

"It's hard to take seriously that a nation has deep problems if they can be fixed with a 50-cent-a-gallon gasoline tax."

This witticism, directed at the United States by a former foreign minister of France, can't be shrugged off. Obviously, stiffer taxation of gasoline cannot "fix" a deteriorating system of education, the cost of health care, or crime rates. Americans, moreover, are skeptical of advice from Europe, where traffic congestion, fuel combustion, and pollution have increased despite motor-fuel taxes far higher than 50 cents a gallon. Still, one has to wonder whether a higher levy on gasoline might not in fact edge the U.S. government closer to fulfilling various professed goals.

Moderating oil imports and consumption has been an explicit objective of the United States for more than two decades. Since the energy shocks of the 1970s, a combination of market forces and regulatory reforms has lowered the use of petroleum in every part of the American economy except one: transportation (see figure 1). The transport sector matters because it accounts for two-thirds of the oil Americans consume. Granted, most of its oil intensity simply reflects economic growth and limited opportunities for fuel substitution. Unlike utility boilers or home furnaces, the engines of cars, trucks, buses, and airplanes cannot run on, say, chunks of coal. (They can run on methanol, ethanol, or compressed natural gas, at much higher cost.) But some of the pattern also stems from an idiosyncratic policy decision. The United States is the only advanced industrial society to minimize the taxation of motor fuel and to prefer instead a cumbersome system of command-and-control regulations for automotive energy conservation, the so-called Corporate Average Fuel Economy (or CAFE) program.

The CAFE Catch

The CAFE system, in force since 1978, requires manufacturers to meet specified fuel-use standards for fleets of new cars and light trucks. Although average mileage per gallon (mpg) has improved, the regulatory scheme continues to forfeit or delay large potential energy savings.

First and foremost, the CAFE regulations take aim at vehicles but not drivers. In fact, amid stable or declining oil prices, mandatory improvement in vehicular fuel economy reduces the marginal cost of driving, perversely encouraging motorists to drive more. Vehicle miles traveled during the 1980s climbed at almost four times the rate of population growth. Americans now log about one and a half trillion miles a year in their cars—the equivalent of almost three million round trips to the moon (and counting).

Second, CAFE has had only a very gradual effect on the energy efficiency of the overall stock of vehicles. To be sure, the mileage per gallon of *new* automobiles compares favorably with that of older cars. But the change in *all* light-duty vehicles on the road over the years is a different story. Their average in 1990 was less than 19 miles per gallon, a gain of less than 5 mpg over the 1980 average. Each year's generation of new vehicles represents a small fraction of all registered passenger vehicles, and the fraction has been getting smaller as aging, less efficient models remain on the road longer. In part, compulsory changes in fuel economy, increasing the cost of new ve-

hicles by more than the value of the fuel they eventually save, may be contributing to the slower vehicular replacement rate. Whatever the case, each year's new vehicles account for less than 4 percent of national oil consumption. A conservation effort that focuses only on that little margin cannot chalk up quick results.

Finally, another change in the composition of the modern passenger fleet has further frustrated the aims of CAFE: as sagging fuel prices lowered the operating costs of light trucks, vans, and recreational vehicles, sales of these products mounted to almost a third of the market. The lower mpg standards for this group of vehicles have slowed average fuel efficiency gains, even among the newest vehicles.

Apocalypse Not

There has long been a straightforward alternative to the problematic CAFE experiment. If a fee of just 25 cents a gallon had been added to the cost of gasoline nine years ago, the United States would have saved at least as much oil, at about a third the economic cost, simply by reducing miles driven in all types and vintages of vehicles. Without CAFE, auto companies might have sold slightly larger (hence slightly safer) cars, but the cars would likely have traveled fewer miles.

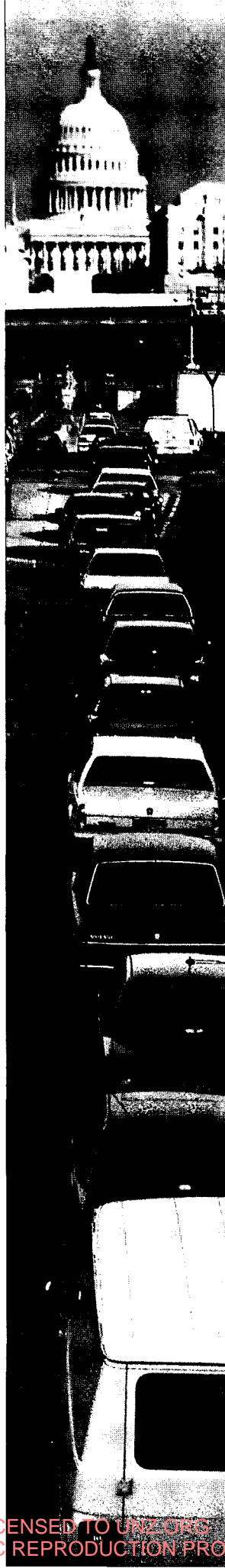
The modest tax, we stress, would not be as mean-spirited or as harmful to the economy as critics ritually assert.

Inevitably a higher gasoline tax looks regressive when related to household incomes. But data on the energy burdens of income groups are notoriously unreliable. Income statistics do not normally include in-kind benefits, such as food stamps or Medicaid. Moreover, people tend to move in and out of different income brackets depending on events, such as illness, employment, or retirement. Household spending levels, which reflect past and expected income streams, are likely to be a better guide to household well-being. By this measure, the lowest 10 percent of households spends less than 4 percent of its outlays on gasoline, roughly the same share as the top 10 percent.

A tax with this incidence may not conform to a utopian ideal in which every source of revenue for the federal government has to be levied progressively. But extant federal taxation relies heavily on the progressive income tax. Excise charges are a minuscule and shrinking share of total federal revenue. In the larger scheme of things, taxing fuel consumption less timidly would barely affect the *overall* progressivity of the national tax system.

The regional impacts of a higher gasoline excise vary somewhat. Drivers in low-density states of the West might feel overtaxed compared with many drivers in denser states of the East. But many western states have long enjoyed comparatively low prices for natural gas and electricity. Also, commuters in at least some of those states may drive long distances but in less time than it takes to make shorter trips in, say, the congested Northeast corridor. Motorists continually stuck in traffic can easily spend as much on fuel as long-distance drivers do.

The effects of further gasoline taxes on the economy vary depending on the time frame, whether the added revenues bring relief from more injurious forms of taxation, and whether an energy impost helps balance the federal budget. The near-term contractionary effects of



PIETRO S. NIVOLA

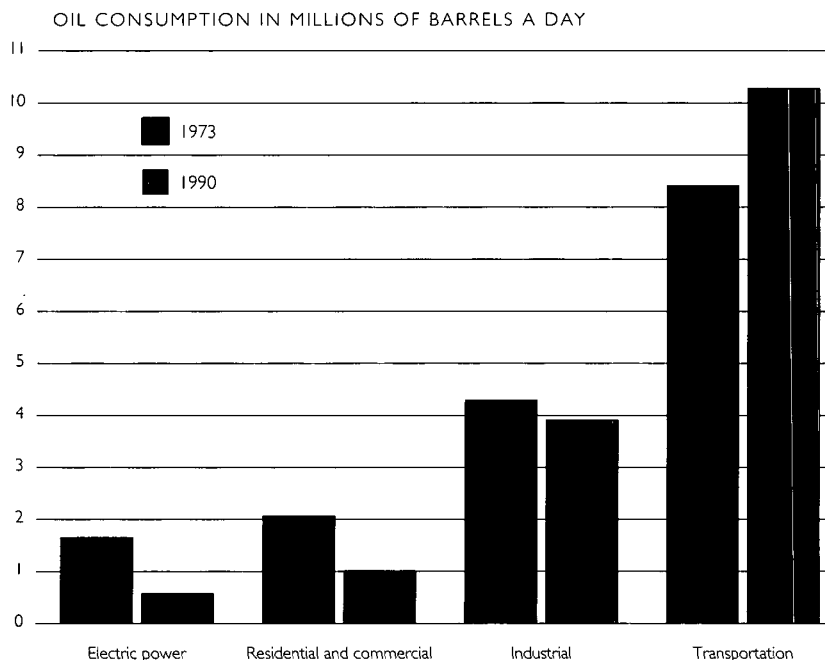
AND ROBERT W. CRANDALL

THE EXTRA MILE

RETHINKING ENERGY POLICY FOR AUTOMOTIVE TRANSPORTATION

Pietro S. Nivola is a senior fellow in the Brookings Governmental Studies program. Robert W. Crandall is a senior fellow in the Brookings Economic Studies program. This article is drawn from The Extra Mile: Rethinking Energy Policy for Automotive Transportation, a Twentieth-Century Fund book (Brookings, 1995).

Figure 1. U.S. Oil Consumption in Four Major Sectors, 1973, 1990



Source: Oak Ridge National Laboratory, *Transportation Energy Data Book*.

a fuel tax increase can be offset by the advantages (such as lower interest rates) of narrower deficits or of lower taxes on capital gains and savings.

Some Hypotheses

For purposes of conserving energy, taxing gasoline makes more sense than regulating the product decisions of the automobile industry. Virtually every other industrialized nation has chosen the simpler option and gotten better conservation results (see figure 2). How come?

The answer has little to do with environmentalism or with the degree of dependency on energy imports. Nobody worries about air quality more than Americans do. Yet we don't like to penalize the use of automotive fuels expressly to reduce pollution, nor does almost anyone else. Very few countries levy transportation taxes primarily to husband energy (Sweden and Denmark are exceptions). One might suppose that oil import-dependent nations consistently impose higher taxes on consumption than do self-sufficient nations. But the steepest price for gasoline happens to be in Norway, a net oil exporter, not Japan, whose reliance on foreign sources is almost complete. Or compare the United States and Canada. Our Canadian friends import no energy; we import a lot. Yet taxes on gasoline in Canada are, on average, more than double those in the United States.

Nor does Mother Nature suffice to explain the higher tolerance abroad for excises that raise the expense of automotive travel. The geography of North America implies great distances, but two-thirds of all the vehicle miles traveled are on urban roads, not country lanes. Ninety percent of trips are less than 10 miles long, and

the average length of trips is about the same in the United States as in Great Britain and Germany. Americans have overcome the geographic problem of truly long-distance (intercity) trips by flying. Air travel, as a share of passenger kilometrage, is 10 times greater in the United States than in Germany or Britain.

The primary impetus for taxing energy in almost all industrial nations has been the need to finance big and expensive public sectors. Beyond that, however, all similarity ends. Different histories and political institutions have produced sharply diverse policies.

Explaining American Exceptionalism

The distinctive cast of American energy policy for automotive transportation has much to do with the historical timing of motor fuel taxes in this country and with the politics of the nation's political parties, budgetary procedures, and system of local government.

Tax collectors in Washington began drawing revenue from the sale of gasoline later than did the central treasuries of Western Europe and Japan. The late start put Congress in the awkward position of seeming to intrude on an established source of income for state governments and of trying to embed the new national excise after the era of mass motorization was well under way. What flexibility the federal government had with its gasoline tax before the Second World War was narrowed shortly after the war, when revenues were dedicated to financing the interstate highways. Thereafter, increases to meet other needs came to be regarded, until very recently, as breaching a "trust."

Further, Americans increasingly lived in suburbs and, thanks to cheap fuel, drove around in big cars. CAFE standards could eventually find their way into this setting; their timetables for compliance were negotiable in later stages of implementation, and in any case their costs to the public would be veiled. A policy that would visibly ratchet up the operating expense of vehicles, on the other hand, has proved nearly impossible to square with the American life-style.

Distaste for the tax option has been pervasive in Congress partly because suburban and rural congressional districts combined constitute a large majority in the House of Representatives with a keen interest in keeping down the cost of automotive travel. Besides pure constituency politics, legislators in both parties claim principled objections to gasoline taxation. The terms of their debate have been unusual from the vantage point of other democratic nations. While European conservatives have rarely resisted the bountiful yield of national fuel taxes, Republicans here remain wary, preferring to keep a tight lid on the taxes (and the proceeds) by earmarking them narrowly. At the same time, many Democrats seem to subject gasoline taxes to a more exacting test of fairness than do the socialists of Europe. The upshot has been CAFE mandates. Unwilling to permit conservation by price, Democrats have generally fastened onto the regulatory approach. Republicans, committed to "no new taxes," have acquiesced to CAFE for lack of a better idea.

Congressional opposition to raising the gasoline tax was scarcely shaken by the soaring federal deficits of the early 1990s. A basic reason is that the budgetary process in the United States is governed not by an executive presiding over dependable legislative majorities, but by wayward

congressional factions, even the whims of individual members. Almost every discretionary component of a president's plans for revenues and expenditures is negotiable. With Congress exercising the functional equivalent of a line-item veto, proposed energy taxes can seldom be securely encased in budget legislation. For better or worse, the high energy tax rates in Europe are associated with regimes in which the role of legislative bodies is basically to vote, up or down, on an executive budget, not to formulate individual tax and spending bills.

Less dispersion of fiscal power at the national level might have helped move recent U.S. policy toward a more sizable fuel tax, perhaps doing away with CAFE. But how much is hard to say. Americans are sensitive to gasoline prices because, compared with the Japanese or Europeans, we not only own more cars but spend more of our lives in them. To a large extent, the layout of most U.S. metropolitan areas does not leave much choice. Alternate transport modes—including one of the most common in Europe, walking—are infeasible where urban growth is so spread out.

The unique sprawl of urban communities in the United States is not entirely a consequence of market forces; it also reflects deliberate land use regulations often aimed at bracing local finances. Few other industrial nations have yet acquired an urban geography like that in this country, partly because few have passed to local jurisdictions as many fiscal responsibilities or as many incentives to disperse, through zoning ordinances, households and businesses to reduce strain on local services.

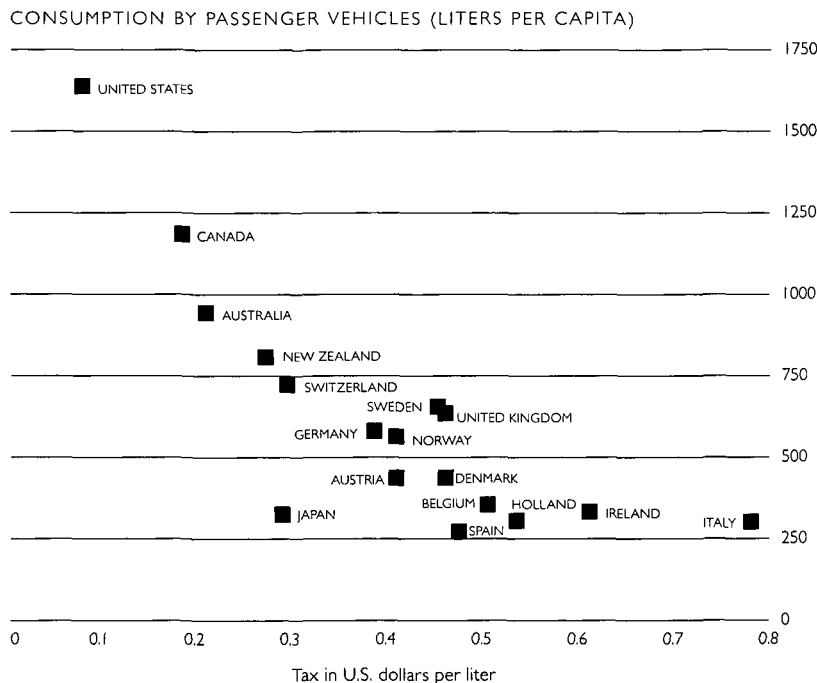
Getting More Mileage from Energy Policy

The odds are long that a simple fuel tax will ever supplant the complicated U.S. energy mandates for motor vehicles. Yet the matter merits continued attention, for flawed projects such as the CAFE legislation raise larger questions about the composition of the public agenda in the United States.

The nation is nearing the end of the century facing intense international pressures. As a signatory of the 1992 Rio agreement on climate change, the U.S. government will be expected to show more progress curbing carbon emissions. As the mainstay of a wider General Agreement on Tariffs and Trade (GATT), this country, too, will have to harmonize its domestic regulatory practices with those of others. A tumultuous, ever more competitive world will demand of us supple, complementary policy responses at home and abroad. Now more than ever, Americans can ill afford to carry an ever-expanding load of incongruous federal mandates operating with dubious efficacy and at cross purposes.

Consider the awkward interface of the CAFE regulations with the trade issue. The Europeans recently lost their GATT case that the eccentric U.S. law might constitute a discriminatory nontariff barrier, but parts of the law may be aggravating our own commercial grievances. Despite frequent complaints about trade imbalances with the rest of the world, year after year the largest part of the U.S. trade deficit is imported oil. And an increasing share is projected to flow from the Persian Gulf, an ever-unstable region that has repeatedly disrupted supplies in the past. The CAFE program has fallen well short of providing an optimal hedge against this uneasy oil dependency for the sim-

Figure 2. Relationship between Motor Fuel Consumption and Tax Rates in Selected Industrial Nations, 1990



Source: International Monetary Fund, International Energy Agency.

ple reason that demand is a function of vehicle miles traveled, not just vehicular miles per gallon.

Besides yearning for a better balance of trade, Congress has added to its extensive wish list a desire to raise the national rates of saving and investment through budgetary and tax revisions. So far it has pursued these ends primarily by spending less on discretionary activities, principally national defense, and raising taxes on income. Not only do the budget's "nondiscretionary" big-ticket items remain largely off limits; so do new instruments in the fiscal tool kit. Nudging more federal tax policy toward the taxation of consumption and away from the double taxation of savings (first on earnings then on interest from saved earnings) might seem warranted for a society that is said to save too little. No amount of automotive gas-mileage rules will further this goal. But replacing those rules with a higher fuel tax obviously could.

Likewise, it seems increasingly bizarre to bewail snarled traffic, polluted city air, and supposedly inadequate investment in additional transport infrastructure, while stubbornly enforcing energy regulations that do not relieve a root cause of such problems: the rise in miles driven annually per motor vehicle.

Policymakers cannot continue to have it both ways: wringing their hands about the national debt, gridlocked freeways, global warming, unbalanced trade, and reliance on insecure oil, while clinging to unsatisfactory policies such as the automotive fuel economy controls. Either the government will have to worry less, or, if worry it must, discontinue pet programs that often add to the difficulties it perceives. ■

