

# Objectives of Pricing

## Summary of Objectives of Pricing

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Our analyses of urban transportation problems and pricing strategy have for the most part been only incidentally expressed in terms of space and their intimate relations with the rest of the urban system. There has been, for example, widespread but perfunctory recognition that road and transit pricing strategies should extend to encompass the many side effects on land use patterns, delivery of public services, and other dimensions of the full city. But there has been no mention of what a vigorous and socially responsible transportation pricing policy would require in governmental reorganization. Is some form of general regional government—beyond the minimal regional transportation authority—critical to the serious business of containing or softening these many side effects? The impact of downtown congestion pricing on, say, the relocation of offices or retail trade (the tax base) is not nearly so serious if there is region-wide pooling of the nonresidential tax base (as in the Twin Cities). Would the road pricing advocate be prepared to levy tolls before consolidated local government had been achieved or only after that unlikely event? A corollary of this is that there is a need to bring many complementary policies along more or less evenly so that the price edge does not get too far out front.

Our urban systems analysis has not only been thin but largely unidirectional: How will an urban transportation strategy affect other parts of the city? We have not discussed how other policies would touch transportation or how transportation investments, service patterns, and prices could assist in fulfilling other objectives. Urban transportation is primarily a means to other ends. If, for example, we move toward rent supplement programs in low-income housing and speed the filtering down of housing, we face, sooner than we are prepared to, the movement of poor working families into low-density, early postwar housing on very small lots. If there are two wage earners going off to work in different directions, this could pose an access problem considerably more demanding than the one we now face. Neither low-density transit nor two old cars per household seems to offer a neat solution. In short, from a transportation standpoint, such a housing situation may not wear well, especially if this should prove to be an age of energy shortages or air pollution alerts, either of which makes movement by automobile expensive.

It may be useful to make different sets of assumptions about surrounding policies as an integral part of any given transportation exercise. Otherwise, a study makes implicit assumptions about other interacting policies.

Although there has been general agreement that revenue raised by automobile tolls could logically be diverted to the support of public transportation and that this might even be politically feasible in modest amounts,

there has been a prevailing mood of pessimism that transit deficits could be kept modest. Perhaps we need to coordinate our pricing policy with a complementary land use strategy. We could, for example, increase frequency of service and keep deficits down by contracting the spatial extent of the transit system—by abandoning lines. If this were slowly and carefully done, one might in fact argue that, in exchange for limited subsidies from the motorist, the hard residue of transit users should be willing to put up with the inconvenience of relocating near the revamped high-quality thin system. Sophisticated land use planning should be able to ensure the availability of low-income housing sites for a lesser subsidy than that required to run a nearly empty too-big transit system. Most cities could provide a wide variety of origins and destinations—a good representative sample of urban choice—along a few well-chosen key routes. Barring a severe gasoline shortage or an air pollution crisis, we probably cannot deliver on both transit quality and quantity (extent), and concentrating on quality could be better if the program is well designed and if relocation is well managed.

Our discussions here made little or no mention of the impact that the slowing rate of population growth might have on congestion and the need for stern road pricing policies. Certainly part of the urban traffic problem is due to the lag in the supply of transportation facilities during a period of both rapid natural increase and a heavy rate of rural to urban migration. Will a slowing of both elements of urban growth so reduce the traffic problem that lesser (mild) measures will suffice? At the least, most eastern and midwestern metropolitan areas have not grown (in population) since 1970 and their central cities have been losing population since 1955; many have already lost one-quarter to one-third of their peak population.

Another strong trend that seemed to have been missed in our dominant concern with the peak-hour commuting trip is the rising share of urban movement accounted for by recreation, social, and shopping trips, all more dispersed in destination and time than the journey to work. Again, the affluent motorist fares well here, and it is ease of access of the nonmotorist that is most at issue.

The urban system that dominated our deliberations was closed at the level of the metropolitan area. But the options of the die-hard motorist may extend well beyond these narrow spatial bounds. He may choose to not pay an automobile toll, take the bus, or move near his work but may instead leave the big city and relocate in a small metropolitan area or an even smaller place. The semi-skilled blue-collar worker may choose to hold onto his car and exercise his prerogative to drive at almost any cost. And the cost may be small or the choice could in fact become a gain, if his manufacturing work were also

in the process of seeking lower costs in smaller places. Routine manufacturing probably does not need the elaborate infrastructure (external economies) of large metropolitan areas; at least they are a net loss when the higher land rents or higher transportation costs are considered. Assuming that blue-collar workers most often prefer smaller metropolitan areas (or big towns) and given that

manufacturing activity creates low-density population patterns and dispersive trips, the automobile is relatively efficient in smaller places. Transit is difficult to arrange and support in a manufacturing area of any size, but a smaller area is probably no worse. Part of the resolution of the urban transportation problem may lie in relocations within the national system of cities.

## Why Price Urban Transportation Services?

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In order to try to strike a balance for myself between economics and the environment, I would like to begin with a list of the assumptions that underlie the prescription to price any service and particularly to price the marginal unit or incremental quantity of any such service at the marginal or incremental cost of supplying it. Note that the strongest case for assigning any price presupposes determining the economically efficient price. To the extent that achieving such an economically efficient price is impossible, there is at least a less bad case for no price at all. But first, I shall briefly describe the assumptions that underlie the prescription of an economically efficient price.

1. Not only is there no free lunch—which would appear to be the most forbidding way to put a familiar economic proposition—there isn't even any free relish. Consumers as a whole must therefore pay, one way or another, whether they realize it or not, and the last freeloader, or the last freerider, must add an extra concealed payment load onto himself or everyone else unless, in fact, the marginal cost of what he is consuming is zero. Please note that the marginal cost may, at least in principle, be zero even if the total and average costs are substantial.

2. The foundations of economic analysis are the firm and the family, and economists do not like to be bothered with complications like holding companies and open marriages. This permits them to simplify problems of extreme complexity by postulating independence in place of interdependence but to bypass it when required by the situation in discussions of the causal or motivational aspects of economics. But the principle of independence tends to be employed in situations in which there are presumably the greatest benefits for the ultimate consumers.

3. Efficiency is not the same as equity or social justice. If duly elected representatives wish to take from the rich and give to the poor—or vice versa—the process of such a redistribution is political even though some of the consequences may be economic, in the sense that they impair or improve future efficiency. But even the redistributive process has one economic aspect: The idea of economic efficiency points toward the idea that incomes should be taxed, and incomes should be subsidized—not just particular sources of income or consumption patterns.

4. The economics of location, like all economics, is relative or comparative rather than absolute. The economic importance of any site is related to the eco-

conomic importance of all other sites in ways that are only partially elucidated by the most complex of gravity models. And both the where and the when of transportation economics have a double meaning: The issue involves not merely where you are or where you want to be but both origin and destination as a form of movement and not as a pair of locations; the when involves not merely the timing of the beginning of a movement or the timing of the end of it but the duration of time elapsed between being at the origin and being at the destination. Moreover, transportation does not involve automatic reciprocity—rush hours involving the central business district are not balanced, like a funicular railway, by equal rushes in the opposite direction—and transportation equipment cannot be consumed, like the last breakfast roll, somewhere between origin and destination. Hence both the where and the when have directional overtones and are often associated with backhaul problems. So transportation not only involves costs in a general sense; it also involves special costs that are responsive to specialized demand characteristics and that are likely to show up to different degrees and in different forms in different communities, along different transport corridors, or in different transport environments.

In moving from the general economic principles sketched in the first two points and the general inapplicability of economic principles noted in the third, we go from general explanations like "there is no such thing as a free lunch" to specific considerations of "what kind of cafeteria is this?" And, as any visitor to a strange cafeteria knows full well, the first question is not necessarily "what does it cost" but "how do I manage to get what I really want, without being overwhelmed by cottage cheese?"

At this point, we must progress beyond the stern confines of general economic principles, exploring two questions: First, is there ever an economic case (not a political or sociological case but a case based on economic efficiency) for any kind of transport subsidies? Second, are there ever circumstances in which this case may be pushed all the way to economic (not political or sociological) advocacy of a free ride if not a free lunch?

### TRANSPORT SUBSIDIES IN GENERAL

The obvious arguments for transport subsidies have already been disqualified by the rules of the game. Aid to the aged, the handicapped, and the disinherited is ruled out because (a) such aid is based on premises of equity