

THE ECONOMIC IMPACTS OF IMPORT DEPENDENCE

ON

MINERAL AND ENERGY COMMODITIES

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BY

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My name is Milton Copulos, and I am President of the National Defense Council Foundation.

I want to thank the Chairman Cubin and the members of the Subcommittee for their kind invitation to testify today.

For more than two decades, the National Defense Council Foundation has conducted a continuing research program concerned with addressing issues related to the assurance of adequate, secure supplies of energy and strategic minerals. Our interest in this area arises from the fundamental fact that adequate, secure supplies of energy and strategic minerals are essential to both national defense and economic security.

Clearly, meeting the goal of assured, adequate, secure supplies of these commodities is best met through domestic sources of supply. In some cases, of course, we must rely on overseas sources for key commodities because they either are not present in the domestic resource base, or not present in sufficient volumes to meet our needs. Where this circumstance exists, there is a straightforward answer: create stockpiles against the prospect that overseas supplies could be disrupted.

A much more troubling problem relates to those energy and mineral resources which are present in the domestic resource base in sufficient quantities to meet our defense and economic security needs. Increasingly, artificial barriers created through legislative and regulatory mandates are foreclosing them to development. The implications of this disturbing trend are more than an interesting academic exercise. Rather these barriers are simultaneously imposing significant costs on the American public and jeopardizing the nation's ability to defend itself.

In the second half of the 20th Century, U.S. policy concerning the development of domestic energy and mineral resources underwent a dramatic change.

Prior to the mid-20th Century, the objective of U.S. policy regarding energy and minerals was to encourage development. This objective was based in an understanding of the key role energy and minerals played in economic development – a critically important activity in an expanding nation.

At the turn of the century there was a subtle shift in public policy. While development was still a goal, there was a greater emphasis on having it take place in a controlled fashion. To implement this new policy, a variety of laws including the Mineral Leasing Act of 1920, the Mc Mahon Act of 1946 and the Strategic and Critical Minerals Protection Act of 1950 were passed by Congress.

Beginning in 1964 minerals policy underwent yet another change, this time reversing the underlying goal of encouraging development with a new objective aimed at limiting development. Towards this end an increasingly complex and set of regulatory and legal requirements were imposed on the extractive industries – ultimately comprised of a dozen major new laws. With this explosion of restrictive legislation came something else: an environment increasingly hostile to development. Indeed, today fully 55% of all lands managed by the federal government are subject to some form of restriction on development.

But the imposition of these new laws and regulations was not the only impediment to energy and minerals development that emerged as the 20th Century drew to a close. Of equal, and some would argue even greater, concern was the advent of environmental organizations prepared to mount legal challenges at virtually every step to the permitting process leaving companies uncertain whether a project would be allowed to go forward even when it was in full compliance with all legal and regulatory requirements. It was this uncertainty, perhaps more than any other factor that has driven our extractive industries offshore in increasing numbers.

What has the impact of this shift in policy been?

Last October, our organization looked at one component of the impacts when it released the findings of a year-long study that examined what we called the “hidden costs” of relying on imported oil. The findings of this report illustrate dramatically how substantial the economic damage of misguided policy has been.

Over the past three years we have spent an average of over \$99 billion annually to purchase imported oil. But the nominal cost of these purchases represents only a fraction of the overall impact on our economy. Taken together, the total economic costs of our addiction to imported oil costs the U.S. economy almost \$305 billion per year – and that figure is steadily increasing as import volumes rise.

How do these costs break down?

First, there is the need to protect the flow of oil from the Persian Gulf – a commitment we have shouldered since the closing days of the Second World War, and a task formally assigned to the Department of Defense by every President since Richard Nixon. This cost comes to roughly \$49.1 billion each year – and that figure does not include the price tag for the current operations in Iraq.

Yet this is the least of the economic burdens imposed by our dependence on imported oil.

A second and even larger cost is the loss of economic activity. A dollar spent to purchase oil from abroad is a dollar not spent in the United States. But it is more than that as well. When someone earns a dollar, some portion of that dollar is then spent to purchase goods and services. The money thus spent turns over yet again and again, multiplying its impact on the economy, creating jobs and capital for investment. The roughly \$99 billion we spend on foreign oil results in a loss of \$159.9 billion to the U.S. economy when secondary spending is taken into account.

But these losses represent more than just a monetary cost. They represent a loss of jobs within the domestic economy – high-paying jobs that permit people to feed, house and clothe their families, send their children to college and prepare for retirement. Just how many jobs are lost to the U.S. economy due to oil imports? According to our calculations our oil import dependence sends nearly 830,000 jobs abroad.

Moreover, the jobs that are lost are not minimum wage or entry level positions. The extractive industries are particularly well paid. To illustrate, the mean hourly wage for all workers in the U.S. is \$17.18. At \$28.87, the mean hourly wage for workers in the petroleum industry is 68% higher than the mean for all workers. The \$24.47 hourly mean wage for workers in the nonmetallic ore industry is 42.9% higher than that for all workers. The \$20.47 hourly wage of workers in the coal mining industry is 20.8% greater than the national mean, and the \$18.23 mean hourly wage for workers in the mining support sector 6.1% greater. Even the lowest paid workers in the mining industry, those in nonmetallic minerals mining still have a mean hourly wage of \$17.22 slightly above the mean for all workers.

So it is important to recognize that when we send these jobs abroad, we are sending premium employment overseas.

Yet even the costs outlined so far aren't the end.

When people work in the domestic economy, they pay taxes at the federal, state and local levels. These taxes go to pay for everything from national defense to local schools. In these days of budget-tightening at every level of government, the loss of even one dollar in tax revenues can be harmful. In the case of oil imports the cost is far more than a dollar. In fact, our excessive oil imports deprive federal, state and local coffers of some \$13.4 billion annually.

And even the loss of tax revenues isn't the final element. There remains one more cost, and it is significant: the cost of oil supply disruptions. Our economy has been rocked to its foundations three times since 1973, each with time with profound and lingering consequences. Taken together, these events cost Americans between over \$2.2 and just under \$2.5 Trillion dollars. Amortized over the thirty-year time span encompassing the events, this comes to between \$74.8 and \$82.5 billion per year. When all of the components that constitute the "hidden cost" of imports are included, their cost to our economy ranges between roughly \$297 billion and \$305 billion annually.

It is not just in regard to oil, however, that the extractive sector of our economy is exporting jobs. The hard rock minerals industry has also been hit by capital flight and a loss of domestic employment. While the loss in hard rock minerals is not yet as substantial as the loss in the energy sector, a number of factors suggest that it may soon worsen.

What then has the loss been, and what are its impacts?

One of the most evident has been the decline in domestic investment in exploration for new mineral deposits – the most important single requirement for sustaining the hard rock minerals industry. Less than a decade ago, North American mining companies routinely allocated half or more of their exploration budgets to the search for domestic mineral deposits. Today, that figure has declined to between 7% and 10% depending on the size of the company. What is worse, though, is the reason for the decline.

The Fraser Institute, a Canadian organization that rates various regions in terms of their desirability as a site for investment in the mining industry has sharply downgraded the United States – once the most favored region. According to the Institute, the reason for the change was the uncertain regulatory environment. In simple language, companies are not sure that they will be able to obtain a mining permit, no matter what steps they take to comply with the law. Given this assessment, it is likely that the erosion of investment in domestic exploration will not only continue, but accelerate.

The consequences of this lack of investment are already evident.

Between 2000 and 2002, the most recent time period for which figures are available, the value of domestic minerals production in the United States declined by roughly \$1.2 billion. When the "multiplier" effect is taken into account, this translates into an economic loss of roughly \$2 billion. But as with oil, the dollar loss tells only part of the

story. This decline in has fostered the loss of some 38,420 jobs within the domestic economy – and as noted earlier in my testimony, high-paying jobs.

When firms move overseas, of course, their employees no longer pay U.S. taxes. As a result, federal, state and local coffers have lost some \$167.6 million in tax revenues just from the most recent loss of jobs to overseas operations.

As onerous as the economic consequences of the decline of our extractive industries has been, they represent only part of the overall damage this circumstance does to our nation. A second and equally important negative consequence is the extent to which our increasing dependence undermines the nation's ability to defend itself.

As the 21st Century unfolds, one thing is certain: the global threat environment has become far more complex and far more uncertain. Gone with this evolution in the threat environment is the relatively straightforward strategic doctrine that accompanied the era of superpower confrontation.

FM-100, the United States Army's Statement of Doctrine describes the new threat environment this way:

“...The global realities of today are in a period of significant change. Army forces may find themselves called upon to fight under conditions of rapid force projection, that can build to major sustained operations in war and peace or that can terminate quickly only to lead to other commitments elsewhere.”

To address the changing needs of the new century, the Department of Defense has developed a new doctrine it calls Rapid Decisive Operations (RDO). A number of the capabilities essential to implementation of RDO are dependent on the ability to obtain secure supplies of a number of critical energy and mineral commodities. Among the most obvious is access to energy.

Two of the central concepts underlying RDO are the enhancement of strategic mobility and the ability to conduct maneuver warfare. Neither can be effectively implemented without sufficient oil.

At the time of the first Gulf War, a U.S. Army Heavy division consumed around 13,714 barrels of oil per day in active combat. At rest it still consumed 8,214 barrels per day. To put this in perspective, during Operation Desert Storm U.S. forces consumed roughly 450,000 barrels of fuel per day, more than four times as much as the 2 million-man Allied Expeditionary Force that liberated Europe during World War II. The consumption per soldier during Desert Storm amounted to around 35.5 gallons per soldier per day. In the recent Operation Iraqi Freedom, that figure rose to 41.7 gallons per soldier per day – an increase of 17.5%. With the new configuration of U.S. forces under RDO, the per soldier fuel requirement will rise even higher.

But fuel is not the only commodity that is a matter of concern.

Another key element of RDO is the advent of the electronic battlefield. Communications among and between military elements, the use of sophisticated electronic systems with enhanced computer capabilities to allow commanders at all levels to analyze and respond to changing battlefield conditions and an increasing reliance on remotely piloted vehicles with advanced surveillance equipment are all elements of the new doctrine. What few realize is that the manufacture of these sophisticated electronic devices is dependent on the availability of high-speed computer chips that in turn require significant quantities of noble metals such as gold and platinum.

While dependence on foreign sources of platinum is unavoidable – most of the world's resources are concentrated in Russia and South Africa – dependence on foreign supplies of gold is not. That is, it is not necessary if we maintain a healthy domestic gold mining industry. Lest we dismiss the danger of relying on foreign supplies for such key commodities, I would remind the Subcommittee that in 1969, during the height of the Vietnam conflict, the U.S. suffered a severe nickel crisis, even though our principal supplier was Canada.

Moreover, even in the case of minerals that exist in abundance domestically, we can develop dependencies on foreign supplies as a consequence of domestic regulations. A case in point is domestic copper mining which has declined sharply as a result of the combination foreign competition and over-regulation.

What is perhaps most disturbing about the erosion of the domestic mining and energy industries is that the alternative sources of supply are most often located in nations that are either unstable, hostile to the United States or both.

The most obvious example is Saudi Arabia – a nation that produces fully 10% of the world's oil. King Fahd is seriously ill, and the two princes most likely to succeed him Prince Abdullah, the current regent and his half-brother Prince Sultan are both of advanced years. Even if, as some observers maintain, the Saudi succession proceeds in an orderly manner in the near term with Abdullah assuming the throne followed by Sultan, there is cause for concern. While Abdullah is not overtly hostile to the United States, his brother Sultan is. Worse, as the recent attacks on foreign compounds evidenced, the al Qaeda terrorist network has established an extensive and well-organized presence within the desert kingdom.

The fact that one of al Qaeda's stated goals is to depose the Saudi Royal Family, would be cause enough for concern, but it is only one of the elements undermining the current regime. Of equal or even greater concern is the growing unrest among Saudi youth.

Some 70% of the Saudi population is 19 years old or younger. Unemployment in Saudi is running as high as 30% and the Kingdom's per capita income has plummeted over the past decade. Taken together these factors are a recipe for revolution, and should one occur, oil supplies are certain to be disrupted.

Uncertainties also surround suppliers of such critical materials as platinum group metals. Russia, once on apparent course towards democracy, appears increasingly unstable. Although the situation in South Africa seems stable at present, it, too, could fall into the sort of turmoil so characteristic of the African continent. Ironically the hydrogen fuel cell that so many hope will free us of dependence on imported oil is itself in turn dependent on platinum for its catalysts – 60 grams or almost one ounce of platinum for each vehicle. This means that if we were successful in making the transition to the fuel cell, we would inevitably become as dependent on platinum from Russia and South Africa to power our transportation sector as we are today on foreign oil suppliers to provide fuel for the same purpose.

The basic point is that the only supplies of critical commodities that can be deemed truly secure are those we produce ourselves and for that reason, it is foolish to take actions that hinder our ability to make full use of the vast resource endowment that our nation was blessed with.

One thing is certain: to the extent that we are dependent on foreign supplies for any critical commodity, our national and economic security is diminished. Therefore the only rational course of action is to make maximum use for those critical commodities we have in our domestic resource base while searching for alternatives to those we do not.