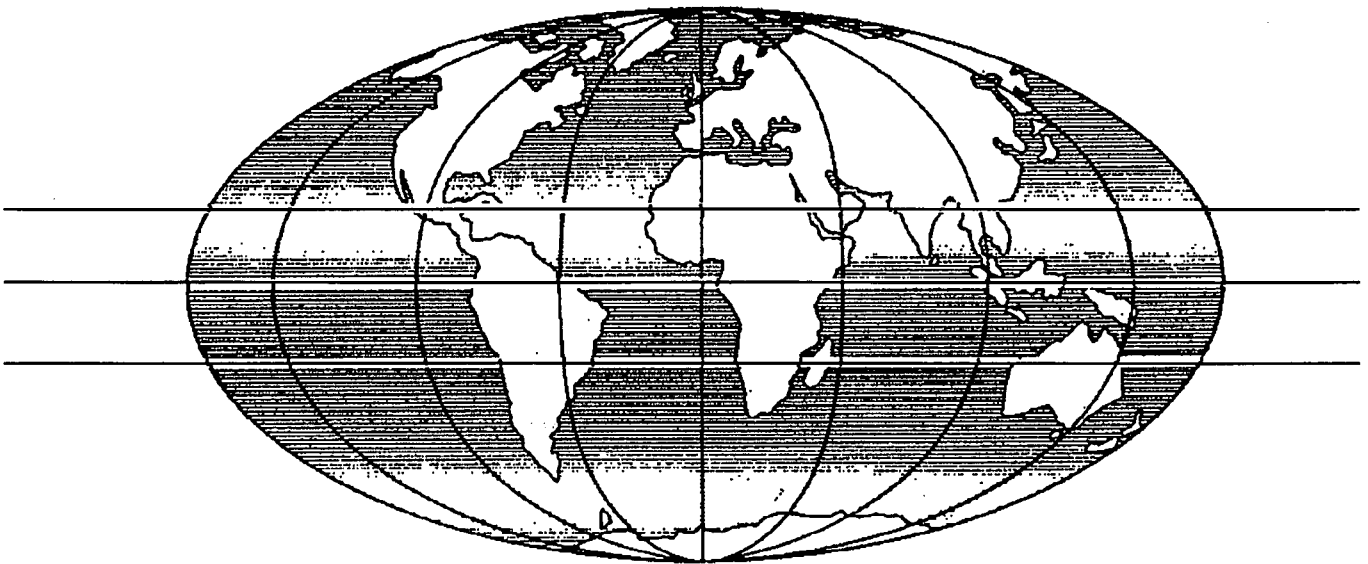


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TITLE International experiences of deregulated urban public transport systems

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International Experiences of Deregulated Urban Public Transport Systems

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ABSTRACT

Ownership, regulation and control of the urban public transport sector and especially the stage bus industry continues to be an intensively debated topic in both the developed and developing world. Proponents of private sector ownership and free competition argue that such conditions generate an efficient and effective stage bus service. Others promote varying levels of regulation, control and government involvement, including ownership, because of market imperfections and a loss in social welfare.

Whilst it is impossible to be definitive on the subject from either standpoint, new case study material frequently highlights the effects (both positive and negative) of government or private ownership, regulation and deregulation on the performance of stage bus services in the developing world.

This paper describes some international experiences where levels of deregulation have occurred in respect of urban public transport systems. It is hoped that this will shed some light on the deregulation system and may point the way to possible deregulation of the urban public transport system here in Zimbabwe.

INTRODUCTION

The role of government in the stage bus public transport sector continues to be a source of contention and debate in both the developed and developing world especially in respect of ownership and regulation.

The debate about ownership and control has been a source of contention in the developing world (White 1981, Walters 1979, Transurb Consult-Inrets, 1991). For a considerable time international aid agencies such as the World Bank have encouraged and supported the

provision of urban stage bus services by private operators within a less regulated environment (World Bank 1986). Despite this there are public transport operations in the developing world which continue to be in public ownership and regulation is extensive (Transurb Consult - Inrets 1991). Increasingly, however, the trend both for public transport services as well as other industries has been marked by a gradual move from state control to privatisation. Recently this trend has been accelerated throughout the African sub-continent under various Economic Structural Adjustment Programmes that governments are implementing with assistance from the International Monetary Fund and the World Bank.

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Thus a wide spectrum of ownership exists in the urban public transport sector varying from completely nationalised public sector companies (parastatals) to the private sector with various permutations in between. This is also the case in terms of regulation and control of the industry ranging from rigid enforcement to a *laissez faire* approach.

Figure 1 illustrates the range of control and ownership within the urban transport sector.

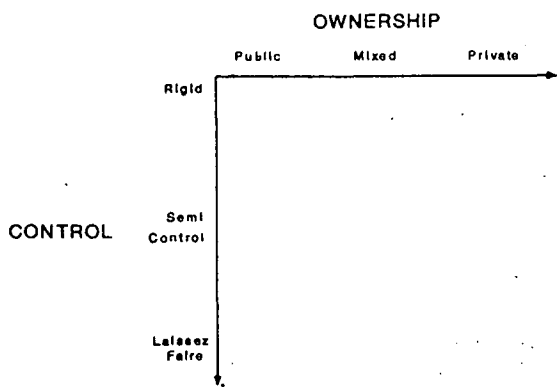


Fig.1 : Ownership and Control of Urban Transport

DEREGULATION

Deregulation is a process of introducing competition into a previously protected sector of the economy so as to reduce constraints for potential entrants into the sector and make the sector "more responsive." In embarking upon the deregulation of stage bus services it is the aim of most governments to 'reinvigorate the industry'. A key element being the promotion of direct competition between rival operators. Free competition being the norm and the general regulator of consumers' interests.

However, it is a misnomer to say that in a deregulated environment there will not continue to be a number of "quantity and quality" controls in respect of the provision of urban transport services and passenger safety. However, in a number of cities in the developing world such controls are either lacking or are not enforced so that chaos has ensued.

Without "quantity licensing" - limiting the number of vehicles and operators allowed to operate - any operator or vehicle owner is allowed to operate anywhere in the urban area. Leading to a situation where there is no constant or continuity of service, for operators decide when and where they wish to operate. For example, an operator may choose to operate route A-B today, A-C tomorrow, B-D the next day and decide not to operate for the next two days. Thus operators choose to operate when they wish rather than when the passenger wishes to be provided with a service and hence service regularity is non-existent.

Without route quantity licensing operators tend to choose to operate the most lucrative routes leaving the non-profitable routes without any service or a service at a premium fare. Service frequencies are then erratic leading to long waiting times and excessively overcrowded buses. Late night or early morning services are frequently not operated when demand is low or again are provided at premium cost unless regulated and controlled.

'Quality licensing' is also required even in a so-called deregulated environment so that passengers are afforded the highest level of safety protection. Otherwise vehicles, many of which are unroadworthy and in a poor mechanical state for carrying passengers, are utilised and all too frequently overloaded. Without such licensing operators frequently operate without affording the passenger adequate insurance protection if an accident should occur.

Driver behaviour is often less than desired when quantity and quality licensing is lax leading to a situation where accidents occur all too frequently. Accidents are often exacerbated by too many operators servicing just a few high demand corridors, with operators racing each other to bus stands along routes to capture passengers leading to congestion at many key locations. As a consequence causing inconvenience and excessive journey times for all motorists. Due to the gross duplication of services on a number of lucrative routes excessive fuel consumption occurs often to the detriment of the national economy if such fossil fuels have to be imported.

Violence and gangsterism are also very common at major terminals where operators are not regulated or controlled even in a so called deregulated environment as currently evident in South Africa.

EXAMPLES OF DEREGULATED OR COMPETITIVE SYSTEMS

Experience from both the developed and developing world where competitive systems operate leads to diverse viewpoints. A number of examples are discussed.

United Kingdom

Following enactment of the 1985 Transport Act which abolished quantity control outside London and only allowed subsidies to be paid after competitive tendering, subsidies have been cut by 50%, operational costs per vehicle kilometre have been reduced by 30% (Gwilliam, 1989), vehicle kilometrage has increased by 20% but fares have not been reduced and there has been a marked decline in patronage despite improved service levels (White, 1989). Another aspect has been the growth of urban minibus operations which have generally flourished in the deregulated environment (Watts et al, White, Turner, Mbara 1992).

Fairhurst (1992) however states:

"It would appear that direct competition results in a bus system that is substantially less attractive to passengers overall, with both fares and levels set too high; service resources mis-allocated between busier and quieter routes; wasteful duplication of services; and network facilities neglected (information, inter-available ticketing, vehicle quality, etc.). On contested roads with frequent services, passengers tend to board the first bus that arrives. This means that operators become reluctant to invest in improvements in price or quality since customers may end up riding on the bus of a rival company, depending on which bus arrives at

the stop first. This means that service volume, not quality, becomes the key element of competitive strategy."

It is generally agreed that bus services in an urban area need to operate as a co-ordinated network to maximise passenger benefits. However, Fairhurst argues:

"Direct competition undermines such network co-ordination; leads to service resources being allocated inefficiently between one route and another; and results in fare-service trade-offs that are not in passengers' best interests."

In Darlington - a small industrial town in the north-east of England - a bus war has broken out recently with three companies fighting for supremacy on the town's principal routes. 240 buses drive along one route every hour and 500 buses on a quiet suburban street throughout the day. Two operators have admitted to breaking traffic regulations and there have been allegations of driver assaults. A Labour MP has stated "This chaos is a direct result of bus deregulation. It is bad enough in Darlington but it will only be a dry run for the biggest clog up in history if the same thing goes ahead when London's system is deregulated." The local MP is quoted as saying "The 1985 Transport Act deregulated services but removed the power local authorities had to intervene before things go out of hand. Now they are powerless." A resident of Darlington said "What I find hard to believe is that the Government has deprived itself of the power to regulate the bus companies the operators are just running rot and we the residents are the ones who are suffering in the bus war for passengers." (Guardian Newspaper, 1993).

Clearly the UK situation at the moment has its supporters and detractors.

Santiago, Chile

In Santiago, Chile following deregulation in 1979 there was a remarkable increase in the supply of buses and capacity increased dramatically. Small vehicles were increasingly

operated rather than conventional sized vehicles which led to increased congestion and pollution. Fares rose continuously both during and after deregulation leaving middle class passengers enjoying a better service at a higher fare but those on lower incomes were unable to afford such services preferring lower service levels at lower cost. The public sector company operating 710 buses which survived on subsidies prior to deregulation could not improve its efficiency and was wound up four years after deregulation. Thus the much vaunted benefit of increased "choice" emanating from deregulation failed to materialise, the choice for most low income earners being to travel on foot rather than by public transport services which they no longer could afford. Competition failed to provide alternative service choices in Santiago.

Delhi, India

In Delhi, the Delhi Transport Corporation (DTC) to increase bus capacity in the capital initially sub-contracted private operators on a kilometrage basis, i.e. the private operator was guaranteed Rs.x per kilometre by the parastatal but the latter provided a ticket agent and retained all revenues itself. A certain number of privately owned buses were allowed to operate on each route to augment the parastatal, the number being regulated by the parastatal. Recently the system was changed following complaints that it was no longer profitable for private operators to operate on a kilometrage basis and so private operators are now allowed to openly compete with the parastatal throughout the city rather than be controlled by it. A total of 2,300 Red Line privately operated buses compete with 3,500 buses operated by the DTC. The buses pay Rs.500 for a permit valued for a 4-month period and operate in the city at the same fares as the DTC. The permit sets out the number of trips to be made each day, the routes to be operated and the number of hours a driver can operate. Since January 1993, a total 23,000 traffic violations have occurred by Red Line drivers compared with 4,000 to DTC drivers. The drivers pay Rs.1,500 daily to owners and then try to recoup and make a profit by operating anywhere throughout the day rather than just on the permitted route. A recent newspaper article

quoted "... this leads to speeding to outrace other buses, overloading, and jumping red lights to make as many trips as possible. Drivers get tired and little attention is paid to vehicle maintenance." the Police chief was quoted as saying "It's a good scheme but the drivers have started thinking they can get away with anything." A DTC official was quoted as saying "The Red Line buses are there to make money not to provide a service." (Herald Newspaper, 1993).

However, passenger waiting times have been reduced from an average 40 minutes to 5 minutes saving as estimated 1.5 million man hours daily but at a cost of increased congestion and deteriorating driver behaviour.

Nairobi, Kenya

In Nairobi, public transport services are presently provided by:

- Kenya Bus Services (KBS)
- Nyayo Bus Services (NBS)
- Matutus

KBS, like ZUPCO, used to operate under a franchise system and was the sole supplier of public transport services until matutus were legalised and now they face competition from NBS. KBS is 75 percent owned by a UK company and 25 percent by Nairobi City Council. NBS is a Government of Kenya run parastatal company and matutus "are privately owned small scale transporters of commuters, they represent an intermediate form of public transport service between the conventional bus and taxi" (Obudho and Aduno, 1992).

Matutus were legalised as a form of public transport by Presidential decree in 1973, formerly they operated as 'pirate taxis'. In 1973 they carried 16% of passengers travelling in Nairobi compared with 84% by KBS but by 1990 the Matatu market share had risen to 52%, KBS had declined to 42% and NBS carried just 6% as they operate mainly during peak hours.

Since their legalisation matutus have been an object of persistent public criticism and are

viewed as "unruly, hazardous and an uneconomical means of travel" and they have been accused of "being the cause of most dreadful accidents and performing the most chaotic operations" (Obudho and Aduwo, 1992). They have been identified with over-speeding, overloading, continuous hooting and touting for passengers, chaotic parking, harassment and abuse of passengers and general disregard for normal traffic rules.

Matatus tend to operate just prior to conventional bus services so capturing passengers and major market share. Integration of services has not occurred rather fierce competition predominates. Gradually individual ownership has given way to fleet ownership which may lead to uncontrollable excesses of the matatu being minimised.

Sri Lanka

In Sri Lanka, a 20-year state monopoly was ended in 1979 when private minibuses were introduced. Individual private minibuses were introduced and competition with conventional buses was unrestricted on high density corridors. The private minibus operators charged the same or less than the conventional bus fare. Operators selected their own vehicles, route frequencies and hours of operation. Competition led to crush loads, excessive speeds, congestion in the central area and safety violations. However, there was a reduction in passenger waiting times as a result of the increased capacity and service frequency offered to the travelling public.

In time however the Government of Sri Lanka, because of the regulatory vacuum in which the minibus operated to the detriment of passenger safety, set up a department with regulatory and co-ordinating functions which introduced regulations on licensing and safety.

Dar-es-Salaam, Tanzania

In Dar-es-Salaam public transport services are provided by Shirika La Usafiri Dar-es-Salaam Ltd. (UDA), a parastatal and privately operated

buses known locally as Dala Dala's. The parastatal bus company, unable to cope with passenger demand, contracts out routes (in conjunction with the Ministry of Communications and Works) to Dala Dala operators who pay the parastatal a permit fee each month to operate a route. UDA manages the system and agrees how many Dala Dala's are allowed to operate so that an adequate service is provided to a scheduled time-table. UDA operates atleast one bus on each route to ensure a basic level of service is provided especially during early morning or late at night when demand is light.

As the fleet of UDA fell into disrepair Dala Dala's gradually provided the majority of services. However, UDA's fleet is now being rejuvenated. Dala Dala's were perversely allowed to charge higher fares than UDA for similar distances so users have ended up paying higher fares under the system. However, the system operated effectively and with regulations and strict control strongly enforced; pirate operators being very little in evidence as it was in the interests of UDA and the Dala Dala owners that only legal and privately owned buses could provide a service otherwise revenue would be lost by both parties.

Lagos, Nigeria

In Lagos a vast array of public transport stage bus vehicles operate and compete with each other ranging from the conventional fleet operated by Lagos State Transport Corporation (LSTC) to privately operated minibuses and omnibuses known locally as Molue, Danfo, etc - the names determining the vehicle size.

The LSTC is a public sector company operating conventional buses and minibuses. Between 1985-1989, because of a shortage of operational vehicles, it operated basically a demand-oriented service only, i.e. the vehicles were only operated where there was substantial demand rather than providing a network of services. During 1985 only 70 buses were operational on average daily so in 1986 new buses were purchased by the State to provide better services.

In terms of the private sector, because of a lack of enforcement, operators who were designated a route by the Central Licensing authority operated anywhere they wished and competed freely with other private operators and the LSTC. Between 1985-1987 the LSTC depots comprised 'grave-yards' for buses but things have improved a little since then. However, private operators still comprise the majority capacity and at one time carried 90% of public transport patronage with LSTC only 10%.

Congestion is appalling in Lagos and is not helped by the supply of large numbers of small capacity privately operated vehicles operating anywhere in the city. Vehicles in 1989 were generally in a poor state of repair because operators could not afford to purchase new vehicles to replace the ageing fleet - a small improvement has occurred since then.

Jos, Nigeria

Public transport is totally provided by the private sector in the form of minibuses and shared taxis. No formal public sector provision in the form of stage bus services is offered to the city's residents.

Little regulation or control is effected by public authorities in respect of urban transport services thus it can be classified as a '*laissez faire*' type of system. However, the minibus operators union plays a major role in self regulating operations in terms of service provision.

Port Moresby, Papua New Guinea

Before the early 1980's public transport services were provided in Port Moresby by minibus operators and the Moresby Bus Company (owned by Government and private individuals). However, during 1981/82 the bus company went into liquidation and nowadays only minibuses are operated by individual owners. Prior to 1987 minibus operators could operate anywhere without restriction in the capital; they therefore operated in a demand responsive manner diverting from route to route at the whim of the operator.

In 1987 greater control was exercised by the government's National Land Transport Board

(NLTB) with vehicles licensed to operate on set routes only so that nowadays a network of routes are operated for the benefit of all residents throughout the day. Previously only a few high demand routes were operated.

The NLTB decides how many buses are needed to provide a "proper service to the public" and so a maximum number of permits are granted annually on a route basis to provide such a service. Thus despite the system being totally provided by the private sector, control is maintained by government in terms of the number of vehicles permitted to operate and the fares charged.

However during the off-peak period many operators take a rest and remove their vehicles from service thus reducing service levels dramatically. Owners prefer to do this rather than operate with a few passengers at a loss. With no alternative passengers have little choice than to wait for the service to operate or walk.

Regulations are strictly enforced, passengers are forbidden to stand in a minibus and this is rigidly enforced. Pirate operators are non-existent. Owners take a pride in their vehicles and operate new or modern buses. Profitability is marginal but owners guarantee employment for relatives, *wantoks* and use the vehicle for social leisure services and for other business purposes, eg. freight, haulage.

DISCUSSION AND CONCLUSIONS

The small number of examples cited from the UK and developing world lead to diverse opinions as to the benefits and costs of deregulated or competitive systems. Maunder (1990) in a study of five African cities in respect of the effects of regulation and ownership concluded that :

- A lack of regulation had not strongly influenced the performance of individual modes but generally encouraged the use of small capacity vehicles such as combis or minibuses
- Regulations are never totally enforced and a lack of government control is often compensated by self regulation of the industry

- A highly regulated system encourages the use of conventional buses on fixed routes.

A continuous thread running through all the examples highlighted is enforcement of existing relations and the need for control and enforcement even in a deregulated market for a successful outcome. Whatever institutional arrangements are implemented, enforcement of existing (and future) regulations and control of the numbers entering and operating is critical for the success or failure of such a policy. In any competitive environment and especially in the developing world all too frequently illegal pirate operators enter the market often to the detriment of the conventional operator who, because of the overhead costs of running a large fleet, depots and network, is 'squeezed' out of business to the long term dis-benefit of the travelling public as occurred in Chile and appears to be happening in Kenya.

The examples of Dar-es-Salaam and Port Moresby are intriguing. In Dar-es-Salaam, the parastatal sub-contracts routes to the private sector but still operates services on the same routes. Effectively it is a method of ensuring additional capacity that the parastatal is unable to provide. The city is comparatively small, enforcement is extensive and minimal numbers of pirates operate. In Port Moresby only private operators provide services, competing with each other on set routes. Again the city is small, there are a plethora of operators willing to operate should an existing permit holder cease operations and pirate operations are non-existent.

The two systems alongwith Jos, Nigeria which is self regulated can be termed relatively successful in terms of service provision, service levels, enforcement, etc.

Elsewhere, Delhi and Darlington lead one to consider the potential nightmare that is unfolding on these cities' streets as too many buses operate and compete with each other to the detriment of residents and other road users. High service frequency may reduce passenger waiting times but dis-benefits include poor driver behaviour, i.e. ignoring traffic regulations,

congestion, frequent accidents, duplication of services leading to wasteful use of resources, etc. Residents in Darlington are quoted as having mounted blockades in the streets to protest at the number of buses using quiet suburban streets. With one Darlington resident saying "What I find hard to believe is that the Government has deprived itself of the power to regulate the bus companies." (Guardian Newspaper, 1993).

Fairhurst (1992) concludes :

"All of this suggests that on-the-road competition does not guard the public interest. Its inter-locking service network makes the urban bus industry a form of natural monopoly. This should be the starting point for public policy."

The Government of Zimbabwe's Ministry of Local Government, Rural and Urban Development is presently drafting an Urban Transport Policy Statement. It is to be hoped that cognisance will be taken of such international experiences and that Zimbabwe's urban residents will enjoy the beneficial aspects of any likely proposed deregulation policies, rather than the potential dis-benefits as alluded to in this paper. However, any policy will have to take account of the existing and future land-use developments in Zimbabwe and an integrated land-use/transport planning approach effected.

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