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# Roads in a Market Economy

*Gabriel Roth*

*Brookfield, VT: Ashgate Publishing Co., 1995; ISBN 291-39814-6*

Gabriel Roth has been advocating market solutions to transportation problems longer, it seems, than anyone else in the field of transportation economics. For over forty years he has been analyzing problems and suggesting solutions. Most of his previous work has been in the form of shorter policy studies, conference presentations and papers, magazine or journal articles. This book endeavors to present a more complete and comprehensive exposition of his views on how roads might be more effectively operated for the benefit of both users and the larger society.

Autos on roads are the dominant mode of human transportation. In the United States almost 99% of the person-miles of surface travel is in cars. In urbanized areas, almost 98% of the person-miles of travel is in cars. Public transit's share of urban person-miles of travel has shrunk from over 30% in 1945 to 2% today.

At the same time that travel by transit was declining by 60%, auto person-miles of travel in urban areas was increasing by nearly 700%. Even at that, nearly 70% of the transit travel is on buses that travel on the roads.

In freight transportation, roads in the United States carry over half the tons shipped and over 70% of the value of items shipped (see Table 1: Freight Shares 1993).

The foregoing statistics (assembled by this reviewer) indicate that roads are the main mode of transportation for both persons and freight. Yet we find that roads are plagued by the twin evils of inadequate resources and poor capacity utilization. Recurring financial crises are the norm for roadways at all levels of government.

The fundamental problem is that we use the "command economy" model to organize and provide roads. The comparative results of market vs. command economies over the last 75 years, or so, has amply demonstrated the inferior performance of the command economy model. The persistent under-performance of the command economy model was a primary factor in the collapse of the Soviet economy. Massive, yet inefficiently used capital assets, customer queuing, and environmental degradation

are all commonly recognized problems of socialist means of production in the former Soviet Union. These problems are also commonly experienced on America's roadways. Excess idle capacity, traffic congestion, and air pollution are all consequences of our attempt to use socialist means of providing roadways. There is little effort to match price to cost. While there are "highway user taxes," they are levied in ways that do not take full advantage of the commercial potential that "pricing" the roads offers. Highway user taxes are typified by the "flat" per gallon and per vehicle levies. These types of taxes do not vary with the demand for road access. Those who crowd onto roads during the peak period are not explicitly charged more than those who travel at less congested times. As a result highway user taxes cannot help to mitigate traffic congestion.

Because highway user taxes have an inconsistent relationship to the costs incurred to serve various users, those who impose high costs on the system are encouraged to demand more service than can be provided with existing resources. The decision on where to invest highway funds is similarly diverted from optimal. Because public highway agencies are not driven by the need to serve customers in order to earn a profit, they may more easily neglect to pay attention to customer preferences.

Because public highway agencies are not profit-seeking enterprises it should not be surprising to find that they are accruing losses. Of course, highway agency financial statements do not show "losses" *per se*. The "cash flow" accounting methods of government agencies show that expenditures match revenues. However, cash flow accounting does not make allowances for depreciation of capital assets. As a result, no provision is made to account for eventual replacement of worn out or obsolete roads. If we adapt the accounting practices to incorporate a depreciation allowance, we find a state of persistent deficit over the last two decades (see Figure 1: Profit/Loss Statement for U.S. Roadways, appearing in Roth's book). This is, indeed, a precarious financial condition.

Mr. Roth's solution to the deficiencies of the current public highway system is to take roadways out of the "command economy" and put

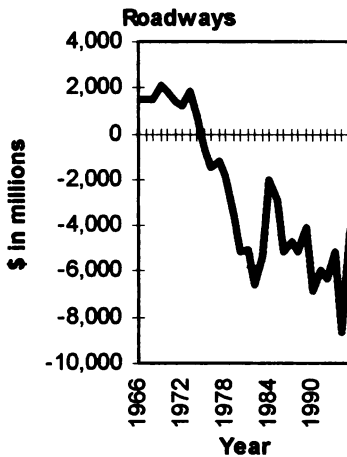
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Table 1: Freight Shares 1993

Mode	1,000s tons	Value (millions)	Ton-miles (millions)
Trucking	6,385,915	\$4,403,495	869,536
Rail	1,544,148	247,394	942,561
Pipeline	1,342,948	180,262	592,900
Air	3,139	139,087	4,009
other	2,880,955	1,153,594	1,218,913
Total	12,157,105	\$6,123,832	3,627,919

Figure 1: Profit/Loss Statement for U.S. Roadways



them into the marketplace. He would abolish existing funding mechanisms. He would close out the federal Highway Trust Fund, the repository of highway user taxes, and "commercialize" the roads. His model for a commercialized road system is the telephone market. Each road corporation would have a defined territory within which it would operate as a business. As a starting point, he suggests that state highways would be incorporated into a single business within each state. County roads and city roads would also start out as geographically defined corporations within their respective boundaries.

"Commercialization" differs from "privatization" in that it would permit government corporations, like the New Jersey Turnpike Authority, to own and operate roads. The key is to make the corporation, whether government or private earn revenues from customers rather than rely upon tax financing that may have little relationship to customer service. The idea is that if we get the incentives right, even a government corporation

would be pushed toward efficient methods of providing service.

Mr. Roth would permit these new roadway corporations to be the actual owners of the roads and free to reconfigure their assets by buying or selling segments of roadways. In addition, other private sector firms would be free to initiate new road projects or to buy assets from the firms that are granted the initial geographically defined franchises. The potential for competition among the corporations operating the former state, county, or city roadways, plus any new firms entering the geographic area would help to promote efficiency and consumer value.

Mr. Roth summarizes his basic requirements for a commercialized road system as follows:

1. The roads must have owners. As beneficiaries of the increased value of the asset, the owners will have strong incentives to nurture and improve the roads. This stands in stark contrast to the current system of government ownership wherein no one really owns the roads. As a result, roads are frequently allowed to deteriorate. This leads to the "boom-and-bust" cycle of financial crises leading to tax increases, which lead to spending binges and another round of financial crises.
2. The roads must be financially self-supporting. The only means we have of knowing whether resources are used wisely is if the customers willingly pay the full cost of their deployment and use. The current highway finance mechanisms are replete with "cross-subsidies" (some users pay for benefits enjoyed by other users) and non-user taxes that obliterate vital information concerning where road investment is really needed.
3. The law must not discriminate between publicly owned and privately owned roads. Publicly owned roads must earn their way.

Otherwise, the inefficiencies of the existing system will be perpetuated.

4. Revenues must accrue to those who *earn* them. That is, fees imposed on road users must be paid over to the road owners rather than being diverted to some other purpose (as federal highway user taxes have been diverted to "deficit reduction").
5. Standards must be established to allow for the free flow of traffic from one road system to the next. The kind of jurisdictional disputes that impede the free flow of traffic in some regions must make way for the kind of cooperation that smooths traffic flow between connecting, privately owned railroads.

The key tool for promoting efficiency in a commercialized road system is the pricing of road access and use. When the fees charged to road users must cover all the costs of service, resources will be more likely to be directed toward wise investments. It is profitability that is the most reliable measure of the value of an investment. Only when the operation of roads can be measured on a profitability scale will we have any idea of whether resources deployed to

roads are more or less socially beneficial than if the resources had been deployed in some other fashion.

The one revision I would make to Mr. Roth's proposal is that I would "franchise" road corporations in smaller units than *all* the roads in a state, county, or city. This would institute a more immediately competitive environment and reduce some of the potential difficulties that might arise from the monopoly positions of statewide, county-wide, or city-wide road corporations. I want to make it clear, though, that this does not mean that I would oppose Mr. Roth's commercialization proposal, only that I would wish to carry it further toward a more competitive ideal.

Mr. Roth expects commercialization to result in a road system that is more efficient, more equitable, and safer. Given that the marketplace has invariably produced better results in this regard for other goods and services, the probabilities are high that Mr. Roth is correct.

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