

THE PRIVATE PROVISION OF PUBLIC ROADS

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1. MEANING OF "PRIVATE PROVISION"

The private sector can play a number of roles in the provision of roads. For example, private contractors can build roads for their clients (who are usually central or local governments), and private bankers can provide the necessary finance. But in market economies the essential function of the private sector is to identify commercial opportunities and to satisfy them at their own risk and expense. In a market economy -- and in these days of "Glasnost" everybody seems to favor market economies -- those who take risks are allowed to lose their money if their enterprise fails, and to make big profits if it succeeds. The main purpose of this Special Session is to explore the extent to which this private sector function can be applied to the provision of public roads.

2. WHY EXPLORE THE PRIVATE PROVISION OF ROADS?

In all countries, roads are either owned or controlled by the public sector, and most observers agree that most governments do a poor job at managing this scarce resource. For example, surveys carried out in Brazil found that between 1979 and 1984 6,000 kms of new paved roads were built while, in the same period, 2,000 kms of "good" roads deteriorated to "fair", and 6,000 kms of "fair" roads deteriorated to "poor".(1) Private firms treating their capital assets in this way would soon go out of business. But mismanagement of roads is not confined to Brazil: excessive traffic congestion and wasteful road deterioration are to be found wherever there are automobiles. And while road users almost everywhere can buy automobiles, in no place (except at toll roads) can they buy or rent road space. Is it any wonder that the comedian Will Rogers is reported to have declared: "The way to cure traffic congestion is to have the private sector provide the roads and the public sector provide the automobiles."(2)

3. HOW ABOUT BETTER PUBLIC SECTOR MANAGEMENT?

But, it might be said, widespread mismanagement in the public sector does not in itself make a convincing case for bringing in the private sector. If mismanagement is the problem, cannot the matter be resolved by teaching the public sector to do a better job?

While better training of officials concerned with roads would be beneficial in all countries, it is unlikely to make a significant difference in most. For it should not be assumed that the officials working for their governments are less diligent, less educated or less intelligent than their counterparts in the private sector; in many countries the reverse is the case, the best of the graduates being attracted to government service. The essential difference is

that, broadly speaking, those working for the private sector have to meet commercial criteria, as expressed by consumers in the market place, while politicians anxious to retain the support of those who brought them to power. As public sector agencies do not have to live within their budgets, but can recoup losses from taxpayers, they are able to provide services — such as roads — without regard to economy or commercial viability.

4. HOW ABOUT BETTER PRICING?

It might be suggested, however, that better pricing systems, as recently proposed in "The Economist" magazine (3) could solve these problems. After all, Singapore has shown that urban congestion can be relieved by differential pricing, and the Government of the Netherlands is reported to have decided to introduce a road pricing system on inter-urban roads in the western part of their country before 1996. Why trouble to bring in the private sector if efficient pricing can both reduce congestion and raise funds for maintenance and improvement?

There are two answers to this: first, although road pricing has been discussed extensively for the last thirty years, very little has been done about it. The public sector may get down to it in some places in some countries, but there is no reason why the private sector should not provide facilities — at commercial prices — in other places.

Second, a government "road pricing authority" would be a monopoly. Even if it were to charge the "right" prices (i.e. prices designed to allocate traffic economically on existing facilities), it could be required to hand over all or part of the revenues for use by other government agencies. This was, for example, the fate of the British "Road Fund" which operated briefly in the 1920s. Furthermore, some governments may be tempted to follow the example of Singapore, and to charge more for the use of roads than would be merited by considerations of economic efficiency. The power of governments to exploit road users in this way would be much weaker if private providers were allowed to provide parallel facilities at lower prices, as happens with telecommunications networks in the USA.

5. DIFFICULTIES IN PRIVATE SECTOR ROAD PROVISION

Private entrepreneurs wishing to provide public roads face numerous obstacles, in addition to the "normal" risks associated with all investments. Three in particular may be worthy of mention:

- a) Difficulty in obtaining the necessary rights-of-way;
- b) Difficulty of getting paid; and
- c) Competition from governmentally provided "free" roads.

The papers to be presented at this session will show how some or all of these difficulties are being dealt with in different parts of the world, but a few comments may be in order at this stage:

6. DIFFICULTY OF OBTAINING SUITABLE RIGHTS-OF-WAY

This objection, though important, can be met in three ways.

- a) There are many cases in which right-of-way is available, due to the existence of under-utilized railways or canals. There are also cases,

e.g. alongside the Dulles Airport Access Road in the Washington, D.C. area, where there is space for additional lanes in existing rights-of-way.

- b) The options available to the private sector to purchase land are often underestimated. Of course, there can be situations where a proposed route is fixed, and where an individual holding a parcel of land on this route is in a position to hold up the project by demanding an exorbitant price. But private entrepreneurs have the options of choosing different routes. In the case of pipelines for example, those who wish to build them frequently choose alternate routes, and negotiate separately with different groups of owners, settling with the group that comes up first with an acceptable arrangement. In this way, competitive pressure is brought to bear on landowners to make offers that would-be buyers of the right-of-way can accept.
- c) If all else fails, there is always the possibility of the private operator going to the government and seeking compulsory powers of land acquisition. This was frequently done in the railway age, without the private sector giving up the rewards of successful investment nor the penalties of unsuccessful ones.

7. GETTING PAID

There are three approaches to this problem: a) conventional toll collection, b) "shadow tolls", and c) electronic equipment.

7.1 Conventional toll roads

While toll roads have a long history, and good prospects for the future, the conventional variety (which require users to throw coins into boxes or to pay attendants) have limited uses. The restrictions of access impose substantial costs, both to users and to providers, so these roads are appropriate only where distances are substantial and traffic heavy. More fundamentally, these roads have been criticized for diverting traffic from less-congested to more-congested roads, which results in an inefficient use of the road network.

7.2 "Shadow tolls"

Users of motorized vehicles can, without difficulty, be made to pay for the use of roads by means of fuel taxes. In all countries the revenues from these taxes go to central government, and in some countries a proportion of the revenues so raised is routed to special funds dedicated to road improvement. The US "Highway Trust Fund" is a well-known example. However, in all countries the moneys in these funds are distributed on the basis of administrative and political criteria, and they are not usually available to fund private road provision. If they were made thus available, by, for example, distributing the revenues to different road authorities, private or governmental, on the basis of traffic counts, any agency or company responsible for road maintenance and/or construction could receive payment proportional to traffic. Similarly, revenues obtained from the licensing of heavy vehicles could, in theory, be distributed over the road network in proportion to the use of the network by such vehicles.

7.3 Electronic equipment

One of the papers that follows describes a technology now available to enable road users to be charged for road use at specific points and time of day. It requires vehicles to carry electronic units, which might be compared to credit cards, which identify the owners to roadside electronic scanners and enable monthly bills to be sent out, similar to telephone bills. In the USA, equipment of this kind (manufactured by the Amtech Corporation of Dallas, Texas) has been used to assess tolls on buses going through New York's Lincoln Tunnel since April 1988, and for assessing tolls for all classes of vehicles crossing a bridge in New Orleans (Louisiana) since January 1989. Once installed, such systems enable private road suppliers to be paid, in the same way that telephone companies (such as MCI) can charge for telephone use in the US.

8. COMPETITION FROM FREE ROADS

Even a brief review of the history of toll roads indicates that competition from free roads (or "freeways" as they are called in the US) constitutes a major obstacle to the private provision of roads. To expect a private investor to risk his money on a road that requires payment from users, when parallel roads do not require such payments, is to expect a great deal. It is as if supermarket firms were invited to set up supermarkets next to government shops selling food at reduced prices.

However, the "shadow toll" described above could in fact deal with this problem because, if adopted, it could put users of all roads, public or private, on an equal basis. To return to the supermarket analogy, the "shadow toll" would put all road users in the position of customers with "food stamps" who could shop around at different supermarkets and buy from whichever supplier they favored. In the case of roads, the monies would be paid to the suppliers on the basis of traffic counts. The source of funds could be dedicated highway funds, fed from the proceeds of fuel taxes, but this need not be an essential part of the scheme.

9. SOME EXAMPLES

Where right-of-way can be obtained; where road providers can be paid; and where there is no competition from "free" roads, roads often were, and are, provided by the private sector. For example:

- a) Many thousands of miles of toll roads were built in Europe and North America before the advent of the railways; in 1837 there were, in Great Britain alone, 1,100 turnpike trusts maintaining 22,000 miles of roads. Most were put out of business by competition from the nineteenth century railways and the twentieth century "freeways".
- b) Land developers, in areas as diverse as North America and the Philippines, establish new suburban communities and get the necessary roads built privately; they are reimbursed by selling developed plots for residential or commercial uses.
- c) A Dhaka bus operator, Momim Motors, frustrated in the 1960s at the dearth of roads for his buses, built a seven-mile road for them, and was reimbursed out of the fares paid by the bus passengers. This road has now been absorbed into the Bangladesh road network.

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- d) In the vicinity of Phoenix, Arizona, landowners wishing to enhance the value of their property had a 28-mile public road built to local authority specification at their own expense. They even paid to have the construction supervised by consulting engineers acting on behalf of the local authority. The construction was financed by loans taken out on the security of the land adjacent to the road.

10. NEXT STEPS

Where the private provision of roads would appear to be desirable, one way to obtain results would be for the private sector to identify gaps in public highway networks and to fill them by building additional links at their own risk and expense. This is being done in Bangkok, where 36.6 kms of elevated toll motorway are to be privately financed and built following agreement between the Government of Thailand and the Bangkok Expressway Company, Ltd. Projects of this kind can be less difficult to implement where rights-of-way already exist: replacing underutilized railway lines or building over them; adding lanes to existing roads, or double-decking them.(4) "Non-stop" toll collection would enable for-profit roads to be privately provided in urban and suburban locations where conventional toll collection would be impracticable.

Many issues will have to be settled before roads are provided privately on a large scale. To what standards would such roads be built? Who would be responsible for maintenance? For policing? How would the private provision of roads fit in with governmental planning processes? How would the rights of road users and property owners be protected against poor performance?

But, in enterprising societies, difficulties stimulate solutions. It is my hope that many of us who are interested in transport research will welcome the challenge of tackling the problems associated with the private provision of public roads.

REFERENCES

1. Harral, C. , Faiz, A., [1988] Road Deterioration in Developing Countries: Causes and Remedies, p. 9. World Bank, Washington, D.C.
2. I have been unable to pinpoint the source of this alleged remark.
3. "Make Them Pay" (p. 11) and "The City, the Commuter and the Car" (p. 19). The Economist Newspaper Ltd., February 18, 1989, Volume 310, No. 7590.
4. Poole, R., [1988] "Resolving Gridlock in Southern California", Transportation Quarterly, Volume 42, No. 4, pp. 499-527. Eno Foundation for Transportation.