## 1 A Question for Our Time

When future historians look back on the first decade of the twenty-first century, they are likely to focus much of their attention on the dramatic images provided by the U.S. invasions of Afghanistan and Iraq. Millions of Americans watched as the tanks rolled into Baghdad, where a small crowd of happy Iraqis cheered as the tanks pulled down the hollow statue of Saddam Hussein. Soon after that, unfortunately, Americans also learned about less-happy Iraqis who were exploding homemade bombs and shooting rocket-propelled grenades at some of those very same tanks.

Far less visible or dramatic is likely to be the fact that the year of the invasion of Iraq, 2003, marked the fiftieth anniversary of three other developments, all of which had a closer relationship to the invasion than might at first be apparent. The first two of those events involved beginnings—the passing of two pieces of legislation in the early days of the Eisenhower administration that established the legal framework for offshore oil drilling. The third involved an ending—the end of nearly a century when one dominant oil-producing nation single-handedly provided more than half of the petroleum in the world.

That nation was the United States of America.

Half a world away from Iraq, just a few months before the start of the invasion, a headline in the New York Times had

referred to a different kind of battle, and a different kind of risk from petroleum. This second and less dramatic "Gulf war" took place in a different Gulf—the Gulf of Mexico—and it had more to do with tankers than with tanks. In this second set of Gulf battles, a much smaller army was working comparably hard, pitting its wits and investment capital against the elements and the odds. The front lines for this army were located hundreds of miles from the United States, off the southern edge of the continent, searching for weapons of mass consumption, in the form of oil. Despite the fact that this search was taking place far from land, the oil deposits were technically "domestic," because the United States had claimed the sea bottoms as part of its "Exclusive Economic Zone." As the Times headline noted, however, while this oil was domestic, it was also "Deep and Risky." It was more than a half-mile deep, to be more precise—and that was just the depth of the water. The drill bits would need to drill through additional miles of muck and rock before—if all went well—the effort would finally hit petroleum paydirt. The BP blowout, to note the obvious, would later show what could happen if things did not go so well.<sup>1</sup>

A continent away from the Gulf of Mexico, and another world away from the battles going on in both Gulfs, still another battle was taking place beyond the northern edge of the most remote outpost of the United States—along the Arctic Ocean, north of Alaska. On March 19, 2003, when the second President Bush announced that American and coalition forces were "in the early stages of military operations" in Iraq, few if any television cameras were focused on this third battle. The action taking place in this forbidding region would have been difficult for television audiences to see, in any event—given that it was taking place so close to the north pole, much of the action was going on, literally, in the dark. When Secretary of State Colin Powell made his case for the Iraq war at the United

Nations, on February 5, 2003, he did so only about two weeks after the first sunrise to have squeezed its way above the horizon in Prudhoe Bay, Alaska—the starting point for the Trans-Alaska Pipeline—in the previous two months. Even more than was the case in the sands of Middle Eastern Gulf or the swells of the Gulf of Mexico, the troops that were at work above the Arctic circle were engaged in a battle with the elements, braving even "daytime" temperatures that were about as far below zero as most Americans would have been able to imagine. Other risks in this region included the fact that any television crews actually present almost certainly would have been outnumbered by the polar bears. Save for the Inupiat who have considered this region their home for thousands of years, almost no Americans would have had much desire to be anywhere close to this particular battle, especially during the winter, unless they were forced to be here.

But perhaps that is precisely the point.

In a very real sense we *are* "forced to be" in such forbidding locales. To understand the reasons—and to think realistically about what directions we might want to be considering for the future—it is helpful to consider how we came to move off the edge of the continent in both directions. It is also helpful to recognize the connections to the decisions that led us to move massive military force, once again, into a region of the world where U.S. tanks—whether we are speaking of military tanks or oil tanks—are not likely to be met with cheering throngs of happy civilians.

Two reasons are particularly important, and both of them will be spelled out in greater detail in the pages that follow. One is that the United States simply uses too much oil, too wastefully. The other is that, by the later days of the twentieth century, we had already used up the vast majority of the rich petroleum deposits we once had. Those are the key factors

that have led so many brave soldiers of the oil industry to be looking for oil in the realm of the polar bears, or in the deepest oceans ever to be probed by oil drills—to say nothing of the factors leading so many of America's more literal soldiers to find their lives at risk in the sands of Kuwait, or Iraq. They are in such forbidding spots because we are so desperate to find more oil, and we have already used up most of the supplies that are easier to find.

Despite our habit of referring to oil "production," the reality is that the twentieth century was an unprecedented exercise in oil "destruction." The oil was actually *produced* during the time of the dinosaurs. What we have been doing over the last century or more has been to find the fossil deposits left behind during the era of the dinosaurs and to burn them up as fast as we could. Over the course of the past century, we showed an impressive increase in our ability to find those ancient remains, but we didn't manage to create as much as a single barrel of truly "new" petroleum supplies to make up for the supplies we were burning up.

Yet there is also a reason that is significantly less obvious. Our expectations for the future continue to be shaped by the exuberance of the past. That is part of the explanation behind politicians' continued calls for U.S. "energy independence"—generally put forth with straight faces and apparent conviction—when in fact the evidence clearly shows that no such future will ever again be possible, at least not with petroleum. Another part of the explanation for the politicians' continued calls, however, is that the rest of us allow them to get away with it. Perhaps part of the explanation for that, in turn, is that all of us may have some resemblance to the wildcatters who will be discussed in the later pages of this book. We seem to have become so caught up in the excitement of oil strikes that we've started to share the wildcatters' conviction—surely, there must

be even more spectacular oil finds out there, perhaps just beyond the next horizon. The problem, unfortunately, is that we are not actually looking toward the next horizon. Instead, we are driving with our eyes fixed firmly on our rear-view mirrors.

All of which means that we are entering a new era in more ways than one. In an earlier century, the United States actually did enjoy something like "energy independence"—or even "energy supremacy"—but as we move into the twenty-first century, any hopes for a "return" to such presumably happy days have less to do with realism than with self-delusion.

The two of us have been studying energy issues in general, and offshore oil issues in particular, for more than thirty years. Near the start of that time, in 1974, President Richard Nixon said, "At the end of this decade, in the year 1980, the United States will not be dependent on any other country for the energy we need." Back then, the United States got 36.1 percent of its oil from foreign sources, and Nixon proposed to end that dependency by obtaining more oil from U.S. sources, particularly offshore oil. The next year, with an emphasis on nearly the same policies, President Gerald Ford said, "We must reduce oil imports by one million barrels per day by the end of this year and by two million barrels per day by the end of 1977." By 1979, President Carter was beginning to place at least some emphasis on different policies, but he made a similar promise: "Beginning this moment, this nation will never use more foreign oil than we did in 1977—never." By that time, the United States was obtaining 40.5% of oil from foreign sources.

President Reagan overturned many of Carter's policy initiatives, particularly those that had to do with solar power and energy efficiency, but he agreed that "the best answer is to try to make us independent of outside sources to the greatest extent possible for our energy." For President Reagan, apparently, the "greatest extent possible" meant importing 43.6 percent

of our oil from foreign sources. By 1992, 47.2 percent of our oil was coming from foreign sources, but undaunted, President George H.W. Bush announced that the first principle for his national energy strategy was "reducing our dependence on foreign oil." By 1995, President Bill Clinton said, "The nation's growing reliance on imports of oil ... threatens the nation's security"—and his proposed solution was that we should "continue efforts to ... enhance domestic energy production." At that point, the U.S. was obtaining almost half of its oil (49.8%) from foreign sources. By 2006, the fraction of oil coming from foreign sources had reached nearly two-thirds—65.5 percent but President George W. Bush confidently predicted, "Breakthroughs ... will help us reach another great goal: to replace more than 75 percent of our oil imports from the Middle East by 2025." By 2009, with 66.2 percent of the nation's oil coming from foreign sources, President Barack Obama announced, "It will be the policy of my administration to reverse our dependence on foreign oil while building a new energy economy that will create millions of jobs."2

All of these well-known politicians, and many others, spoke eloquently of the need to promote increased U.S. oil production, to restore the nation's energy "independence." Unfortunately, anyone who actually believes that it would be possible for the United States to achieve anything even remotely resembling "energy independence" would have to be living in a world of nostalgia and denial. U.S. energy independence has not been physically possible since the days when Elvis was still singing—in his truck, not in his recording studio—and if we are thinking in terms of oil, it will never be possible again.

By the time of the *Deepwater Horizon* disaster, decades of policies that were supposedly promoting "energy independence" had left us in deep water in more ways than one. Our efforts to "enhance domestic energy production"—also known as draining America first—have been so "successful" that we

are now sending roughly a billion dollars a day to other countries, a number of which don't like us very much, and some of which use their money to attack us. In an ironic twist, the United States may well send more money to fanatical terrorists than does any other country. That may not be the intent, but each one of us may be helping to send a bit more cash to the terrorists each time we fill our gas tanks.

One famous definition of insanity, thanks to Albert Einstein, is to keep doing the same thing, hoping that the results will turn out differently next time. The reality, regrettably, is that even before the explosion of the *Deepwater Horizon*, energy policy experts in the United States have spent decades in continuing to do the same thing, and we, the people, have done next to nothing to reverse the pattern. Instead, we have all been part of a process in which we keep digging ourselves into an ever-deeper hole.

What has happened to date is worth considering in some detail, because that can tell us how we came to be in this hole in the first place. The question now, however, is what we will choose to do in the future. The explosion of the Deepwater Horizon provides, in the most vivid form that any of us would ever want not to see, not just a tragedy, but also a challenge, and an opportunity—a challenge to take a closer, more clear-eyed look at our policies, and an opportunity to realize that this is a hole that cannot be escaped simply by digging deeper to look for more oil. Instead, our only hope for a better energy future is to respond to the oil-darkened waters with clearer thinking to move now to confront the reality of using ever-increasing quantities of scarce and precious petroleum, and to begin the move to a future that will be controlled by our decisions, not by our dependence on the fast-disappearing remnants of the time when dinosaurs last roamed the earth, a good hundred million years ago.

It's about time.