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THE OIL COST/PRICE IMBALANCE: CHALLENGES AND CONSEQUENCES

ECONOMICS OF NATIONAL SECURITY STRATEGY AND RESOURCE ALLOCATION (1)

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One of the areas of greatest imbalance in our economy is the discrepancy between the *price* of petroleum products, and in particular, gasoline, and the *cost* of those products. That is to say, the price the consumer pays for petroleum products does not reflect the actual cost of the product - a phenomenon known to economists as an *externality*. The actual cost of gasoline does not adequately account for either its non-renewable nature or its deleterious effects on the environment -- hence it is *a detrimental* externality. There are similar problems with a number of products, the use of which have unintended negative consequences beyond their immediate production and consumption. In the case of petroleum products, the consequences of the imbalance for America are especially egregious for long-term health, economic and national security reasons. In this paper, we shall consider this imbalance, its effects, some potential remedies and their possible consequences.

Petroleum producers must (a) find sources of oil, (b) extract it, (c) distribute and (d) sell it for a price that compensates for the costs of a, b, c and d, as well as providing a profit. There are many sources of petroleum around the world and many producers, and as it is a fungible commodity, there is intense competition among them, either because or in spite of the cartel of producing countries, OPEC. Because of this competition and due to interventions by some states, the price of gasoline is quite low in the U.S. today. As a result, we can drive anywhere in this huge country very cheaply; the part of the cost of road travel due to fuel is low, which "greases" the wheels of commerce and advances our economy, which depends so much on rapid and inexpensive transportation.

So, what's the problem? Isn't low gasoline price a good thing? Not necessarily, and not, in fact, for a number of reasons: first, in terms of reducing pollution and in

promoting the development of alternative energy sources. The low price does not compensate human beings - those living now and those yet to come - for their reduced levels of health and well-being due to environmental pollution. It also does not adequately take the non-renewable nature of the fuel source into account. This means that when we reach the limits of efficient extraction, as we eventually must, we will be unprepared. Of course, as we approach the limits of extraction, the cost per barrel of oil will begin to rise drastically (for "natural" reasons, as opposed to artificial limitations such as those created by OPEC in the 1970's), causing people and companies to increasingly curtail their fuel use. However, we can and should plan for this eventuality so as to transition into the future with as little pain as possible.

While petroleum and other fossil fuels are essential to our way of life, they have many undesirable secondary and tertiary effects. Some of these effects manifest in the short-term; they include noise and air pollution, with their damaging effects on health and enjoyment of the environment. The long-term consequences of burning immense quantities of fossil fuels are likely to be worse. These include global warming, through direct warming via combustion and indirect warming through increased accumulation of the greenhouse gas carbon dioxide; damage to the ozone layer, which protects life from the hail of ultraviolet light that bathes the upper atmosphere due to increase in carbon monoxide; and the geopolitical consequences of our national security need to protect the fuel chain. The "proper" price of gasoline and other refined oil products would reflect the present (very low) as well as eventual (very high) costs of pollution remediation, health care required by the numerous ailments (glaucoma, carcinomas, emphysema, etc.) that result from air pollution and ozone-layer degradation.

Another aspect of the "artificially low" price of oil is that there is much less profit incentive to producers to develop alternative energy sources. Some large corporations are indeed doing considerable research and development on such energy sources as photovoltaics, advanced hydroelectric (e.g., tidal surges) and thermoelectric sources (e.g., ocean temperature differentials), fuel cells, wind farming, etc. However, the amount of R&D investment is far below what is needed considering the urgency of the time constraints, and far less than would be invested if the price of a barrel of oil were much higher, reflecting its "true" cost. Therefore, another aspect of oil's incorrect pricing is the *opportunity cost* (opportunity lost) of slowed development of alternative energy sources.

There is yet another critically important result of the imbalance between the price and cost of oil. For national security reasons, the U.S. Government has every incentive to reduce our dependence on foreign supplies of petroleum. Recognition of this dependence and security vulnerability is found in our current National Security Strategy:

> ***Enhance energy security.*** We will strengthen our own energy security and the shared prosperity of the global economy by working with our allies, trading partners, and energy producers to expand the sources and types of global energy supplied, especially in the Western Hemisphere, Africa, Central Asia, and the Caspian region. We will. also continue to work with our partners to develop cleaner and more energy efficient technologies.

It is mainly because of our need to ensure a steady supply of oil from the Middle East that we must maintain the enormous military force we still have today, even as a post-cold-war "hyper-power," and keep a significant part of it in that region. This, in turn, is one of the causes of Al Qaeda's enmity toward us. In order to protect our oil supply, we need to stay in Saudi Arabia and adjacent countries where we have no other national interests,

which presence in turn angers fundamentalist Islamic movements, against which we must further protect ourselves, etc., etc. It is thus in our national interest to develop non-petroleum energy sources,as rapidly as,possible in order to pull ourselves out of this dangerous loop.

Clearly, for health, environmental, economic and national security reasons it is essential to make the price of oil fit its true *cost,* or to otherwise devise a way to correct for this "detrimental externality." One way would bee to add a tax to the price of gasoline. This would be a kind of advanced road-use tax, or actually a "pollution and health remediation" tax. Taxes are often imposed to achieve some socially desirable goal, and the real purpose of this tax would be to raise' the cost of automobile and truck use to the "painful" level. When it is painful enough, people will use cars and trucks only when necessary. The simultaneous effect of the tax would be to raise the cost of oil high enough to make alternative sources relatively more economical, which should serve as incentive to both consumers and producers of the alternative sources.

What would be some of the consequences of such a move? One relatively immediate result would probably be a steep decline in economic growth and GDP as the new "friction" of a sudden and high increase in the cost of transporting goods rippled through the economy. Higher costs will be passed along to everyone, but some, the poor and the lower middle-class, will first feel the higher fuel, and then the other higher costs, more. In other words, this would be a highly regressive tax. If the tax endures, the longer-term consequences should include renewed economic growth, although in different areas of the economy than in the past. As investment flows into new technologies (including advanced communications technologies to obviate as much actual

human travel as possible, as well as alternative energy sources), some industries will expand into the newly profitable niches and prosper.

Of course, a steep, regressive oil-use tax would probably not be passed - or would, be met with such howls of outrage that it would soon be repealed. (And it would have to be steep in order to be effective.) It may be that the same effects could be obtained through a more progressive tax such as a surcharge on the federal income tax. Another possibility is a corporate energy tax, which would shift the initial burden to the producers. They, in turn, will seek to pass on as much as possible of the tax to the consumer, and will succeed to the degree that the demand for petroleum products is elastic.

The problem is that nobody wants any new taxes, and our present political leadership seems determined to cut taxes anyway. Okay, then, what about emissions permits? The government could.require petroleum producers/importers/refiners to buy emissions permits, at a price set to compensate for the computed cost of the detrimental externality of the fossil fuel. Ultimately these permits would trickle downinto price increases "at the pump," and be little different from an energy-use tax (other than being slightly better hidden from the consumer). There may be other problems with emissions permit trading, such as loopholes/inefficiencies in implementation, as well. Whether through taxes, either direct or indirect, or devices like emissions permits to ~correct market pricing, we must increase fossil fuel prices to create sufficient financial incentive for the market to develop and introduce competitive non-fossil energy sources.

And if the government lacks the vision, or the will to attempt to convince the public that its petroleum "free lunch" is over at last? Is this another case where we have

to bury the cost of research deep in the defense budget, and raise income taxes accordingly, as we handle certain other aspects of the national security apparatus?

There are many other "imbalances" in our economic system, but this imbalance between the price, on the one hand, and the true cost, on the other, of petroleum is the greatest one we face today.. As stated above, the artificially low price harms our air, our ecology, our health; it retards the critically-important development of alternative fuel sources; it sets up a geopolitical requirement for our permanent military presence in the Middle East, which incites terrorist reactions; and, it allows us to maintain the false impression that we can go on burning oil forever.

This imbalance is dangerous for all the reasons stated above - and one other. We are, as a nation, hardly aware of the existence of the problem. Energy security and the need for alternate energy sources may have merited the gesture of a paragraph in our National Security Strategy, but there is no real sense of urgency or any real governmental or public concern over the issue.

It is the duty of a government to deal with the myriad of immediate, day-to-day problems *and* to look out for future dangers. The false pricing of petroleum - a case where the free market system just plain fails to price the commodity correctly - is not an imminent, obvious danger, and is either overlooked by myopic leaders, or pushed "off to be dealt with some other day, by some other party's administration. Like so many big, difficult issues, this imbalance does not go away because postponed. It only gets bigger. The imbalance is not "just" an environmental problem or a health problem - it is also a national security problem. However controversial or unpopular it may be, we should bring the oil cost/price imbalance and its future consequences into public debate now.