Toward Improved Urban Transport Pricing: Some Thoughts on Next Steps

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Refinement in pricing practices is an essential prerequisite to a well-functioning economy, and there has long been reason to believe that the same holds true for urban transport systems. For more than 30 years, sound theoretical arguments have shown that significant improvements in the management of urban transport, both public and private, could be achieved through more refined application of pricing techniques. The strength of these arguments is evidenced by the increased sophistication of pricing in other public policy areas, by the increasingly widespread commendation that road pricing receives in planning studies, and by the fact that pricing methods are currently nearing implementation—or actually being implemented—in various parts of the world. Marginal cost pricing has been employed, to some extent, by airlines, theaters, electric utilities, restaurants, and hotels, and urban transport applications are also starting to emerge. Singapore recently implemented a system of supplementary licenses and parking charges, and London has seriously examined a supplementary licensing proposal. Numerous transit systems have explored fare systems that more closely correspond to marginal cost than do conventional structures. In short, potential improvements in urban transport pricing policies appear to have gained greater acceptance than ever before and the opportunities for initiating changes in practices are improving.

On the other hand, progress in urban transport pricing has been slow and roundabout, as reflected by the pricing experience discussed here. This experience highlights two themes that have implications for how pricing might become a more effective tool of local transport policy. The first theme that emerges is that the short-run economic efficiency of the transport system itself, while it is often cited as the motivation for shifts in pricing policy, did not play a key role in justifying pricing changes in cities in which major pricing shifts have occurred. Singapore’s road prices, for example, were instituted to curb long-run automobile ownership and trends of use; London’s supplementary licensing proposal was promoted primarily to expedite improved bus service; Boston’s off-peak fare reductions were established to demonstrate the transit authority’s concern for the citizenry; and Atlanta’s fare reductions were accepted as a quid pro quo to offset the regressive effects of local sales tax. While some broad notion of social efficiency may lie behind goals such as these, there is little doubt that these goals extend well beyond the single-mode efficiency arguments for marginal cost pricing, both transit and automobile, that pervade the economic literature.

The second theme that this experience suggests is that, given the broad nature of the objectives that led to pricing changes, pricing solutions were not the most obvious or direct policy avenues available. Long-term automobile ownership could be controlled through registration requirements or parking limitations, for example; bus operations could be improved directly through more widespread adoption of reserved lanes or other priority measures; and concern for the citizenry could be demonstrated by a host of potential vehicle improvements, station upgradings, or route and schedule changes. The selection of a transport pricing instrument to meet objectives such as those presented here appears to reflect a political choice based on a broad and largely uncertain range of consequences rather than on an analytic evaluation focused primarily on benefits to the traveler.

In short, efficiency per se has not been a key factor in motivating urban transport pricing changes: At first glance, policies other than pricing might have provided the most direct line of attack. If these themes are taken as indicative of the environment that surrounds urban transport pricing policy, they suggest some directions in which pricing research might most effectively be oriented. Some of these possible directions are sketched briefly below.

GREATER CONCENTRATION ON SIDE EFFECTS

Impacts of pricing that are ancillary from a theoretical point of view may be of dominant importance in terms of policy acceptability. For example, mode shifts that are attributable to pricing changes, while they may be of dubious evaluative significance in themselves, may be viewed as a key indicator by responsible public officials. Similarly, administrative costs and difficulties, often judged to be slight and surmountable within the analytic literature, may introduce practical difficulties that are overwhelming in the eyes of transport practitioners. If research on urban transport pricing is to be more effective in inspiring implementable changes, greater emphasis should be placed on the identification and description of administrative difficulties, mode and route diversion, changes in peak timing and duration, and other descriptive measures, so that practitioners can better
judge for themselves the net benefits of schemes of this sort.

REALISTIC ASSESSMENT OF DEMONSTRATION PAYOFF

The unanswered questions surrounding urban transport pricing and road pricing in particular are sources of enormous political risk. Questions have been raised here about the effect that core-area road pricing might have on the economic health of the central cities. Would pricing accelerate the exodus of retail activity from the central business district, the flow of affluent population from the city, or the decline of employment in the center? Another frequently cited source of uncertainty stemming from urban transport pricing is the mobility of the poor: Would road pricing unduly burden low-income people, make it uneconomical for them to continue to travel to their jobs, or force them to use less favorable shopping facilities? Even the benefits to the automobile traveler - the crux of the economic rationale for road pricing - are somewhat amorphous. Exactly where on the road network will time savings occur, what will their extent be, and what special traffic readjustment problems will they create?

To some extent, nagging questions of this sort are part of the arsenal routinely employed by those with a vested interest in the status quo to ward off all challengers. Traffic-free zones were greeted at first by similar questions, but repeated enactments of that concept (although they have admittedly been limited ones) have gone a long way toward alleviating the surrounding fears.

It appears to have been generally conceded at this workshop that no amount of paper research will serve to diminish substantially the risks that pricing poses to business viability, essential mobility, and transport system disruption. Only a demonstration project in some U.S. locality could afford convincing evidence by which local governments could make credible judgements about the worth of the traveler benefits, the effects on business and development, and the mobility of the population, especially the poor. It also appears that such a demonstration would require heavy federal funding to offset, either through direct demonstration-incentive expenditures or through some form of insurance against adverse impacts, the risks that the local government would be asked to accept by conducting the demonstration.

Would a road-pricing demonstration project be worthwhile? The answer ultimately hinges on two questions: Can policies of this sort be shown to produce substantial increases in social welfare, all things considered? Assuming that such advantages can be demonstrated, would a demonstration project pave the way for spontaneous implementation elsewhere in the country without further expenditures of federal funds?

Although the analytical attention of the Urban Mass Transportation Administration's research program was focused primarily on the first question, it is equally important that consideration be given to the second. A demonstration project whose only effect is to generate more demonstration projects is of questionable value. Based on the demonstration experience with pedestrian malls, ramp metering, and other much less radical transport system changes, there does not appear to be convincing evidence that congestion pricing, even if it were successfully demonstrated in one U.S. city, would lead to independent acceptance of this policy by other localities. A series of demonstrations (with their attendant costs) is likely to be necessary before roadway pricing becomes an idea that sells itself. Nevertheless, viewed alongside the costs and benefits of other urban transport panaceas now on the drawing boards and testing grounds, an aggressive program in urban transport pricing may have a lot to offer.

FULLER EXPLOITATION OF GRADUALISM

Existing transportation charges offer a more readily available way to increase the effectiveness of pricing instruments than do radically new charges. Transit fares, annual vehicle registration fees, bridge tolls, gasoline taxes, parking charges, and other pricing instruments that are already in place present opportunities for change toward more economically desirable urban transport pricing structures. On the other hand, if it is felt that significant gains can only be had through implementation of new instruments, such as supplementary licenses, it would appear that strategies that initiate those changes at some very low nominal level and then permit gradual increases in them over time could have long-run merit. Not only could such an approach reduce the risks associated with sudden dramatic price changes, but it could also provide a realistic prototype for other areas since, if they adopt such measures at all, it is likely that they will opt for some sort of gradual phasing of roadway charges rather than abrupt price shifts. The administrative costs of such nominally priced systems would be exceptionally large compared with the revenues generated by them. Perhaps it would be useful for the federal government to underwrite some of these administrative costs.

Pricing, if it is ever to become an active ingredient in urban transport policy, has a long and difficult path of development ahead. The public acceptance of transportation pricing measures to date has been very limited, as evidenced by the collapse of the transportation control plans called for by the Clean Air Act, by the public uprisings that are the rule when bridge toll increases are discussed, by the widespread public and political resistance to public transit fare increases, by the refusal of Congress to consider substantial public and political resistance to public transit fare increases, by the refusal of Congress to consider substantial gasoline tax increases, and by the general disregard that local practitioners display for theoretically advocated transport policy measures. This lack of acceptance is attributable in part to the restricted theoretical perspective in which pricing measures have been evaluated and to the inability of theory to address some of the developmental and equity concerns that are critical in practice. It is also partly attributable to the lack of a strong industry beneficiary: There are no manufacturers, construction contractors, or other interests that lobby for urban transport pricing policies because of self-interest.

But all things considered, the slowness of progress in urban transport pricing is probably primarily attributable to sluggish popular endorsement of the concept. The typical American's reaction to the idea is likely to be that traffic ills have not yet reached the stage at which such seemingly strong medicine is warranted. If urban transportation ills can be treated with milder drugs, it is difficult to justify sulfur treatments. Still, with urban population and automobile ownership and use climbing and with urban freeway construction virtually halted, it is not too difficult to foresee a day when the patient welcomes the bitter pill. It would appear reasonable for the federal government to anticipate that day by continuing and extending its research on the wide range of effects implicit in urban transport pricing changes.
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