Comments on the Economic and Security Implications
Of Recent Developments in the World Oil Market

By

Robert E. Ebel
Director, Energy and National Security
Center for Strategic and International Studies

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It has been more than twenty-five years since the Arab oil embargo disrupted world oil supplies in October, 1973. How has the United States fared since then? Not too badly, in fact. Our per capita use of oil has come down but so then has domestic crude oil production. However, our population growth has more than offset the decline in per capita oil use. Which unfortunately translates into much higher dependence on oil imports, which now surpasses 50 percent. We are truly hooked on cheap oil.

During years past and in response to supply and price crises, we have worked our way through price controls, through oil import quotas, through a Synthetic Fuels Corporation, and through subsidies and tax credits for various kinds of alternative sources of energy. But then, the market eventually adjusts itself, and the remedies of the day go back onto the shelf, to be trotted out at another time when prices rise to levels unacceptable to consumers or fall to levels unacceptable to producers.

Oil Imports and National Security

I know of no reasonable scenario which does not foretell further substantial reliance by the United States on foreign oil. Let me remind you that in 1973, the United States imported 6.2 million b/d of crude oil and petroleum products, accounting for 36 percent of total consumption. Do you also recall that, three weeks after the oil embargo of 1973, President Nixon announced that by the end of the 1970s, the United States would have developed the potential to meet its own energy needs without depending on any foreign energy sources? How? Project Independence sought to achieve this goal by increasing domestic oil supplies, primarily through higher prices, and by rapidly expanding the development of nuclear energy. Project Independence now gathers dust on bookshelves around Washington, long forgotten, long replaced by the impact of unforeseen events.

Today, at the beginning of the new millennium, more than 50 percent of the oil we consume originates outside the United States, produced in countries whose national interests may not always coincide with ours.

Does that mean our national security is more in jeopardy today than it was in the past, simply because of our higher dependence on imported oil? The easy answer of course would be "yes." Such high dependence on the foreign supply of any commodity as essential to our way of life as oil clearly is unacceptable.

We should ask at this point, how do we define national security? National security may mean different things to different people. George Kennan has offered perhaps the least complicated definition: "the continued ability of this country to pursue its internal life without serious interference."

If we accept Kennan's definition, then oil imports do threaten national security, for the prospect of disruption, for whatever the reason, raises the prospect of serious interference in the ability of the United States to pursue its internal life. And the greater the dependence, the greater the prospect for interference.

However, the general public does not see it that way at all. Indeed, in their judgement, what is the problem? Not so many months ago gasoline was as cheap as most buyers could remember. After all, isn't that the way most consumers judge the oil industry? When they pull into their favorite filling station, if they do not have to

stand in line, if the price is basically the same as it was last time, then there is no problem. The fact that more than one-half the crude oil refined to produce the gasoline they buy comes from someplace outside the United States is of no concern.

But let the price of a gallon of gasoline rise even marginally, and dark clouds begin to appear. And when gasoline prices move beyond $1.50 per gallon, enroute to $2.00, then government intervention is called for, now, not later.

Nor does our government see a problem. In December 1996 the Government Accounting Office released a report entitled *Evaluating U.S. Vulnerability to Oil Supply Disruptions and Options for Mitigating Their Effects.* In sum, the GAO found that the benefits of imports exceeds the costs of imports, and that substituting domestic oil production for imports does not lower costs.

Thus, for most policy makers today, there seemingly is no link between oil imports and national security. To the contrary, imports of comparatively cheap foreign oil are deemed advantageous to our economy. With only limited exception, there is little interest in Congress in taking steps to reduce our dependence.

Energy Wars

Recently one of my colleagues at the Center raised a particularly intriguing question: Are energy wars still possible?

In the past, he said, discussions of energy wars centered around three factors: the level of U.S. dependence on oil imports, the memories of the oil embargo, and scenarios involving massive interruptions in the flow of oil out of the Persian Gulf. But, he cautioned, the situation today is more complex, although these factors still apply.

Oil is now a global commodity, he reminded me. The United States as a major importer is vulnerable, and we will have to compete for what is left of world supply in a crisis. Yes, the Persian Gulf still holds the bulk of world oil reserves, and yes, these countries have become heavily dependent on oil income, but the bad news is that regional tensions still exist which can explode into regional conflict and civil wars. Interruption of oil flows out of the Gulf is still our worst case scenario. Interruption can come about in 2 ways: either disruption in the production of oil, or closure of the Strait of Hormuz, through which more than 14 million b/d of oil passes **every day.**

When considering the world's growing appetite for oil, where will that oil come from? It will come from the Middle East, because that is where the oil reserves are. And as my colleague emphasized, today's rogue states--Iran, Iraq, Libya--had well better be tomorrow's suppliers, if supply is to match anticipated demand.

That finding comes out of our **Strategic Energy Initiative** project. I would like to share with you certain of our other findings, and I offer them in no particular order of priority.

- Fossil fuels will continue to dominate world energy supply, at least to the year 2020. At the same time, the resource base is more than adequate to meet future demand, if timely and adequate investment is forthcoming.

- Global energy demand is expected to rise more than 50 percent by 2020, with the developing world demand exceeding that of the industrialized world by that time.

- Two comparatively new influences on energy decision-making are emerging. First, there is the growing role being taken on by non-governmental organizations in shaping policy. Second, mounting concern over global warming clearly will exert its own influence on how the public and private sectors respond to supply and demand requirements.

- Interest in renewables matches concerns over global warming, but their relative contribution to world energy supply will be mostly unchanged. Despite its non-polluting characteristics, the contribution of nuclear electric power worldwide is expected to decline.

- Currently available technology will not permit reaching the Kyoto protocols without measurable economic sacrifice.

- If the supply of natural gas is to match anticipated demand, massive infrastructure investments must be forthcoming. But, construction of long-distance international gas pipelines will translate into transit risks.

- There will be sporadic price volatility—price hikes and price declines—with accompanying implications for producers and consumers. This is what "business as usual" in the world oil market means.

- Threats to internal energy security may be of greater consequence than most external threats. The electric power grid, oil storage facilities and refineries, water supply, and communications networks (including the Internet) will offer attractive targets to terrorists.

Michael Lynch of M.I.T. has recalled the use of war elephants in ancient times. Soldiers facing them for the first time were terrified and reacted accordingly. However, having once faced the elephant, they were much better at dealing with them in the future. Unfortunately, as Lynch has pointed out, the more time passes since the last major oil crisis, the greater the likelihood that the next disruption will be managed by actors in oil companies, oil-exporting governments, and oil-importing governments who have never faced the elephant.

The Swinging Pendulum

I have heard it said that some 350 years ago the Pilgrims migrated from Old England to New England not because of political or religious persecution, but in order to stay warm. Where else, certainly not in Old England, was firewood so plentiful and so cheap. Even then, it would appear, the consumer followed the energy trail, seeking maximum supply at minimum prices. That trail since then has led us to the historic oil fields of East Texas, to the sands of Arabia, to the stormy waters of the North Sea, to the barren lands of the Arctic, to the tundra of Western Siberia. Where does that trail take us now? To the once forbidden regions in and around the Caspian Sea.

Let me paraphrase the commentary of the historian Thomas Macaulay who, some 180 years ago, wrote that we cannot absolutely prove that those are in error who tell us that society has reached a turning point, that we have seen our best days. But on what principle is it that, when we see nothing but improvement behind us, we are expected to see nothing but deterioration before us?

In the aftermath of the Iranian revolution in 1979 and the subsequent run-up in oil prices., it was a commonly held attitude that consumers everywhere had nothing but deterioration before them in terms of their energy future. A bare 7 years later, prices had collapsed and the pendulum had swung in favor of the consumer.

In 1998 and in early 1999, the oil pendulum had again swung in favor of the consumer, as supply outstripped demand. Then, because of successful efforts by the oil exporters to limit supply, just as quickly the pendulum swung back.

What To Do?

Mr. Chairman, you and I hold personal perceptions of our energy future and I am sure that among us this perception covers the full spectrum of unabated optimism to sheer pessimism, with a dash of cynicism thrown in. Experience tells us that these perceptions will change over time and the dire predictions or optimistic forecasts will be forgotten and replaced by others reflecting current realities.

But, policy makers in governments everywhere take their perceptions and translate them into policies to protect and advance national interests--policies which may be designed to develop new energy supplies on a crash basis, or--perish the thought--policies designed to allow the market place to be the center of the decision-making process. Policy makers come under tremendous pressures to "do something," as in earlier this year to do something about high heating oil prices, and now to do something about high gasoline prices.

That "something" unfortunately is usually some form of government intervention or regulation which tries to artificially shape economic forces. That is true of the United States and it is equally true for foreign

governments. Unfortunately, more often than not, these actions tend to prolong crises, rather than relieve them.

A number of options have been put on the table as to how we might be able to mitigate oil prices, apart from the oil exporters agreeing to increase supply. First among these options appears to revolve around withdrawals of oil from our Strategic Petroleum Reserve (SPR) which today holds about 570 million barrels. I would advise strongly against withdrawals from the SPR, if only that such would send the wrong message to OPEC and others. These oil exporting countries might then conclude, let the United States add to supply, we will hold firm with our cuts, and we clearly can outlast the United States in this regard.

It has been suggested that instead of direct withdrawals from the SPR, why not a form of swaps, with withdrawals to be replaced, with comparable volumes, at a later date. Swaps are difficult however because of pricing complications. Once again, we are reacting rather than taking steps to prepare for the next fuel crisis, which will surely appear.

A third option attracting support is the establishment of a home heating oil reserve for consumers in northeastern United States. There are arguments for and against this option, but importantly, how much to hold in reserve and what triggers a release are difficult to define. But, having set a precedent for heating oil consumers in the Northeast, what next? Surely other groups impacted by high oil prices will seek relief in some fashion, for example, farmers in the sowing season, farmers in the harvest season. Where does it all end? A much better policy response would be to provide financial assistance programs for the low income, home heating oil consumers in the Northeast.

A fourth option being promoted is the opening up of ANWR and certain offshore areas to exploration. If allowed, and if exploration were successful, our growing reliance on imported oil might be temporarily slowed, but not reversed.

There have been proposals to halt the export of oil produced on the North Slope of Alaska as a means of reducing gasoline prices, particularly along the western coast of the United States. At present about 60,000 b/d of oil are exported to markets in Asia. Refining 60,000 b/d of crude oil would yield approximately 27,000 b/d of gasoline, clearly insufficient to influence price. Diversion of oil intended for export is not supportive of our free trade policy.

The oil exporters agreed to cut supplies by 4.3 million b/d and the levels of compliance have been surprisingly high. I would note, Mr. Chairman, that in discussions of reductions in oil supply, the contribution of one country has been overlooked. And that is the contribution of the United States, an unwilling contributor, to be sure. Nonetheless, U.S. domestic oil production declined in 1999 by 330,000 b/d, a reduction of 5.6 percent, roughly comparable to the pledged cuts of the United Arab Emirates, of Kuwait, and of Nigeria, and at least double the pledged cuts of Algeria, Libya, Indonesia, and Qatar.

The Value Of Oil

We often speak of the "special relationship" between the United States and Saudi Arabia. Just what justifies this special relationship? Nothing more than our recognition that Saudi Arabia has more oil reserves than anyone else and, with limited domestic demand, can use these reserves externally to influence the world political and economic scene for years to come. Saudi Arabia, as do others, understands the power of oil and will use that power to advance, to protect its national interests whenever it must.

Just what is the power of oil? The world oil scene has been relatively quiet since the 4-day Gulf War, which now seems a long time ago. But I would emphasize that oil is high profile stuff, for it fuels much more than automobiles and airplanes. Oil fuels military power, national treasuries, and international politics. Because of this it is no longer a commodity to be bought and sold within the confines of traditional energy supply and demand balances. Rather, it has been transformed into a determinant of well-being, of national security, and international power for those who possess this vital resource, and the converse for those who do not.

Nations are prisoners of geography, and no one nation enjoys in unlimited fashion all of the fruits that geography can bestow. Some, by accident of nature, are rich in energy resources, but totally lacking in other

strengths. Some are dynamic in all of the virtues we may respect but poor in natural resources. This makes for a shrinking and increasingly interdependent world. At the same time, it also makes for conflicts among nations, as each seeks to maximize strengths and minimize weaknesses, while preserving and hopefully enhancing its stature among its peers.

It is out of this conflict that the issues of today and tomorrow emerge. But we should conclude that we are far less capable of arriving at some reasonable understanding of the future than we have ever been. The uncertainties are much greater today than before, in part because we can now look back upon the experiences of what can happen on both sides of the supply-demand equation. All this dims the prospect for a stable future.

A Concluding Thought

With only minor exception, the oil exporting countries are just as vulnerable as the oil importing countries, but with that vulnerability expressed in a quite different way. These countries are exposed to the dangers of the so-called “Dutch disease.” Dutch disease appears when one sector of an economy—such as oil or natural gas, for example—flourishes at the expense of other sectors, namely agriculture and manufacturing. Sizeable revenues from the export of oil or natural gas greatly improve local currencies against others which make imports particularly attractive at the expense of any expansion of local industries.

Clearly, unless and until the oil exporting countries diversify away from their inordinate dependence on oil-derived income, there will always be pressure on their part to maximize revenues from a depleting source. That translates into continued price volatility or, as noted earlier, “business as usual.”

Mr. Chairman, as recent events clearly emphasize, the vulnerability accompanying our growing reliance on imported oil has been further complicated today by the vulnerability linked to the amounts of oil we consume on a daily basis and the price we pay for that oil. It is a vulnerability which, given the geopolitics of oil, will be difficult to shed.