

Defeating the Oil Weapon

By R. James Woolsey
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The wealth produced by oil is what underlies, almost exclusively, the strength of three major groups in the Middle East—Islamists, both Shiite and Sunni, and Baathists—that have chosen to be at war with us. Our own dependence on that oil, and the effect this has had on our conduct over the last quarter-century, have helped encourage each of these groups to believe that we are vulnerable. Each group is anchored in a leading oil-producing state.

In Iran, the anti-American radicalism of the Ayatollah Khomeini and his Shiite followers was greatly emboldened by their success in seizing hostages in our embassy in 1979 and holding them for over a year while we, for our part, responded with yellow ribbons and a botched rescue attempt. In 1983, affiliates of the Khomeini regime in the Hizbullah movement drove us from Lebanon, and ever since then, Hizbullah and other Shiite terrorists have continued to campaign against us. To this day, the Iranian regime paints us as a diabolical threat in order to justify its repression of moderates and its increasingly hated rule at home.

The case of Saudi Arabia is no less clearcut. There, particularly in the aftermath of the Iranian revolution and of a massive attack by fanatics on the Holy Mosque in Mecca in 1979, the Saudi royal family has subordinated important aspects of its rule to the demands of the Wahhabi sect, accommodating—and promoting—the sect's hatred of the modern world and of infidels. Islamist immigrants to Saudi Arabia from Egypt and elsewhere essentially joined forces with the Wahhabis, producing an even nastier combination. In the mid-1990's, under the influence of Osama bin Laden, the target of Wahhabi- and Islamist-inspired terror shifted from regional governments like Egypt ("the near enemy") to us ("the Crusaders and the Jews"). If, in the coinage of Judith Yaphe, the Saudis have indeed struck a Faustian bargain with the Wahhabi sect, we have in a sense been assigned the role of Gretchen, the exploited party, in what is by now a long-running production.

In Iraq, the Baathists—modeling themselves after the European fascist parties of the 1930's—likewise came to regard us with implacable enmity, despite our having given them intelligence and other assistance in their war with Iran. This enmity only increased when, in 1990-1991, we decided not to permit Saddam Hussein's conquest of Kuwait to stand. Having been spared in the ensuing Gulf war, Saddam has spent the last decade developing weapons of mass destruction and ballistic missiles. He tried to assassinate former President Bush in 1993, and he explicitly, publicly, and continuously characterizes the U.S. as his country's enemy. Recently he has begun to work closely with his fellow Baathists in the government of Syria, a country historically more aligned with Iran.

In dealing with these three groups and other assorted Middle Eastern predators over the years, we have occasionally acted forcefully, as in Ronald Reagan's strike against Tripoli in 1986 or George H.W. Bush's conduct of the Gulf war up until the cease-fire. But generally, and until we deposed the Taliban and chased most of al Qaeda out of Afghanistan in 2001, we seemed inclined to respond to attacks on us by temporizing, retreating, or, at most, launching a few air strikes from afar.

To our enemies, the reason for our timidity has seemed plain enough. Holding only 3 percent of the world's proven remaining oil reserves, and consuming 25 percent of the world's annual production, we appear to care most of all about maintaining our reliable access to Middle Eastern oil. Our behavior at the very end of the Gulf war is frequently cited as an example of how we arrange our priorities. In the course of that war, we had encouraged the Iraqi Kurds and Shiites to rise up against Saddam Hussein, but once our own access to Kuwaiti and Saudi oil was secure, we signed a cease-fire, stood aside, and permitted hundreds of thousands of these rebels to be slaughtered by Saddam's Republican Guard.

Such is the perceived power of the oil weapon in the hands of our enemies, and such is our predicament.

II

The Middle East, including the Caspian Basin, is the home of nearly three-quarters of the world's proven oil reserves and about the same share of the world's "swing" capacity. The former establishes our underlying dependence, but the latter is what creates tactical power.

That power lies largely with Saudi Arabia. Although the Saudis have long been unable to increase their basic production capacity, which in mid-2002 stood at around 7.4 million barrels a day, they control almost 3 million barrels a day of the world's reserve production capacity, a figure that exceeds the total exports of all other oil-producing countries except Russia. When a crisis of some kind creates a spike in the oil spot market, the only way to increase supply quickly and keep prices stable is for the Saudis to activate this spare capacity. Thus it is they and they alone who, with their leverage over spot prices, have the power to assuage Western fears of another oil crisis—and it is a power they know how to use, not only against consumers but against other competing producers. In the apt words of the energy analysts Edward L. Morse and James Richard, this Saudi leverage is "the energy equivalent of nuclear weapons."

We had a working partnership with the Saudis for much of the cold war, offering them protection against the Soviets (and Soviet client states) in exchange for a reliable supply of cheap oil. But as Victor Davis Hanson has recently reminded us ("Our Enemies, the Saudis," Commentary, July-August), this relationship has frayed badly over time. Not only has the royal family accommodated extremist Wahhabi views about the application of Islamic law, it has effectively turned over education in the kingdom to the Wahhabis and, more momentously, enabled their expansion into the rest of the world. It is well known that the religious schools of Pakistan that educated a large share of the Taliban

and al Qaeda are Wahhabi. But the Wahhabis' reach has spread as far as Malaysia and Indonesia and indeed into a substantial number of organizations, lobbies, mosques, and Muslim schools in Europe, Britain, and the United States.

An analogue for Wahhabism's role in the world today might be the part played during the period after World War I by extremist forms of German nationalism. Not all German nationalists, not even all the extreme ones, became Nazis. But this form of German nationalism was the fertile soil in which Nazism grew—just as, today, Wahhabi and Islamist extremism are the soil in which al Qaeda and its sister terrorist organizations are flourishing.

There are, obviously, issues on which we must continue to work with the royal family and matters on which it is in our interest to maintain formally cordial relations. But in light of the direction taken by the Saudis for nearly a quarter-century now, it is also imperative that we take steps to reduce their hold over us. If doing so forces them and others to explore alternative ways of supporting themselves—in the mid-1990's, oil aside, the 260 million people of the Muslim Middle East exported less than the 5 million people of Finland—so much the better. Genuine economic development in that region is long overdue, and the world hardly owes anyone a living for being lucky enough to sit on top of so much its oil.

What, then, to do about our dependence? In order to be effective, a plan to overcome our vulnerability must be both decisive and coherent. Although the result of such a program will inevitably be to improve air quality, reduce greenhouse gas emissions, and bring down our trade deficit, this is not and should not be conceived of as an energy plan for its own sake but rather as the energy component of our strategy for the war we are in. As such, it must be realistic, and it should take effect promptly. That means discarding two approaches to the problem that have enjoyed substantial support in the U.S. but whose implementation would have, at best, a negligible effect.

For one thing, we will not come anywhere near being able to break our dependence by producing more oil domestically. As I noted earlier, we now hold only 3 percent of the world's proven reserves. Three-quarters of the oil wells that have been drilled in the world since the mid-19th century are in the lower 48 states: we are not going to find much more there than has already been found. Even exploiting Alaska's National Wildlife Refuge would increase our share of world reserves to only 3.3 percent. Offshore exploration may yield something, but surely not enough to make a real dent. In the end, our appetite for oil will still be eight times more gluttonous than what we can satisfy from our own resources—and as oil fields in other regions become depleted and more and more expensive to exploit, this gluttony will give the Middle East growing leverage over us.

For another thing, it will not do us any good to increase our production of transportation fuel by means of exotic processes that will result in prices substantially above the equivalent of oil at \$30 a barrel. As they have done before, the Saudis can undercut all such technologies by using their swing capacity to increase supply and lower prices until our thirst forces us to capitulate—at which point they can raise the price again.

The Saudis' swing capacity must be, indeed, the ultimate target of our strategy. But if protection against their use of this capacity is our ultimate goal, pursuit of that goal must be combined with three other, underlying changes: reducing our overall demand for oil; bringing major new production from outside the Middle East into the world market; and moving toward affordable alternative fuels for transportation. Accordingly, the approach I propose has four complementary elements. Each of them has independent merit, but each is insufficient on its own, if not actually risky. Implemented as a package, however, the four individual elements can augment each other's effectiveness and, together, overcome inevitable snags and delays.

III

First, any serious effort to block the use of the oil weapon must reduce the demand for oil generally. We need to improve efficiency—a better term than “conservation,” since we are talking not just about using less but about doing more with less.

The last time we traveled down this road, we actually acquitted ourselves quite well. In the six years after the 1979 oil shock, Americans cut oil use by 15 percent and Persian Gulf imports by 87 percent—while our economy grew by 16 percent. In the early and mid-80's we improved gas mileage in new domestic cars by 7 miles per gallon (mpg). By 1987, OPEC's share of the world market had dropped from 52 to 30 percent.*

Technology has moved far in two decades, but we do not seem to have gotten the message nearly so clearly as we did in 1979. Much of the public is averse to increased gasoline taxes, and also demonstrates a marked preference for large cars, trucks, and SUV. But we need not push for smaller vehicles per se; we need only care about gasoline consumption. This means encouraging the widespread use of hybrid gas/electric vehicles—the first hybrid SUV's now coming on the market should get over 30 mpg—and adopting other fuel-efficiency improvements through such means as lower aerodynamic drag, lighter materials, better tires, and so forth. We do not have to resort to tiny cars—or even mandated fuel-efficiency standards as such—in order to effect a huge difference in oil consumption.

A whole range of steps is available on this front. Twelve years ago, the California legislature voted financial incentives to reward purchasers of efficient cars. (Unfortunately the measure was vetoed.) Today we should be able to devise Detroit-friendly incentives like tax credits and rebates to encourage the scrapping of older, less efficient vehicles and promote the buying of hybrids, a technology that has much to recommend it over other solutions (like automotive fuel cells) whose affordable production is still years off and/or whose implementation would require substantial changes in our transportation infrastructure.

In the meantime—and here is the second component of the strategy—we should be helping Russia substantially improve its share of the world's oil market.

The level of oil production in Russia is already high, but, thanks to the country's vast untapped reserves, it could be substantially higher; Jeffrey E. Garten of the Yale School

of Management has estimated that the current output of 6.9 million barrels per day could expand by at least 50 percent. The main obstacle here is the deplorable state of the country's pipelines, most of which (unlike the Russian oil companies themselves) are still government-owned. In many places, pipelines are lacking altogether. We should therefore help Russia obtain Western investment to modernize and expand its pipeline network while urging Europe to import more Russian oil and, by means of incentives, encouraging American oil companies to cooperate with Russian companies in the Middle East and elsewhere.

There are, admittedly, constraints on Russia's ability to provide a Saudi-style reserve capacity that could be "surged" as needed. (One such constraint is the Russian winter.) But as a supplier, Russia is likely to prove much more reliable than any regime in today's chaotic Middle East, and a steady shift of much of the world's oil purchases toward that country would thus have an overall stabilizing effect. It would also provide a tangible quid pro quo for the recent statesmanship of President Putin, who in more than one way has seemed definitively to cast Russia's lot with the West. And it would offer a nicely bracing reminder to the Saudis and other members of OPEC that their cartel's days may be numbered.

Another reason to take this step is more broadly strategic: to give Russia time to diversify its economy. We have a real interest in encouraging Russian prosperity, since this is the best way to foster the growth of a middle class and the kind of stability that can give solid roots to political liberalization and the development of the rule of law. Russia has serious problems: corruption, criminality, proliferation of nuclear and missile technology, brutality in Chechnya. But at this point it looks far more likely to develop democratically than does Saudi Arabia, and it would be decidedly to our benefit that it do so.

The third element consists of taking immediate steps toward replacing petroleum-based transportation fuels with domestically produced alternatives, especially those derived from wastes generally and more particularly from cellulosic biomass, otherwise known as plant material. Senator Richard Lugar and I assessed the case for doing this over three years ago,[†] and that case has since grown much stronger. The intervening years have seen the further development both of genetically modified biocatalysts to produce ethanol from cellulosic biomass and of other promising waste-to-fuel technologies such as thermal depolymerization that, unlike incineration, create no pollution and leave no streams of secondary waste.

We are not talking about your father's ethanol—corn-derived fuel that requires substantial energy to produce and will never cover more than a tiny share of our needs. By contrast, fuels produced from waste and cellulosic biomass can be much cheaper to manufacture and, being fashioned from very inexpensive and widely available material, would likely be competitive with gasoline even if the price of petroleum should move as low as \$10 to \$15 a barrel. Nor would large-scale production of ethanol from cellulosic biomass require introducing marginal land into cultivation or replacing existing crops on existing farmland. Lee Lynd of the Thayer School of Engineering at Dartmouth estimates that, by using a little over half of the prairie grass growing naturally on cropland now

idled by federal conservation programs, we could produce enough biomass-derived ethanol to fill a quarter of our annual gasoline needs, even at present vehicle mileages.

The vehicles most of us own today can already use biomass-derived ethanol, if only in proportions of up to 10 percent. But there are at least two million flexible-fuel vehicles on the road that can burn up to 85-percent ethanol, and it would be a very simple and cheap matter to adapt the technology to all new cars, the only requirements being a differently programmed computer chip in the fuel system and a different kind of plastic in the fuel line. (Virtually all cars sold in Brazil already have this modification.) To get a feel for the results: a 20-mpg vehicle using 85-percent ethanol would realize well over 100 mpg of gasoline.

There are added benefits. Any fuel mixture above 22-percent ethanol burns more cleanly in all respects than gasoline, and both the production and use of cellulosic ethanol add essentially no new carbon to the atmosphere. Then, too, using domestically produced fuels from biomass and waste can substantially reduce our huge trade deficit.

Finally, consider the use of biomass- and waste-derived fuels in higher-mileage vehicles, like hybrids. Using 85-percent ethanol, a full-sized hybrid passenger car that gets 40 mpg would be realizing the equivalent of about 250 mpg of gasoline. The combined effect on our oil use from improved fuel efficiency and the use of biomass- and waste-derived fuels might thus be staggering indeed.

Which brings us to the fourth and most crucial component of the strategy. Even as we implement the rest of the program, an aggressive use of our Strategic Petroleum Reserve (SPR) is essential. Otherwise, the Saudis can try to use their swing capacity and the threat of economic recession to prevent us from reducing our use of oil.

The Saudis do not enjoy infinite flexibility in wielding their oil weapon. The kingdom has been living beyond its means for many years: the government has run deficits since 1983, domestic debt substantially exceeds gross domestic product, and in spite of runaway spending, the per-capita standard of living has dropped by half since 1980. The royal family rightly fears severe social unrest if there are further reductions in its welfare programs. So lengthy cutbacks or reductions in basic output are not really tolerable. And there are also logistical problems: much Saudi infrastructure, including electricity and desalination plants, requires a steady supply of the natural gas that is produced in association with the production of oil.

All of these factors enhance the utility of our SPR as a counterweapon. By selling from it and then replenishing it in a timely fashion, we could limit the Saudis' ability to use their own reserve capacity to manipulate the market. We could, for example, sell SPR oil on the spot market to counter any actual Saudi cut, or any refusal to increase production in a crisis (when the spot price typically rises). More: a number of energy experts have pointed out that if we sold oil drawn from the SPR to offset Saudi cutbacks, we could use the funds received to buy oil futures, which are ordinarily priced below the current spot market.

Thus, if a crisis caused the spot price to rise to \$39 a barrel and we sold 10 million barrels, the proceeds from this sale might purchase as much as 15 million barrels for delivery two years later at, say, \$26 a barrel. Alternatively, we could replace exactly the amount we had sold and use the remaining cash for some other purpose. It is true that spot oil prices cannot be kept completely stable, but aggressive management of the SPR nevertheless holds out the possibility of denying to the Saudis the ability to cause severe recessions here as they did in 1973-74 and 1978-80.

We could exercise even greater leverage if we added several hundred million barrels to the current SPR or, following Jeffrey Garten's advice, doubled its size to a billion barrels, perhaps giving Russia a preference in selling us the oil and proposing that other energy importers like China, India, and Brazil accumulate substantially larger reserves as well. A total reserve in oil-consuming countries approaching 2 billion barrels would constitute about two years of Saudi swing production and effectively deprive the Saudis of their principal oil weapon.

To be sure, the Saudis and their OPEC partners would oppose any such use of the SPR or other reserves, no doubt claiming to be shocked—shocked—that we would ever consider letting politics affect oil prices. The short answer to this is that we are at war. The somewhat longer answer is that in any case the oil market is hardly the model of a classical free market.

OPEC has its own mechanisms for administering its cartel, and the Saudis have their weapon. Under current circumstances, we can and should do what is necessary to counter their continuing politicization of the market, including by means of a reasonable international framework in which representatives of major oil-importing nations can meet in a crisis and agree to manage their reserves according to certain criteria. Even if it should prove too difficult to do this internationally, we can do much on our own, especially with the advantage of a billion-barrel reserve.

IV

But we must act, for the consequences of not acting are dire indeed. Consider a parallel dilemma, in a hypothetical world. Suppose Torquemada and the clique of Dominicans around him who managed the Spanish Inquisition had survived unreconstructed to exercise powerful influence within a 21st-century Spanish monarchy that was as enduringly unreceptive to democratic values as the real Spanish monarchy of the 15th and 16th centuries. Suppose that this reactionary monarchy controlled 25 percent of the world's oil. Suppose further that a portion of the rest of the Spanish-speaking world—in governments heavily influenced by Spain's power and by organizations reflecting Torquemada's attitude toward Jews, Muslims, and heretics—controlled an additional 40 percent of the world's oil reserves.

Torquemada and his Dominicans were given to the auto-da-fé. The Wahhabis are more given to lopping off limbs and heads—and smashing passenger aircraft into skyscrapers. Those differences aside, the problem posed both to non-Wahhabi Muslims and to the rest of the world today is not unlike the problem that would be posed by such a hypothetical

21st-century, Torquemada-backed monarchy reinforced by oil. If we do not forge a strategy and act now, we will leave major aspects of our national fate in the hands of a regime that was once our ally but has fallen increasingly under the sway of fanatics who have chosen to spread hatred of us, indeed of freedom itself.

This hatred fires and sustains those who make war on us with the intention of destroying our way of life. Their power derives from their oil, and it is time to break their sword.

* Hunter and Amory Lovins, "Mobilizing Energy Solutions," *American Prospect*, January 28, 2002.

† "The New Petroleum," *Foreign Affairs*, January-February 1999.