

# F.A.S. PUBLIC INTEREST REPORT

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 TRANSPORTATION  
CONSERVATION

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## CHANGING DRIVING HABITS VIA THE DAY-A-WEEK PLAN

More commuters travel in carpools than all other forms of mass transit combined. And those who are persuaded to try leaving solitary rides in ever-more expensive automotive commuting find that they like it. But government efforts to spur carpooling, and related techniques, is minor and sporadic. And most academic specialists in saving gasoline focus on rationing or higher gas prices.

A gas tax to bring U.S. gasoline prices up toward the levels of other industrialized countries — and with its revenues rebated to the public by diminutions in existing taxes — certainly seems in order. But even \$3.00 a gallon gas does not provide, by itself, a decisive spur to car pooling. Something more than price is necessary to induce Americans to propose to one another that they double up.

There is a method that is simple, requires no great administrative bureaucracy and no transfer of massive amounts of revenues. The President could address the Nation on the seriousness of the national oil import dilemma and ask each citizen to choose — with complete freedom of choice — one day on which he would undertake not to drive his car. Decals would be made available, perhaps through Post Offices, which drivers would be required to affix to their cars by a fixed future date to announce to neighbors and/or police, their participation in the program and their choice of day.

This Presidential request would have catalytic effects. It would, for example, suddenly become socially indicated to ask one's neighbor to car pool. It would require citizens to experiment with mass transit methods they had not heretofore seriously attempted, and thus to see if these were workable. It would signal employers, com-

munities, subdivisions and blocks to plan, and implement, the many simple but important paraphernalia of ride sharing: bulletin boards, places to locate pick-up riders, employer-related carpool matching schemes, vanpool administration methods, subscription buses, preferential street-treatment for shared vehicles, and so on. Booklets on how to organize such possibilities would be distributed. High school students could be enlisted in this great civic experiment to help organize neighborhood efforts. And town meetings of all kinds and sizes would be exercised in a healthy community effort that is as ultimately local, as it is of overall national significance.

Such a program, of one week-day abstinence might save 5% of gasoline demand since 23% of all gasoline use arises from home-to-work commuting alone. Thus it would save as much gasoline as would a 50 cent gas tax in its immediate short-run effect on demand. And, like the gas tax, which has further effects (in moving both drivers and Detroit toward efficient cars) the day-a-week decal program has its main fallout in its learning effect. Citizens who can manage to get to work without a car one day a week will likely find the same effort, once organized, to be tolerable for the rest of the week. For many, *not* using the car will become the *new* habit.

If the average person came to avoid the use of his car for even *two* days a week — once he has found out how — savings would be about 10% — as much as might result in the short run, some estimate, from a truly major gas tax! And this is obviously by no means the limit.

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## THREE APPROACHES TO TRANSPORTATION CONSERVATION

The April PIR issue reviewed the ways in which massive shortfalls might occur in oil imports. This May issue is devoted to three methods of doing something about such disasters, through transportation conservation. The editorial embodies a new contribution to the debate: restructuring official emergency planning for a day-a-week abstinence into a non-emergency habit-changing method. If suitable funding can be secured, FAS plans to see what can be done along these lines. In general, persons interested in, or with ideas for, funding conservation activities should call, since the FAS Fund is actively seeking means to expand its conservation work.

On pg. 4, an interview is provided with Chairman Frank von Hippel on the issue of mandatory standards for Detroit's automotive efficiency. Dr. von Hippel has been effective in defending these standards, and has catalyzed important action on post 1985 standards. Since our interview with him, new information justifying his position has arisen and is contained in an introductory article on pg. 3.

Finally, an interview with Council Member Robert Williams on the largest gas tax under active discussion — a \$2.00 tax. Following both of these interviews with FAS officials, some staff comments are made on current Congressional reactions. □

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Indeed, this direct approach to precipitating a change in driving habits is, in some ways, priceless. No plausible use of the price mechanism can, by itself, catalyze a nationwide coordinated campaign to facilitate ride-sharing. But the President's request to follow the decal-system coordinates and signals exactly that. In effect, the Administration would be asking citizens to "try it — at least for a day". No thinner edge of the wedge is possible.

The Department of Energy has recently published its assessment of a related "sticker" plan for cutting back a day a week driving during emergencies. For the Department, such one-day, two-day and three-day abstention plans are to be undertaken before rationing but only after massive shortfalls in imports occur.

What the Department cost-effectiveness studies have completely overlooked is the effect on public habits of being pressed to start car-pools. The Department treats its one-day plan as if commuters, having solved the commuting problem for one-day a week, would abandon their solutions for all other days. Thus it overlooks the catalytic significance of a one-day-a-week plan in getting car-pooling started.

Needless to say, such an effort needs to be conjoined with the other methods: a gas tax to maintain incentives for ride-sharing and general economizing on rides, and to encourage Detroit to plan for selling cars with better mileage; and preparations for rationing if a combination of world events and American addiction require it. But a Presidential effort of this kind may even be a prerequisite to these other gasoline-saving measures and to tough mandatory mileage standards for Detroit. After all, until the President blows the trumpet, and asks for sacrifices of the public, Congressional actions are likely to be tentative, and uncertain, with gas taxes cut down to irrelevant size, and legislation on Detroit chiseled away.

Thus while most of our energy specialists do support some kind of gas tax and while they support white-market voucher systems for rationing, if necessary, they recognize that none of these is any kind of panacea and that an important role remains for leadership. Someone, the President, must announce the crisis and mobilize the public. If the public responds well, they might be told, the decal system could, in a year or so, be lifted after having done its work in getting habits changed.

Thus the President must set goals for oil independence and explain the schedule upon which he wants the nation to meet these goals. He must explain what combination of methods, in what proportions, he plans to secure those goals and let Americans try to meet his challenge.

We do not presume, as a group, to say here what that schedule or combination of methods might be. But, in the end, one major goal of gasoline conservation is to get citizens to try to join together to share rides and/or use public transportation. Why not therefore include a direct effort to get them to do this. And if there is any method simpler than just asking them to give up their cars for a single day a week — a day of their own choice — what

would it be?

The problem is, perhaps, to persuade the President to make the effort. With this in mind, FAS intends to try to catalyze public support for a one-day-a-week program of this kind. In conjunction with groups who are willing to join with us, we will try to mobilize the citizenry to show the President that they are ready to be asked to park their cars for a day of their choice.

—Reviewed and Approved by The FAS Council

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## DETROIT BETS WRONG; MANDATORY STANDARDS VINDICATED

A funny thing happened on the way to mandatory standards for automotive efficiency. Detroit resisted them until, suddenly, standards turned out to be beneficial indeed.

On April 26, 1979, the Senate Banking Committee published hearings on *Government Regulations of the Automotive Industry* in which Detroit spokesman uniformly and eloquently complained that the law was holding them to improvements in automobile efficiency that were too difficult to obtain and would force them to build automobiles which few would want.

Precisely one year later, last week, on April 28, 1980, *Newsweek* published an article "Detroit: Hitting the Skids" in which the problem turned out to be quite the opposite. Detroit had been too slow to catch the message and was laying off 28% of the United Auto Workers membership! One quarter of U.S. car sales were now imports with the Japanese alone capturing more than either Ford or Chrysler precisely because the imports were seen to be more efficient. More striking still, the mandatory standards about which Detroit was complaining were being credited with having saved Detroit. No less a close observer than the United Auto Worker's Douglas Fraser was quoted as saying that without the standards:

"we might have all Chryslers. We would not have the "X" cars or the [Chrysler] Omni. Without the standards, the industry would be devastated."

In order to appreciate the turnaround, one must understand the nature of the standards. In requiring more efficiency, Congress did not mandate any particular new technological feat. Instead, it set forth a schedule of mileage efficiency which the *average* car sold by a manufacturer should maintain. In theory, automobile manufacturers could have simply gone about selling their smallest, and most efficient existing cars. These already met the highest requirement of the mandated averages, viz. a measured 27.5 mpg which was really 21 mpg on the road. For the automobile manufacturers, the question was whether they could continue to sell a *full range* of cars little or no smaller than they had before, by upping the efficiency of the fleet *in general*. What they dreaded was what they called "mix-forcing" — being forced to meet the standards by shifting to selling a larger proportion of smaller cars. They dreaded it, as the interview with Frank von Hippel shows below, partly because they traditionally make more money on the larger cars. But their further reason was, as General Motor Vice President Roger Smith put it:

There is no reasonable assurance that consumers will be willing to buy the kinds of cars and trucks we will be forced to supply.

Detroit feared that the public would take one look at these smaller cars they might be forced to buy and simply refrain from buying. A Ford Motor Vice President talked of the 5 trillion miles of useful life in cars and trucks already sold and noted how often the public has, for example in recessions, simply put off car buying. (In the last five recessions, GNP declined less than 1% on average but auto

production averaged 15%). Or as the Harbridge House study noted with regard to Chrysler's option to abandon the upscale segments of the market and limit its product line to compact and subcompact sizes:

"This option would permit relatively easy compliance with CAFE (e.g. mandatory) standards but would make Chrysler wholly dependent financially on products that in the past have not and in the near future probably will not generate substantial profits for U.S. manufacturers.

A year ago the Detroit spokesman talked of the problem as if Japan did not exist as a competitor and said:

"It is at some point going to be less expensive to add to fuel supply by developing synthetic fuels than to keep reducing demand for fuel by making cars tinier and tinier."

But a year later the Japanese Nissan Motors President is quoted as saying:

"Our strategy will be to produce even more fuel efficient, small, low-priced, high-quality cars."

Most of the debate, a year ago, was over what would seem a relatively minor question of the rate at which the mandated standards would rise over the years from 1978 to 1985. Would it be linear moving from 1978 to 1985 in this way: 18 19 20 21 22 23 24 26 as Detroit wanted, or "front-loaded" as the government wanted: 18 19 20 22 24 26 27 27.5. A year later, the shift in mix of cars being sold by Detroit induced averages about 1 mpg above the level the manufacturers were required to meet.

A year ago, the Vice President of Chrysler said the front-loaded standards would cause a cumulative loss of \$220 billion in GNP over the 80s and would cause the value of the dollar to decline by approximately 1% per year.

A year later, Detroit layoffs are, indeed, causing major damage to the economy. But the cause of the layoffs is not the standards nor is it being credited to slowdowns in consumer spending. Instead, the inability of Detroit to compete with imports is the primary cause. The mistake had been not to pressure Detroit early enough.

A year ago, a widely quoted study favored by the automobile industry (by Chase Automotive Division of Chase Manhattan Bank) said that the Congressional standards had been drafted on the assumption that "large scale mix-forcing to smaller, lighter cars would not be needed." The study said this had been incorrect. It argued that, by 1983, in order to close the 3 miles per gallon gap between the linear and the front-loaded standards, nine out of ten purchasers would have to buy a car at least one class smaller and lighter than they wanted. An effort to go this route would result in a 20% to 40% reduction in domestic automobile sales over a period of five or more years. A year later, Detroit *is* seeing a 20% to 40% reduction in sales. But not from purchasers refraining from buying smaller cars than they want — quite the opposite.

A year ago, Detroit had well-worked out reasoning for consumer tastes. New car buyers had increased their orders since 1974 for optional eight cylinder engines, for auto-

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matic transmissions, air conditioning, and power steering. The public did not consider the down-sized cars either comfortable or safe. 60% of potential new car buyers would be forced to forgo the car of their choice and would simply avoid or defer the purchase of new "down-sized" automobiles. A "very significant" gas price increase, Chase said, would be required to obviate the need for mix-forcing.

Today, a year later, that very significant gas price is with us. In constant 1979 dollars, the price has risen from about 80 cents to \$1.20 per gallon of unleaded fuel.

So what did the year really show? Detroit bet its money on a continuation of business-as-usual consumer habits. It had seen the 1974 embargo come and go. It had a disabused notion of the desire of the consumer for fuel economy. It wanted standards it could achieve without "mix-forcing." Instead, gas prices almost doubled in real terms from 1978, and consumer tastes shifted accordingly.

What does this tell us about continuing the process of mandatory standards as Senator Jackson and others have proposed for the post-1985 period — a period for which Detroit is already planning? Detroit manufacturers are unlikely to plan for the shifts in consumer tastes that ordinary people — much less statesmen — see as entirely plausible in the face of what appears almost certain to be a chronic oil crisis. *Newsweek* is talking blithely of a "50 mile per gallon two-seat commuter car" by 1989, but Detroit is not. And if all automobile manufacturers are not compelled to take together the risks of selling more efficient cars, certainly none will separately. It seems to follow that the government, to protect its own interests, must push Detroit into preparing for real gas crisis. In the absence of such pressure, foreign manufacturers may continue to say what a Honda Vice President is saying today:

"American automakers haven't been making the products their consumers want."

As the PIR was going to press, the Department of Transportation released its fourth annual report to Congress on the automotive fuel economy program. It gave much encouragement to the Jackson search for post-1985 standards by saying:

"It appears that fuel economy improvements of 20-50 percent above the 1985 standards are technically achievable, and the optimistic estimates of potential fleet fuel economy of 50 mpg for automobiles and 37 mpg for light trucks would accomplish fuel savings of 650,000 barrels per day by 1995".

Twenty to fifty percent above the present 27.5 mpg standard means 33 mpg to 41 mpg. Jackson had called for 40 mpg by 1995 as a corporate average with permission to the executive branch to lower the standard to 35 mpg.

The day before Admiral Turner, Director of CIA, had testified:

"an oil supply interruption of a major magnitude is a virtual certainty at some time within the next decade"

Obviously further shifts in consumer desires are no less inevitable. Would Detroit be ready?

## QUESTIONS AND ANSWERS ON AUTOMOTIVE FUEL ECONOMY STANDARDS



*Frank von Hippel*

- 1) Q. Why has Detroit been so much slower than foreign manufacturers in developing more fuel efficient cars?
  - A. They prefer to wait until the market for smaller cars is assured. Because of the economies of scale in automobile production, US auto makers are reluctant to tool up to make vehicles which are more than variants of what they are already producing unless annual sales on the order of 400,000 can be guaranteed. Foreign auto manufacturers have not had this "threshold" problem since they have already had markets for more fuel efficient cars dictated by the high gas prices in their own countries. The recent jump in U.S. gasoline prices has dramatically increased the demand for such vehicles in the U.S., assuring the continuance of this market and making it "safe" (indeed compulsory) for the domestic manufacturers, but in the absence of mandatory standards, it appears that Detroit will continue to lag in the development of still more efficient cars.
- 2) Q. What form does their lagging take now?
  - A. As far as I can tell, they think that the U.S. market for fuel economy in the 1980's will look like the European market in the mid-1970's when the average fleet fuel economy in Europe was about 21 miles per gallon versus 13 mpg in the US. The logic is that U.S. gasoline prices are now rising into the price range which the Europeans were already living with in the mid-1970's because of their approximately one dollar per gallon gasoline tax. We need much greater improvements than this, however.
- 3) Q. What are current automotive fuel economy standards?
  - A. According to the Energy Policy and Conservation Act of 1975, by 1985 the fuel economy of the new automobile fleet sold by each manufacturer must rise above 27.5 mpg as measured on the EPA composite (55 percent city — 45 percent highway) driving cycle. Based on experience with model year 1974-78 automobiles, this EPA fuel economy would correspond to approximately 21 mpg on the road.

4) Q. Is it feasible to have cars of much higher fuel economy?

A. VW has been marketing in the U.S. since model year 1978 the four passenger VW Rabbit diesel hatchback, which has approximately 20 percent less interior volume than the average model year 1978 U.S. automobile, but which achieves an on-road fuel economy of 40 mpg — 2.5 times the model year 1978 average. VW has recently tested in a four passenger car a smaller supercharged diesel which turns off during idle and deceleration and obtained an EPA composite fuel economy of 70-80 mpg. With improved aerodynamics and some substitution of light weight materials for steel, VW expects to use a similar engine to achieve a composite EPA fuel economy of "more than 65 mpg" in a vehicle considerably larger than the Rabbit which meets "all requirements with respect to pollutant emissions and to vehicle safety."

5) Q. How much would we save if we had higher fuel economy automobiles?

A. If the 100 million automobiles on the road in the U.S. today got an average fuel economy of 40 mpg instead of about 15 mpg, our consumption of petroleum would be reduced by more than 2.5 million barrels per day, corresponding to about one third of our level of oil imports. If the 30 million light trucks (pickups, vans, etc.) on the road today got an average of 30 mpg instead of about 12 mpg, our consumption would be reduced by an additional one million barrels per day.

The combined savings of 3.5 million barrels of oil per day would be equivalent to the 1976 level of petroleum consumption of Latin America — or alternatively, three times the 1976 level of petroleum consumption of China. At \$30 per barrel, the improvement in the US balance of payments would be \$40 billion per year. At \$1.25 per gallon of gasoline, the savings for the average U.S. car (which is driven approximately 10,000 miles per year) would be about \$500 per year or \$5000 over ten years.

6) Q. What is required to get Detroit to produce such cars?

A. I think a combination of a stiff gasoline tax such as the \$2 per gallon tax advocated by Bob Williams and new fuel economy standards.

We need the gasoline tax to assure Detroit that buyers will have a real and continuing incentive to buy the most efficient cars on the market. The dramatic shift in the market toward more fuel efficient cars following the recent price rise suggests that new car buyers would react to a stiff gasoline tax by moving toward still more efficient cars. They could reduce their fuel costs per mile back down to their current average level by shifting from 15 mpg to 40 mpg cars. Of course, the difficult part of the proposal is to prevent hardship to poor people while they are waiting for fuel efficient cars to become available on the used car market. But

Williams and others have shown that this problem can be handled if we want to by using the proceeds of the gas tax to reduce existing regressive taxes or by direct rebates.

We need the fuel economy standards also to reassure each automobile company that it can safely invest in new tooling to build fuel efficient cars without fearing that other manufacturers will lag behind and capture more than their fair share of the declining but traditionally high markup big car market. In the absence of fuel economy standards, Detroit would tend to follow the market reluctantly (preferring to tilt toward the largest cars they can sell) and make investments only in incremental fuel economy improvements. Because of the long delays involved in catching up to sudden changes in the market, such a strategy could increase still further the foreign share of the US car market, erode still further the economic health of the U.S. automotive industry, and, in any case, end up costing much more than a systematic program targeted at a specific goal. Twelve Senators led by Senators Jackson and Magnuson have proposed a goal of a minimum new fleet average fuel economy *on the road* of 40 miles per gallon by 1995. This appears to be easily achievable technically. I hope that a similar minimum goal, perhaps 30 mpg, will be proposed soon in Congress for light trucks.

7) Q. Will Detroit have a problem financing the retooling?

A. It may be necessary for the federal government to help. An amendment has been introduced in the Senate which would give automobile manufacturers accelerated depreciation on facilities and equipment used to produce cars achieving at least 5 mpg over the applicable fuel economy standard. The idea of giving the manufacturers financial incentives to achieve a goal which is in the national interest seems to me to be a good one. This particular proposal may not provide enough help, however. A careful assessment of the need for (and the best ways to provide) federal aid for retooling should be done as soon as possible.

8) Q. Aren't smaller cars less safe?

A. Yes, other things being equal. But recent crash tests have shown that other things are not necessarily equal. Of the four model year 1980 U.S. cars which, when tested by the National Highway Traffic Safety Administration (NHTSA), provided "adequate" protection for seatbelted passengers in 35 mpg front and rear crashes into fixed barriers (the legal requirement is such protection at 30 mph), two were subcompacts (the Plymouth Horizon and the Ford Mustang) and another was one of G.M.'s radically down-sized X-body cars. If NHTSA is able to prevail in its current efforts to get major additional safety related improvements in the design of U.S. cars, such as passive restraints (air bags or automatically fastening seatbelts), then higher fuel economy standards should not result in a higher accident fatality rate. □

## CONGRESSIONAL REACTION TO POST-85 AUTO FUEL EFFICIENCY STANDARDS

Even at this early date, members of Congress are divided about extending such standards beyond 1985. Some believe that the federal government should get out of the business of regulating Detroit. Others agree with the regulatory approach, but believe some fundamental changes must be made.

Of those that argue for the former approach, many believe there is no longer any need for a federal role because automobile manufacturers are finally ready to act on their own. They believe that the manufacturers must respond to the competition offered by imports just to stay in business. Therefore they claim that market forces *alone* will lead to 40 mpg automobiles being on the road by the 1990s.

Others see a continued federal regulatory role as only producing negative results. They fear that new standards will force automobile manufacturers to make investments beyond their means, thereby producing more Chryslers. In addition, they fear that some manufacturers may be forced to move their production abroad where they already have factories producing fuel efficient cars rather than pay the high cost of retooling factories here at home. If this were to occur, many domestic autoworkers would be out of work.

Of those who support a continued federal regulatory role over Detroit, some believe it is still too early to set the post-1985 standards because there is not enough information available on what standards are feasible, both technically and economically. Some also argue that the standards chosen should be dependent upon what future oil supplies will be — if oil is expected to be relatively plentiful, the standards need not be as tough as if oil is expected to be scarce.

Supporters of post-85 standards also express concern about the capital that Detroit will have to invest in retooling and research in order to meet the standards. Many would thus support some sort of aid package, in the form of accelerated depreciation allowances, tax credits, or grants to assist Detroit in meeting those capital requirements.

In addition, some supporters of post-85 standards see potential conflict between these standards and safety and clean air requirements. Specifically, smaller and lighter-weight cars are more fuel efficient than larger cars, but are less safe in collisions. Additionally, diesel-fueled cars of a certain size and weight are more fuel-efficient than similarly-sized gasoline cars, but they produce a hundred times more particulate pollutants. These Congressmen therefore suggest that safety and clean air requirements may have to be relaxed in order to produce fuel efficient cars.

Finally, some members of Congress view the increasing penetration of imports in the United States with alarm. They suggest that the imposition of post-85 standards be accompanied by restrictions of some type on imports.

## QUESTIONS AND ANSWERS ON A PROPOSED GASOLINE TAX



Robert Williams

- 1) Q. What is the purpose of the gasoline tax you propose?
  - A. The primary purpose of the tax is to set the nation on a long term course of phasing out insecure sources of foreign oil. So doing would reduce the vulnerability of the U.S. and its allies to future instability in the Middle East and diminish the outflow of dollars for foreign oil.
 

The tax would be effective in quickly promoting stability in the Middle East because even relatively minor fractional reductions in U.S. oil use would be globally significant; the U.S. accounts for about half of the petroleum consumption of the twenty signatory nations of the International Energy Agency and U.S. imports total more than a quarter of OPEC production.

The scheme I propose involves raising the gasoline tax to \$2 a gallon and rebating equally to all adults the extra revenues arising from gasoline consumed in personal use. In the first year I estimate gasoline savings of about 10%, corresponding (at \$30 a barrel) to an import reduction of \$8 billion. In 1979 net energy imports cost the U.S. \$54 billion — an amount which is twice the balance of trade deficit and is comparable to the total level of investment in new energy supplies.
- 2) Q. It is generally believed that the short run price elasticity of demand for gasoline is quite small, between -0.1 and -0.3. Would the resulting relatively small short run savings justify a \$2 tax?
  - A. While the main purpose of the tax is a long term reduction in oil imports, one should not dismiss lightly the significance of the near term savings one would get from this tax — 700,000 barrels of oil per day in the first year for an elasticity of -0.2. Although this is less than 4% of U.S. oil consumption, it corresponds to ¼ of the oil consumption level in West Germany, ½ the level in France, and ¾ the level in Brazil or in all of Africa!
- 3) Q. Why not go to coupon rationing instead?
  - A. Coupon rationing, with coupons freely transferable in a white market, is the policy that is usually considered for dealing with emergency supply/demand shortfalls. But rationing is administratively cumbersome, and many analysts believe that a rationing program could not be sustained for more than a few months or a year. The threshold for coupon



rationing could be raised considerably by levying a stiff gasoline tax, which would reduce the vulnerability of the U.S. to oil supply disruption.

Rationing by tax may be preferable to coupon rationing even in time of crisis. Al Alm, the former Assistant Secretary for Policy Evaluation of the Department of Energy, has proposed that in emergencies the price of gasoline be allowed to rise to its market clearing level. At the same time an emergency windfall profits tax would be levied to capture most of the price increase not associated with average crude oil costs, and the windfall tax revenues would be rebated to the public. This emergency tax scheme is complementary to the "steady state" tax scheme which I propose.

- 4) Q. The gasoline price increases that have already occurred and the specter of even further increases have already reduced gasoline demand in 1979 5% below the 1978 level and have shifted the public demand for new cars from gas guzzlers to more efficient automobiles. In light of these trends is a stiff gas tax necessary?
- A. The appropriate question is what price should we be willing to pay for the security of our oil supply? Until recently the national security cost of increased dependence on foreign oil could be estimated rather simply as the cost of building the Strategic Petroleum Reserve, assuming that extra supplies would be available for such a stockpile. But today this cost is much more difficult to calculate and must be far higher than previous estimates, in light of the expressed intention of the Saudis to use their market power to make difficult U.S. efforts to build a stockpile.

It seems clear, however, that if the U.S. is to play the lead role among its allies in reducing dependence on OPEC oil, then a tax on the order of \$2 is needed. The tax on regular gasoline is already \$1.62 a gallon in France and \$1.83 a gallon in Italy.

Finally it should be remembered that, despite the recent sharp rise in gasoline prices, further increases to the \$2 a gallon range are projected for late 1980 or 1981. A major benefit of a true gasoline tax is that it would put a lid on such "taxes" which are being levied on us by OPEC and the oil companies — taxes which cannot be rebated.

- 5) Q. Needless to say, Detroit must be motivated to supply ever more efficient automobiles. Is your tax the most efficient way to do this, or could ever-tighter mandatory standards, do the trick?
- A. A gas tax and improved fuel economy standards are complementary, not competitive strategies for reducing gasoline consumption in the long run.

Gasoline consumption can be reduced both by improving fuel economy and by driving less. A stiff gas tax provides a continuing incentive to eliminate unnecessary driving and to sustain ride sharing and other gas saving habits that might be initiated in a period of crisis.

Moreover, the gas tax would aid Detroit by re-

ducing the uncertainty in the demand for fuel efficient cars. A legitimate fear in the auto industry is that higher fuel economy standards by themselves would reduce sales because many consumers would hold on to their old gas guzzlers longer than they otherwise would.

- 6) Q. Wouldn't it be better if the tax were increased gradually instead of all at once?
- A. I favor introducing the tax all at once or phasing it in relatively quickly because the major near term benefits (reduced vulnerability of the U.S. and its allies to supply disruption and reduced balance of payments deficit) are significant, and because major dislocations can be minimized with an appropriately fashioned rebate scheme.

The scheme I propose — rebates distributed equally among adults — would be beneficial to poor households, which typically consume much less gasoline than the average household. A carless two-adult household would initially receive a net income supplement of about \$1500 a year. Moreover, while this rebate scheme would penalize heavy gasoline users, it would reward those who consume less. Today's average car owning family driving 14,000 miles per year could beat the tax either by driving its 14 mpg car 25 percent less or by shifting to a car getting 19 mpg.

- 7) Q. Why not use the increased gas tax revenues to help Detroit retool to make fuel efficient cars?
- A. I have proposed that the increased gas tax revenues be returned to consumers, because the purpose of the tax is to curb the demand for gasoline — not generate increased revenues. While it may be desirable instead to use some of these revenues to subsidize Detroit, it is clear that at most a tiny fraction of the revenues could be used for this purpose. The DOT's Transportation Systems Center has estimated that the total cost for retooling the U.S. auto industry to bring fuel economy by the mid 1990's to the 40-50 mpg level for passenger cars and to the 25-35 mpg level for light trucks would be an investment of \$67 billion between 1985 and 1995. In contrast, I estimate that the gasoline tax revenues in the first year alone would be \$150 billion. A high priority for public policy should be to assess whether Detroit needs a subsidy to retool and if so, how much. □

## POLL ON CARTER ACTIONS

FAS members voted by large margins to support three of Carter's initiatives with regard to Afghanistan, but opposed two others. On the first 315 responses to our poll of members, the wheat embargo was supported by 222 to 60; the embargo on technical equipment was supported by 243 to 24; and the Olympic boycott was supported by 218 to 62. But by a two to one margin, FAS members opposed any increase in the defense budget (191 to 89). And Carter's military conscription registration policy lost by 161 to 111.

## CONGRESSIONAL REACTION TO A GASOLINE TAX

The U.S. Congress has shown little interest to date in imposing a gasoline tax. Two legislators, Representative John Anderson of Illinois and Senator Bennett Johnston of Louisiana, have introduced bills which would impose a \$.50 tax on every gallon and then rebate the revenues collected, but little action has been taken.

The major reason Congressmen give for showing so little interest in acting lies in their perception that a tax is an emergency tool, to be imposed only when a sharp reduction in gasoline use is needed. Thus, until there is a shortfall in imported oil supplies, most Congressmen would argue that a tax is unnecessary. In fact, they fear the consequences of being implicated in a major rise in gas expenses.

Other reasons why members of Congress oppose a gasoline tax is their fear that it might become unnecessarily long term. Many are convinced that long term curtailment of oil use is not an appropriate goal; instead efforts should be made to increase domestic oil and synthetic fuel production. Over the short term, until such supplies are available, they argue that voluntary conservation is all that is needed. In the event of an acute shortage of gasoline, they point to the existing standby rationing plan.

Other members of Congress oppose a gasoline tax on economic grounds. They fear that it will only add to our runaway inflation problems, even if the money is rebated. And they suspect that the tax may be used in the future, as all other federal taxes are used — for revenue raising purposes.

Equity is another reason why some Congressmen oppose a gasoline tax. They see that the poor, who can least afford high energy prices, will be hurt the most by such a tax. And they doubt that even the most well-intentioned rebate scheme will work. They point to the recently enacted Windfall Oil Profits Tax as one tax/rebate program in which the rebated money was channeled away from the originally targeted areas. A similar fate, they fear, would befall the gasoline tax revenue now targeted to be rebated to the poor.

Finally, some in Congress oppose a gasoline tax for reasons of national security. They believe that such a tax will only signal OPEC that this country can live with rapidly rising fuel prices. Therefore, they fear that by imposing such a tax we may be tacitly approving the cartel's practice of continually raising prices.

Despite the present lack of interest in imposing a gasoline tax, one congressional staffer believes that a future disruption of world oil supplies could rekindle Congress's interest in the tax. In fact, he points to two potential crises now brewing that could threaten oil supplies. The first of these could occur if the present Administration decides to mine the waters off the Iranian coast in its ever increasing efforts to persuade that country to release the hostages. Another could occur if Iraq invades Iran as their relations grow more hostile. Either of these situations could cut off Iranian oil supplies at the very least and might also disrupt supplies from other countries. But it is unlikely that the resulting shortfall in U.S. oil supplies would be as great as the 20 percent trigger needed to impose gasoline rationing. (This is 20% of all gasoline use and constitutes about 40% of imports; hence the mandated trigger calls for truly large shortfalls.) Still, in the ensuing atmosphere of emergency, Congress could feel impelled to act in some manner and a tax would be a logical choice. □

### FAS DECALS FOR SAKHAROV ADOPTERS

The Federation is providing such scientists who wish them with decals showing an ornate S for Sakharov inside a gilded cage, with which to announce their position on their office door. This reflects Sakharov's comment, on arriving in Gorki, that he did not want to remain a bird in a gilded cage. Lapel pins with the same S in a gilded cage are available to scientists who should send some contribution to the FAS Fund to defray the costs of our campaign to help Sakharov. If financial contributions are sufficient, the Fund will send a delegation to Moscow to make our complaints in person.

**FAS PUBLIC INTEREST REPORT (202) 546-3300**

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