

COST AND CAPITAL

- **Is there a need to revise Federal highway and transit financing policies?**
- **Should the Federal Government seek to influence capital investment by the automobile industry?**
- **Should the Government act to influence the direct and indirect costs of automobile ownership?**

Public and private costs of the automobile transportation system include the direct private costs of owning, operating, and maintaining automobiles and the indirect costs that are paid in the form of taxes to support the system of streets and highways. There are also the social costs—borne by automobile users and nonusers alike—which include air pollution, highway death and injury, disruption of communities, and effects on the quality of life.

These costs give rise to three major issues:

- the appropriate distribution of public funds for the automobile transportation system;
- the role of the Federal Government with respect to the automobile transportation industry; and

the private costs of owning and operating an automobile.

Underlying these issues are fundamental questions about the form and degree of Federal Government intervention in the future automobile transportation system. The following is a brief summary of these issues and questions.

Public Financing of the Highway System

Historically, a major role of the Federal Government in transportation has been financial contribution to development of the highway system. The Federal Government—mostly from the Highway Trust Fund—now provides about \$7 billion of the \$28 billion expended each year on the highway system. Federal assistance for mass transit, which amounts to about \$2 billion per year, is funded from general revenues.

Supporting analysis for this section of the Summary and Findings is contained in chapter 9 of the Technical Report.

Our analysis indicates three major questions with regard to highway financing over the next two decades:

- Should the Highway Trust Fund, in its present form, be the primary mechanism for Federal Government financing of highways?
- How much Federal support should there be for highway maintenance?
- Should the Federal Government foster road-pricing systems as a means to reduce congestion, to promote more efficient use of highways, and to achieve more equitable distribution of highway costs?

Advantages and disadvantages of transportation financing options are examined in detail in chapter 9 of the Technical Report. These financing mechanisms include: (1) a continuation of the present Highway Trust Fund, (2) a unified transportation trust fund, (3) separate trust funds for each mode of transportation, and (4) financing from general funds.

Important to the future of the highway transportation system is the issue of highway maintenance. Our study indicates that the Nation's highways are deteriorating twice as fast as they are being repaired. An adequate program of maintenance would place a growing, and perhaps an unsupportable, financial burden on State and local governments. The use of Federal funds for maintenance may be required.

Analysis indicates that 40 percent of all urban interstate travel in the last 5 years was characterized by congested conditions, and these conditions are expected to worsen. Road-pricing schemes are one method to relieve highway congestion.

Several Federal agencies have been evaluating congestion cost-pricing schemes to restrain traf-

fic growth. These schemes call for special licenses in designated areas during peak hours, parking fees, and promotion of alternative modes of transportation. The net value and acceptability of congestion-pricing is yet to be determined, but it is a promising subject for further analysis.

Financing Requirements of the Automobile Industry

The auto industry's return on equity and profit margins are higher than many other manufacturing industries. In addition, the growth in sales projected in the Base Case improves the outlook for industry profitability. However, the need for capital investment to meet Government standards and changes in consumer demand will increase the volume required by each firm to realize a profit. Should a firm fail to achieve this increased sales volume, it would have to rely to some extent on external sources of funds. While Ford and General Motors are conservatively financed and would have many options open to

them, other manufacturers would probably find it difficult to raise funds in the market.

Automobile Industry Sales and Revenues

	1976	1985 Base Case
New car price by size class:		
Subcompact.	\$3,600	\$4,080
Compact.	4,200	4,710
Intermediate.	4,600	5,090
Standard.	5,400	5,890
Small luxury	5,650	6,130
Large luxury	8,800	9,270
Gross revenue per domestic car sold	4,990	5,220
Annual domestic sales (thousands)	8,610	10,710
Annual domestic sales revenue (\$ millions)	\$42,950	\$55,940
Auto manufacturing employment (domestic)	808,800	790,800

NOTE PROJECTED SALES AND ECONOMIC DATA for the U S auto industry are expressed in 1975 dollars Employment figures include only passenger car and auto parts manufacture



Photo Credit: University of Tennessee

... highways are deteriorating faster than they are being repaired ...

The capital and cost requirements associated with meeting Federal standards will probably limit the ability of the smaller and less-financially secure firms to invest in both regulation-induced activities and those related to product improvement and productivity.

In view of the interrelationship between the industry and the national economy, the Federal Government might be pressed to consider regulatory retrenchment or to adopt policies of indirect or direct involvement in the automobile industry.

Private Cost of Automobile Use

How much does it cost to own and operate an automobile? How much will it cost in the future? These are questions of concern to every motorist in the United States.

Costs of automobile travel represent a substantial portion of personal consumption expenditures in the United States—between 13 and 20 percent of annual household expenditures.

The costs of owning and operating an automobile, in constant dollars, have not changed significantly over the past several years. However, the percentage of the household budget actually spent on automobile transportation has risen because the number of households owning more than one car has increased and the number

of those without cars has declined. The size of the personal investment that individuals make in automobile transportation can be seen in the fact that, in virtually all but the lowest income categories, expenditures for automobile transportation have replaced food as the second largest item in the household budget.

It now costs the average driver between \$1,300 and \$1,800 per year to own and operate a car, and this is expected to rise. Maintenance costs, in particular, are projected to increase by 10 to 20 percent in real terms between 1976 and 1985. Improved emission-control equipment is expected to add between \$50 and \$200 to the price of a new car. Improved safety can be achieved at an incremental cost comparable to luxury options now sold on most cars. If improved safety measures are not implemented, death and injury will unquestionably rise and result in higher insurance rates. The savings due to improved fuel economy of smaller cars will, it is expected, be offset by increased gasoline prices.

What could Congress do about the rising cost of automobile ownership? We selected three cost components that may rise steeply between now and the year 2000—insurance, repair, and maintenance—and examined specific policies to control these costs:

- a Federal law providing for no-fault insurance,

Costs of Owning and Operating an Automobile (cents per mile)

Type of automobile	Depreciation	Maintenance accessories, parts and tires	Gas and oil (excluding taxes)	Garage, parking and tolls	Insurance	State and Federal taxes	Total costs
1976 Standard	4.7	4.0	3.1	2.1	1.6	1.5	17.0
1976 Compact	3.6	3.2	2.4	2.0	1.5	1.1	13.9
1976 Subcompact	3.0	3.0	1.7	2.0	1.4	0.9	12.0
1974 Standard	4.6	3.7	3.5	2.2	1.8	1.6	17.4
1974 Compact	3.2	3.0	2.8	2.2	1.6	1.3	14.1
1974 Subcompact	2.5	2.7	2.2	2.2	1.6	1.0	12.2
1972 Standard	5.7	3.3	2.7	2.3	1.8	1.7	17.5
1972 Compact	3.5	2.8	2.3	2.3	1.7	1.3	13.9
1972 Subcompact	2.7	2.7	1.8	2.3	1.5	1.0	12.1
19704 door sedan	4.4	2.6	2.6	2.5	2.4	1.9	16.5
19684 door sedan	4.3	3.3	2.6	2.8	2.2	1.9	17.0
19604 door sedan	4.5	3.6	2.9	2.0	2.4	2.2	17.8
19504 door sedan	3.1	2.9	3.1	2.0	2.0	1.6	14.8

NOTE: COSTS OF OWNING AND OPERATING AN AUTOMOBILE. Itemized above, are shown in cents per mile, 1975 dollars. These costs are estimated to total between \$1,300 and \$1,800 per year.

- State and local regulation of repair practices, and
- Federal incentives or regulations to increase automobile durability and maintainability.

In all three cases, it is our finding that appropriate Federal Government action could significantly benefit the automobile owner and user.

FINDINGS

Given the Base Case assumptions, we find that:

- . Highway construction will decrease through the year 2000, such that the new highway miles added to the system will fall far short of meeting the demand created by growing automobile travel. In addition, meeting increased highway maintenance needs and providing moderate improvements in transit service will place a growing financial burden on State and local governments. Major increases in Federal assistance for transit operations and highway maintenance will be needed to retain the current level of mobility and protect the investment in the highway system.
- . Capital requirements for the automobile industry will increase sharply in order to respond to changing demand and Government regulations. To achieve fuel-economy, emission, and safety standards, the additional capital needed through 1985 may be in the range of \$7 billion to \$8 billion. The increase in capital requirements and the shift to lower revenue car sizes will require increased sales volumes if this capital is to be generated internally. The smaller domestic manufacturers will face severe financial difficulties that could affect their survival.
- . The personal cost of automobile ownership and operation (in constant dollars) will increase in the years ahead due primarily to rising fuel prices, mandated emission controls, safety features, higher insurance costs reflecting increased damageability and loss susceptibility of smaller sized cars, and increased costs of repairs and maintenance. Federal policies could be major determinants of these future costs.