Improving Urban Transport Pricing


John F. Kain, Department of City and Regional Planning, Harvard University

Much of the discussion about pricing transport services thus far has focused on the potential for restraint of traffic going into the central area. Economists start from the perspective that road space in congested areas is underpriced and that large gains in economic welfare can be achieved by restricting traffic, particularly if it is achieved by road pricing. It is argued that pricing policies, broadly construed to include supplementary licenses, parking surcharges, or sophisticated vehicle-monitoring systems, would improve economic efficiency, reduce travel time and cost, increase accessibility, improve environmental quality, and reduce fuel consumption. I am in general agreement with this point of view. I would like to direct my remarks to some of the concerns that have been raised about the possible effects of road pricing on the distribution of income and on the existing pattern of activities, sales volumes, land values, and employment in the central area, particularly over the long run.

A pricing scheme, if it were properly designed and implemented, would increase rather than decrease activity and employment in the central area. The fears often expressed about the possible negative effects of road pricing reflect a lack of understanding of the nature of urban transportation as a system and the gains that improved efficiency would confer on the transportation system and on the urban economy.

However, the concerns expressed about the effects of restricted automobile use are very real. In spite of evidence to the contrary, property owners believe that automobile restrictions would hurt them, and they typically have considerable political power. Consequently, their objections must be explicitly addressed.

With regard to the concerns expressed about possible income redistribution, the present system tends to be regressive and to work to the advantage of commuters in the medium-income and higher income groups. It is easy to demonstrate that in most instances the poor would benefit from the improved accessibility and lower fares that would result from more rational pricing of both private and public transportation.

The principal objection to proposed changes in pricing, in my opinion, comes from the great uncertainty people feel concerning the benefits and whether the benefits are large enough to warrant the political risks required of those who must make the key decisions if new approaches to pricing are to be initiated. I believe that this is a legitimate position. If, as a society, we are to test a restraint scheme that represents a major departure from past tradition but has the potential for large gains nationally, then the federal government must provide some incentive to encourage a demonstration. Adequate funds must be made available to compensate those who are injured (or who fear they will be injured) by the new pricing scheme, and the city must be given some discretion concerning how the scheme is to be implemented and how compensation is to be made. Clearly, strong federal leadership is warranted.

It is important not to confuse the objectives of the program—e.g., greater efficiency, reduced travel times, and improved environmental quality—with the instrument—pricing. Road pricing should be regarded as a tool and not become the end itself. Marginal cost pricing is practically an article of faith among economists. Policy makers detect a narrow professional interest on the part of some who seem intent on using the city as a laboratory to test their hypotheses or who argue that, if you can't really implement a sophisticated pricing scheme, it is not worth undertaking. As a start, some primitive form of area pricing similar to that of the Singapore supplementary license or a parking surcharge might be best. The goal should be simple. I would suggest we begin by trying to make dense central areas function better. In some instances, physical restraints might prove more efficient than pricing schemes.

Finally, I think we had better take a long hard look at where we are in research and development at this point. For purposes of considering alternative pricing policies and for the larger subject of urban transportation planning, we need a much better understanding of rather complex phenomena that have a high degree of commonality across urban areas, i.e., the price and service elasticities of travel demand. Unfortunately, we do not have the research and analysis machinery to analyze what appear to be some constant truths about the travel behavior of groups with similar socioeconomic characteristics who undertake trips for similar purposes in different cities. Rather, we have had a fragmented approach. In the last 20 years, we have spent millions of dollars on hundreds of local studies. Each city has felt the need to learn and understand urban transportation for itself. The studies tend to paw over the same inadequate data, and they come up with the same answers. As a result, very little has been added to our understanding.

In concluding, I would like to emphasize that our ability to develop and implement pricing strategies and similar schemes has been hampered by an institutional system that has not been responsive to our needs. Clearly, planning and implementation can be done only at the local level. But local planning organizations do not have the necessary tools and information to do the
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