Policy Analysis
No. 684 October 6, 2011

The Gulf Oil Spill
Lessons for Public Policy

by Richard L. Gordon

Executive Summary

The oil spill in the Gulf of Mexico and the ensuing political firestorm brought to the fore some longstanding problems associated with the regulation of commercial activities of all kinds on federal lands. Unfortunately, those problems are not resolvable as long as the lands are governed by federal agents. Populist outcries against the "giveaway" of oil on public lands and the industry's refusal to drill even when leases are granted demonstrate the difficulty economists face when trying to construct a rational public lands management regime. The only promising avenue of reform is to privatize commercially attractive federal lands and institute a strict liability regime for damage to third parties in lieu of regulatory oversight. If privatization is too politically difficult to achieve, a second-best remedy would be to replace royalty payments for production with a one-time fee for use.

Unfortunately, the Democratic reform proposals fail to address the underlying problems that have contributed to regulatory dysfunction. Worse, they veer off into tangential campaigns against foreign oil imports, oil consumption, and climate change. Examination of both President Obama's reform proposals and the main piece of Democratic legislation designed to address the spill—the American Clean Energy and Security Act (the so-called Waxman–Markey Bill)—suggest that the spill is being used as a pretext to advance dubious policy agendas that have little to do with the spill itself.

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Introduction

The April 20, 2010, Gulf oil spill and the ensuing political response demonstrate many important lessons about public policy.[1] The immediate and most relevant political issue is how best to reform the management of offshore oil reserves in federal waters.

The underlying problem is a mythology that holds that public lands are precious resources needing careful government management. This simply isn't true. Little of the land is environmentally, recreationally, or historically significant. The inherent drawbacks of government would prevent the success of vigorous management programs in any case. Actual programs involve giving the agencies involved limited resources to handle increasing responsibilities. Management of offshore oil and gas leasing is only the most graphic recent example of this incompetence. Predictably, the government commission to study the spill suggested massive, unworkable new regulations. In contrast, the classic drawbacks of heavy reliance on royalties and imposition of diligence requirements were ignored. The best cure for the underlying problems of public land mineral management is to privatize commercially attractive federal lands and institute a strict liability regime for damage to third parties in lieu of regulatory oversight.

The spill also was used, albeit ineffectually, to energize the longstanding campaign to reduce America's reliance on petroleum.[2] Unfortunately, the wrong lessons are being learned from the spill, producing counterproductive policy proposals.

The arguments for reducing oil consumption rest on three entirely unrelated complaints: impending resource depletion, the dangers of import dependence, and the risk of global warming. The only thing that these concerns have in common is their invalidity. Even were these concerns legitimate, each involves a different response. In the case of depletion, no sensible government action exists that would improve on letting market forces respond to changes in supply. If imports are dangerous, they should be taxed. If greenhouse gases are a threat, then only emissions should be taxed.

This differs radically from the tendency of politicians to talk as if a single energy problem exists. Moreover, the proposed remedies involve the same kind of extensive micromanagement of energy choices that has failed in the last four decades. President Obama's approach to energy policy involves unwise direct public support for technical options that have failed in all prior efforts. The capstone 2009 Waxman-Markey bill supposedly meant to deal with all energy problems actually only treated greenhouse gas emissions with any vigor. The many concessions needed to ram the law through the House of Representatives made the law so unattractive that the Senate refused to act on it.

The Failure of Regulatory Oversight

Critics of the pre-spill legal regime are right to highlight the regulatory dysfunction within the agencies charged with regulating public land. Yet they have misdiagnosed the causes and thus support the wrong solutions. The underlying problems are well understood by academics and policy advocates specializing in the field, but the problems have proven immune to reform because until recently they did not contribute to any identifiable environmental or other calamity.[3] Indeed, the views of the few economists knowledgeable about public lands differ radically from those of politicians setting public-land policy. Without some crisis to concentrate popular attention, reformers could not persuade politicians to devote the sustained attention necessary to address intelligently the underlying issues.

The Challenge of Public Land Management

The crux of the problem is the dramatic disparity between the popular image of public land and the reality.[4] When most people think about public land, they think of national parks and wildlife refuges and thus associate federal stewardship with ecological protection. This is fiction.[5] Environmentally attractive lands are but minor appendages of the federal estate.

Less glamorous and less ecologically desirable lands make up the bulk of the federal lands, and it is these lands—which support activities such as grazing, forestry, and mineral extraction—that demand the bulk of public agencies' time and attention. Naturally, they are governed by public officials using criteria that often and appropriately have little to do with environmental protection.

The growing demand for environmental protection even on traditionally "commercial" lands has forced agencies accustomed to facilitating private use of public lands to change priorities. Unfortunately, this transition is hindered by both a lack of clear political guidance about the new regime and the requisite expertise necessary to perform this new mission.[6] Thus it is not surprising that public land management is a chronic problem about which only a few specialists care until real or imagined crises arise. Even then, interest is superficial and fleeting. The prevailing reluctance to examine seriously the nature of the challenge associated with public land management both preserves the status quo and precludes devoting adequate resources to do the assigned regulatory jobs. When politically charged problems do arise, the political outrage and resulting demands for action run well ahead of the government's ability to respond intelligently. Politicians and journalists have made response synonymous with more intervention; deregulation is dismissed as negativity. With obscure policies, indignation is usually limited to the insiders and other specialists. In none of these cases does a rational public policy emerge.

The key reason that federal stewardship of realms such as public lands is likely to disappoint no matter how competently administrated or well-intentioned it may be was famously explained in Friedrich A. Hayek's 1945 essay "The Use of Knowledge in Society."[7] The article is a concise argument for why markets are superior to centralized control. In it, Hayek convincingly demonstrated that when dispersed, specialized knowledge is required to manage an enterprise (such as, say, the commercial exploitation of mineral deposits beneath the Gulf), private actions and private management are preferable to public action and public management. A subsequent essay observed that governments regularly assert control over economic sectors even while fully aware that they cannot devote the resources necessary to achieve desired outcomes.[8] Planners' inability to manage the task they have set for themselves explains their critics' antipathy toward complex procedures to regulate, one shared across all ideologies and epitomized by the dismissal of such micromanagement as "command and control."

The difficulties are aggravated by deliberate misstatements about the nature of science. All too often, science is made synonymous with the precision of physics and chemistry. The shortcomings of this vision are well illustrated by geology and meteorology.[9] Systematic, impartial, "scientific" analysis cannot resolve the subjective issues affecting policy choice.

The knowledge problem identified by Hayek is thus only one of many that bedevil government when it attempts to intervene in the economy. Milton and Rose Friedman, for instance, have noted that government has a limited ability to act and cannot properly treat all the problems thrust at it.[10] Ronald Coase has highlighted the income distribution and tax distortion effects of intervention.[11] A further "rent-seeking" literature documents the political temptation to aid strategically located special interest voters to the detriment of others.[12] Of course, intervention is often based more on ideology than analysis, and "action" is assumed to require more intervention without considering whether prior policies were the cause of the disaster of concern. Thus, the response to flawed land management and energy policies is always tighter regulation.

These observations apply to many government policies, which is why a large and expanding literature exists on the failure of government intervention in the economy. Nevertheless, every massive public policy failure—whether we're talking about the September 11 attacks, home mortgage defaults, poor public school performance, or industrial accidents such as the Gulf oil spill—leads to calls for action, and that action is always defined as an elaborate new government program or regulation regime.

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The management of public lands is characterized in every aspect by the previously mentioned problems associated with state intervention. The U.S. government has never been able to implement the simplest goal of land management—ensuring the most efficient use of that land.[13] Without increasing the resources necessary for adequate enforcement of extensive and expanding mandates, Congress has increased agency responsibilities for both charging appropriately for access to public lands (particularly for land harboring energy resources) and improving environmental quality. Disparate interests such as the public land states;[14] longtime leaseholders; and, more recently, environmental groups have strong, largely unchallenged influence on the resulting policies.

In essence, a large amount of public land was acquired in a few actions, and it has proven too unimportant either to manage well or to justify a workable disposal policy. A patchwork of laws governs disposal, including one requiring the leasing of mineral fuel rights and others stressing specific uses. These problems of public land management date from the start of the republic, when the original states ceded their "western" lands (in what is now our Midwest) to the federal government. More transfers arose with each of the acquisitions that produced the 50 states and various territories. Most critically, disposal of the acquisitions in the Mountain and Pacific states proved particularly problematic, and, as a consequence, the federal government ended up owning the majority of land in those states.

The Bureau of Land Management (BLM) of the Department of the Interior (DOI) supervises most of this federal land.[15] Its main historic function was to administer the dominant uses of federal lands, such as grazing. Its mineral responsibilities were among the neglected tasks. To improve the mineral development aspect of public land policy, then–secretary of the Interior James Watt created the Minerals Management Service (MMS) in 1982 (renamed in 2010 the Bureau of Ocean Energy Management, Regulation and Enforcement) and charged it with coordinating the management of federal onshore and offshore mineral resources. The creation of the MMS, however, could not eliminate the inherent problems of federal mineral resource management, particularly the conflicting goals of fostering mineral availability, securing revenues by the federal government, and enforcing environmental regulations.

The Oil Spill: Problems in Microcosm

The Gulf oil spill is an unusually dramatic illustration of the problems associated with governmental oversight of industry. Overblown rhetoric regarding environmental apocalypse predictably swept the political landscape, and the usual questionably qualified task forces were assigned to craft a long-term response.[16] Meanwhile, news reports indicate that the government's oversight of the actual cleanup was confused and burdened by regulatory excesses. Compensation remains another bureaucratic quagmire.[17]

Predictably, politicians were quick to leap from the reality that malfunction occurred on the Deepwater Horizon platform to the conclusion that BP's actions and practices did not conform to reasonable industry standards.[18] This may or may not be the case, but congressional hearings in the immediate aftermath of the event, media inquisitions by ratings-driven news organizations, and task force investigations by dubiously competent inquisitors are unlikely to yield useful information on that score**.** Nevertheless, President Obama and many other elected officials declared, before a single study began, that BP showed "recklessness."[19]

The final report from the federal National Commission on the BP Deepwater Horizon Oil Spill and Offshore Drilling charged with reviewing the spill had this to say about the underlying issues:

> The federal government has never lacked the sweeping authority required to control whether, when, and how valuable oil and gas resources located on the outer continental shelf are leased, explored, or developed. As described at the outset, the government's authority is virtually

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> without limitation, traceable to both its authority as proprietor and as sovereign, then further bolstered by the President's inherent authority as Chief Executive and Commander in Chief to ensure the security of the nation.[20] The root problem has instead been that political leaders within both the Executive Branch and Congress have failed to ensure that agency regulators have had the resources necessary to exercise that authority, including personnel and technical expertise, and, no less important, the political autonomy needed to overcome the powerful commercial interests that have opposed more stringent safety regulation.[21]

Whatever the merits of this expansive claim, Hayek has demonstrated that public regulators will *never* have sufficient expertise or administrative resources to second-guess decisionmaking by market actors. Public choice economists have likewise demonstrated that a popularly elected government is unlikely *ever* to provide for the political autonomy that regulators and their advocates would like those agencies to have. This commission followed precedent by suggesting changes far more elaborate than likely to occur.

The report proceeds to recount in detail the public and private actions leading to and ensuing from the spill. It concludes, "The record shows that without effective government oversight, the offshore oil and gas industry will not adequately reduce the risk of accidents, nor prepare effectively to respond in emergencies."[22] This blatantly ignores the fact that tort liability is a potent constraint, probably far greater than any feasible government action. In short, the report displays standard misplaced faith in the need for and efficacy of intervention.

A more plausible reading of the record, moreover, would suggest only that BP did not act to reduce the risk of accidents to zero. Moreover, what an "efficient" level of risk-taking might be—or how one would even know what the risks actually are given the great uncertainties and few data points available—is unclear. Accordingly, there is no way of knowing from this report (or any feasible alternative one) whether market actors on the whole would provide "adequate" safety absent government; we know, only perhaps on the basis of hindsight, that BP had not done so. Nor is there any evidence in this report that government is capable of the task. In fact, if the report is read closely, there is ample contradictory evidence.

Equally predictable but ultimately more important is the political response to evidence of administrative failures at the Mineral Management Service (MMS). Whatever the failings of Bush 43 administrative policies or MMS's relationship with the oil industry, they are the inevitable consequences of the intrinsic defects of federal land ownership. Unfortunately, as noted, the invariable political response to flagrant examples of government failure is to increase the commitment to government. Poor regulation is purportedly to be replaced with better regulation or, as President Obama termed it in his March 30, 2011, speech, "responsible" regulation.[23] The result is leasing paralysis.[24]

Of course, complaints about the government's oversight of oil extraction on federal lands extend beyond the concerns about operational safety at drilling sites and environmental protection. They also include frequent accusations that federal agencies are giving away valuable resource rights while tolerating an inexcusable reluctance to exploit those very same resources in a timely fashion. Those complaints are explored below.

"Giving Away" Public Oil

Most if not all Americans accept without question the idea that the federal government should charge for access to commercial resources on public lands. Yet it is not obvious that such charges are appropriate.

The call for charges arises from the assertion that the land belongs to all citizens of the United States and all should therefore share in the proceeds from land use. In practice, however, half of the gross revenues gained from access charges are allocated to the state in which

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the land is located. Federal expenditures for administering commercial activities on those lands eat up such a large share of the remaining revenues that the federal government often incurs net losses from resource extraction.

The profits associated with resource extraction on public lands are subject to the same federal taxation regime imposed on everyone else, weakening the case for additional taxes in the form of an access charge.[25] However, no clear basis exists for the assignment of rights for access to public lands, so bidding becomes the best alternative.

An additional problem associated with access charges is the inevitable politicization of the fees being levied. With no clear route to the "right" charge (either in form or amount), it is easy for politicians and advocacy groups to claim the rates were "giveaways," whatever the yield may be. To lessen such attacks, the DOI has devised complex, expensive, but ultimately pointless methods for selecting sites for leasing and evaluating bids; Hayek's knowledge problem ensures that these methods will be ineffective.

Charges that the Bureau of Land Management and the Minerals Management Service are too close to industry stem from the fact that those agencies have faced reality and made accounting accommodations with industry on these royalty payment issues.

Management problems are further greatly increased by congressional insistence that a substantial part of the payments for public land use come from royalties on oil, natural gas, and coal production. Two important objections exist. First, this defies established economic principles; royalties tax production *rates* and thus are a drag on production.[26] Second, we must determine production levels and the value of that production for accounting purposes, but both are difficult to monitor. Differences associated with the quality of minerals lifted and the transportation costs associated with getting those minerals to market make it difficult to assess the actual market price of the output from a lease. Proper accounting of mineral production has thus plagued public land managers from the start.

A better (that is, more economically productive) policy would be to impose all fees on the private use of public land when the lease is granted. While calls to improve administrative monitoring of this tricky business are omnipresent, no politician dares to propose the only fix that promises a solution within the public land regime—a more efficient system of initial payments only, which intrinsically would eliminate subsequent misrepresentation.

Charges that the BLM and the MMS are too close to industry stem from the fact that those agencies have faced reality and made accounting accommodations with industry on these royalty payment issues. Concern that the agencies have shirked their responsibility to oversee and enforce drilling and mineral extraction regulation is a more recent complaint. The two problems, however, are similar in that public agencies are intrinsically incapable of accumulating and assessing the information necessary intelligently to monitor and second-guess the regulated parties.

The Storm over Dormant Leases

Another complaint often raised by opponents of increased leasing is that industry for some nefarious reason does not diligently develop the fields that are leased to it. Consequently, the statutes are full of requirements setting deadlines for initiating production. Such requirements, however, are unnecessary and counterproductive.

The most obvious point is that leases represent a *right* to utilize a potentially valuable property. Profit potential should be the sole determinant of the optimal time to translate that potential into a producing asset. Private parties experienced in developing such assets and deeply immersed in the relevant market are far better qualified to judge when it is optimal to begin exploiting a field than any actual or conceivable government agency.

Requirements to develop before an arbitrarily set date have several bad effects. At the very least, the property being leased is at risk of reverting back to the government and reassigned to another before it can be most profitably developed, incurring costs associated with both confiscation and reassignment. Of course, another possibility is that the reassignment is after the optimal date.

Two more serious possibilities exist. First, premature operation may be more profitable than forfeiture so that the property is not pro-

ducing as much value as possible. More importantly, requiring lessees to drill forces public land to be dedicated to a specific, legislatively defined use. Far better would be a regime that allowed those with competing demands for public land (say, conservationists) either to outbid the industry for rights to the property or, at the very least, to purchase the lease from the lessee in secondary markets. The use-or-lose leasing regime makes those transactions infeasible because conservationists could only offer up to the value of the property during the allowed holding period while the commercial bidder could offer the value of that property through the lifetime of resource extraction. That lifetime would exceed the time limit for initiating extraction.

The Failure of the Status Quo

It defies logic to imagine that agencies that have failed at supervising straightforward commercial activities such as granting access for grazing, forestry, or minerals could properly design and operate a system for the environmentally sound operation of the same while micromanaging the business practices associated with extraction.

As a general principle, without government intervention, private firms have powerful incentives for conducting safe, environmentally sound, and profitable practices. Existing civil law, even with all its well-publicized problems, is a more powerful tool than rule-writing and enforcement by the bureaucracy.

As a practical matter, the smartest, most talented, and most experienced petroleum engineers are employed by private corporations if for no other reason than the pay is far better there than in the federal bureaucracy or in academia. The idea that even the best of federal agents can intelligently second-guess industry decisionmaking is far fetched to say the least. Even ostensibly simple matters such as risk-management practices and the safety trade-offs involved in various operational decisions demand far more expertise than federal officials can intelligently marshal.

Therefore, the most direct and promising remedies for the underlying problems associated with public land mineral management is to eliminate royalties on mineral production and drilling regulation and replace them with a one-time fee for use and with strict liability for damages to third parties. Of course, the foregoing arguments ultimately imply that public land holding be limited to that used for government activities. Accordingly, a massive transfer of public lands to the private sector is in order.[27]

The Obama Counteroffensive

Land management problems will not be remedied by conventional energy policy approaches, and that's particularly the case for the 2009 House-passed Waxman–Markey bill and the Senate-proposed Lieberman–Kerry bill. These bills—temporarily and fruitlessly repackaged as policy responses to the spill—affect offshore oil and gas drilling only to the extent that they alter energy markets in general.

Nevertheless, President Obama used the BP spill as yet another argument for adoption of his energy agenda (an agenda largely reflected in both of the bills mentioned). His June 15, 2010, nationally televised speech on the spill laid out his case:[28]

> For decades, we have known the days of cheap and easily accessible oil were numbered. For decades, we've talked and talked about the need to end America's century-long addiction to fossil fuels. And for decades, we have failed to act with the sense of urgency that this challenge requires. Time and again, the path forward has been blocked—not only by oil industry lobbyists, but also by a lack of political courage and candor.
>
> The consequences of our inaction are now in plain sight. Countries like China are investing in clean energy jobs and industries that should be right here in America. Each day, we send nearly $1 billion of our wealth to foreign countries for their oil. And to-

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day, as we look to the Gulf, we see an entire way of life being threatened by a menacing cloud of black crude.

We cannot consign our children to this future. The tragedy unfolding on our coast is the most painful and powerful reminder yet that the time to embrace a clean energy future is now. Now is the moment for this generation to embark on a national mission to unleash America's innovation and seize control of our own destiny.

This is not some distant vision for America. The transition away from fossil fuels is going to take some time, but over the last year and a half, we've already taken unprecedented action to jumpstart the clean energy industry. As we speak, old factories are reopening to produce wind turbines, people are going back to work installing energy-efficient windows, and small businesses are making solar panels. Consumers are buying more efficient cars and trucks, and families are making their homes more energy efficient. Scientists and researchers are discovering clean energy technologies that someday will lead to entire new industries.

Each of us has a part to play in a new future that will benefit all of us. As we recover from this recession, the transition to clean energy has the potential to grow our economy and create millions of jobs—but only if we accelerate that transition. Only if we seize the moment. And only if we rally together and act as one nation—workers and entrepreneurs; scientists and citizens; the public and private sectors. When I was a candidate for this office, I laid out a set of principles that would move our country towards energy independence. Last year, the House of Representatives acted on these principles by passing a strong and comprehensive energy and climate bill—a bill that finally makes clean energy the profitable kind of energy for America's businesses.

He later added:

> The one answer I will not settle for is the idea that this challenge is somehow too big and too difficult to meet. You know, the same thing was said about our ability to produce enough planes and tanks in World War II. The same thing was said about our ability to harness the science and technology to land a man safely on the surface of the moon. And yet, time and again, we have refused to settle for the paltry limits of conventional wisdom.

The first problem with President Obama's narrative is the tired claim of past policy neglect. In fact, the legislative record is littered with numerous, increasingly complex, and increasingly unwise energy law starting in the 1970s, all of which tried to cure the same alleged problems with much the same prescription to which he resorts. Few recall, for instance, that massive federal intervention to achieve energy independence and to promote alternative energy was likewise proposed (and to a large extent, adopted) by the Nixon, Ford, Carter, and both Bush administrations. (The Reagan administration was the only one to take a deregulatory tack; President Clinton mercifully had other concerns). President Obama's energy program is all too similar to that in the 2001 report from the office of then–vice president Dick Cheney, as are the sprawling and ill-considered energy bills enacted in 2003, 2005, and 2007.[29] The failure of those bills to change the trajectory of energy markets has *nothing* to do with the mythological power of "big oil" or the lack of legislative effort.

Given all this past effort, President Obama implicitly argues that the work thus far has failed badly. This is true, but not for the reasons he seems to believe. The failure was in fact due to the impotence of the very policy initiatives that the Obama administration wishes to expand. Mandates and subsidies to produce renewable energy, for instance, have been central to energy legislation for almost 40 years, as have government attempts to impose fuel ef-

ficiency upon an allegedly recalcitrant market.

A second issue is President Obama's characteristic presentation of dubious data, here, the claim of a billion dollars per day for oil imports. Examining the data shows that at best a very generous rounding error occurred. While several ways exist to present the figure, none supports President Obama's number. For 2009 (the last full year before the speech), crude oil imports averaged $541 million per day; in the four months of 2010 on which data were available at the time of the speech, the amount was $691 million.[30]

Third, the plea to follow the example of foreign governments is always dubious. These countries are at least as capable as the United States of undertaking unwise policies. In the past six decades, the United States has undertaken quite a few expensive efforts to develop advanced but uneconomic technologies such as supersonic airliners and high-speed rail; these initiatives were inspired by foreign examples that also ultimately failed.[31] It is utter folly refuted by vast sad experience to argue that a country with highly developed capital markets cannot privately develop promising technologies.

Fourth, the argument that job creation will follow from mandates arises from a gross misreading of Keynesian economics. Keynes argued for government action when economies were stuck in permanent unemployment. The main criticism of this argument is that Keynes was wrong about the reality of chronic unemployment. Even if he were right, myriad monetary initiatives and spending and tax reduction alternatives—each with a different set of costs and benefits—are available to policymakers should they wish to act. It is standard interventionist presumptuousness for President Obama to determine, not only that action is needed, but that detailed, confining measures such as those proposed are the best among the many choices. The economics literature suggests that if any countercyclical policies are attempted, monetary policy is the fastest and most effective, unconditional tax cuts are the next most appropriate, and increased government spending at best is too slow and at worst targeted at expenditures inferior to those that would be made by the recipients of tax cuts.[32]

Fifth, it may be familiar, but it is ultimately ridiculous to claim that the production build-ups during World War II and the successful Apollo Project prove that government can fulfill any economic wish. The most fundamental of the many problems with the argument is that those undertakings were unconstrained by profitability and involved no major technological breakthroughs. In contrast, the technologies needed for energy alternatives have existed for many decades, but despite increasingly frenetic federal and state attempts to improve and promote these technologies, they are still unable to compete.

The most fundamental problem with the speech, however, is that the three energy policy challenges that President Obama identifies—reliance on foreign oil, climate change, and oil depletion—are very different in nature and require very different policy responses. Unfortunately, those policy responses are often in conflict with each other.

Fortunately, we can avoid these difficult trade-offs because the energy policy challenges he identifies are for the most part phantasms. The easiest of the three concerns to dismiss is the concern over depletion, because there is no credible evidence to suggest that oil or natural gas is becoming meaningfully scarce over time.[33] Even if there were, it is certain that markets would adjust to scarcity more quickly and efficiently than federal planners.

Worries about foreign oil and climate change require a modest amount of further effort to dismiss.

Who's Afraid of Foreign Oil?

A number of arguments have been marshaled to have the government "do something" about our heavy reliance on oil imports. Most of those arguments, however, fail to withstand any serious scrutiny. Worries about the reliability of foreign oil supplies are anchored in such rare and short-lived historical events that policies to curb imports would have proven far more costly than simple acceptance of occasional disruption. This is demonstrated by the rise in oil imports despite extensive interven-

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tion in energy markets. While much of that intervention was counterproductive, the absence of clear ways to reduce imports economically indicates the undesirability of independence.[34] Similarly, despite frequent claims to the contrary, it is doubtful that any U.S. foreign policy objectives are made more difficult by our reliance on foreign oil.

Current complaints that money used to purchase foreign oil is going to our enemies abroad labors under a deep misunderstanding of market and foreign policy realities. The most conceivable "enemies" who sell us any substantial amount of oil are Venezuela and Russia, the source of less than 14 percent of total U.S. oil imports in 2010.[35] The two largest recipients of our oil dollars are Canada and Mexico, the source of 32 percent of total oil imports. Saudi Arabia—the source of but 9.3 percent of the foreign oil we buy—figures prominently in these discussions (indeed, much rhetoric implies that *all* foreign oil comes from Saudi Arabia), but the casual depiction of Saudi Arabia as an "enemy" is at odds with a U.S. foreign policy that in every other context treats Saudi Arabia as a valued ally.[36] Even severe critics of the Saudi Arabian government recognize that its interests require good relations with the United States.

President Obama's efforts to promote oil production in Brazil well illustrate the confusion that prevails about oil import dangers. After the long history of oil development in that country without U.S. government investment, President Obama suddenly suggested that the Brazilians need U.S. encouragement to become suppliers.[37]

Regardless, U.S. withdrawal from world crude markets will not necessarily reduce prices and thus oil earnings abroad. Given OPEC's desire to rig global oil prices, the closing of the large U.S. market might even facilitate collusion to raise prices to remaining customers.

The anti-import rhetoric revives tired, invalid, yet classic protectionist arguments.

In any event, the anti-import rhetoric revives tired, invalid, yet classic protectionist arguments. The very fact that we import or that prices are rigged is widely considered to be *prima facie* justification for import reduction (see section 127 (a) points 5 and 6 of the Waxman–Markey bill passed by the House in 2009).[38] The belief that sending money abroad makes us poorer is a classic protectionist fallacy. The standard objection to protectionism is as solid in this context as in any other. America imports crude oil because exporting other goods in return (or providing a good place to invest money) is preferable to producing oil domestically, even in the teeth of monopoly pricing. Economists since David Ricardo have shown that the identity of trading partners is irrelevant to the desirability of trade. People adopt an occupation and use their incomes to buy from others wherever they may be because specialization improves their standard of living.

Even if one disagrees with these criticisms of import limitation, restricting oil *imports* rather than energy or oil *use* is the proper response to whatever threats might exist. Economic theory suggests that either a properly designed tax on foreign oil or a firm limit on import volumes would be the best remedy. While that is true in theory, in reality the government still has neither the necessary knowledge nor the political will to design programs that produce more benefits than costs.[39]

The most developed and germane economic argument is that taxes are preferable because they avoid the difficulty associated with allocating import rights.[40] A tax is imposed on everyone; evasion is the only significant problem. If the government imposed rigid import quotas, it could in theory simply auction off the rights to export into the United States, but this would be a tax by another name. In practice, the rights are treated as benefits to be dispensed, and an unseemly political struggle over the bounty inevitably follows.

That is exactly what happened the last time we tried such a regime, during the Eisenhower administration. Market participants smelled opportunity ("rents" in economic parlance), and regulatory gimmicks were quickly begun to treat established refiners differently from new ones, small refiners more favorably than large ones, and West Coast refineries differently from those in the rest of the country. Over time, further boons were granted to new refineries in Puerto Rico and the Virgin Islands and to heavy fuel oil users on the East Coast.[41]

The Political War against Oil Consumption

When the import quota program finally collapsed under the weight of soaring oil prices in 1973, it was replaced by elaborate policies including the start of the current regime of mandated energy conservation measures, targeted tax breaks, a plethora of direct and indirect domestic production subsidies, and research programs to favor various energy alternatives. In short, the government shifted away from a narrowly focused campaign against foreign oil in favor of a multi-faceted campaign against energy consumption in general with the unjustified rationalization that less energy use and thus lower oil consumption would also mean less reliance on imports.[42] Those policies could not and did not greatly reduce oil consumption and totally failed to stem the rise of oil imports. Intense micromanagement of the energy economy produced nothing but a record of economic inefficiency and policy failure. This has not, however, stopped continued reliance on such measures. Here as everywhere in intervention, failure simply breeds a redoubling of effort.

It is essential to realize that a campaign against oil consumption is a campaign against driving and the transportation sector as we know it today. Despite Herculean efforts to promote ethanol consumption, 93 percent of the energy used in the transportation sector is from petroleum; ethanol, on the other hand, constitutes but 4 percent of that market.[43] All the while, petroleum has been losing ground in other markets. While transportation accounted for about 52 percent of oil use from 1949 to 1978, it accounted for 69 percent in 2010. The amount of oil use fell sharply in three of the four other sectors reported by the Department of Energy—residential, commercial, and electricity. Continuing trends toward electrification and the shift from oil-fired to gas-fired heating drove declines after 1973 in residential and commercial oil use. Declines in the electricity sector arose after 1978 from reversing the shift to oil stimulated by prior low prices and taking advantage of new coal-fired and nuclear capacity as well as a shift to natural gas.

Import reduction and other efforts to reduce oil consumption will therefore particularly affect the transportation sector. The possible reactions might include reduced driving, shifts to cars attaining better gasoline mileage, increased ethanol use, adoption of natural gas as a fuel, electric cars, and greater use of mass transit. All of these options have drawbacks, as is clear from their failure to emerge as a response to existing policy initiatives and from available studies on the underlying economics (see below).

Some of these options, moreover, will increase greenhouse gas emissions. This would certainly be the case from an embrace of electric cars because those vehicles would primarily use electricity generated from coal—a far greater source of greenhouse gases than the oil displaced.[44] Moreover, the same would follow from a shift to natural-gas-fired vehicles; the price of gas would increase, and as a result, more electricity generation would move to coal. Finally, extensive evidence increasingly suggests that ethanol is also less "climate friendly" than oil given the massive release of CO_2 from the land use changes that follow from the increased demand for biofuels and the higher than reported release of nitrous oxide—an extremely potent greenhouse gas—from the fertilizers employed to produce biofuels.[45] Again, the March 31, 2011, speech from President Obama and the associated "Blueprint for a Secure Energy Future" called for increased effort to develop biofuels, and the "Blueprint" speaks favorably of ethanol development.[46]

Conservation, too, can have negative climate implications. For instance, it is unclear whether the advantage of driving more fuel-efficient cars is offset by increased driving—something that ought not to surprise anyone given that fuel efficient cars reduce the cost of travel.[47] Likewise, mass transit is so energy intensive to establish and maintain and so lightly used in most cities that a number of analyses find that more greenhouse gas emissions arise from moving a passenger in a subway car than in an automobile.[48]

The failure of targeted initiatives to reduce either oil consumption or air emissions in any meaningful way implies that efforts to decree choices and micromanage the transportation sector ought to be abandoned. Unfortunately, legislators remain enamored with the edict and devoted to micromanagement even when purporting to adopt supposedly market-oriented policies such as cap and trade.

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The Climate Change Quagmire

The debate over climate change and what, if anything, to do about it is far trickier than environmentalists are willing to admit. In particular, doubts are justified about every step in the move from concern to the proposed legislation. The science on warming is far less clear than exponents admit.[49] The nature and undesirability of economic effects are even less clear.[50] The reasons for doubt about the case for immediate action go far beyond the very real concerns about the underlying physical science. The recent spate of data corrections and revelations about the efforts to intimidate dissenters only strengthens concerns that the claimed consensus is actually fragile.

A much less recognized limitation is that the models designed to determine the economic impacts of climate change are at least as questionable as the models of physical effects. As is true of all economic models, the results are highly sensitive to the underlying assumptions. Modelers can and have managed to alter assumptions so that the outcomes of climate change range from gains to large losses. Both the value of losses and the costs of abatement are poorly known.[51] Most critically, even advocates of strong action recognize that neither such international proposals as the Kyoto Treaty nor proposed federal laws are effective responses to the problem.[52]

The reality, then, is that we face uncertain climate developments with uncertain economic effects and uncertain abatement costs. Given the frequent number of false environmental prophesies we've heard over the past half-century, this should inspire far more caution than it has.[53]

Whatever the truth about climate change, the proposed approaches are defective at every level. Two primary difficulties are the most irresolvable.

The most fundamental problem is that any unilateral national effort is an exercise in futility given the volume of worldwide emissions. Even a multinational effort is doomed to failure unless India and China participate. Both countries produce such large and growing volumes of greenhouse gases that their emissions alone will dwarf any efforts at reduction by any consortium of developed countries. However, both countries have made it clear that they will not join any such project.

Those who are worried about climate change understand this full well, which is why they have energetically campaigned for a forceful initiative to persuade China and India to cooperate with international emission reduction efforts. President Obama has disappointed them by asserting that setting a good example is good enough. Whether the president's position is simply myopic or coldly cynical is beside the point. In either case, it will not work.

The second problem, and the key to the first, is the difficulty involved in designing a policy that mediates among different national interests. The prior discussion of oil import controls suggested that emission taxes would be operationally preferable. However, this would clearly impose burdens on China and India that would increase their resistance.[54] Thus, policy proposals stress allocating emission rights among the various nations inclined to enter into some international compact. There are many different ways to allocate emission rights—none more obviously "correct" than another, but all have very different and very significant wealth effects that no national government can afford to ignore.[55] Quotas on a per capita basis, for instance, give China massive competitive economic advantages relative to the West. The reverse is true for quotas based on some arbitrary historic emissions baseline (as was done in the Kyoto Protocol). Given the need for all major emitters to agree to a deal—and given the fact that some emitters will lose economic advantages no matter how the quotas are allocated—negotiating some universally satisfactory treaty seems impossible. Even if a deal can be reached, it is unlikely that the "losers" will be able to maintain the domestic political support necessary to make good on treaty promises.

Congress Steps Forward

Two main legislative initiatives were promoted as addressing the spill. The House passed the American Clean Energy and Security Act (popularly known as the Waxman-Markey bill).

In the Senate, various proposals were floated by John Kerry and Joseph Lieberman. Both are a familiar mess of scattershot interventions further to dictate private energy production and consumption decisions. Command-and-control provisions are unnecessarily piled on top of a cap-and-trade program, which itself features a convoluted emission allocation scheme arising from the horse trading necessary to gain support from Congressmen from districts particularly harmed by the caps. This is further evidence, if any were needed, that in Washington, what is thought to be good politics trumps good economics. The bill's stagnation in the Senate suggests that the large concessions necessary to buy support from various interest groups produced a bill that politicians feared would produce a strong political backlash.

Although the various bills and proposals differ in detail, they all embrace the same general combination of features. Since the Waxman-Markey bill is the only one actually to have been passed by either chamber, it's worth giving that legislation special attention.

While the Waxman-Markey bill loudly proclaims its interest in producing energy security, the measures called for in that legislation would have virtually no impact on imports. Only 30 of the bill's 1,427 pages deal with transportation—as noted, the main source of oil demand—and most of those 30 pages are about hastening the introduction of electric cars.[56] Once again, given their lack of technological and economic expertise and their obvious interest in political gain rather than economic efficiency, legislators should not be rigging the market and picking winners in this fashion. They are as likely to set back import reduction as they are to advance it.

The bulk of the bill actually addresses the electricity sector. Utilities are required to ensure that 20 percent of the electricity they sell comes from "renewable" sources by 2020. New policies are to be developed, agencies established, and studies commissioned to promote things such as carbon sequestration and improvements in electricity transmission. The 351-page conservation section launches programs to establish new energy and water conservation standards, to grow more trees, as well as many other programs in every part of the economy.

The centerpiece of the bill, however, is an amazingly complicated cap-and-trade program to reduce greenhouse gas emissions. Waxman-Markey "requires that the regulations issued under section 721 reduce emissions of covered sources to 97% of 2005 levels by 2012, 83% by 2020, 58%, by 2030, and 17% by 2050."[57] Different categories of energy users are regulated to various extents and on various time schedules beginning in 2012. Emission rights are initially distributed for free with little obvious rhyme or reason to a plethora of favored industries. These distributions, of course, represent a tremendous economic windfall to the recipients. The only way to explain this incredibly convoluted regime is the vote-generating and lobbying power of the affected industries.

To make matters worse, utilities can only use those valuable, cost-free emission credits to offset the inevitable increase in fuel prices that will follow. The remainder of the cost savings from the quotas must be used to reduce rates to customers. Utilities would be allowed to profit only if they were vertically integrated or if they bought power from a regulated generator, were subject to rate-of-return regulation, *and* secured enough permits that no emission controls would be needed. Under this scenario, however, greenhouse gas emissions would be *higher* than they otherwise would be because the mandated rate reductions would increase electricity consumption.

Of course, there is no guarantee that utilities could profit even under the above scenario. When the quotas fall short of emissions, the financial benefits associated with the free permits necessarily decline, and since the allocation procedure is unrelated to the cost of emission controls, this might turn into losses. Similarly, when the utility buys from an unregulated generator, the resulting wholesale price would rise by the value of an emission right. Moreover, the free permit allocations are decreased over time. By 2031 about 70 percent of those permits would be sold at auction, so any

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wealth gains that do accrue will prove temporary. In sum, we have another bad response to another problem with a dubious physical science and economic rationale.

Conclusion

While it's unsurprising to hear a left-wing politician offer up a proposal to cure the ills of federal oversight of oil and gas extraction on federal lands with a 1960s-style view of the wonders of big government—and then try to cure alleged general energy problems with more of the same—it is frustrating that so many people who should know better keep embracing policy ideas that have failed incessantly over at least six decades.

It is also clear that left-of-center organizations like the Center for American Progress, trade associations representing energy companies, and federal entities like the National Laboratories will continue to support this command-and-control energy agenda. What is surprising is that seemingly more serious organizations and institutes,[58] such as the National Petroleum Council,[59] Brookings Institution,[60] the Council on Foreign Relations,[61] the Center for Naval Analysis,[62] the American Physical Society,[63] Resources for the Future,[64] and centers at such universities as Harvard[65] and Rice[66] continue to do so as well. As the notes document, much of this seeming unanimity actually reflects the repeated involvement of a few true believers. Still, almost every self-appointed public intellectual and energy policy pundit with access to a publisher or media outlet unquestionably accepts the underlying case for a national energy strategy to address prevailing concerns.

The widespread support for aggressive intervention in energy markets to slay dubious policy dragons cannot be explained by the underlying literature. If there is one place where prevailing beliefs about energy policy get little approval, it is within the pages of those academic journals that treat the issues seriously. Hence, support for aggressive intervention has at least four likely explanations: an ignorance of the history of public policy failure in energy markets (and many other places), superficial thinking by nonspecialists, ideologically driven wishful thinking by analysts and academics who ought to know better, and the self-serving political cover stories offered up by the beneficiaries of government favor.

The real lesson of the oil spill is the familiar point that bad policies beget bad consequences. Only a more fundamental rethinking of public land and energy policies promises much hope for positive reform.

Notes

1. The drilling was of the Macondo well for a consortium consisting of BP, Anadarko, and MOEX USA. The drilling rig involved was the Deepwater Horizon. The 2011 official government study, by the National Commission on the BP Deepwater Horizon Oil Spill and Offshore Drilling, was titled *Deep Water: The Gulf Oil Disaster and the Future of Offshore Drilling*. Here the spill is referred to as the Gulf oil spill.

2. Although the campaign to reduce America's reliance on foreign oil precedes the spill by almost four decades, the latter was used to justify the former. The argument here is that the two are at best remotely connected. The goal of energy independence dates most directly to the Nixon administration, but his campaign was dealt a fatal political blow when a team of young operations researchers, several of whom are still contributing to the debate, put together a total-energy model that demonstrated the impossibility of energy independence; see U. S. Federal Energy Administration, "Project Independence Report," 1974. It could be argued that the idea goes back even further to the national defense rationales of prior oil import control policies such as the quota on imports established during the Eisenhower administration (see below).

3. As discussed here, federal energy-land policy actually stressed securing a large federal income from leasing and operating. Payment scandal scares periodically arise but fail to attract wide interest.

4. This disparity arises from the clever posturing of the public land bureaucracy and the interest groups advocating continued ownership.

5. Robert H. Nelson, *The New Holy Wars: Economic Religion vs. Environmental Religion in Contemporary America* (University Park, PA: The Pennsylvania State University Press, 2010) points out that humanity

has roamed the earth for so long that nothing is pristine, and that in the millions of years before humanity emerged changes were already persistent. Going back to nature thus presumes a constancy that has never existed. Moreover, a fundamental conflict prevails between preservation and allowing extensive use by tourists.

6. The Forest Service of the Department of Agriculture, for instance, has severe management problems aggravated by pressures to switch emphasis from timber production to forest preservation. Since the discontinuity was so stark, the formal literature has concentrated on the pressures on the Forest Service to alter its emphasis. Not so incidentally, the original goal was a typical progressive-era effort to supplant the then and now well-functioning private market with allegedly superior management by enlightened government experts. As usual, disaster occurred. In 2000 two books treated the transition problems. The first by Robert Nelson, a former Department of the Interior economist, presented a strong free-market case; see Robert H. Nelson, *A Burning Issue: A Case for Abolishing the U.S. Forest Service* (Lanham, MD: Rowman & Littlefield, 2000). The other, from Resources for the Future, is an anthology presenting a range of views: Roger A. Sedjo, ed., *A Vision for the U.S. Forest Service: Goals for Its Next Century* (Washington: Resources for the Future 2000). I reviewed both in *Regulation* 24, no. 1 (Spring 2001). The literature also suggests that the stress on grazing was ill-advised and that the inability to acquire land ownership produced overgrazing.

7. Friedrich A. Hayek, "The Use of Knowledge in Society" *American Economic Review* 35, no. 4 (September 1945): 519–30. Reprinted in Hayek, *Individualism and Economic Order* (Chicago: University of Chicago Press, 1948). Hayek was responding to the socialist calculation debate on which a vast amount was written before and after the 1945 article. In his book *The Road to Serfdom* Hayek observed, "It is one of the most fatal illusions that, by substituting negotiations between states and organized groups for competition for markets or for raw materials, international friction would be reduced. This would merely put a contest of force in the place of what can only metaphorically be called the 'struggle' of competition and would transfer to powerful and armed states, subject to no superior law, the rivalries which between individuals had to be decided without recourse to force." Friedrich A. Hayek, *Road to Serfdom: Texts and Documents: The Definitive Edition,* ed. Bruce Caldwell (Chicago: University of Chicago Press, 2007), p. 224.

8. Friedrich A. Hayek, "The New Confusion about 'Planning,'" *Morgan Guaranty Survey* (January 1976): 4–13. Reprinted in Friedrich A. Hayek, *New Studies in Philosophy, Politics, Economics and the History of Ideas* (Chicago: University of Chicago Press, 1978).

9. Consider oil company geologist M. King Hubbert's 1950s predictions of immediate depletion of oil and gas resources (see below). Hubbert admirers have made his writings available at http://www.hubbertpeak.com/Hubbert/. Among the many refutations is Julian L. Simon, *The Ultimate Resource: 2* (Princeton, NJ: Princeton University Press, 1996). As for meteorology, the debate over global warming is a highly visible illustration of the limits of forecasting, as is everyday experience with the weather.

10. Milton and Rose Friedman, *The Tyranny of the Status Quo* (San Diego: Harcourt Brace Jovanovich, 1984).

11. Ronald H. Coase, "The Marginal Cost Controversy," *Economica* n.s. 13 (August 1946): 169–82. Reprinted in Ronald H. Coase, *The Firm, the Market and the Law* (Chicago: University of Chicago Press 1988), pp. 75–93. Coase considered the problem of "decreasing cost" industries, which were often considered to be natural monopolies that must be regulated as public utilities. In such industries, at the critical economic efficiency point where prices are equal to marginal costs, revenues are less than costs. Two solutions exist. First, taxpayers can provide subsidies to cover the losses. Second, a "two-part" tariff can be imposed by which an access fee raises the extra revenue needed to cover costs. Coase's article argues that two-part tariffs are preferable. A later similar discussion is Richard A. Posner, "Natural Monopoly and Its Regulation," *Stanford Law Review* 21, no. 3 (February 1969): 548–643.

12. The classic example here is protective tariffs in general and oil intervention in particular. The literature traces the idea to Simon Newcomb in 1868. Important modern contributions include Gordon Tullock, "The Welfare Costs of Tariffs, Monopolies, and Theft," *Western Economic Journal* 5, no. 3 (June 1967): 224–32, and Anne O. Krueger, "The Political Economy of the Rent-Seeking Society," *American Economic Review* 64, no. 3 (June 1974): 291–303. The former evaluates the problem; the latter contributed the now-widely used term. Much economic theorizing discusses market failure as if its correction were costless. A key contribution here is Ronald H. Coase, "The Problem of Social Cost," *Journal of Law and Economics* 3 (October 1960): 1–44. Reprinted with a newly written supplement in Coase, *The Firm, the Market and the Law*, pp. 95–185. Unfortunately, many modern economists pay inadequate attention to this literature. For example, see Kenneth Gillingham and James Sweeney, "Market Failure and the Structure of Externalities," in *Harnessing Renewable Energy in Electric Power Systems: Theory, Practice, Policy,* ed. Boaz Moselle, Jorge Padilla, and Richard Schmalensee (Washington: RFF

Press, 2010), pp. 69–91. Gillingham and Sweeney barely manage to note the dubious nature of some externality arguments and completely ignore the problems of government intervention reviewed here. They cite Pigou but not the 1960 Coase article skewering Pigou.

13. It is typical of the low visibility of the issue that the literature is fragmented, with many key contributions decades old. The only *serious* government review of the subject is U.S. Public Land Law Review Commission, *One Third of the Nation's Land* (Washington: Government Printing Office, 1970), which was supported by numerous special studies. The report's finding that most federal land had pedestrian commercial use and, therefore, was ripe for disposal had no impact. Another classic is Marion Clawson, *The Federal Lands Revisited* (Baltimore, MD: Resources for the Future 1983). Another important critique is Robert H. Nelson, *Public Lands and Private Rights: The Failure of Scientific Management* (Lanham, MD: Rowman & Littlefield, 1995). Nelson has here and elsewhere extensively commented on the failings of both land management and efforts to reform it.

14. Federal ownership is particularly heavy in the Mountain and Pacific states including Alaska. The data are curiously elusive. The once-available sources have ceased reporting. The BLM produces an annual *Public Land Statistics* report that through the report for Fiscal Year 2000 had a table attributed to the General Services Administration reporting public ownership by state. That table has vanished and thus far a substitute has not emerged.

15. Two other branches of the Interior Department—the National Park Service and the Fish and Wildlife Service—administer other parts of the public domain. The Forest Service of the Department of Agriculture administers the national forests.

16. The seven members of the National Commission on the BP Deepwater Horizon Oil Spill and Offshore Drilling were a former Democratic U.S. senator, a former administrator of the Environment Protection Agency (and the co-head of a disastrous private-foundation funded National Commission on Energy Policy), the president of the Natural Resources Defense Council, a professor of marine science, the executive vice president for mission programs for the National Geographic Society, a physicist who is the dean of the Harvard School of Engineering and Applied Sciences, and the chancellor of the University of Alaska Anchorage—formerly an Alaskan politician. Most critically, the crux of the study is a review of the engineering decisions made on Deepwater Horizon on which no member had competence. Marine science, which was represented, was a secondary issue; no economist or person with business experience was selected. See National Commission on the BP Deepwater Horizon Oil Spill and Offshore Drilling.

17. As also noted below, the official study clearly indicates considerable confusion and conflicts among responsible federal and state authorities.

18. A further complication is that BP had contracted out the management of the drilling, allowing efforts to shift blame.

19. Obama asserted BP recklessness in his June 15, 2010, "Remarks by the President to the Nation on the BP Oil Spill," which is critiqued below.

20. This gratuitous extreme statement of powers ignores warnings such as those of Gene Healy, *The Cult of the Presidency: America's Dangerous Devotion to Executive Power* (Washington: Cato Institute, 2009).

21. National Commission on the BP Deepwater Horizon Oil Spill and Offshore Drilling, p. 67. The report and supporting documents are posted at http://www.oilspillcommission.gov. Chapter 1 is a journalistic report of the events of the explosion. Chapter 2 provides historical background. Chapter 3 reviews federal policy and expectedly damns it for supposedly stressing revenue generation over a proper concern for safety. Chapter 4 summarizes the engineering decisions and implementation in the BP project, concluding that decisions by the participants in the venture and federal regulation were inadequate, more exercise of hindsight. Chapter 5 covers response; it is full of discussions of the battles among federal, state, and local officials and goes out of its way to disparage Louisiana governor Bobby Jindal. Chapter 6 turns to cursory review of the impacts. Chapter 7 similarly rushes through the recovery plans. The rest of the report covers remedies. Chapter 8 argues BP and the industry as a whole paid inadequate attention to safety and should establish an industrywide safety-coordinating organization. Chapter 9 turns to federal actions. The standard proposals are made for legislation, reorganization, outside advisors, and greatly expanded action. Chapter 10 combines suggestions about the future of off-shore drilling with asides repeating the standard rhetoric on energy policy.

22. National Commission on the BP Deepwater Horizon Oil Spill and Offshore Drilling, p. 217.

23. The March 30, 2011, "Blueprint for a Secure Energy Future" (pp. 10–14) argues that the administration can and will produce better land administration. The White House, "Blueprint for a Secure Energy Future," Washington, March 30, 2011, http://www.whitehouse.gov/sites/default/files/blueprint_secure_energy_future.pdf.

24. My searches of the websites of major newspapers and the *Oil and Gas Journal* only showed how few leases were approved. On May 14, 2011, President Obama used his weekly radio address to state that he was directing expanded leasing. A September 1, 2011, search of doi.gov unearthed only two 2011 press releases on oil and gas development. The first, on June 16, 2011, announced an Alaskan lease auction and the extension for one year of moratorium-delayed leases in the Gulf. On August 19, 2011, a Gulf auction in December 2011 was announced.

25. This statement deliberately evades the thorny questions of how corporate and personal income should be taxed. Corporate taxes are dubious, but, if they exist, they should be applied as simply and uniformly as possible. The tax favors to the oil industry that the Obama administration incessantly attacked in 2011 do not materially alter this argument; the official statement is buried in the "Terminations, Reductions, and Savings" supplement to the proposed 2012 budget. As the industry regularly notes, it still faces a much higher effective income tax rate; in 2010, oil and gas companies paid 41.1 percent of their net taxable income as taxes compared to 26.5 percent for other Standard and Poor's industrials. See American Petroleum Institute, *Putting Earnings into Perspective: Facts for Addressing Energy Policy* (Washington, 2011), p. 7. In any case, given that the tax code is riddled with numerous questionable provisions to stimulate various activities, targeting only the favors to oil and gas and claiming the $40 billion in a decade materially contributes to reducing $14 trillion in debt is blatant opportunism. The case is worsened by making one main component of the change the removal, for only the oil-and-gas industry, of a dubious tax break for all manufacturing. Moreover, another proposal is to eliminate the percentage-depletion allowance that allows substituting for the usual depreciation allowance a write-off equal to the lesser of a specified percentage of sales revenue and half of taxable income. Changes in the tax laws made in 1975 eliminated percentage depletion for large oil firms and cut the percentage from 27.5 percent to 15 percent for others. Similarly, the proposed elimination of the right to write off immediately most drilling expenses, rather than depreciate them over extended periods, is more onerous to smaller producers because the alternative minimum tax already greatly reduces the benefits to large oil companies. In short, only a tiny subset of the numerous dubious special provisions of corporate income tax is attacked, and the dubious wisdom of any taxes on corporations is ignored. These tax changes increase the costs of oil production and thus decrease oil production, although probably by a small amount. However, President Obama could not resist transforming the valid claims of minor effects into an assertion of a price-lowering impact or claiming at every opportunity that he was taxing large oil companies. In a May 12, 2011, press release, Sen. Max Baucus (D-MT) took the even more dubious step of proposing only eliminating the manufacturing-job credit for the five largest oil companies. Neither the administration's claims of importance of taxing big oil nor the assertion by some Republican politicians of severe damages is credible. If this were not enough reprise of the 1970s, President Obama has ordered an investigation by the Justice Department of price rigging in the oil market (see, e.g., his May 14, 2011, radio address). This continues a long series of similar unsuccessful fishing expeditions. The only novelty is choosing the Justice Department over either the Commodity Futures Trading Commission—the agency supervising the speculation that is suspect—or the Federal Trade Commission—the main source of prior studies, which uniformly refuted the charges of monopolization.

26. The academic literature on mineral taxation is strongly critical of government reliance on royalties. The distorting effect of levies on sales is standard textbook economics. One review of related issues is Robert T. Deacon, H. E. Frech, and M. Bruce Johnson, *Taxing Energy: Oil Severance Taxation and the Economy* (Oakland, CA: The Independent Institute, 1990). Walter Mead and his colleagues showed long ago the payment-adequacy concern expressed by some members of Congress was unfounded. See Walter J. Mead et al., *Offshore Lands: Oil and Gas Leasing and Conservation on the Outer Continental Shelf* (San Francisco: Pacific Institute for Public Policy Research, 1985). This literature addresses the obvious economic impacts. The difficulties of administration are most clearly seen from the stream of reports from Congress's auditing arm on problems of adequate royalty payments. (That arm was originally called the General Accounting Office [GAO] and became in 2004 the Government Accountability Office [still GAO]). At least three independent study groups, including two on which I served, viewed the resulting morass of data gathering and analysis and still advocated simply improving the analysis. Yet this literature has not had any notable influence on the political world thus far. Congress's favorite reform is introduction of royalties on additional types of mineral production on the public lands. Coal-leasing efforts provided a graphic example. The 1976 Coal Leasing Amendments of 1975 (sic) required royalties on coal production on public lands. For its first major auction of coal leases, the Interior Department could only locate value information on one coal-property sale and had to improvise extrapolation methods. The result was criticism, another commission—on which I served—the design of elaborate new evaluation rules, and languishing coal leasing. See U. S. Commission on Fair Market

Value Policy for Federal Coal Leasing, *Report of the Commission* (Washington: U. S. Government Printing Office, 1984). Subsequent reports of the GAO and the Interior inspector general regularly offer similar recommendations. However, efforts to extend the royalty regime to nonfuel minerals have languished.

27. Vernon L. Smith, "On Divestiture and the Creation of Property Rights in Public Lands," *Cato Journal* 2, no. 3 (Winter 1982): 663–85. See also Terry L. Anderson, Vernon L. Smith, and Emily Simmons, "How and Why to Privatize Federal Lands," Cato Institute Policy Analysis no. 363, November 9, 1999.

28. The text was pasted directly from the posting on WhiteHouse.gov. Similar material was presented in a March 30, 2011, speech at Georgetown University. A supporting document, "Blueprint for a Secure Energy Future" was simultaneously issued. It largely sets broad goals with extensive praise for all the energy-related programs in the Recovery Act.

29. National Energy Policy Development Group, *National Energy Policy* (Washington, 2001). In contrast, on the basis of what is shown on the Energy and Environment page at WhiteHouse.gov, the Obama administration apparently has not produced an overview more detailed than those quoted here.

30. These data are reported monthly by the U.S. Bureau of the Census in *U.S. International Trade in Goods and Services,* http://www.census.gov/foreign-trade/Press-Release/current_press_release/. Each report has a table of monthly totals (without country details) for "energy-related petroleum" and crude oil. A supplementary table breaks down the crude oil amounts and values by country for the most recent months and the year to date. Going from crude oil to total petroleum raises the 2009 daily average to $671 million and the January–April 2010 daily average to $691 million. Moreover, these data are reported in amounts per period; the daily average is not used in normal discussions, and the numbers here are calculated from the report. The amounts obviously decline if imports from stable sources such as Canada and Mexico are subtracted.

31. High-speed rail still operates but only through huge subsidies. These problems did not stop President Obama from calling for high-speed rail, better airports, and faster supercomputers in his November 3, 2010, press conference. Among the many critiques of high-speed rail and related transportation initiatives and the underlying attack on automobiles is Randal O'Toole's work for Cato, appearing in several policy studies and recapitulated in Randal O'Toole, *Gridlock: Why We're Stuck in Traffic and What to Do about It* (Washington: Cato Institute, 2010). See also Randal O'Toole, "Does Rail Transit Save Energy or Reduce Greenhouse Gas Emissions?" Cato Institute Policy Analysis no. 615, April 14, 2008; Randal O'Toole, "High-Speed Rail: The Wrong Road for America," Cato Institute Policy Analysis no. 625. October 31, 2008; Randal O'Toole, "High-Speed Rail Is Not 'Interstate 2.0,'" Cato Institute Briefing Paper no. 113, September 9, 2009. A classic treatment of government technology promotion is Linda Cohen and Roger Noll, *The Technology Pork Barrel* (Washington: Brookings Institution, 1991).

32. Moreover, many economists believe that government should not intervene because intervention is more likely the cause than the cure of instability, and the timing and duration of economic downturns is such that effective reaction is impossible. The text necessarily simplifies a complex debate, which includes heated arguments about the right way to interpret Keynes. The literature on general macroeconomic policy is enormous, with no readily available nontechnical synthesis.

33. This has not prevented the generation of an enormous literature arguing the contrary. A good summary is Eugene Gholz and Daryl G. Press, "Energy Alarmism: The Myths That Make Americans Worry about Oil," Cato Institute Policy Analysis no. 589, April 5, 2007. A more recent, more technical treatment is James L. Smith, "On the Portents of Peak Oil (and Other Indicators of Resource Scarcity)," MIT Center for Energy and Environmental Policy Research, 2010-010.

34. The concern over imports can be traced back at least to the 1950s, when President Eisenhower imposed "mandatory" oil-import quotas using a flimsy national-defense rationale. Then as now, that justification was inconsistent with both general diplomatic and military policy and efforts to assure oil-exporting countries that their oil had markets. The details of the excuses change but never approach reality. The literature is vast. The core is a trilogy of classic books by M. A. Adelman; two being overviews of the situation almost a quarter century apart and the third an anthology of his writings. See M. A. Adelman, *The World Petroleum Market* (Baltimore, MD: Johns Hopkins University Press, 1972); M. A. Adelman, *The Genie out of the Bottle: World Oil since 1970* (Cambridge, MA: MIT Press, 1995); M. A. Adelman, *The Economics of Petroleum Supply: Papers by M. A. Adelman 1962–1993* (Cambridge, MA: MIT Press, 1993). The costs of import dependence are treated in an extensive subliterature on an import premium. The estimates range from zero up to several dollars per barrel, and higher numbers include the unavoidable costs of persistent monopoly as well

as those related to disruption. I am on record at least since 1992 as saying that zero is the correct number (see my "Energy Intervention after Desert Storm: Some Unfinished Tasks," *Energy Journal* 13, no. 4 [1992]: 1–15). The most careful discussion of security is Douglas R. Bohi and Michael A. Toman, *The Economics of Energy Security* (Boston: Kluwer Academic Publishers, 1996). A good treatment of the history is Douglas R. Bohi and Milton Russell, *Limiting Oil Imports: An Economic History and Analysis* (Baltimore: Johns Hopkins University Press, for Resources for the Future, 1978). A later skeptical view of the premium and the use of strategic reserves to offset the dangers is Jerry Taylor and Peter Van Doren, "The Case against the Strategic Petroleum Reserve," Cato Institute Policy Analysis no. 555, November 21, 2005. A good survey of newer developments is James L. Smith 2009, "World Oil—Market or Mayhem?" *Journal of Economic Perspectives* 23, no. 3 (Summer 2009): 145–164. Another solid effort is James M. Griffin, *A Smart Energy Policy: An Economist's Rx for Balancing Cheap, Clean, and Secure Energy* (New Haven: Yale University Press, 2009). He argues that if anything should be done about import dangers or global warming, it should be taxation. He takes the unnecessary further step of arguing that such action is desirable, but by presenting a wide range of possible taxes, he inadvertently discloses the difficulty of determining what the right numbers should be. One perennial issue is the impact of oil price shocks on inflation and unemployment. A good survey of the literature is Lutz Kilian, "The Economic Effects of Energy Price Shocks," *Journal of Economic Literature* 46, no. 4 (December 2008): 871–909. Kilian himself has updated the study with "Not All Oil Price Shocks Are Alike: Disentangling Demand and Supply Shocks in the Crude Oil Market," *American Economic Review* 99, no. 3 (June 2009): 1053–69.

35. Moreover, Venezuela is heavily dependent on U.S. markets given its proximity to the United States, the availability of refineries suited to Venezuelan crude, and its ownership of the U.S. refiner/marketer Citgo. Since 1960 (the starting point of Energy Information Administration [EIA] tabulation oil-import data) the Venezuelan share of U.S. oil imports dropped from 50 percent to 8.4 percent. These data are calculated from the Internet versions of two EIA reports: *Annual Energy Review* (http://www.eia.gov/totalenergy/data/annual/) and *Monthly Energy Review* (http://www.eia.gov/totalenergy/data/monthly/). The annual review presents, when available, data starting in 1949; the report is one of the few from EIA still available in printed form. The coverage in the monthly review, now an Internet-only publication, starts in 1973. The downloadable spreadsheet versions of the tables in both reports contain all the available data for the time periods covered. Since the latest annual review available on September 4, 2011, only goes to 2009, 2010 data come from the monthly review.

36. Sensible thinking about Saudi Arabia is difficult to find. However, Adelman correctly argues that the Saudis simply protect their economic interest and that the perennial efforts by the U.S. government to cajole Saudi Arabia to alter production are exercises in futility. More broadly, the term ally is too loosely used to characterize any relationship that involves some cooperation, however grudging or limited.

37. The clearest statement was made in "Remarks by the President at CEO Business Summit in Brasilia, Brazil" on March 19, 2011. Some critics have pounced on an earlier decision by the U.S. Export-Import Bank to aid Brazilian oil investments as a further element of this strategy. However, that loan was announced in 2009. While the administration insists that this was an independent decision, the president of the Bank joined Obama on his Latin American trip. Not so incidentally, the Bank is another example of unjustified intervention.

38. The literature previously cited suggests that price rigging by the OPEC member states is attempted but quite awkwardly.

39. This applies to all policies, so energy is not special in this regard. Further drawbacks are that the OPEC countries can retaliate, and resort to trade restriction sets a bad example. As noted, Griffin provides an excellent statement of the case for energy and environmental taxes as the preferred solution if action is needed.

40. A surprisingly large literature was generated from Martin L. Weitzman, "Prices vs. Quantities," *The Review of Economic Studies* 41, no. 4 (October 1974): 477–91. He suggested that differences in the certainty about different characteristics of the market being regulated should determine the choice between a price instrument such as taxes and a quantity measure such as tariffs. The practical problem, apparently not discussed in the literature, is that great uncertainties prevail about everything relevant, so we do not know whether available estimates are too high or too low, and no clear guidance arises. Thus, the traditional argument remains the only relevant one.

41. The problems culminated in a rare government effort to treat the problem seriously. The resulting report by the U. S. Cabinet Task Force on Oil Import Control, *The Oil Import Question: A Report on the Relationship of Oil Imports to the National Security* (Washington: U. S. Government Printing Office, 1970), provided a solid treatment of the is-

sues, as did Douglas R. Bohi and Milton Russell. Problems always arise with quotas. The best that can be said of the U.S. program is that it avoided the blatant undercover bribery that occurs under weaker political systems. To be sure, much favoritism arose from underlying political pressures. Another common misunderstanding is that large oil companies are favored when politicians hand out rents. Actually, policies in this and most other cases favored smaller-scale operators. While this is often defended by the argument that smaller operators are disadvantaged and in need of comparatively more governmental "help," the smaller oil companies in this case were closely held and the owners probably had much higher-than-average incomes. The opposite is probably true of large companies in oil and elsewhere in which the holdings are much more broadly distributed. The complaints from England about the losses to U.K. pensioners that followed from reduced BP dividends nicely illustrate this situation.

42. Indeed, the initial program perversely used price ceilings that discouraged domestic oil and natural gas production. Moreover, the rules altering oil costs to refineries also had the effect of subsidizing oil imports. While the price controls ended in the 1980s, the direct controls multiplied. A massive study of this experience is Robert L. Bradley Jr., *Oil Gas, and Government: The U.S. Experience,* vols. 1 and 2 (Lanham, MD: Rowman and Littlefield, 1996). The motivations of this policymaking remain unclear, but the bias toward creating new programs was obviously at work. Beyond that, the legislation is characterized by a mindless, scattershot adoption of a grab bag of bad ideas.

43. The high level of oil dependence has prevailed since the disappearance by the middle 1950s of coal-fired locomotives. These data also are calculated from the Internet versions of two EIA reports: *Annual Energy Review and Monthly Energy Review*.

44. At least since 1949, coal has been the largest single source of electricity generation. From 1981 to 2008, electricity consistently accounted for the majority of inputs into electricity generation. The drop to 48 percent in 2009 and the only slight reversal in 2010 mostly reflect that coal generation bore the bulk of reduced energy use in 2009. Conversely, other coal uses declined as consumption by electricity rose; as of 2010, over 93 percent of coal was used in electricity generation. Coal involves both a high greenhouse-gas emission per Btu and increased Btu needs primarily because of lower thermal efficiency than the newest combined-cycle gas-fired units.

45. The literature here too is extensive. A good summary of the economics is James Eaves and Stephen Eaves, "Neither Renewable nor Reliable," *Regulation* 30, no. 3 (Fall 2007). An extensive survey with presentations with citations by advocates and critics of ethanol production "Economics of Ethanol: Costs, Benefits, and Future Prospects of Biofuels," made up the Federal Reserve Bank of St. Louis's *Regional Economic Development* 5, no. 1 (2009). The environmental issues are reviewed in Robert K. Niven, "Ethanol in Gasoline: Environmental Impacts and Sustainability Review Article," *Renewable and Sustainable Energy Reviews* 9, no. 6 (December 2005): 535–55.

46. "Blueprint for a Secure Energy Future," p. 23. The speech called for generation of 85 percent of electricity from "clean" sources. The speech stated "By 2035, 80 percent of our electricity needs to come from a wide range of clean energy sources—renewables like wind and solar, efficient natural gas. And, yes, we're going to have to examine how do we make clean coal and nuclear power work." The "Blueprint" (pp. 6–7) more clearly said "By 2035, we will generate 80 percent of our electricity from a diverse set of clean energy sources—including renewable energy sources like wind, solar, biomass, and hydropower; nuclear power; efficient natural gas; and clean coal."

47. See, for instance, Andrew N. Kleit, "Impacts of Long-Range Increases in the Fuel Economy (CAFE) Standard," *Economic Inquiry* 42, no. 2 (April 2004): 279–94.

48. As noted, Cato's Randal O'Toole has written extensively on the drawbacks of rail and mass transit. O'Toole, "Does Rail Transit Save Energy or Reduce Greenhouse Gas Emissions?"; O'Toole, "High-Speed Rail The Wrong Road for America,"; O'Toole, "High-Speed Rail Is Not 'Interstate 2.0.'" His overview of transportation issues is O'Toole, *Gridlock: Why We're Stuck in Traffic and What to Do about It*.

49. One of many good summaries of the scientific uncertainties is Jason Scott Johnston, "Global Warming Advocacy Science: A Cross Examination," Institute for Law and Economics, Research Paper 10-08, University of Pennsylvania Law School, May 2010.

50. The relevant literature is vast with most of the economic analysis predating the disclosure of severe problems with the underlying science. See Richard S. J. Tol, "The Economic Effects of Climate Change," *Journal of Economic Perspectives* 23, no. 3 (Spring 2009): 29–51, for an effort to appraise the imperfect state of economic appraisal that includes extensive citations of the key contributors.

51. Tol's article is the most recent statement of which I am aware of this viewpoint about the vast but unsatisfactory relevant literature, but any

economist open-mindedly reading the literature should reach a similar conclusion.

52. A striking example of the criticality of inclusion of China and India is Kelly Sims Gallagher, ed., *Acting on Time on Energy Policy* (Washington: Brookings Institution, 2009). Another recognition from a radically different outlook is Griffin. Among the sharpest criticisms of the Kyoto Protocol is William D. Nordhaus, "After Kyoto: Alternative Mechanisms to Control Global Warming," *The American Economic Review* 96, no. 2 (May 2006): 31–4.

53. The defects of environmentalism have inspired many books. Two of note are Gregg Easterbrook, *A Moment on the Earth: The Coming Age of Environmental Optimism* (New York: Viking, 1995) and Bjørn Lomborg, *The Skeptical Environmentalist: Measuring the Real State of the World* (Cambridge: Cambridge University Press, 2001). Both provoked vitriolic counterattacks by environmentalists. Their approaches differ radically. Easterbrook is a journalist who, because of his distrust of free markets, muddles his arguments. Lomborg, a statistician, started his work seeking to refute the criticisms of Simon and ended up confirming him. See Simon. Patrick J. Michaels, ed., *Climate Coup: Global Warming's Invasion of Our Government and Our Lives* (Washington: Cato Institute, 2011) is an excellent compilation of the defects of global-warming advocacy.

54. Coase's "The Problem of Social Cost" shows that in principle, bribes not to pollute could produce the same results as a tax, but subsidy design has the same problems as allocating emission rights.

55. This is an illustration of an inevitable problem in policy analysis. Deciding what is fair generates a vast literature notable for failure to reach consensus, and another defect of intervention is the inability to determine the actual distribution of effects among those affected.

56. The bill is divided into five parts–Title I Clean Energy (304 pages), Title II Energy Efficiency (351 pages), Title III Reducing Global Warming Pollution (410 pages), Title IV Transitioning to a Clean Energy Economy (299 pages), and Title V Agricultural and Forestry Related Offsets (41 pages). Preliminaries take the first 16 pages.

57. This comes from U.S. House of Representatives, Committee on Energy and Commerce, The American Clean Energy and Security Act (H.R. 2454): Section-by-Section (Washington, July 14, 2009), p. 13, http://democrats.energycommerce.house.gov/Press_111/20090720/hr2454_sectionsummary.pdf.

58. The efforts are marked by the repeated participation of several vigorous proponents of massive intervention. See the National Commission on Energy Policy, *Ending the Energy Stalemate: A Bipartisan Strategy to Meet America's Energy Challenges,* 2004. Despite its name, the commission was funded by private foundations (Hewlett, Pew, MacArthur, and Packard plus the Energy Foundation, a consortium of foundations including Hewlett and Packard). Participants went on to participate in later efforts. Most notably John Holdren, then a Harvard professor and a long-time energy interventionist and depletion doomsayer, was the co-chair. Other members included Philip Sharp, now the president of Resources for the Future, and former CIA director James Woolsey, who has become ubiquitous in spreading energy alarmism.

59. National Petroleum Council, *Hard Truths: Facing the Hard Truths about Energy: A Comprehensive View to 2030 of Global Oil and Natural Gas*, Washington, 2007). Despite the large number of participants, Philip Sharp, a member of two subcommittees, and Linda Stuntz, a former DOE official, are the only overlaps with the commission. The curiosity of the report is that it rejects import alarmism and is equivocal about global warming but still advocates the same nostrums as the other reports cited here.

60. The most relevant here is Gallagher. It is a report of a conference at Harvard's Kennedy School of Government. John Holdren is among the contributors.

61. John Deutch and James R. Schlesinger, chairs, *National Security Consequences of U.S. Oil Dependency Report of an Independent Task Force* (New York: Council on Foreign Relations, 2006). The council effort is another example of those involved in the policies of the '70s trying to resell their ideas. Co-chairman Deutch, a longtime MIT professor, was a Department of Energy official in the Carter administration and later director of the CIA. James Schlesinger is a former CIA director and secretary of defense and the first secretary of energy. Phil Sharp and Linda Stuntz reappear.

62. CNA, *Powering America's Defense: Energy and the Risks to National Security* (Washington, 2009). The Energy Foundation was one of the sponsors.

63. American Physical Society, *Energy Future: Think Efficiency: How America Can Look within to Achieve Energy Security and Reduce Global Warming* (n.p. 2008). This too was supported by the Energy Foundation. In contrast, over a century ago, to convert the American Economic Association from the home of interventionist economists to a broad professional group, the association adopted a policy of taking no stands on public debates, so members were free independently to state opinions. Here we have physicists with no competence

to deal with these issues using their professional society to advocate a command-and-control approach that even many economists who accept the need for action feel is an ill-advised route.

64. Resources for the Future and the National Energy Policy Institute (Alan J. Krupnick, et al.) *Toward a New National Energy Policy: Assessing the Options* (Washington: Resources for the Future, 2010). Foreign-policy alteration is the report's main concern (p. 12). This appears in the introductory chapter and is another example of gratuitous acceptance of the prevailing cant undermining a report that is largely a useful effort to quantify the effects of assuming the concerns are valid. Curiously, John Deutch returns as the author of a supporting paper on "Oil and Gas Energy Security Issues" that is more moderate than most studies on the political security dangers and hardly justification for the main report's declaration.

65. Namely, Gallagher.

66. Rice University's James A. Baker III Institute for Public Policy (http://www.bakerinstitute.org/programs/energy-forum) produces numerous papers but no recent extensive overview.

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