

Chapter 1

It was not supposed to turn out this way. When the Cold War ended in 1990, American policymakers generally assumed that the United States would henceforth enjoy a position of unchallenged preponderance. It would be secure in its “sole superpower” status by virtue of its unquestioned military superiority and the absence of credible competitors. Military prowess had always proved the determining factor in anointing global champions in the past and would—so the thinking went—continue to do so in the future. “For America, this is a time of unrivaled military power, economic promise, and cultural influence,” then Texas governor George W. Bush declared in September 1999. Given our overpowering strength, he asserted, the United States had an extraordinary opportunity to extend its dominant position “into the far realm of the future.”¹ But once he assumed the mantle of the presidency and sought to employ this great strength in extending American power around the world, he discovered that military superiority does not constitute the decisive, or even necessarily the leading, determinant of global paramountcy in this troubled new era. Other factors have come to rival military power in importance, and one—energy—has acquired unexpectedly vast significance.

In this new, challenging political landscape, the possession of potent military arsenals can be upstaged by the ownership of mammoth reserves of oil, natural gas, and other sources of primary energy. Hence, Russia, which escaped from the Cold War era in a shattered, demoralized condition, has reemerged as a major actor in the international arena by virtue of its colossal energy resources. For all its military might, the United States has, in contrast, sometimes found itself reduced to cajoling its foreign oil suppliers—including long-term allies such as Saudi Arabia—to increase their petroleum output in order to slow the upward spiral in energy prices.² The “sole superpower” has, in short, found itself scrambling—on the battlefield, on global trading floors, and in diplomatic back rooms—to somehow come to terms with what Sen. Richard G. Lugar (R-Ind.) has termed “petro-superpowers”—nations that wield disproportionate power in the international system by virtue of their superior energy reserves.³

Other major energy-consuming nations have also been forced to adjust to this changing landscape. China, which enjoys enormous economic clout because of its enviable balance-of-payments position—in late 2007 its foreign currency reserves stood at a staggering \$1.4 trillion—is nonetheless becoming ever more dependent on imported petroleum and so must scour the world for available supplies. Japan, with the world’s second largest economy—yet even more dependent on imported energy supplies than China—has found itself locked in fierce competition with Beijing for access to some of the same overseas reserves.

On the other side of the ledger, energy-rich states like Kazakhstan and Nigeria have come to enjoy greater leverage in world affairs, attracting a constant stream of high-level visitors from energy-consuming nations—often bearing promises of investment financing, military aid, and other forms of largess. Nursultan Nazarbayev, the autocratic president of Kazakhstan, has been a

much-lauded guest in Beijing, Moscow, and Washington, while his country has been showered with arms and other military equipment by all three—surely a rare feat in the annals of military diplomacy. Equally telling, the outspoken president of Venezuela, Hugo Chávez, has appeared immune to U.S. retaliation despite his frequent verbal attacks on the Bush administration and his close association with the leaders of “pariah” states such as Cuba, Iran, and Syria. (For all the invective hurled between the two countries, Venezuela continues to supply the United States with about 10 percent of its imported oil, some 1.4 million barrels per day.⁴)

Why has energy come to play such a pivotal role in world affairs? To begin with, its continued availability—in great profusion—has never been as critical to the healthy operation of the global economy. Energy is required to keep the factories humming, power the cities and suburbs that house the world’s rising population, and produce the crops that feed the planet. Most important, petroleum products are utterly essential to sustain the international sinews of globalization—the planes, trains, trucks, and ships that carry goods and people from one region of the planet to another. According to the U.S. Department of Energy (DoE), world energy output must increase by 57 percent over the next quarter century—from approximately 450 to 700 quadrillion British thermal units—in order to satisfy anticipated international demand.⁵ Without this additional energy, the world economy will fall into recession or depression, the globalization project will fail, and the planet could descend into chaos.

But the wheels of industry are not the only ones to slow without an abundant supply of energy; military forces are equally dependent on a copious infusion of critical fuels. For major powers like the United States that rely on airpower and mechanized ground forces to prevail in conflict, the need for petroleum products multiplies with each new advance in weapons technology. During World War II, the American military consumed one gallon of petroleum per soldier per day; during the first Gulf War of 1990–91, the rate rose to four gallons per soldier per day; in the Bush administration’s wars in Iraq and Afghanistan, it leapt to sixteen gallons per soldier per day.⁶ Because the Pentagon is sure to increase its reliance on high-tech weaponry, and because other major powers, including China, Japan, Russia, and India, seek to emulate it in this regard, the already voracious military component of global energy demand can only grow.

At the same time, the competition for energy has never been so intense. Since World War II, the major industrialized powers—the United States, Japan, and the Western European countries—have jointly consumed the lion’s share of the global energy supply. Because the energy industry was generally successful in boosting supplies to satisfy rising demand, the world was spared the cutthroat competition that had characterized the Eurasian energy race prior to World War II and helped launch the war in the Pacific in 1941. In the past few decades, however, a new class of contenders has entered the fray—rising economic dynamos like China, India, and Brazil—and it is not at all apparent, looking into the future, that the energy industry can satisfy both the surging needs of these new consumers and the already elevated requirements of the mature industrial powers. “Energy developments in China and India are transforming the global energy system by dint of their sheer size and their growing weight in international fossil-fuel trade,” the

International Energy Agency (IEA) reported in its World Energy Outlook for 2007. Despite huge investment in new oil-production capacity additions, “it is very uncertain whether they will be sufficient to compensate for the decline in output at existing fields and keep pace with the projected increase in demand.”⁷ Hence, an intense and sometimes brutal competition for untapped supplies has erupted.

Every nation with a significant need for imported energy is contributing to the intensity of this struggle, but there can be no ignoring the dramatic impact of China’s soaring growth rates. As recently as 1990, China accounted for a mere 8 percent of global energy consumption while the United States was absorbing 24 percent of the available supply and the Western European nations 20 percent. But China’s growth in the past decade and a half has been so vigorous that, by 2006, its net energy use had jumped to 16 percent of total world consumption. If its growth continues at this torrid pace, China will hit the 21 percent mark by 2030—exceeding all other countries, including the United States.⁸ The challenge for China, of course, will be to procure all that additional energy. To succeed, the Chinese leadership will have to oversee a substantial increase in the yield of its domestic energy production while obtaining staggering quantities of imported fuels, especially oil. By the nature of things, this can only happen at the expense of other energy-starved nations. No wonder the rise of China has produced such alarm among older industrial powers.

What makes all this even more anxiety provoking is another worrisome factor in the energy-squeeze equation: intimations of future scarcities of vital fuels, especially petroleum. An increasing body of evidence suggests that the era of “easy oil” is over and that we have entered a new period of “tough oil.” Each new barrel added to global reserves, experts suggest, will prove harder and more costly to extract than the one before; it will be buried deeper underground, farther offshore, in more hazardous environments, or in more conflict-prone, hostile regions of the planet. A similar scenario is likely to play out when it comes to most other existing fuels, including coal, natural gas, and uranium. Given this, the future adequacy of global energy stocks is in serious doubt.⁹

Ever since the onset of the Industrial Revolution, humans have succeeded in developing new sources of energy to supplement those already in use—first coal, then oil, and later natural gas and atomic fuel. The development of these fuels has made possible a stunning expansion of the global economy over the past century and a half, as well as a quadrupling of the human population. But all of these materials are finite in quantity, and the supply of most, if not all, is likely to be exhausted by the end of this century. Many experts believe that when it comes to petroleum, this process of exhaustion is already well under way.

Scientists are avidly seeking ways to develop a new spectrum of fuels to replace those now at risk of depletion while releasing far fewer or zero climate-altering “greenhouse gases” into the atmosphere. But no major energy-consuming nation has yet devoted sufficient resources to this

problem to ensure that these alternatives will be available on a large enough scale to replace existing energy sources in the foreseeable future. As a result, government and corporate officials alike continue to view fossil fuels (oil, coal, and natural gas) as the world's principal energy source for some time to come. According to the DoE, these fuels will still be satisfying an estimated 87 percent of global energy needs in 2030.¹⁰ With both old and new consumers reliant on these traditional fuels—and no practical, plentiful alternatives in sight—the struggle over them is certain to be fierce.

In this context, anxiety extends to the net supply of basic energy in general: the sum of all primary fuels, including oil, natural gas, coal, nuclear power, hydropower, renewables like wind and solar, and traditional fuels such as wood and charcoal. When pondering the adequacy of future reserves, however, the greatest dread is usually reserved for petroleum, which, for the last half century, has been—and remains—the world's most important source of energy. While oil accounted for approximately 40 percent of world energy use in 2006 (natural gas, the number two fuel, supplied only 25 percent) and is expected to remain number one in 2030, it is the energy source most likely to dwindle in the decades ahead. Although there is considerable controversy over the size of the remaining petroleum reserves, enough is known to conclude that global oil output will, at some not-too-distant moment, reach a maximum, or “peak,” level and then commence an irreversible decline. The gradual disappearance of conventional liquid oil may, for a time, be offset by the development of synthetic fuels derived from “nonconventional” petroleum substances—Canadian tar sands, Venezuelan extra-heavy crude, Rocky Mountain oil shale—but the financial and environmental costs of using these materials are huge, and they are unlikely to rescue us, even briefly, from a dramatic and painful contraction in primary energy supplies.¹¹

As a result, the problem of “energy security”—as it is widely termed—has climbed toward the top rung of the international ladder of unease and concern.¹² Not surprisingly, this has fundamentally changed the perception of what constitutes “power” and “influence” in a dramatically altered international system, forcing policymakers to view the global power equation in entirely new ways.

Copyright © 2008 by Michael T. Klare. All rights reserved.