



Energy independence is not energy security

The shock of hurricanes Katrina and Rita in summer 2005, coming as they did after a long run-up in petroleum prices stretching from 2002, put energy independence back into the political arena. This was not a fortunate outcome. Discussions of energy independence, particularly by national politicians, offer an unlimited opportunity to pander and almost no thoughtful policy insights.

Energy independence--at least oil independence--is essentially unachievable in almost any environment that we can conceive over the next few decades. There is virtually nothing we could do short of giving up our transportation-based economy that would secure this "goal." Were we to abandon much of our passenger vehicular traffic use, airline availability, and the vast trucking network that makes this economy so flexible, the U.S. could become "less dependent," but no one takes that prospect seriously. The response of consumers to such an outcome is contradicted by the fact that despite much higher prices, consumption of transportation fuels has not fallen to a new, lower level that is likely to be sustained in the future. On the contrary, demand continues to rise, stimulated by rapid income growth.

If talking about won't make it happen, one ought to ask the next politician or policy wonk who starts from this premise, why are they taking up our time? My view is that this call is a way of not facing more serious considerations that would entail real public sacrifice. As it stands, however, it is a misleading and counterproductive appeal to voters that diverts our attention from taking appropriate public policy steps to enhance our energy security.

We use over 20.7 million barrels a day of crude oil and products and import 58.4% of that requirement. Looking at history, it is undeniably clear that our "dependence" is likely to grow, not diminish. The essential reality from which rational energy policy must start is that when it comes to transportation fuels (gasoline, diesel, and jet fuel), there are no suitable substitutes for petroleum. Furthermore, we are unlikely to have a hydrogen economy suddenly appear out of a laboratory and be commercialized in any significant way over the next few decades. Transportation is the crux of our energy dependence posture.

Can we replace oil in power generation or in space heating? Certainly. We have made nuclear technology much safer and far more efficient since the Three-Mile Island scare of 1979. We also have plenty of coal and the technology to turn coal into a clean power source. While power costs are likely to rise, the U.S. requirements for power generation could be supplied domestically, even if U.S. natural gas reserves diminish in the future. If power generation was our only problem, the U.S. could be "energy independent."

Transportation is an entirely different issue. We need petroleum to run our transportation system. We can make some improvements in miles per gallon; we can, at higher cost, substitute some addition to our burnable fuel supply produced from agriculture, and we could use more natural gas (again, if the



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price didn't matter) for various kinds of "fleet operations" (e.g. municipal buses). But unless the American public is prepared to accept a very different kind of transportation economy, energy independence is simply a fiction. It is not the basis for a sound energy policy for the United States. Isn't it time to re-frame the issue?

High prices, often cited as a symbol of our dependent status, are not the essence of our problem. Higher prices for crude oil and gasoline will allow the economy to adapt to the new reality that the costs of finding new sources of crude oil for a growing world economy will certainly rise. We have a very flexible economy with lots of opportunities to "substitute," and higher prices will amplify those opportunities by reducing the demand for oil and gas products while inducing more innovation and higher productivity in the search for and refining and distribution of oil and gas products.

Energy security, however, is important, and to a large extent achievable, but it should never be confused with energy independence. We can improve the former but we cannot ever have the latter. We are unlikely to eliminate hurricanes even if it turns out we can learn to better predict their path or intensity. Putting 20 to 25% of our national refinery capacity in a likely path for hurricanes is a risk we must now live with, because building new Greenfield refineries out of harm's way seems quite unlikely. Environmental issues will make it impossible. Even if Gulf Coast refineries can be better protected through more accurate weather prediction, as long as the Gulf is a substantial producer of crude oil, it will be hard to avoid weather impacts. In the tightly supplied world of crude oil, the loss of 1.5 million barrels of oil from the world supply is significant. We will have to learn to live with these location problems.

Uncertainty also extends to likely disturbances in the international political economy that affect energy supplies. Much as we might like, the political fortunes of oil suppliers are beyond our practical control, notwithstanding frequent political appeals to "do something" about some particular regime. Upheavals can and do take place. More significantly, as the Third World becomes the Second and First World, the demand for energy in many countries is going to rise sharply. Those demands will entail rising energy prices and a more active market in the search for and control of foreign energy supplies.

That said, however, energy suppliers need markets and the "oil weapon" is much less likely to be used by "rogue" regimes for the very fact that other than oil or natural gas, those regimes generate few alternative sources of foreign exchange. Their inhospitable attitudes toward foreign investors, particularly the United States, more often than not confine them to a real dependence upon their energy exports. In addition, these countries are often afflicted by the lled "oil curse" that turns their ostensible good fortune into permanent underdevelopment along with attendant corruption that makes for permanent poverty. They will sell as long as they produce, to us or to other nations less troubled by the politics of rogue regimes.

It is time for national political leaders to realize that a call for energy independence is an atavistic appeal. It is time to learn to live with an energy world that is, not the world that can never be! A good analogy was the early 1960's in the midst of the Cold War with each side armed to the teeth with



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nuclear weapons. The possession of nuclear weapons did not enhance our feeling of security. Conversely, the Russians could build more weapons and still feel insecure. This was the theme of Stanley Kubrick's 1964 film, *Dr Strangelove? It Was Subtitled 'How I Learned to Stop Worrying and Love the Bomb.'* Both sides accepted that we lived in an uncertain world and both sides accepted an environment that was not secure. The film satirized the circumstances of our insecurity. General Turgidson (George C. Scott) certainly showed the "Russkies" that they couldn't push the U.S. around and Major T.J. "King" Kong (Slim Pickens) rode the bomb out of our rogue bomber yippy-i-aying like it was a bucking bronco as the weapon plummeted to Earth. With no way out, we just had to learn to live with the insecurity.

Oil is no different. We will always have a certain amount of "insecurity" owing to the nature of how oil is "owned." The majority of oil and gas resources are now the possessions of States who react to political themes, not necessarily economic incentives. Recently, the WSJ reported that less than only some 7% of the world's energy resource are 'in play' in the market while the rest are either directly or indirectly controlled by States. That means that energy security can only come from political cooperation enhanced by economic incentives.

Several countries who are important oil producers currently have governments who don't like us (Iran, Venezuela, and possibly Russia). However, their need for revenue from oil and gas sales will keep them producing and exporting oil and gas whether the U.S. is the buyer or not. This should not concern us. It is the total pool of hydrocarbon resources that bears on our economy, not whether we "control" the resources. Perhaps the most important lesson of "Katrina" was how quickly the International Energy Agency (IEA) made supplies available to us that helped to dampen our "insecurity." That should have been a signal lesson from the catastrophe. The petroleum world of the present and future will require international cooperation. Unfortunately, recent events suggest that our national political leaders are "withdrawing" from the international system. They want the game played by rules except when we don't like the outcomes.

We should forget about independence and concentrate on measures to improve our energy security, starting with recognizing the mutuality of interests among consuming and producing countries and building our policies around improving our relationships with other consuming and producing countries. All of these countries have a mutual interest in a world that has as few "shocks" in it as possible.

Given that the State is so fundamental to the oil market, and that oil is a global business with every country having an interest to avoid upsets in the market, energy security is just one aspect of international security. We have long ago learned that we have to find common paths along which we can cooperate with other countries rather than focusing on elements that create a competitive environment between States. Two recent examples of this misbehavior stand out.

Consider the recent case of the Chinese National Oil Company, CNOOC, which wanted to buy Unocal, a holder of energy concessions in other countries. Congress and the White House created a furor and blocked the sale to CNOOC insuring that an American company, Chevron-Texaco, would

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buy Unocal. The real damage such an intervention provided was to undermine our long standing goal of non-discrimination in investment across borders. What we should have cared about was measures to increase the total supply of oil made available to the world market. That doesn't mean oil must be produced by an American firm. But the principle of non-discrimination is a bedrock of international commerce. We want our investments to be free into China and treated on a non-discriminatory basis, yet we sent a signal to the Chinese that we don't want to play by these rules---when our vital national interest is at stake! We intervened on behalf of a U.S. company, probably reducing the price of the shares (to American stockholders) as well. We antagonized the Chinese and have convinced them that we play by our rules selectively. Is that the signal we should have sent the world? Is this the cooperative environment in which international security can be enhanced? Hardly. An opportunity to cement non-discrimination in foreign investment was lost. Worse, we have enshrined the principle that trade and investment are always subject to national whim.

One legacy of that intervention is the forced "give-up" by a U.A.E.-based company (Dubai Ports World) of the management of six U.S. ports. Again, the furor was over "security," although there has been no evidence produced that mere "ownership" as opposed to "conduct" or "management" of the ports would result in less security for the U.S. What has been demonstrated, however, is that the U.S. is not "rule-based," but is as jingoistic as many other countries. We have descended into a form of protectionism that can only destroy international security. Under almost any conceivable circumstances, Dubai Ports would have been much more alert to the dangers of terrorism than a other non-Arab company. Why? Precisely because the entire world would be watching their conduct. We gained no international security and we lost another opportunity to create a rule-based code of investment conduct. If anything is needed in the changing Middle East it is the vast amount of investment resources created by a much higher price of oil. Do we want those funds coming to the U.S? One would certainly think so, but the Congressional rant totally ignored this. We need to promote the idea of common interests in security in Arab countries, and we faired miserably in this case. Throwing down the gauntlet of "national interest" was hardly the way to promote international cooperation.

What about high-priced oil? There is good news and bad news here, but more good news than bad news. The bad news is obvious: it will cost more to fill up your SUV than it used to. The good news is that the return to investment in petroleum discovery and refinery should go up. Despite the resentment in Congressional circles of the amount of profits earned by major oil companies this past year, the real return on invested capital is strikingly low, in many cases below 6 or 7%. As a result, the Majors are shrinking giants when it comes to replacement. High prices send a signal to investors to deploy more resources into energy development, and at the same time signal consumers to slow down domestic consumption. Both activities improve the margin of safety of petroleum supplies and that is in all of our interests.

Why do we have high prices anyway? Chronic under investment in the energy business and sustained, world economic growth. If someone deserves blame for this, it must be Alan Greenspan! He promoted world economic growth like no other Fed Chairman before him by allowing the U.S. to



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have some of its longest, sustained periods of economic growth. That growth set off rapid growth in many developing countries, and by elevating their growth, they elevated their demands for petroleum. Welcome to a “flat world!”

The Siren song of energy independence is as dangerous to us as the Sirens were to Ulysses. His trick should be ours! Bind up your ears, America, and pay attention to international security not to Siren calls for energy independence.

SUMMARY

- Energy independence is a false and misleading goal.
- Energy security, however, is a worthwhile goal and we can improve ours by behaving responsibly in world markets.
- Energy independence is literally an impossibility in a globalized oil world. Globalization means interdependence. What happens over “there” has to affect us “here” and conversely. Everyone can predict the outcome of a physical interruption in oil shipments, but what happens when the U.S. economy grows spectacularly? We promote higher oil demands here and abroad!
- Higher prices are the friend of energy security. Higher prices will induce more investment in energy production while restraining demand growth. That creates extra spare capacity in the world and a larger amount of spare capacity will give us more price stability. What we don’t need is high variability in prices, because that creates uncertainty and uncertainty is the enemy of planned, rational and forward looking investment in the oil industry
- Other sources of variability in energy prices are
 - Inconsistent government policies
 - Frequent changes in taxes and incentives for exploration
 - Frequent changes in environmental policies that restrain refinery expansion
 - International political disturbances that create uncertainty in futures markets which in turns translates into higher prices.
- As Walt Kelly’s famous cartoon character Pogo put it, “I have seen the enemy and it is us!”