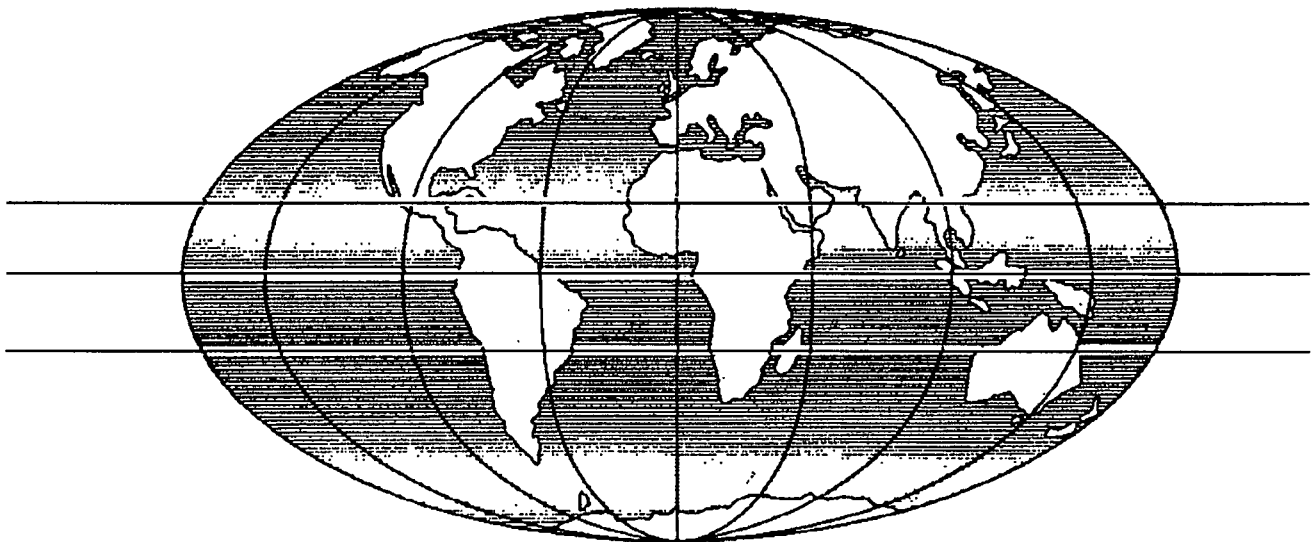




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TITLE Liberalisation of urban public transport services: What are the implications?

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Liberalisation of Urban Public Transport Services: What are the Implications?

D.A.C. MAUNDER & T.C. MBARA *

ABSTRACT

Ownership, regulation and control of the stage bus industry continues to be an intensively debated topic in both the developed and developing worlds. Proponents of private sector ownership and liberalisation argue that such conditions generate an efficient and effective market orientated stage bus service. Opponents promote various levels of regulation, control and government involvement including ownership, because of market imperfections, a loss in social welfare and a belief that liberalisation leads to a wasteful use of scarce resources with consequential environmental disbenefits. 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 liberalisation on the performance of stage bus services in the developing world. This article initially describes some international experiences where levels of liberalisation have occurred in respect of urban public transport systems. It then describes the initial research findings by the Transport Research Laboratory and the University of Zimbabwe following the Government of Zimbabwe's liberalisation of the urban public transport sector in 1993.

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 worlds 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 economic sectors has been marked by a gradual move from state control to privatisation. Recently the 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.

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

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also the case in terms of regulation and control of the industry ranging from rigid enforcement to a *laissez faire* market orientated approach.

LIBERALISATION

Liberalisation 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".

Liberalisation should not, however, entail the **total abolition** of regulations and controls but should enable the harnessing of competitive forces to provide effective and extensive market orientated services within a measure of 'quantity' and 'quality' controls. However, in a number of cities in the developing world such controls are either lacking or are not enforced so that chaos has ensued.

'Quantity controls' which entail limiting the number of vehicles and operators allowed to operate on routes and throughout the network is necessary to avoid excess passenger capacity and to ensure that vehicles only operate on permitted routes. Without such constraints, operators tend to compete only in the most lucrative and heavily passenger trafficked routes leading to the wasteful duplication of services on such routes, congestion and excessive fuel consumption to the detriment of the national economy.

'Quality licensing' is also required even in a liberalised 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. In addition, without such licensing, operators frequently operate with inadequate or without insurance protection. In a highly competitive sector with drivers competing aggressively for passengers, accidents frequently occur due to considerable driver behaviour.

Violence and gangsterism are also frequent occurrences at major terminals where operators are not adequately regulated or controlled.

EXAMPLES OF LIBERALISED SYSTEMS

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

United Kingdom

The Transport Act of 1980 effectively removed most price controls in Britain (outside London) and made it easier to introduce new competitive services. Following the enactment of the Transport Act of 1985 which became effective in October 1986, quality controls outside London were abolished except for the need to register a route and timetable within a specified time period. The Act also only allowed subsidies to be paid after a competitive tendering process had been undertaken.

During the ensuing period, vehicle kilometrage increased by at least 20% (due to the operation of higher frequency services) and "patronage declined by between 33% in metropolitan areas and 20% in other deregulated areas" (White 1985). The level of subsidy support fell by 50% in real terms yet White suggests that "profitability as a percentage of turnover rose from 4 to 8 percent".

Despite the hope that fares would be reduced due to competition in a liberalised environment this has not occurred and real revenue per passenger has increased at a faster rate than the decline in patronage.

Mackie et al (1995) concurs suggesting "real fares have increased following deregulation. The reductions in operating costs have been wholly swallowed up by subsidy cuts and mileage increases with nothing left over for reductions in fares. The pattern of fare increases has broadly reflected the pattern of subsidy withdrawal". Mackie et al continue "Falls in real operating costs and removal of non-commercial cross-subsidy have not led to falls in real fares on commercial routes. Nor has the market been characterised by differential fares according to the market characteristics of particular routes. Competition has taken place on service not on price".

Another aspect has been the growth of urban minibus services which have generally flourished in the deregulated environment (Watts et al (1990), White et al (1992)).

Mackie et al (1995) argue "there is no doubt that across the small and medium sized towns, especially in central and southern England, replacement of less frequent big buses by more frequent minibuses has been a significant benefit to users".

An additional aspect not predicted or expected at the start of the deregulation process has been the reformation of six big bus operating groups, which have emerged following the initial breakup of the National Bus Company. Local and non local mergers have occurred as well as predatory acquisitions such that now the sector is dominated by:

- Stage coach
- Badgerline
- Go Ahead
- British Bus
- WMT
- GRT Bus

Surprisingly, the bus sector in the UK appears to be highly concentrated and not very contestable.

Santiago, Chile

The government of Chile began liberalising local bus services during the early 1980s which culminated in the total deregulation of services in Santiago, the capital. The number of buses, operators and bus kilometres increased rapidly though the parastatal bus company soon went into liquidation. Operators tended to provide services on major corridors which led to environmental problems such as intense congestion and pollution in the city central area. As a consequence, patronage per vehicle kilometre operated fell significantly.

Darbera (1993) noted that ten years after deregulation "the impact has been exactly the opposite of what was expected: fares have risen

and service diversity reduced". That "the process led to an unstable market with overcapacity, a tripling of fares and a decline in passengers". Fernando and de Cea however note "a wider range of services, increased participation of small vehicles but that operational costs increased by 20 percent and road congestion had increased due to the bus fleet expansion".

In a reversal of the earlier policy the government has now introduced a policy of franchised routes where operators bid for a route on the basis of vehicle age and capacity, service frequency and fare to be charged. (New, large vehicles are encouraged to reduce congestion and pollution). Thus, quantity and quality controls are gradually being implemented though during the off-peak period there is considerable over capacity on routes which needs to be curtailed. Similarly, as most operators own less than five buses, the administrative process in initiating the franchise approach has been considerable, but operators appear to prefer the present controlled measures rather than the previous *laissez faire* approach.

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 an amount per kilometre operated by the parastatal but the latter provided a ticket agent and retained all revenues itself. Hence a certain number of privately owned buses were allowed to operate on each route, the number being regulated by the parastatal.

Following the liberalisation of permits by the Indian Government in 1988, private operators were allowed to compete openly with the DTC. However, the introduction of privately owned buses in Delhi, it is alleged, led to "a deterioration in driver behaviour with drivers speeding to outrace other drivers, overloading of buses and jumping of red lights to make as many trips as possible" (Herald 1993). Service frequency improved however, and passenger waiting times declined.

Nairobi, Kenya

In Nairobi, public transport services are presently provided by:

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

KBS, 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 as well. KBS is 75 percent owned by a UK company and 25 percent by the 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, having formerly operated as 'pirate taxis'. In 1973 they carried 16% of passengers travelling in Nairobi compared with 84% by KBS but by 1995 the matatu market share has risen to 55%. Meanwhile, KBS has declined to 42% and NBS carries just 3% as they operate a small fleet and mainly during peak hours only.

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 Aduno, 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.

Dar es Salaam, Tanzania

In Dar es Salaam public transport services are presently provided by a parastatal, Shirika

La Usafiri Dar es Salaam Ltd. (UDA), and privately owned and operated buses known locally as Dala Dala's. The parastatal bus company, UDA, unable to cope with passenger demand in the 1980's, contracted out routes (in conjunction with the Ministry of Communications and Works) to Dala Dala operators who paid the parastatal a permit fee each month to operate a route. UDA initially managed the system and agreed the number of Dala Dala's allowed to operate so that an adequate service was provided to a scheduled time-table. UDA continued to operate at least one bus on each route in the network to ensure a basic level of service was provided especially during early morning or late at night when Dala Dalas were less evident.

In time, however, UDA 'lost' the management control and Dala Dala operators were licensed without any regulation or control over the numbers licensed to operate, or on which routes. Gradually, Dala Dalas provided the majority of services and at the present time it is estimated that there are 3500 licensed to operate compared to a fleet of only 70 UDA buses. As a consequence, the parastatal now serves less than 10% of the public transport market share in Dar es Salaam and operates very few routes.

Passengers are provided with a high frequency service during the peak travel period but less so during off-peak periods. On most routes, modal choice is restricted to Dala Dalas only as the parastatal's fleet has aged and diminished and it has curtailed its service network. With losses being incurred by UDA financial support will be required in the short term if it is not to collapse and thereby leave the public transport market totally in the hands of Dala Dala operators.

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 presently

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) by the establishment of a network and vehicles licensed to operate on set routes only.

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. Regulations are strictly enforced.

Harare, Zimbabwe

Historically, the provision of conventional stage bus services in Harare can be divided into four distinct phases: (a) pre-1980; (b) 1980 to mid-1988; (c) mid-1988 to mid-1993; (d) post mid-1993.

Prior to 1980, services were provided under a franchise agreement by a subsidiary of the UK United Transport Overseas Services Company. After independence in 1980, the Government of Zimbabwe regarded urban public transport services as a key sector of the economy, and acquired a 51 percent shareholding in the Zimbabwe United Passenger Co. (ZUPCO) during 1988.

Following government participation, operational performance and service levels improved (Maunder and Mbare, 1993). However, the financial viability of ZUPCO's Harare Division deteriorated, constraining its ability to renew or expand its fleet during 1992/93 to keep abreast of demand. Finally, in August 1993, the government liberalised the sector by allowing privately-operated commuter omnibuses to compete with ZUPCO.

Despite liberalising the sector, quality controls continue to be enacted by the government to ensure vehicles are road-worthy and passengers are insured when travelling. Operators are at present granted the routes they wish to operate by the Controller of Road Motor Transport, and no quantity restrictions on the number of vehicles per route are enacted.

Most routes operated are to, or from, high population density areas which has meant that the small capacity emergency taxis (operating as shared taxis) have been displaced and the latter now operate mainly on short routes or intra-suburban routes. Fares for commuter omnibuses are set (maximum) by government.

Following the liberalisation process, there has been a rapid growth in the commuter omnibus fleet as illustrated by Figure 1. The fleet grew by 118 percent between January-September 1994, and by September commuter omnibuses represented 30 percent of the public transport fleet operating in Harare. (Maunder and Mbara 1995). Passenger carrying capacity varies greatly (see Figure 2) with the smallest vehicles having a seating capacity of eight passengers and the largest 88 but the latter are capable of transporting 118 passengers.

Limited household surveys show that 16 percent of all trips made by household members are now undertaken by commuter omnibuses. As a consequence, trips by emergency (shared) taxi have halved to nine percent and by ZUPCO have declined to 20 percent. Trips on foot at 34 percent are still the dominant mode in Harare.

Despite the considerable demand for commuter omnibus services, the substantial increase in fleet and passenger carrying capacity has led to a situation where the total public transport passenger capacity has increased faster than the total demand. In addition, in many corridors, ZUPCO appears to have reduced its passenger carrying capacity, which if continued may lead to a lack of modal choice in the long term for passengers.

Waiting times (see Figure 3) have been reduced by 33 percent from an average 18 to 12

minutes and passengers highlight improvements in service quality as a result of the introduction of commuter omnibuses.

The introduction of commuter omnibuses in Harare was undertaken to liberalise the sector rather than to totally deregulate the market. Operators cannot legally compete on fares as these are officially determined and controlled by government. However, at the moment, the system is flexible and due to a lack of enforcement, commuter omnibus fares have tended to rise at certain times of the day when demand is high. Thus, increased competition has not led to a reduction in fares as many proponents of liberalisation have suggested.

Secondly, although operators have generally been granted routes of their choice, the present regulations stipulate that these should be designated by the Minister of Local Government. Plans are already underway, however, for local authorities to undertake the responsibility to determine the absolute number of commuter omnibuses as well as the routes to be operated.

Notwithstanding the point that the market has not been completely deregulated, but liberalised, it is evident from the study that the introduction of commuter omnibuses has substantially improved the level of service in Harare.

The fleet expansion and increase in passenger carrying capacity has ensured that passenger waiting times have decreased, and the expansion of routes has benefited passengers who previously were not provided with a service. The redeployment of emergency taxis on shorter routes as well as on intra-suburban routes has meant that these services now penetrate areas which previously were not supplied with a good quality service.

At present, it is difficult to determine the likely long term effects that commuter omnibuses will have on the conventional bus services provided by ZUPCO. However, taking the scenario of a continued growth in the commuter omnibus fleet, it is likely that the future expansion of the ZUPCO conventional

bus fleet and services will be curtailed. This has happened in other cities such as Nairobi where the unprecedented growth in the Matatu fleet has captured at least 50 percent of the urban stage bus market and so constrained the growth and level of service provided by the conventional KBS bus fleet.

At present ZUPCO has totally withdrawn services from one route citing increased competition. Such a situation is likely to increase and lead to a smaller urban network being operated. A larger segment of the fleet is likely to operate contract hires and rural services, thus limiting passenger choice in Harare.

Despite an improvement in the level of service attributed to commuter omnibuses, it can also be argued that the mushrooming of smaller vehicles results in an overall inefficient use of resources, smaller vehicles being less efficient in terms of cost per passenger carrying capacity than conventional buses. As the city of Harare continues to expand, the future public transport system cannot be sustained by small capacity vehicles alone. Conventional buses as operated by ZUPCO will need to continue to play a significant role.

Environmental issues are a subject of worldwide concern. The growth of commuter omnibuses in Harare has contributed to the growth in congestion within the city centre. As there are no official areas for the vehicles to take passengers on board, certain roads are frequently blocked (see Plate 1) with commuter omnibuses waiting to load with passengers. Clearly off-street parking sites need to be provided by the local authority at key locations within the city centre for the loading and unloading of commuter omnibus passengers. The attractiveness of some parts of the city and general aesthetic appeal have been adversely affected. Current evidence also shows that commuter omnibuses are more prone to accidents than emergency taxis. In short, the growth of commuter omnibuses may have already had negative impacts on the environment which is likely to deteriorate still further, as the number of commuter omnibuses continue to increase.

CONCLUSIONS

Internationally, the effects of liberalising urban public transport services is varied. Proponents both for and against liberalisation can find solace from the various examples cited in this article. Harare is no exception as in the short term following liberalisation a higher service frequency, reduced passenger waiting times, increased capacity and choice have followed. However, the signs are already observable of fares being increased at certain time periods; of ZUPCO reducing its services and hence reducing passenger modal choice; of increased congestion, pollution and accident levels and few passengers per vehicle being transported during off-peak periods.

As cited by most of the case examples, liberalisation of the sector cannot, and should not, be seen as the total abolition of all forms of regulation and control. Continued use of quantity and quality control measures are essential to ensure vehicle and passenger safety, operator viability and the avoidance of wasteful service duplication. Khezwana and Maunder (1993) called for such controls when liberalisation was being considered by governments and recently the World Bank (1994) suggested the need "for public scrutiny and regulation on passenger safety, service obligations and pollution following difficulties with route coordination, excessive congestion and unsafe driving practices in some instances".

It is hoped that such calls will be heeded in future if and when Governments initiate liberalisation policies for the urban transport sector.

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Both Dr. Maunder and Mr. Mbara were jointly awarded TRF Foundation prize for Africa in 1993 for their paper on the urban public transport industry of Zimbabwe.