

Transportation Economics and Pricing Program

MTC should consider creating a capacity to engage in a broader kind of economic analysis. MTC at this time employs no economist and has no economic model. To reduce environmental and health costs, to improve social equity, and to increase the productivity of the transportation system, MTC should create a comprehensive transportation economics and pricing reform program which will study transportation economics and develop and implement specific pricing reform policies. Full market pricing includes not only the usual monetary capital and operating costs, but also non-monetized external costs of greenhouse gases, other pollution and waste, health and accidents, and nature services.

MTC should consult with university economists about more detailed development of this program. MTC should hire a full time economist to conduct economic analysis and propose pricing policies.

Economic Analysis

Building on ABAG's regional model, MTC should develop a quantitative input output model that is sensitive to transportation prices, facilities, and land use and to greenhouse gases, other pollution and waste, health and accidents, and nature services.

The model should include the whole economy, not just the economy as measured by money transactions. The model should include as outputs monetary estimates for quantifiable external costs for pollution, waste, vehicle accidents, global warming, and other non-monetized costs so as to reduce estimates of gross regional product to better measure the real performance of the whole regional economy.

The model should be able to consider pricing reforms and price elasticities so as to estimate reduced external costs and increased goods and services as well as the cost of the pricing reform. Estimates of elasticities would include the availability of alternative modes, technologies, and land uses most likely to be competitive with the dominant system of indirect pricing of car use.

The model should be able to consider elasticities and monetary aspects of policies for full market pricing of transportation, based on a goal of responsible consumer choice responding to the real cost of consumer choice, in contrast to the dominant policy mode of governmental prescription to mandate better behavior in the face of irresponsible prices and the political power of the car culture and its vested interests.

The model should be able to consider elasticities and monetary aspects of policies such as protection of open space, smart growth, decoupling parking from other rents, taxes on parking, market-based parking charges, employee parking cash-out, eco-pass-based shuttle transit to urban rail, reduced parking and road requirements, development of centrally located under-utilized land (e.g., excess parking, overly wide streets, one story buildings), a vehicle license fee, and sustainable energy technologies. Such elasticities include demand elasticity and supply elasticity from economies of scale and synergy among non-car modes, land use, and pricing.

The model should have a small area capability to estimate market demand for housing based on full cost pricing (capital, operating, external costs) of the house, its energy consumption, appliances, and transportation, along a spectrum of neighborhoods from dispersed, auto-dependent to dense, transit and walking oriented.

The model should consider equity issues, including the equity effects of current pricing, the potential equity impacts of pricing reform, and the design of pricing reforms to improve equity over the current pricing system.

The model should be used

- to estimate the reduction in Gross Regional Product due to indirect, distorted prices for vehicle and fossil fuel use,
- to shape pricing reform policies to assure economic and equity gains,
- to estimate value to beneficiaries of pricing reforms, and
- to estimate the economic productivity gains from pricing reforms.

Reframing the Pricing Debate

The carist ideology which monopolizes the current policy debate prevents factual analysis of transportation problems and perpetuates the problems it claims to solve. The carist approach to pricing focuses on the cost of a reform to vehicles users and assumes political opposition if not political impossibility. Yet most of the American economy has some commitment to using pricing and markets.

The policy debate does not consider the costs of the current pricing system, nor does it know the benefits of pricing reform, because they have rarely been calculated. We have, for example, good academic estimates of the “high cost of free parking,” but no policy estimates for specific businesses, institutions, cities, streets, apartments, or transit agencies. Similarly, we have no estimates of benefits for beneficiaries of full market pricing.

Pricing reform would be helped by better information which frames the debate in terms of the costs of distorted prices of the current system and the direct and productivity benefits for the full economy of pricing reform. The focus needs to be shifted, from the cost to be imposed on those not paying for what they are doing, to the costs they impose on others and how others can benefit from reform.

Pricing Policy Development

MTC should develop specific pricing policies concerning

- **Study cash out for Smart Growth**

Policy makers know that cash-out of employer paid parking for employees is economically sound and would benefit transportation performance. However, employers now have no incentive to cash-out and land is wasted in vacant parking spaces. Employers who cash out parking and demonstrate to MTC that parking spaces are not needed should have a basic entitlement to

develop land no longer needed for parking to the same intensity of use as other development on their property. Cities would have regulatory powers over details but not the ability to reduce intensity of use or engage in undue delay.

- **Study unbundling**

City qualification for MTC-controlled funds should be conditioned on removal from zoning codes of requirements that parking be provided as part of rent. Owners of rental property should be educated and encouraged to unbundle parking rents and charge whatever they wish for parking. They should get technical assistance in advanced, easy-to-use charging technologies. Those who can demonstrate to MTC that parking spaces are not needed should have entitlement to develop land no longer needed for parking to the same general purpose and intensity of use as other development on the property. MTC should condition funding to cities on cities requiring that developers unbundle parking on new development.

- **Study ecopass**

City qualification for MTC-controlled funds should be conditioned on requiring that all new residential construction provide ecopass. Payment can be included in the rent, in HOA or condo fees, or as a special property tax. Proceeds would go to transit serving the property paying the tax and renters would use their ecopass to ride a local service for free (or, more accurately, with no fare collection, since the rent, fee, or tax pays for the service).

- **Study parking requirements**

City qualification for MTC-controlled funds should be conditioned on requiring cities to eliminate parking requirements in zoning. If a developer wants parking, the city may regulate stall and lane requirements. This policy could facilitate use of close-in land for more housing, increase housing density, make housing more affordable, and meet market demand from walking, transit-mobile and car-free households.

- **Study dynamic street parking charges**

MTC should continue develop model policies for technologies that are easy for consumers to use and which vary the cost of parking on public streets and public parking lots based on demand, by time of day, day of week, and special events. City qualification for MTC-controlled funds should be conditioned on some application of such charges. Convenient street parking in high demand should be charged enough to create vacancies and encourage use of more remote parking. Information systems should inform drivers about parking availability to reduce hunting for a space. Proceeds should be used for pedestrian and transit amenities in the area paying the charge.

- **Study dynamic congestion pricing**

Congestion is the best price we have now for allocating freeway space. It is profitable for people to waste time and resources to reach destinations whose benefits outweigh those costs. However, as shown on San Diego's I-15, a congestion toll benefits all drivers and society as a whole. MTC should develop policies for regional dynamic congestion pricing, which would change tolls in small increments every 15 minutes based on travel demand measured in real time. The policy would manage all freeways in the nine counties to assure fluidity at a minimum of

about 40 miles per hour. The policy would move the freeway system to optimal fluidity over time, gradually reducing peak hour delays as increasing charges, alternative mode development, and longer-term elasticities reduce demand. MTC should study using FasTrak payment technology to collect a toll based on entering and exiting locations. The travel model (not the economic model) should compare this policy with HOV and HOT lanes. Systemic market-pricing of access to mixed flow lanes probably reduces congestion more than HOV and HOT lanes. Dynamic tolling at ramp meters cannot work without dynamic main line meters, requiring a change in federal law. Toll bridges would also convert to dynamic tolling. To provide equity and reduce congestion further, MTC should use the surplus funds to subsidize HOVs, buses, and other services that meet travel needs now being met inefficiently by Low Occupancy Vehicles.

- **Study carbon swap**

MTC should develop a policy which can be implemented at the county level to increase the gas tax while reducing the sales tax by an equivalent amount. Such a policy should include partial increases in gas tax at stations close to county borders, with revenues to the county of collection, so as to limit excessive driving outside the county for a lower price. The policy may replace all or some of special sales taxes for transportation. The policy should include an elasticity ratchet, which is a performance-based increase in the gas tax so as to maintain required revenue as gas consumption declines and sales subject to sales tax increase.

- **Study a pavement tax**

MTC should study a special tax on private non-residential property based on square feet of paving for private auto use. The tax should be based on the external costs of paving in contributing to urban heat islands, on how much free parking contributes to uneconomic car travel, on revenues lost from more productive land uses, and on the fact that pavement is not aesthetically pleasing. If the owner of the property prefers not to absorb the cost, the owner should have explicit authority and encouragement to charge users directly for parking to offset the pavement tax. Owners could use the same advanced charging systems as the city where they are located.

- **Study driver externality costs**

MTC should develop policy to reduce the high costs caused by uninsured, unlicensed, drunk, and reckless drivers and unregistered and polluting vehicles. The policy may include equity assistance so that lower income people deprived of a car will have minimally essential transit passes or, if essential, taxi fare for commuting to work or for health. A low income, responsible driver who needed a car for work or health purposes would lose a polluting, low-mileage vehicle but get a low-polluting, high mileage vehicle. The driver would not be unfairly benefitted and society would benefit. Drivers deprived of driving privileges would get education and assistance in the court room at the time they may have their license suspended, and a way to get their car home without driving illegally. The policies should include, in serious cases of driver irresponsibility, expedited administrative procedures for confiscation of vehicles and quick sale to new owners, with legal appeal only for return of funds from the sale and only if the sale is shown to be improper. MTC should develop policy to prevent uninsured drivers, e.g., by preventing improper refund of insurance costs when the person is still driving.

- **Study parking structures**

MTC should develop a policy requiring that **new** parking structures not be subsidized. The revenues from a parking structure should cover its full cost, including land cost, planning approval process, contract construction cost, interest on loans, operating costs, charge collection costs, and indirect congestion, accident, and pollution costs. If projected real economic demand is too low to cover the full economic costs, the structure should not be built. **Existing** structures should collect parking charges depending on market demand. Collection of dollar from vehicles exiting between 3 pm and 7 pm could be a minimum.

Conclusion

MTC understands things in terms of how it can spend money, i.e., projects and programs. To make progress on pricing, we have to make it a program. A **Transportation Economics and Pricing Program** should be added to the RTP. Such a program would enable MTC to develop policies that make sense for the full economy—the money economy, the social equity economy, the environmental economy—in addition to goals of “reliability,” “reduce VMT,” and “reduce congestion.”

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