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Eliminating Subsidies Won't Cut It (Demand for Oil That Is)

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Cheap gas and diesel due to government fuel subsidies has become one of the favored whipping boys of late—a convenient way to blame high oil prices on the actions of some other government or faraway people (See 1 2 3 4 5 6 7 8). But how much can subsidies really be blamed for present oil demand? Would cutting a 30% gasoline subsidy reduce demand by 30%? Why not? I'll stake out and defend a somewhat extreme position: reducing, or even eliminating fuel subsidies will not cause a significant, long-term reduction in demand and may even cause demand to increase more quickly than with subsidies in place. More importantly, we must not fall prey to claims that cutting fuel subsidies is an easy solution to our energy problems.

A Hummer dealership in Caracas, Venezuela, where consumers pay only pennies for a gallon of gasoline as reported by the New York Times

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Fuel subsidies are currently in place for nearly half the world's population. Fuel subsidies around the world have previously been covered at The Oil Drum in Fun With Subsidies and Taxes, as well as numerous articles in the media on the topic in the past few weeks (links above). Additionally, most OECD states indirectly subsidize fuel consumption in a variety of ways. I won't rehash this existing coverage, though I do need to point out that every article* I've been able to

locate has argued that cutting subsidies will have a significant effect on demand, and will help to lower oil prices (*only one analyst, Benoit de Vitry of Barclay Capital, seem to agree with me). To me, this wave of media coverage of subsidies is just like the waves of media coverage past on speculators, big oil conspiracies, and the promise of oil shale: a source of false hope that a magical solution exists to our energy problems. For that reason, my intent here is to argue that the long-term effect of cutting fuel subsidies is, contrary to the reports in the media, not of much significance.

Demand Elasticity is a Marginal Matter

The first reason that cutting subsidies won't have a dramatic impact on demand is that the fuel demand elasticity of a country is the aggregate of the marginal demand elasticity of each of its consumers. For that reason, the elimination of a 30% subsidy for fuel will not result in a proportional drop in demand of 30%. For some users, price increase will completely price them out of the market, and their marginal demand will be completely eliminated. For others, either because of wealth or the value of liquid fuels to their economic activity, the elimination of the subsidy will result in no decline in consumption. The vast majority of consumers will lie somewhere in between. Therefore, right at the outset, we can say that the elimination of a 30% subsidy will not result in a 30% drop in demand. I'd love to be more precise on this point, but neither the data nor methodology currently exists to project with any confidence exactly how much demand reduction would result from the elimination of subsidies—all we can say with any certainty is that it will be smaller than the size of the subsidy eliminated.

Evaluating the Energy Intensity of the Opportunity Cost to Subsidy Expenditures

The next question—and perhaps the most important—is to evaluate the opportunity cost of a government's expenditures on fuel subsidies. If a government does't spend $X billion on fuel subsidies, what will it spend the money on? What is the energy intensity of that expenditure compared to the amount of demand reduced through cutting the subsidy?

Take India, for example. In India, the total cost of fuel subsidies could be as high as 2-3% of GDP. What happens to that spending if it doesn't subsidize fuel use? There are two theories here, both of which create at least some fuel consumption that didn't exist before. One theory is that it will be spent in a way that results in lower fuel consumption—but almost certainly not in a way that results in NO fuel consumption. The argument in favor of this position is that, because fuel subsidies distort economic calculations in favor of consuming fuel, a neutral use of the same amount of funds should result in less fuel consumption. However, there is an opposing position: because subsidies are, according to market theory, a sub-optimal allocation of resources when compared to free-market allocation, the elimination of subsidies will result in stronger economic growth (or less economic decline) than with the subsidies. This is especially true if the money saved from subsidies isn't spent at all, but rather reduces the tax burden or lowers the rate of inflation. It remains potentially true to a lesser degree even if the money is merely spent elsewhere, since neutral spending is likely to have a less distorting effect on economic activity. Therefore, according to this theory, elimination of a fuel subsidy may actually result in greater fuel demand over the long term—and that demand may be even more inelastic because it stems from a more efficient allocation of resources. This is the argument of Benoit de Vitry of Barclay's Capital. In the end, it may come down to this question: What's worse (from the admittedly very skewed perspective of demand management): 100 million Indian middle class paying 40% under market for diesel with a GDP growth rate of 5%, or 200 million Indian middle class paying market for diesel with a GDP growth rate of 7%?

Cutting Subsidies Won't Slow the "Export-Land" Effect

Finally, cutting fuel subsidies in exporting nations won't significantly slow the grinding effect of the Export Land Model, whereby rising revenues of fuel exporting countries lead to increasing domestic consumption and declining net exports. What happens if subsidies are suddenly cut, and citizens of Venezuela or Saudi Arabia have to pay the market rate for oil? The extra money they spend on oil goes to their own government, rather than to some other nation. And that money can then be spent on other projects or programs—the opportunity cost issue noted above. However, to make the cuts in subsidies viable, they are likely to be offset by progressive spending plans that disproportionately benefit the poor. This is exactly what is currently happening in Malaysia. The result may actually increase demand: the rich, who are not the beneficiaries of these offsetting handouts, are also the least likely to reduce their demand due to price rises. The poor, who may otherwise reduce their demand, are the most directly benefited by the handouts. And, because it may be possible to prevent any demand destruction by simply handing out 1/2 or 2/3 of the money previously spent on subsidies to the poorest consumers, there is likely to be money left over to be spent elsewhere (or not taxed in the first place), which brings us right back to the previous discussion on the energy intensity of that alternative spending.

To conclude, I'm certainly not advocating the maintenance or increase of existing fuel subsidies. They are an inefficient allocation of resources, resulting in less economic activity for every barrel of oil consumed. Rather, my intent here is only to dispel the notion—increasingly popular of late—that eliminating fuel subsidies is some kind of magic bullet to derail the demand train. At best, I think the elimination of fuel subsidies will result in a minor and short-term decrease in the *rate of demand growth* in developing nations. It will not significantly alter the energy crisis facing humanity. Either way, the elimination of subsidies may not be politically practicable—where they have been cut there have been riots (1 2), and there are numerous movements attempting to actually increase fuel subsidies (1 2 3 4 5).