



Energy Conservation: An Economic Perspective

By Robert W. Hahn

The case for more government-induced mandates to promote energy conservation is problematic.

With oil and gas prices at record levels, Persian Gulf producers threatened by terrorists, and exploding demand from China likely to strain supplies for years to come, surely it is time for Washington to get serious about energy conservation.

Well, yes . . . and no. While most economists (including me) are deeply skeptical about the value of government mandates for energy efficiency, in principle there is a case to be made for using taxes to “internalize” the costs of consumption that are not otherwise reflected in prices. But those costs are lower than you might expect—lower, perhaps, than the taxes currently charged at the pump. Moreover, while oil-security worries are now driving the calls for conservation, a careful look suggests that the neglected costs are actually related to traffic congestion and the threat of global warming. Taxing oil consumption (as opposed to taxing road use or carbon emissions) would hardly get to the roots of these problems.

Unstable Supply

First, the security issue. Yes, the world has grown disturbingly dependent on oil from politically unstable countries, increasing the risk of devastating supply disruptions. But most of those costs are already reflected in the cost of doing business. Oil-dependent companies (including gasoline

retailers) can and do take account of the risks by stockpiling fuel. Indeed, one criticism of ongoing government investment in emergency oil reserves is that it undermines private incentives to insure against supply disruptions.

Okay, but the U.S. government does spend a bundle on military and diplomatic resources in the Mideast, and one of the objectives of Mideast policy is to keep the oil flowing. Shouldn't those outlays be reflected in consumers' energy bills?

The answer is hardly obvious. Expenditures to maintain America's perceived interests in oil-rich parts of the world do not necessarily increase oil supplies. For example, the most reliable way to get more oil out of Iraq would have been to leave Saddam in power and lift the sanctions on his regime. More generally, the most reliable suppliers of oil are countries that are desperate for the money to keep their economies afloat and their citizens tranquil—think Saudi Arabia, Nigeria, Iran, and Venezuela. U.S. policies aimed at deterring terrorism or keeping the sea lanes open are unlikely to affect the behavior of these regimes.

Economic Levers

After the oil shocks of the 1970s, some economists made a very different case for reducing dependence on foreign oil. Cutting demand with taxes, they argued, would break the ability of the OPEC cartel (and, in particular, Saudi Arabia) to keep prices high. In other words, instead of paying Saudi princes, we could pay ourselves.

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That price leverage may or may not have existed two decades ago. But it is hard to argue that, in a global economy consuming some 85 million barrels of crude a day, even a doubling of the federal excise tax on gasoline (that would cut consumption by an estimated a half-million barrels a day) would significantly reduce world oil prices.

So how about using taxes to internalize the very real (if more mundane) costs associated with traffic congestion? Higher taxes at the pump would, one presumes, encourage more carpooling and greater use of mass transit. But the tax would not discriminate between driving on congested and uncongested roads. Moreover, much of its impact on road use would be dissipated, as drivers shifted to more fuel-efficient (but no less congestion-making) vehicles. The moral: if you want to use taxes to cut road congestion, tax road use in congested areas directly—as they already do in London and Singapore.

Environmental Concerns

That leaves one economically respectable argument for using taxes to internalize energy costs: global warming. Burning any fossil fuel generates carbon dioxide emissions,

which are likely to raise the average temperature of the earth's surface. And in the long run warming is likely to affect climate in ways that many of us will not like, raising sea levels, changing rainfall patterns, and making storms more damaging. Probably the best researched (though, still quite speculative) estimate of this external cost comes from William Nordhaus of Yale, who put the

figure at less than \$15 per ton of carbon in today's dollars.

Note, however, that all fossil fuels are not equal in emitting carbon as they yield energy. And liquid fuels score pretty well by this measure: \$15 per ton of carbon is equal to just 4 cents a gallon of gasoline. Indeed, the only fossil fuel on which a tax of this magnitude would have much impact is coal.

I do not know whether energy prices will stay high or whether a combination of market-induced conservation, technological innovation, and market-induced increases in fuel production will bring them back to 1990s levels. What I am pretty sure about, though, is that most of the cost of oil and gas consumption is

already borne by consumers. Accordingly, the case for government-induced (as opposed to market-induced) conservation that does not focus on coal is, at best, problematic.

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