

INTERNATIONAL EXPERIENCE IN COMPETITIVE TENDERING

Wendell Cox and Jean Love,
Wendell Cox Consultancy,
USA

THE EMERGENCE OF FREE MARKETS

The world is discovering the value of free markets. Beginning in the United Kingdom in the 1980s, privatization and deregulation have spread to other nations. Most astonishingly, communist and socialist countries have begun to follow, and even the Soviet Union is poised to convert to a market economy. The democratic nations are just becoming aware of the full extent of the devastation that has followed socialism; and political leaders in post-communist countries often are reluctant to accept socialism even in its more moderate forms. As Sali Berisha, leader of the liberal Albanian Democratic Party put it:

"Nothing socialist would be acceptable. I can't even become a social democrat. Socialism in any form is a failure, a real failure." (Berisha, 1991).

Why has socialism been rejected? Socialism has laudable goals such as the elimination of poverty and a more equitable society. Its failing lies not in its intentions; socialism has failed because socialist incentives contradict human nature, so that socialism cannot deliver on its promises. Human beings, whether employed by private enterprise or the public sector, tend to seek their own good before the good of society.

And just as socialism and other forms of statism have proven incapable of producing comparative national affluence, the incentives of public monopoly have hampered the delivery of public services, such as public transport, even in free market nations.

Discarded Conventional Wisdom This conference could not have been held ten years ago. Then, conventional wisdom held that public transport must be provided by the public sector. It was presumed that the few remaining private providers around the world soon would be subsumed by the inevitable conversion to public operation. Strong arguments were offered for this reliance on protected public monopoly.

1. Public monopoly would reduce costs, since the public agency would not have to pay taxes and would not be required to earn a profit. Lower costs would also be achieved through the economies of scale available to a larger organization.
2. Public managers and employees would give greater attention to the service of customers, since they would not be deterred by the profit motive. Instead, they would be driven by their commitment to the public welfare.

The conversion of public transport to public monopolies did not result in lower public transport costs. Despite the relief from taxes, public transport costs increased at an extraordinary rate, and consumed public funding that could have produced many of the promised service improvements. The anticipated savings from economies of scale did not materialize, and often public transport is characterized by diseconomies of scale. Ridership has continued to fall (albeit a large percentage of the reduction is related to demographic changes that worked against public transport such as increased affluence, increased automobile usage, less dense development, inexpensive home ownership programs, etc.). And, in many areas, public transport riders complain about service quality.

Human Nature and Incentives Conventional wisdom failed to take account of human nature. Competition in the marketplace improves performance and keeps costs down. Alternatively, monopoly is characterized by higher prices and limited production. As a result, government routinely has limited the creation or the effect of monopoly in the private sector.

At one time, some economic theorists believed that the problems of monopoly were problems of ownership — that only private monopolies were harmful; public monopolies were virtuous, because they would replace the profit motive with a public service motive. Experience, however, has demonstrated the emptiness of this theory.

As a group, the people who manage and operate public monopolies are no more virtuous than the people who manage and operate private businesses. Like private employees, government workers want higher standards of living. Accordingly, government employees steer their performance toward incentives and away from penalties. Human nature operates as surely in government as it does outside government.

Incentives, however, are different in government than they are outside government. An individual, family, or company must make economic choices and live within its income. Efficient spending produces a better life, because more can be purchased with available income. In the short-term, the economic situation can be improved only by efficient allocation of financial resources. Except in the most protected industries, the losses

that result from wasteful, inefficient spending are not borne by others. The rewards in the private sector are tied to obtaining the most value for the amount of available money.

A government manager, however, faces a different set of incentives. Government management salaries are highly correlated to the size of the manager's staff and budget. If a public manager under-spends the budget or utilizes workers more productively, the manager will be penalized with a smaller budget and staff (in relative terms) in following years, and the manager's salary and career progression will be hampered. Alternatively, the economic losses that result from wasteful, inefficient spending can be passed on to others — the taxpayers or ratepayers. In the public sector, then, managers are rewarded for inefficiency with higher funding, increased staffing, and enhanced career prospects. The rewards in government are tied to higher spending and the search for higher revenue.

The Fiscal Challenge Nations face profound financial challenges. The governments of many affluent nations are operating at a deficit and are increasing the national debts rather than financing their operations through increased taxation. Taxpayers and ratepayers are increasingly reluctant to provide additional public revenue.

The cost of government continues to rise, fueled by ever higher interest charges on national debts, increased public service needs, and the continuing escalation of costs among existing public services.

Public funding is a scarce resource. Clearly, governments cannot afford to spend more than necessary on any public service. When it does, service must be rationed; needed new services are denied; standards of living are lowered; unemployment is increased; and economies are made generally weaker.

To maintain a high standard of living, it is necessary that government become economically efficient. Resources must be allocated efficiently; and resources are most efficiently allocated through free markets.

Liberalization of Public Transport The economics of public transport are no different than the economics of nations. As the world is learning from the difficult transition from socialism toward free markets in eastern Europe, those with a stake in the status quo are resolute in their reluctance to allow reform.

The same is true of public transport. Public transport's generally declining market share and expanding percentage of public expenditure have commanded little or no attention within the public transport community. Comfortable managers and trade unions often have exhibited little concern about public transport's exceedingly expensive decline. The resistance to needed reforms is well summarized by the following:

"...invariably unwelcome is the dogmatic upheaval of public transport by born again politicians with a newly discovered solution — privatization — to the perceived ills of public transport, which has mysteriously evaded both those before them and the transport professionals." (Bushel and Stonham, 1986)

Public choice economics explains why the need for change evaded transport professionals:

"...the "owners" of public enterprises (the taxpayers) are numerous and dispersed — no one of them has sufficient wealth at stake to make it worth taking an interest in the day to day operations of the firm. The managers and employees of public enterprises accordingly have a great deal of discretion which they may use to further their own private interests rather than or in addition to those of the public at large." (Shughart and Kimenyi, 1991)

It should be no more surprising that those with a stake in the public sector monopoly model have not led the needed reforms in public transport than that the reform of socialist economies is not being led by the nomenclatura.

But, often over significant opposition, public transport's fiscal difficulties impelled political action to change the incentives of public transport from those of monopoly to those of competition. The perverse incentives of public transport and the fiscal challenges faced by government have combined to liberalize markets in public transport, just as national markets are being liberalized. In the past decade, there has been a strong trend toward the incorporation of competitive incentives in public transport.

OVERVIEW OF PRIVATE PARTICIPATION

Low Automobile Dependency Nations Many developing nations copied the public monopoly model and established public transport monopolies. The results often were not successful.

In some places such as Caracas and Santiago, Chile, rising costs and inadequate service has led to the abandonment of public operations and its replacement by private carriers.

In other locations like Calcutta, Accra, Kampala, Khartoum, Lagos, Lima, Lusaka, and Maracaibo the percentage of transit provided by public operation has declined substantially. Privately operated transit has increased.

Increased private participation is being encouraged in Turkey and Morocco.

These newer private operations are not subsidized and typically use smaller vehicles (minibuses and shared ride taxis).

In many developing nations, private carriers historically have provided all or most of the public transport trips. The private sector provides the majority of public transport trips in many cities such as Seoul, Buenos Aires, Sao Paulo, and Manila.

Post-Communist Nations Nations that now are in transition from Communism previously adopted the public monopoly model for public transport on ideological grounds. These nations face a formidable task in market development, because there is no private supplier market such as tours, charter bus, school bus or taxicab service. However, post communist nations may be well positioned to take advantage of the relatively low capital barriers to entry to develop a private sector for the provision of public transport services. Automobile ownership in many such nations is still comparatively low, and public transport dependency is high. The large demand for public transport services could create opportunities for the development of mini-bus and shared ride taxicab services. Substantial advantages could occur:

- ◆ The necessity for public subsidy could be reduced, if not eliminated — an important consideration for economically distressed nations.
- ◆ Private operation of public transport services that use less expensive smaller vehicles could provide an important entrepreneurial boost to the economy. Public transport is one of the most obvious and immediate opportunities for supplier market development in liberalizing countries.

High Automobile Dependency Nations Private providers operate substantial levels of services in nations with high automobile dependency. In Japan, a large number of private providers operate non-subsidized rail and bus service. Other nations, such as the United Kingdom and New Zealand, have or will soon deregulate public transport services. In these cases, all services requiring public subsidy will be purchased by governments through competitive tendering. The conversion to deregulation and competitive tendering is less complex because a private transportation supplier market exists. The balance of this paper will outline the experience in competitive tendering of public transport service.

COMPETITIVE TENDERING

Competitive tendering is the provision of a public service through a competitively awarded contract. The government chooses what services to competitively tender and chooses the private providers from which it purchases the services. Competitive tendering involves a synthesis of public and private roles. The public sector decides what services should be competitively tendered and what specifications should apply to the service. The competitive market responds to the invitation of the government, and one or more producer is selected to provide a specific service for a period of time. The public sector retains policy control over the service, while the competitive market produces the service under public scrutiny. Competitive tendering is being used around the world for a variety of public services, including public transport.

The Economics of Competitive Tendering The fundamental advantage of competitive tendering for governments is that it saves money. Competitive tendering brings competitive incentives to the production costs of a public service and reduces public costs in three ways:

1. Lower costs through provision of service at no more than the competitive rate (the "going" rate).
2. Lower costs through the "ripple effect" as public agencies improve their cost performance in response to the competitive environment.
3. Lower net costs as a result of tax revenues, licenses, and fees paid by private contractors on the public services they operate.

How Competitive Tendering Works There are five basic steps in the competitive tendering process:

1. The government seeks competitive tenders for delivery of a specific quality and quantity of service for a defined period of time.
2. A contract is awarded to the lowest responsible and responsive tenderer that demonstrates the ability to provide the required quality and quantity of service.
3. Contractors that fail to provide the service as specified are financially penalized or replaced.
4. New competitive tenders are sought in sufficient time to award a new contract for service commencing at the expiration of the contract.

Principles of Competitive Tendering There are two fundamental principles of competitive tendering of public services:

1. The government should retain full policy control, determining which services are purchased, establishing quality and safety standards, administering contracts, and monitoring service performance.

2. The government should foster a competitive market. The maintenance of a competitive market is crucial to the success of competitive tendering. Private monopoly should not be tolerated any more than public monopoly. Fostering a competitive market requires:

- ◆ Wide participation and full disclosure of information, so that all potential interested proposers have sufficient information to submit a tender if they desire.
- ◆ Limitation of contract duration (usually no more than five years including renewal options).
- ◆ Limitation of tender size, so that smaller companies have an opportunity to participate.
- ◆ Cost control through a requirement for fixed-price tenders, and prohibition of price negotiation after contract execution.
- ◆ No government specification of labor arrangements except compliance with applicable law.

Competitive tendering saves money not because the private sector is superior to the public sector; competitive tendering saves money because competition induces lower costs than monopoly. Services provided by private contractors are as fully public services as the same services provided by governments and public authorities, because the government remains in complete control.

United Kingdom: London A 1984 act of Parliament required that competitive tendering of bus services begin in London. Before that time, virtually all of the bus services of London Transport were operated under a protected monopoly. The same act set up the former public bus monopoly as an subsidiary of London Regional Transport (which later re-assumed the London Transport name). Tendering began in 1985 and is administered by the Tendered Bus Unit of London Transport.

Currently, more than 35 percent of LT bus service is competitively tendered, amounting to more than 200 routes, 1,500 buses, and 90 million annual vehicle kilometers. The tendered services of London Transport would, if separate, be one of the world's largest urban bus networks.

Tendering is expanding at about five percent of LT bus services annually. Sixty percent of tendered services are operated by twelve subsidiaries of London Bus, which has responded to the competitive environment by reducing costs. This phenomenon is known as the "ripple" effect, in which publicly owned enterprises begin to exhibit the more cost effective performance in response to the threat or reality of competition. Seventeen private providers account for the other tendered services. This service is administered by a staff of 40 in the Tendered Bus Unit. Cost savings have been estimated at 15 percent, and improved service quality has been reported.

LT determines the route alignments, timetables, and fare structure. Service and vehicle specifications are set by LT. Private providers tender gross rates per service kilometer (the passenger fares remain the property of London Transport). Tender packages may involve single routes or extensive networks. This approach makes it possible for small private providers to compete for some contracts. Contracts are awarded using a variety of factors, including price, experience, financial ability, etc.

Contracts are for up to three years with renewals of up to three years. No contract may be renewed a second time. Contract rates are periodically adjusted based upon an index of inflation.

The London approach involves a form of separation of policy (service planning and contract administration) from operations—the organization administering the public transport system and the competitive tenders does not tender for the services. However, London Buses, Ltd. is a subsidiary of London Transport, and, in some early tenders, it was alleged that London Bus cross subsidized tendered services with subsidies provided for its non-tendered services. Steps have been taken to ensure fair cost competition by London Bus.

Despite the extent and success of competitive tendering in London, there are indications that its scope might be limited in the future. The Conservative government has announced that, if it should win the next election, public transport in London will be deregulated, and a government consultation paper suggests that the design will be similar to that of outside London.

United Kingdom: Outside London Public transport bus services were deregulated in the United Kingdom outside London in 1986. The act of Parliament permitted public transport authorities to competitively tender for services that were not provided commercially, and it placed restrictions on the ability of public transport authorities to intervene in or regulate commercial operations (such as specifying fares, timetables, etc.). Before deregulation, most public transport services were provided by protected public monopolies.

More than 75 percent of public transport bus services are operated commercially. Remaining services determined to be "socially necessary" by governments are competitively tendered, usually in packages covering only a few vehicles, and often only one. Tendered services are often established to fill low demand times (evenings, weekends, etc.) or are extensions of commercial routes. As a result, tender packages tend to be small and a public transport authority may administer more than one hundred contracts.

Requests for tenders may require proposal of either net or gross rates. Net tenders involve the tendering of a subsidy rate instead of a total cost rate, and the private provider assumes the risk for the passenger fares. Timetables and route alignments are specified by the public transport authority, though alternative tenders usually are permitted. A variety of evaluation factors govern the award of contracts.

Contracts may not be awarded for a period of more than five years under the act. In many instances, contract rates are periodically adjusted according to an inflation index.

The deregulated system involves a form of separation of policy from operations. Governments that administer public transport have been required to set up separate organizations if they wish to continue to own a public transport enterprise. In some cases, the publicly owned enterprises have been sold to private investors.

The deregulated public transport system has received both praise and criticism. There appears to be agreement on the substantial savings in public expenditure. Critics, however, contend that the limitations on public planning prohibit sufficient coordination of fares and services. The experience of Newcastle on Tyne, however, may suggest that coordination can be achieved with sufficient determination.

Dedicated school bus services (inside and outside London) are provided under contract, but not subject to the competitive tendering requirements that govern public transport.

Sweden In 1989, parliament passed legislation eliminating exclusive licenses to provide public transport services. Before this regulatory revision, public transport bus services were provided by protected public and private monopolies under negotiated contracts with county councils. Holders of licenses had the right to require a public buy-out of their assets; however any company participating in competitive tendering forfeited this right. The effect of this legislation was to encourage competitive tendering of urban public transport services by the county councils.

Services in at least 16 of the nation's 24 counties have been competitively tendered, and it is expected that competitive tendering will be implemented in additional counties. Some competitive tendering has begun in Stockholm; and Stockholm Transport, which is owned by the Stockholm County Council, has been separated into operating divisions in anticipation of competitive tendering. Three counties have decided not to competitively tender services, believing that they can obtain lower costs through negotiated contracts.

The county councils determine the services to be provided and the passenger fares. Service requirements gradually have become more prescriptive. Tender packages generally cover geographical corridors or sectors rather than individual routes. Tenderers propose a gross rate. Contract award is based upon a variety of factors, though there is political pressure to give preference to the lowest priced tender.

Contract lengths are typically three to five years. Contractor rates are periodically adjusted based upon a fraction of an inflation index. Early indications are that cost savings are averaging from five to fifteen percent.

Coincidentally, local rail services may now be competitively tendered, and a privately operated rail service is due to begin operation. Policy is separated from operations.

New Zealand A 1990 act of Parliament required that all public transport services be provided commercially or under a "competitive pricing procedure." Before this reform, most public transport services were provided by protected public monopolies.

Services under the new regime begin on 1 July 1991, and the reforms will be in full operation after a transition period of five years (this includes a special "incumbent" price preference adopted for Auckland). Regional councils are permitted (but not required) to establish regional public transport plans, which specify services to be operated and fare structures. Public transport providers (public and private) generally may operate any commercial service, but the regional councils have broad latitude to competitively purchase service that meets the requirements of the regional transport plans, even where commercial services are provided.

The system seeks modal neutrality. All land transport, including urban rail services, bus services, and small vehicle services are included in the regulatory reform. As a result, tendering authorities may not specify a size or type of vehicle.

Regional councils may determine route alignments and establish fare structures for tendered services. Tenders may be either net or gross. A limitation has been placed on the maximum tender size to permit competition by the smaller private providers. Tenders will be evaluated using a system designed to eliminate from consideration sub-standard services after which preference usually will be for the lowest priced tenderer. Periodically, rates will be adjusted using a portion of an index of inflation.

The New Zealand approach will involve full separation of policy from operations. Governmental units that competitively tender for service will not be permitted to own public transport enterprises.

Early indications suggest that most services will not be commercially operated, and that, as a result, competitive tendering will be the dominant mechanism for service sponsorship.

Competitive tendering of all dedicated school bus service also began within the last five years. The maximum contract duration is six years.

Copenhagen In 1989, the Danish parliament enacted mandatory competitive tendering legislation with regard to Copenhagen public transport bus services. Under the legislation, Hovedstadsomradets Trafikselskab (HT) was required to competitively tender 15 percent of bus services by April 1, 1991, another 15 percent by April 1, 1993, and the final 15 percent by April 1, 1994. It is anticipated that approximately 550 buses will be operated under competitively tendered contracts when the 45 percent mandate is reached.

Before competitive tendering began, approximately 82 percent of bus services were directly operated by HT with the remainder operated under subsidy agreements by private providers. Under the new arrangement, the subsidy agreements have been terminated.

HT will continue to plan and coordinate all services, and determine routes, timetables, and fares. All buses will operate with the HT livery. Upon enactment of the legislation, HT began intensive planning efforts including a consultative process with potential private providers. The first requests for tenders were issued well before the initial April 1, 1991 deadline. To give operators a sufficient period of time to prepare for service, HT plans to seek tenders in May 1991 for services to be transferred to competitive operation in April 1992. Operators are to be selected in August 1991.

HT has taken steps to ensure that there is sufficient competition and is seeking to design its process to permit the entry of new private providers. While the legislation allows maximum contract lengths of eight years, HT has opted for a four year maximum contract length. Individual tender packages are kept small enough to attract smaller entrants. Private providers tender a fixed price for the first year of the contract; prices of subsequent year prices are adjusted by an inflation index. HT uses six criteria to select contractors including measures of financial ability, experience, service quality, and price. Policy is not separated from operations.

United States The dominant of service provision for public transport bus services is the protected public monopoly. However, a trend has developed toward competitive tendering over the past decade. In 1980, very little service was competitively tendered (less than 100 buses). This has grown to more than 3,500 buses in 1990 (8 percent). One state, Colorado, legislatively mandated a level of competitive tendering (20 percent).

A high percentage of new and expanded services has been competitively tendered over the last decade. Cost savings have averaged 30 percent. In cases where the protected monopoly status of the public operator is removed, "ripple" effect cost savings have been identified. While there have been isolated exceptions, service quality has been equal to or improved in comparison to previous public monopoly operation. The few reports of reduced quality have come from public transport agencies that have been resistant to competitive tendering. In the cases where public agencies purchased services from public monopolies but have converted to competitive tendering, there is near consensus that service quality and safety have improved.

Most tenders are gross. Tenderers usually are required to propose a rate per service hour or service mile for each year of the anticipated contract. The failure to periodically adjust rates by a measure of inflation increases the risk to the private providers. Tender sizes may be large, but usually permit segmentation so that smaller private providers can compete. In some cases, fuel tax escalators are built into the contracts. Evaluation of tenders is typically based on a variety of factors, though there is a trend toward methods that eliminate standard operators from consideration when lowest cost is the final evaluation criteria. Public transport agencies sometimes submit a tender in competition with the private operators. While this practice may focus attention to the difference in costs between public and private operation and thus may lead to "ripple" effect savings, there have been a number of allegations of unfair tender pricing by public transport operators.

In some urban areas there is separation of administration from operations, while in most urban areas policy is not separate from operations.

Private providers have been used in dedicated school bus service for many years. The largest company operates more than one third as many buses as the entire public transport industry (17,000). In the early years, contracts were developed through negotiation rather than competitive tendering. There is a trend toward competitive tendering in the school bus industry, and, next year, school bus services in the nation's largest city, New York, will be competitively tendered. Currently, private operators produce approximately 30 percent of the school bus service with more than 100,000 buses. Public and private dedicated school buses carry more than double the number of passengers carried on all public transport modes.

Private providers also provide most demand responsive services (dial-a-ride services typically tailored for the elderly and disabled) in which approximately 70 percent of service is competitively tendered.

Australia Some competitive tendering has begun in New South Wales as bus services are replacing rural rail services and late night urban rail services.

However, a more comprehensive New South Wales regulatory reform may lead to competitive tendering and, if its proponents are right, may achieve the advantages of competitive tendering without displacing formerly protected private franchised providers.

In 1990, the New South Wales Parliament passed a regulatory reform aimed at establishing service levels and fare standards for franchised (non-competitive) privately provided services. Before that time, most of the suburban services in the Sydney area were provided by protected private monopolies. Subsidies were limited to concessionary fare reimbursements. These companies operate more than 1,500 buses.

The new regulatory environment will require the Department of Transport to establish five year contracts with the private providers. Subsidies still will be limited to concessionary fare reimbursements. The contracts will cover geographical sectors, and will average 50 buses in size. The private providers will be required to provide specific levels of service based upon overall policy objectives and will be limited in their ability to raise passenger fares. Private providers that are unable to meet the terms of the contract will have their services competitively tendered. It is anticipated that private providers meeting the terms of the contract will receive automatic five year renewals at the end of each contract period.

The Sydney approach relies on the private providers to determine route alignments and timetables within the overall confines of public policy. This approach may be considered competitive tendering by threat.

Concurrently, publicly operated State Transit (which provides the inner city bus services) is under pressure to improve its financial performance. The organization has been divided into six operating units, and competitive tendering has been threatened if subsidy reduction goals are not met.

Most school bus service is competitively tendered in Australia.

South Africa Urban public transport services are provided in South Africa by protected public and private monopolies. Kombi-taxis (shared ride taxis) also provide a regulated alternative to many of these services.

The central government has been interested in injecting competition to reduce the level of public subsidy to the protected monopolies. The Department of Transport (DOT) established competitive tendering demonstration projects to replace some of the private services.

DOT issued the requests for tenders and administers the contracts. DOT establishes the service levels, sets a fare structure, and establishes general requirements with respect to contractor provided buses. Tenderers may propose an alternate fare structure or alternative service levels.

The private providers tender a subsidy rate per service kilometer and assume the risk for fare revenues ("net" tenders). The contract award decision is based on multiple factors, including low rate, experience, financial condition, facilities, vehicles, etc.

Contracts are awarded for a period of three years. The contractor's rate is adjusted on a quarterly basis using an inflation index. According to early indications, cost savings are being achieved, and the program is considered a success.

Parliament may consider a competitive tendering bill next year. It has not been decided whether public monopoly services will be subjected to competitive tendering.

Canada Most public transport in Canada is provided by protected public monopolies. Some smaller public transport systems are competitively tendered in British Columbia, Ontario, Saskatchewan and Quebec. Among the major metropolitan centers, competitive tendering is limited to suburban communities in Toronto, and there have been important recent inroads in metropolitan Toronto. Interest in competitive tendering is increasing among some political officials and among organizations representing private bus companies. There is no separation of policy from operations.

The majority of dedicated school bus services are provided under competitive tender.

Elsewhere Competitive tendering is occurring in other locations as well. For example:

- ◆ In Lille, France competitive tendering accounts for 28 bus routes over which more than 60 buses operate. Routes and fares are determined by the public authority.
- ◆ Competitive tendering accounts for five bus routes in Porto, Portugal
- ◆ Competitive tendering is scheduled to begin soon in Santiago, Chile.
- ◆ Competitive tendering is occurring in Finland.

Proposed Conversions Parliamentary proposals are anticipated or being considered in Ireland, Norway, and South Africa. Further, various national and provincial liberal political parties have planned to legislate competitive tendering upon forming governments.

Even where competitive tendering has not been adopted, there is heightened concern about the rise of public transport subsidies. A number of national and provincial governments have established programs to reduce public transport subsidies or to control their growth more effectively. Competitive tendering yet may be incorporated in nations that find these approaches insufficient.

A recent Organization for Economic Cooperation and Development (OECD) suggests that the trend toward competitive tendering is likely to expand in both public transport and other public services.

"(there is)...a greater recognition that, in a number of areas, the private sector may be a lower cost producer of services traditionally produced by the public sector. The potential for market testing of government activities remains under utilized." (Oxley, Maher, Martin & Nicoletti, 1990).

THE STRATEGIC POSITION OF COMPETITIVE TENDERING

The advantages of competitive tendering among public transport service delivery alternatives should be judged in context of the objectives of public transport. Among the highly automobile dependent nations, there is public policy consensus that there should be a government role in public transport — the only disagreement is over the extent of that role.

The Purpose of Public Transport The justification for public funding for public transport is the benefits that it can provide to society. These benefits fall into two general categories:

1. **Social benefits:** Public transport provides the primary form of mobility for many economically disadvantaged people — these are the public transport dependent (the captive market), and their mobility is an important social goal.
2. **Environmental benefits:** Public transport provides mobility to discretionary riders — those who make trips by public transport that they might otherwise make by automobile. This reduces road congestion, air pollution and energy consumption. This can also result in lower public expenditures for road construction.

The customers of public transport, then, include not only the riders but also the community in general. Public transport should serve the riders by providing the highest level of safe and quality service possible at the lowest cost. And public transport should serve the taxpayers by providing the desirable level of safe, quality service at the lowest cost. The customers of public transport are the riders and the taxpayers or ratepayers.

The public purpose of public transport, then is the movement of greatest number of people in a safe and comfortable manner for a given level of expenditure over a sustained period of time. No other objectives should distort or displace this purpose.

Evaluation of the Service Structures The most appropriate public transport service structure will produce services (outputs) that attract the greatest number of passengers while consuming the lowest costs (inputs); and it will address the public purpose of public transport over time.

Input: Given the difficulty of attracting larger market shares to public transport services in highly automobile dependent nations, and in view of the consistent evidence that cost performance can be influenced by service structures, cost performance may be considered of prime importance. Generally, the public transport organization structure that costs the least is likely to be the least burdensome to society. There are three primary cost issues.

- ◆ Labor costs should be determined by the competitive market rather than being set administratively.
- ◆ Work rules should be determined by the competitive market rather than administratively.
- ◆ Public transport operators should have the maximum latitude to organize public transport work consistent with applicable labor laws and regulations.

Output: The public transport service structure should facilitate the highest levels of public transport use. There are four primary service issues:

- ◆ Public transport services should be safe and of sufficient quality.
- ◆ The public transport system should be comprehensive to permit reasonable access to all parts of the urban area. A comprehensive system affords effective mobility for the transport dependent while offering potential for growth in discretionary ridership.
- ◆ The public transport system should be coordinated with broad information available concerning routes and schedules. There should be interchangeable fare media between services and a coordinated fare structure. An appropriate level of coordination can assist public transport in retaining present ridership and may facilitate higher ridership. This is particularly important where automobile usage is high.
- ◆ To the extent that increasing discretionary ridership is an objective, public transport services should be designed in response to markets needs.

Consistency with the Public Purpose Another important issue is the capacity of the service structure to achieve the public purpose of public transport. A service structure that addresses the public purpose should be stable enough to minimize any tendency to degenerate toward a service structure less able to satisfy the public

purpose. This is a serious concern given the predilection of various political parties and factions to pursue policies that place the interest of public employees over those of the public.

Service Structure Models While there are many potential combinations of service structures for public transport, five general models are reviewed. The functional roles under the models are outlined in the figure 1 "Public Transport Services Structures and Functions," and are discussed below.

A. **Public Monopoly** Public monopoly is the form of public transport organization most typical in Australia, Canada, the US and some European nations. Usually a unit of government designs and operates all public transport services without competition either in or for the market. (Direct competition on routes is competition "in" the market, while competition for tendered services is competition "for" the market.)

The overwhelming characteristic of public monopoly is its tendency toward cost escalation, which negates its advantages. While public monopoly theoretically is capable of producing a comprehensive public transport system, the scope of the system is restricted by inordinately high costs. Public monopoly can produce coordinated service and fare systems. But public monopoly tends to be particularly ill equipped to produce market oriented services that attract larger travel market shares. (For example, in the US during the 1980s, public transport market share declined in nearly all urban areas constructing new rail systems.) There have been exceptions, such as Toronto, where public monopoly has increased urban travel market. But even there the increased market share was accompanied by rapidly escalating unit costs to the financial detriment of the riders and the taxpayers.

Customers must rely on the good intentions of public monopolies to produce services of sufficient quality and safety, and the record predictably is mixed.

Public monopoly tends, then, to serve objectives far different than those generally postulated for public transport. The interests best served by public monopoly tend to be those of the public transport managers and employees. The result is less service than otherwise would be provided and at a higher cost. These entrenched interests are quite capable of preventing or slowing needed reforms.

If it is assumed that public transport ultimately will serve its public purpose, then public monopoly must be viewed as transitional. In view of what is known about public organizational dynamics, public monopoly is not a practicable, long-term public policy strategy for achieving the social and environmental goals of public transport.

B. **Private Monopoly** Protected private monopoly was widespread in the United Kingdom and the US before the 1970s and still exists in some nations. Private companies held exclusive franchises to operate service over particular routes, urban area sectors, or entire urban areas. They are not subject to competition either in or for the market. Fares and services are, however, usually regulated by a governmental unit.

Private monopoly's primary disadvantages relate to its higher than competitive costs (though cost escalation tends to be lower than in public monopoly) and the impacts of that escalation.

As unit costs rise relative to the economy, private companies may be unable to maintain comprehensive service levels and affordable fares, especially as automobile dependency grows. This may result in pressure for a conversion to public monopoly, further retarding the achievement of public objectives.

As in the case of public monopoly, private monopolies do not depend upon customers for their survival, and incentives for service quality and safety are weak.

Private monopoly permits the delivery of a comprehensive system (though less of one, due to the higher costs) and a coordinated system under the public regulatory umbrella. Market oriented service designs are more likely to occur than under public monopoly.

Private monopoly, then, also should be viewed as transitional. It is likely to survive only where the demand for public transport service is strong enough to support higher than competitive fares and cost structures.

Finally, some recent conversions from private monopoly have not degenerated into public monopoly. Some jurisdictions simply have converted to competitive systems without compensating the previously protected private monopolies. Others have taken the canceled monopoly protection upon acceptance of any subsidy. Or, as in Sydney, the threat of competition can be used as a means of transition from private monopoly.

C. **Competitive Tendering** Competitive tendering of all public transport service in an urban area is another service structure. It requires a public tendering body to determine routes and service packages, to develop requests for tenders, to evaluate tenders, to monitor service, and to coordinate services and fares. A competitively tendered system is characterized by competition for, but not in, the market. There is movement toward this model in Copenhagen and Sweden and, to a lesser degree, in the US. London has been advancing toward this model, and its future direction is likely to be determined in the next Parliamentary election. Some urban areas in New Zealand may follow this model with regional authorities being permitted to competitively tender for specifically designed services at particular fares if such services are not provided commercially (using their regional planning authority).

The primary advantages of a competitive tendering model are that a comprehensive and coordinated public transport system could be provided at the lowest possible cost. Because the public would retain full control of system design, a competitive tendering model would be strongly sustainable.

Competitive tendering has potential for safe service of sufficient quality. Often, it is simpler for a contract administrator to take disciplinary action against an offending service supplier than it is for a public agency to correct internal service quality and safety problems. Public administrators have cited improved quality control as an advantage of competitive tendering.

The primary disadvantage of a competitive tendering model is its failure to use the competitive market to design services to attract discretionary riders. The extent of this disadvantage, however, depends upon the extent to which a particular market is commercial from the standpoint of demand. Regardless, increased ridership is likely to occur simply from the higher service levels that this cost effective approach fosters.

Another disadvantage is that services are likely to be designed less cost-effectively than under competitive operation with tendering, since the operators of the service would not design the timetables.

A competitive tendering system may be the most appropriate public transport service structure where the market for public transport is largely non-commercial, and where there appears to be little latent demand for public transport services. Urban areas with lower residential and employment densities and which tend to be commercially decentralized may be most appropriate for the competitive tendering model.

The competitive tendering model also would be appropriate where public policy places a high value on coordination of services and fares, or where automobiles are such an attractive alternative to passengers that ridership might easily be lost if the public transport system is not sufficiently coordinated. Competitive tendering retains the public mechanism to maximize consumer information about the public transport system and to simplify its use through coordinated services and fares.

D. Competitive Operation with Tendering This service structure (called "deregulation" in the United Kingdom) permits the competitive market to provide services at market fares with minimal intervention by government in commercial operations. Government may intervene only to competitively tender services that are not provided by the competitive market. Competitive operation with tendering is typified primarily by competition in the market and secondarily by competition for the market. Competitive operation with tendering exists in the United Kingdom outside London and is proposed for London. Some urban areas in New Zealand may follow this model.

The fundamental advantage of competitive operation with tendering is its potential for the lowest input costs. Not only are labor costs and work rules established in the competitive market, but services are designed and organized through the competitive market. Competitive operation with tendering also permits the establishment of a comprehensive public transport system with gaps being filled by competitive tendering. Customers can exercise influence over service quality and safety where they have a choice.

The fundamental criticism of competitive operation with tendering is that it has failed to produce coordinated services and fare structures (though fare coordination has been achieved in Newcastle on Tyne through cooperative efforts of the operators). If passengers perceive that they are not well served by the system, they might combine with trade unions to seek establishment or re-establishment of public monopoly.

Competitive operation with tendering may be most appropriate in more commercial public transport markets or in markets where there is substantial latent demand.

E. Threatened Competition This service delivery model is being implemented in the Sydney area of New South Wales, where it is being used to convert from the private monopoly model to a competitive model.

Operators would be required to meet broad service and fare standards or have their services competitively tendered. Franchises will be granted for no more than five years. The threatened competition model will involve neither competition in, nor competition for, the market but will rely on the threat of competition for the market.

The threatened competition model is likely to result in comprehensive and coordinated services at relatively low cost. An advantage is that services and work organization would be determined by entrepreneurs rather than public bureaucracies. Another advantage of the threatened competition model is that it is more likely to evolve into a competitive tendering model than a public monopoly model.

Threatened competition may encourage generally safe, quality service so long as effective consumer compliant mechanisms are in place and effectively monitored by the regulatory body.

The primary disadvantage of the threatened competition model is that, especially where it is a transition from a private monopoly model, costs are likely to be higher than necessary. Only genuine competition is likely to produce long-term market determined costs, and certainly the deregulation experience in various industries around the world demonstrates the propensity of regulated environments to evolve inordinately high cost structures.

The threatened competition model is likely to be most appropriate in an entrepreneurial supplier market that tends to be commercial.

The figure 2, "Public Transport Service Structures and the Public Purpose" outlines the strengths and weaknesses of the service structure models.

COMPETITIVE TENDERING AND THE PROSPECTS FOR PUBLIC TRANSPORT

The debate about the appropriate role and extent of competitive tendering in public transport will continue. Some analysts believe that competitive tendering is a step toward competitive operation with tendering. Others suggest that competitive operation with tendering is a step toward competitive tendering. Still others suggest that competitive operation with tendering is a step toward threatened competition. Finally, one nation, New Zealand, has established a public policy framework that permits elected officials in each urban area to establish systems characterized by competitive tendering or characterized by competitive operation with tendering.

One point is beyond dispute: protected monopoly models have been proven incapable of meeting the social and environmental goals of public transport. Alternatively, service structures that incorporate competitive incentives can address the public purpose.

- ◆ Service structures that incorporate competition are most likely to achieve public cost objectives.
- ◆ Increased public transport ridership can be achieved cost effectively only through more market oriented services.
- ◆ The question is, therefore, which of the service structures is likely to best meet the public purpose of public transport.

No single service structure is appropriate to all environments. The proper public transport service structure can be determined best by a careful evaluation of local public policy goals, the nature of the market demand, and the nature of the supplier market. (Refer to Figure 3: Service Structure Characteristics.)

Where public policy desires to increase public transport ridership, or where demand markets are more commercial, structures that permit entrepreneurs to establish services in response to the market would seem to be most appropriate (competitive operation with tendering and threatened competition). The long term success of the competitive operation with tendering and threatened competition models will depend upon the existence of strong customer demand, or of strong latent demand. Besides the locations in which it is already being used, competition operation with tendering would appear to have a strong potential for serving the public purpose in the post communist nations, which are characterized by particularly strong customer demand, and in countries with lower levels of automobile access (where public transport may account for more than 70 percent of the urban travel market). Threatened competition would appear to be particularly appropriate where there is an interest in the transition from the private monopoly model, while also serving the public purpose (and necessarily avoiding public monopoly).

Where service and fare coordination are the prime public policy considerations or where the demand market is less commercial, a service structure that facilitates a comprehensive and coordinated public transport system is most appropriate — competitive tendering. Competitive tendering may, indeed, be the only alternative for achieving the public purpose in urban areas where there is little latent customer demand. For example, many medium sized and smaller US metropolitan areas (less than three million population) are characterized by widely dispersed commercial development, and the public transport share of the urban travel market is minuscule (often three percent or less). In such urban areas, it would be difficult to make a credible case for the existence of material latent customer demand.

Finally, in fashioning service structures, the supplier market must be considered. Responsive supplier markets are not quickly developed, especially where there are not ancillary competitive services such as tour, charter, school bus, or elderly and disabled services. Public policy should be directed toward fostering the development and maintenance of truly competitive supplier markets as soon as feasible. It may be more important to set in motion the mechanisms to achieve an efficiently operating market over a period of years than to seek immediate conversion to a "perfect" structure where the environment is not ready to accommodate perfection. A balance must be struck between disruption that might serve reactionary political forces and action sufficiently resolute that those with a state in the status quo are unable to impede progress.

For public transport to maximize its benefits to society, competitive incentives must operate. The extent and nature of the most appropriate competitive incentives will depend upon the individual characteristics of each market.

REFERENCES

- Annual Fact Book, *School Bus Fleet* (Redondo Beach, CA: Bobbit Publishing Company, multiple editions).
- Beesley, Michael, *Bus Deregulation: Lessons from the U.K.*, Paper presented to the First International Conference on Deregulation and Privatization in Passenger Transportation (Thredbo, New South Wales: 1989).
- Beesley, Michael and Stephen Glaister, *Bidding for Tendered Bus Routes in London*, Paper presented to the First International Conference on Deregulation and Privatization in Passenger Transportation (Thredbo, New South Wales: 1989).
- American Public Transit Association, *Transit Fact Book* (Washington, DC: multiple years).
- Berisha, Sali as quoted in Dusko Doder, "Physician for a Fevered Nation," *The European*, 12-14 April 1991.
- Beyer, Harald (Centro de Estudios Publicos), Personal correspondence (Santiago, Chile: 1991).
- Brito, Carlos de (Servico de Transportes Colectivos do Porto), Personal correspondence (Porto, Portugal: 1991).
- "Buses Will Make Bigger Contribution," *Bus Business* (23 March 1991).
- "Buses Strategy for the Capital is Full of Holes," *Bus Business* (23 March 1991).
- Bushel, Chris (editor), *Jane's Urban Transport Systems* (Coulsdon, Surrey: Jane's Information Group Ltd., multiple editions).
- Bushel, Chris and Peter Stonham, "Foreword," *Jane's Urban Transport Systems* (Coulsdon, Surrey: Jane's Information Group Ltd., 1986).
- Canadian Urban Transit Association, *Urban Transit Facts in Canada* (Toronto: multiple editions).
- Colorado Senate Bill #164: 1988.
- Cox, Wendell, "Emerging Public Transit Organizational Structures: Options for Improving Customer Service," *Transportation and Technology* (1986, vol 10).
- Cox, Wendell, "The Potential for Improved Public Transit Service through Competitive Contracting," *Research in Changing Environments, Proceedings of the 23rd Annual Meeting of the Canadian Transportation Research Forum* (Saskatoon, Saskatchewan: University of Saskatchewan Printing Services, 1988).
- Cox, Wendell and Jean Love, "Designing Competitive Tendering Systems for the Public Good" *Transportation and Technology* (U.K.: 1991, vol. 15, pp. 367-389).
- Cox, Wendell and Jean Love, *Moving America Competitively: A State Legislator's Guide to Privatization* (Washington, DC: American Legislative Exchange Council, 1989).
- Department of Transport, *A Bus Strategy for London: Consultation Paper* (London: 1991).
- Finn, Brendan (Dublin Bus), Unpublished materials and telephone conversation (Dublin: 1991).
- Forster, Frank, "A Tender Topic," *Bus Business* (9 February 1991).
- Forster, Frank, "London Tendering - The Facts," *Bus Business* (9 February 1991).
- Graham, Roger (Roger Graham Associates), Correspondence and telephone conversations (Milsons Point, NSW: 1990 and 1991).
- Hibbs, John, *An Overview of Recent Events in the United Kingdom*, Paper presented to the First International Conference on Deregulation and Privatization in Passenger Transportation (Thredbo, NSW: 1989).
- Huntley, Peter G., *Tendering and Local Bus Operation: A Practical Handbook* (Kingston on Thames: Croner Publications, 1989).
- Janson, K. and B. Wallin, *Deregulation of Public Transport in Sweden*, 1990.
- Kjolstad, Ove Konrad (A.S. Oslo Sprøveier), Personal correspondence (Oslo: 1991).
- KPMG Peat Marwick in Association with Mundle & Associates, Inc., *Performance Audit of Privatization of RTD Services*, December 1990.
- Lancelot, Yves (Les Transports en Commune de la Communaute), Personal correspondence (Lille: 1991).
- Lave, Charles, *Measuring the Decline in Transit Productivity in the United States*, Paper presented to the First International Conference on Deregulation and Privatization in Passenger Transportation (Thredbo, NSW: 1989).
- Linblad, Lars-Axel, "Sweden Deregulates and See Change Sweep the Country" *Bus Ride* (July 1990).
- Linblad, Lars-Axel (Svenska Bustrafickforbundet), Personal correspondence and telephone conversation (Stockholm: 1991).

- Local Government Act of 1988* (U.K.).
- London Regional Transport Act*, United Kingdom: 1984.
- London Transport Annual Report and Accounts* (multiple editions).
- Love, Jean and Wendell Cox, "School Bus Contracting: Freeing Educators to Educate, *The State Factor* (Washington, DC: American Legislative Exchange Council, January 1990).
- Luyckx, Leon, Unpublished materials and telephone conversation (Sandton, Transvaal: 1991).
- Moyes, C. (Chairman, Network Ticketing), "Privatized Buses have Helped Cut Costs," letter to *The Financial Times*, (19 February 1991).
- Newton, Nick (London Transport), Personal conversations (London: 1987 through 1991).
- Nielsen, Bjarne (Hovedstadsomradets Trafikselskab-HT), Unpublished materials and telephone conversation (Copenhagen: 1991).
- Oxley, Howard, Maria Maher, John P. Martin, Giuseppe Nicoletti, *The Public Sector: Issues for the 1990s* (Paris: Organization for Economic Cooperation and Development, 1990, paper #90).
- Passenger Transport Act: 1990* (New South Wales).
- Pickrell, Don, *The Causes of Rising Transit Operating Deficits* (Cambridge, MA: John F. Kennedy School of Government, Harvard University, Report for the United States Department of Transportation, Urban Mass Transportation Administration, 1983).
- "Rifking Unveils Plan for Dereg in London," *Bus Business* (23 March 1991).
- Roth, Gabriel and George G. Wynne, *Learning from Abroad: Free Enterprise Urban Transportation* (New Brunswick, NJ: Transaction Books, 1982).
- Savas, E.S., *Privatizing the Public Sector: How to Shrink Government* (Chatham, NJ: Chatham House Publishers, 1982).
- Shughart, William F. II and Mwangi S. Kimenyi, *Public Choice, Public Subsidies and Public Transit*, (Oxford, MS: University of Mississippi, Report for the U.S. Department of Transportation, 1991).
- Skinner, D. G., W. E. W. Hahn and R. A. Farman, *The First Year of Privatized Bus Subsidy Contracts* (South Africa).
- Statistical Abstract of the United States* (Washington, DC: U.S. Department of Commerce, Bureau of the Census, multiple editions).
- Supreme Court of Pennsylvania, *Ridley Arms Inc. v. Township of Ridley*, 1987.
- Talvitie, Antti (Viatak Oy), Personal correspondence (Espoo, Finland: 1991).
- "Three-Year Plan Set to Transform Capital," *Bus Business* (23 March 1991).
- Tomkins, Richard, "Free for All on the Buses," *The Financial Times* (13 March 1991).
- Transit New Zealand, *Changes in the Passenger Transport Industry: A Guide for Bus Operators* (Wellington, 1990).
- Transit New Zealand, *Manual of Competitive Pricing Procedures, Volume 2: Public Passenger Transport* (Wellington, 1990).
- Transit New Zealand, *Proceedings of the National Conference on Passenger Transport* (Wellington, 1990).
- Transit New Zealand Act: 1989* (New Zealand).
- Transit New Zealand Act Amendment: 1990* (New Zealand).
- Transport Services Licensing Act: 1989* (New Zealand).
- Transport Services Licensing Act Amendment: 1990* (New Zealand).
- Tramontozzi, Paul N. with Kenneth W. Chilton, *The Federal Free Ride: The Economics and Politics of U.S. Transit Policy* (St. Louis: Center for the Study of American Business, Washington University, 1987).
- Transport Act of 1985* (U.K.).
- Travers Morgan (NZ) Ltd., and Associated Consultants, *Competitive Pricing Procedures for Public Passenger Transport Projects* (Wellington: 1990, 5 vols).
- Urban Mass Transportation Administration, *National Urban Mass Transportation Statistics: Section 15 Report* (Washington, DC: multiple editions).
- Vermeulen, M. J., R. V. Bowmand and I. M. G. P. Luyckx, *Options for Change in Public Passenger Transport Policy* (South Africa).
- Vermeulen, M. J. and W. E. W. Hahn, *An Evaluation of Demonstration Projects: Implications for the Future*, Paper presented to the Southern Africa Bus Operators Association Conference on Bus Transport in Southern Africa (1989).
- Vickers, John and George Yarrow, *Privatization: An Economic Analysis*. (Cambridge, MA: MIT Press, 1988).

Wallis, I. P., *Costs, Competition and Deregulation - Some U. K. Evidence and Implications for Australia*, Paper presented to the First International Conference on Deregulation and Privatization in Passenger Transportation (Thredbo, New South Wales: 1989).

White, Peter and Roy Turner, *Overall Impacts of Local Bus Deregulation in Britain*, Paper presented to the First International Conference on Deregulation and Privatization in Passenger Transportation (Thredbo, New South Wales: 1989).

Wolf, Charles Jr., *Markets and Governments: Choosing Between Imperfect Alternatives* (Cambridge, MA: M.I.T. Press, 1988). A Rand Corporation Research Study.

PUBLIC TRANSPORT SERVICE STRUCTURES AND FUNCTIONS					
	SERVICE STRUCTURES				
			Compe-	Competitive	Threat-
	Public	Private	itive	Operation	ened
	Mono-	Mono-	Tender-	with	Compe-
FUNCTION	poly	poly	ing	Tendering	ition
Overall System Planning	Gov't	Gov't	Gov't	Private	Gov't
Service Design	Gov't	Private	Gov't	Private	Private
Operation of Services	Gov't	Private	Private	Private	Private
			For	In &	
Nature of Competition	None	None	the	For the	Threat
			Market	Market	

Figure 1. Public Transport Services Structures and Functions

PUBLIC TRANSPORT SERVICE STRUCTURES AND THE PUBLIC PURPOSE					
Public Purpose of Public Transport: Movement of the greatest number of people in a safe and comfortable manner for a given level of expenditure over a sustained period of time.					
	SERVICE STRUCTURES				
	Public	Private	Compe- titive	Competitive Operation	Threat- ened
	Mono- poly	Mono- poly	Tender- ing	with Tendering	Compe- tition
OBJECTIVES					
COST (INPUT) ISSUES					
Labor costs determined by market	Poor	Fair	Exclnt	Exclnt	Good
Work rules determined by market	Poor	Fair	Exclnt	Exclnt	Good
Organization of work determined by market	Poor	Fair	Fair	Exclnt	Good
SERVICE (OUTPUT) ISSUES					
Likely to foster service quality & safety	Fair	Fair	Exclnt	Exclnt	Exclnt
Likely to foster comprehensive system	Good	Good	Exclnt	Exclnt	Good
Likely to foster service & fare coordination	Exclnt	Good	Exclnt	Poor	Good
Market determined service design	Poor	Poor	Poor	Exclnt	Good
CONSISTENCY WITH PUBLIC POLICY GOALS					
Capable of achieving public purpose	Poor	Fair	Exclnt	Exclnt	Good
Longer term sustainability in meeting public purpose	Poor	Fair	Exclnt	Fair	Good

Figure 2. Public Transport Service Structures and the Public Purpose

SERVICE STRUCTURE CHARACTERISTICS

MARKET DESIGNED SERVICES

(Likely to Attract More Riders)

MARKET DETERMINED COSTS (Likely to be Lower)	Competitive Operation with Tendering <hr/> Threatened Competition	Private Monopoly (Protected)	ADMINISTRATIVELY DETERMINED COSTS (Likely to be Higher)
	Competitive Tendering	Public Monopoly (Protected)	

ADMINISTRATIVELY DESIGNED SERVICES

(Likely to Attract Fewer Riders)

Figure 3. Service Structure Characteristics