



OIL AND THE IRAQ WAR: HOW THE UNITED STATES COULD HAVE EXPECTED TO BENEFIT, AND MIGHT STILL

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This article elaborates on the potential oil-related benefits to the United States of regime change in Iraq, especially as they might have appeared prior to the final decision to go to war in late 2002 and early 2003. It first describes the importance of Persian Gulf oil to world oil markets. It then discusses the nature of the threat posed by Iraq under Saddam Hussein to the other oil-producing states in the region. In a third section, it identifies the constraints that had hobbled Iraqi oil production and the potential benefits of removing those constraints. The conclusion considers the implications for U.S. policy in Iraq.

The Bush Administration has offered a variety of justifications for its decision to go to war against Iraq. Initially, it emphasized the threat to U.S. national security posed by Iraq's alleged possession of weapons of mass destruction and ties to international terrorists. More recently, it has stressed the need to promote democracy in the Middle East. Along the way, it has also highlighted Saddam Hussein's despotic rule and human rights abuses.

Conspicuously absent from these justifications has been any discussion of the possible oil-related benefits. To the contrary, members of the administration have been virtually silent on the subject. The major public statements made by President George W. Bush, Vice President Richard Cheney, Secretary of State Colin Powell, or Secretary of Defense Donald Rumsfeld have contained hardly any mention of oil. And defenders outside the government of the administration's policy have flatly denied that the war had anything to do with

it.¹

This silence on the question of oil is puzzling in view of what is arguably most distinct about Iraq's circumstances. Other rogue states have been much closer to acquiring nuclear weapons than was Iraq in early 2003, and others have had more extensive ties to anti-American terrorists. Likewise, a number of other states around the world have fallen equally short of adhering to democratic principles or have engaged in massive human rights abuses. But of all the states where the United States has considered regime change, Iraq is one of only a few to possess substantial amounts of oil, and it sits squarely in the middle of nearly two-thirds of the world's proven oil reserves.

Precisely for this reason, a primary justification offered by the U.S. government for going to war in 1990-91 was the economic benefits of ending Iraq's occupation of Kuwait.² And not surprisingly, critics of the 2003 war, both in the United States and abroad, frequently

argued that a principal U.S. motive for deposing Saddam Hussein was to gain access to Iraq's substantial oil resources and thereby obtain leverage over world oil supplies and prices.³ Indeed, according to a Pew Research Center poll conducted shortly before the war began, a majority of respondents in France (75 percent), Germany (54 percent), and Russia (76 percent) agreed with the statement that "the United States wanted to control Iraqi oil."⁴

Of course, it is possible that oil-related considerations did not play a significant role in the administration's decision to go to war. Certainly, despite the problems with the arguments employed by the administration officials that have been pointed out, a number of other seemingly plausible rationales existed in early 2003 for taking military action. Moreover, the administration's well-documented failure to prepare adequately for the subsequent occupation of Iraq suggests a surprising disregard for many other practical matters associated with the war.⁵

Even if oil did not figure prominently in the administration's decision-making process, however, one should not conclude that the potential oil-related consequences were unimportant. To the contrary, the United States could have been expected to benefit significantly with regard to oil in at least two ways.

First, the elimination of Saddam Hussein's regime could have been expected to end once and for all Iraq's long-standing threat to dominate either directly or through coercion the vast oil resources of the Gulf. Although Iraq may not have possessed any usable weapons of mass destruction or may have been deterred from

using them by the United States, both the UN sanctions' regime and the U.S. military presence in the region were coming under strain and might not have been expected to contain and deter Iraq indefinitely.

Second, regime change could have been expected to free up Iraq's substantial oil production potential, which had been artificially constrained by war damage, sanctions, and a lack of investment. Both of these changes could in turn have been expected to increase the stability of world oil markets in the medium to long term.

Of course, the degree to which these potential benefits will in fact be realized remains to be seen. On the one hand, the war has ended for the foreseeable future the threat posed by Iraq to its neighbors. On the other hand, the prospects for rehabilitating and expanding Iraq's oil sector remain uncertain, at least in the short term. Nevertheless, and regardless of the role oil may have played in the administration's prewar calculus, the magnitude of the potential oil-related benefits give the United States a continuing interest in helping to ensure that Iraq is able to rehabilitate and expand its oil production and export capacity.

This article elaborates on the potential oil-related benefits to the United States of regime change in Iraq, especially as they might have appeared prior to the final decision to go to war in late 2002 and early 2003. It first describes the importance of Persian Gulf oil to world oil markets. It then discusses the nature of the threat posed by Iraq under Saddam Hussein to the other oil-producing states in the region. In a third section, it identifies the constraints that had

hobbled Iraqi oil production and the potential benefits of removing those constraints. The conclusion considers the implications for U.S. policy in Iraq.

BACKGROUND: THE IMPORTANCE OF PERSIAN GULF OIL TO THE UNITED STATES

In 2002, just prior to the Iraq war, the United States consumed approximately 19.7 million barrels per day (MMBD) of oil. Of this, 10.5 MMBD (53 percent) represented net imports, but only 2.3 MMBD--12 percent of U.S. consumption--came from the Middle East.⁶ Nevertheless, the United States could be severely affected by a disruption of Persian Gulf oil supplies through two mechanisms. First, such a disruption would negatively impact the economies of major U.S. trading partners in Europe and Asia, which are more heavily dependent on imported oil in general and Persian Gulf oil in particular. An oil-shock induced recession in those areas would undoubtedly ripple through the world economy, with deleterious effects for levels of production and employment in the United States, regardless of the level of U.S. oil imports.⁷

Second, even if the United States did not import a single barrel of oil from the Persian Gulf, a sharp increase in the price of oil on world markets following a disruption of oil supplies from the region would inevitably cause oil prices to rise just as much within the United States.⁸ This is because "the United States and the other

major oil importers are all part of a single, seamless oil market driven by supply and demand..."⁹ As long as a country either imports significant amounts of oil or allows the price of domestically produced oil to be determined by world oil markets, it will be vulnerable to the effects of oil supply interruptions wherever they may occur. And in 2002, some 41.4 percent of all oil exports (18.1 of 43.6 MMBD) came from the Middle East.¹⁰

Although levels of oil consumption and production are notoriously difficult to forecast, the importance of Persian Gulf oil is likely only to increase in the coming decades. Global demand for oil has risen by some 30 percent over the last 20 years, and in early 2003, the U.S. Energy Information Administration (EIA) projected that demand would grow from 77.1 MMBD in 2001 to 118.8 MMBD by 2025, a further increase of more than 41 MMBD or 54 percent.¹¹ The EIA also predicted that net oil imports by the United States, Europe, and Japan would grow, with those of the United States nearly doubling to 19.8 MMBD by 2025.

Simultaneously, the Middle East has been expected to loom ever larger in world oil markets. According to recent EIA and International Energy Agency (IEA) projections, the Middle East's share of total oil production (28.4 percent in 2002) may increase to more than 34 percent in 2025¹² and then 43 percent in 2030.¹³ Likewise, the EIA projected that the share of all oil exports coming from the Persian Gulf would exceed 67 percent by 2020.¹⁴

The main reason for the centrality of the Persian Gulf in these projections is the fact that nearly two-thirds of the world's proven oil reserves lie in the region. In 2002, Saudi Arabia alone possessed a quarter of all proven oil reserves (262 billion barrels), and Iraq itself ranked second, with nearly 11 percent (112.5 billion barrels). Most of the balance was provided by Kuwait (9.2 percent), Iran (8.6 percent), and the United Arab Emirates (9.3 percent).¹⁵

In view of the importance of Persian Gulf oil to the United States, it should come as no surprise that a principal goal of U.S. national security policy since World War II, and especially since the 1970s, has been to guarantee access to that oil for the United States and its allies, if necessary through the use of military force. When this policy was first publicly articulated in the form of the Carter Doctrine in early 1980, shortly after the Soviet invasion of Afghanistan, the ostensible concern was that a hostile external power might attempt to gain control of oil supplies in the region. Especially since the end of the cold war, however, the most likely risks have taken two other forms.

A leading such risk is the danger that one or more states with control over a substantial share of world oil exports would attempt to exploit their market power to raise prices or to exert political pressure, most likely to the detriment of the United States. The classic example of the use of the so-called "oil weapon" was the 1973 Arab oil embargo, which demonstrated that the amount of oil involved need not be substantial in order to have major effects. In that case, a temporary reduction in Arab oil production of

less than 25 percent (representing less than ten percent of global production) nevertheless contributed to a four-fold increase in oil prices.¹⁶ Similar fears followed Iraq's seizure of Kuwait in 1990, which if uncontested would have left the former in control of some 20 percent of proven oil reserves and in a better position to exercise coercive influence over Saudi Arabia.

The other risk is that of a sudden disruption of Persian Gulf oil supplies as a result of an intra-regional conflict or internal upheaval. Such disruptions have occurred several times in the past, although with varying consequences. Because of the ready availability of alternative sources of oil, neither the closure of the Suez Canal in 1956 nor the loss of Iraqi and Kuwaiti production during the 1990-91 Gulf War had a major impact on world oil supplies and prices. In contrast, both the Iranian Revolution and the subsequent outbreak of the Iran-Iraq War reduced the flow of oil from the region to such an extent that global supplies were affected and prices again increased sharply, more than doubling in the former instance.

ENDING THE IRAQI THREAT TO DOMINATE GULF REGION

The first way in which the United States might have been expected to benefit from regime change was by ending the long-standing Iraqi threat under Saddam Hussein to dominate the Persian Gulf and its oil resources. In 1980, Iraq attacked Iran, seeking to exploit the internal turmoil roiling its neighbor to make a variety of political and territorial gains. Then in 1990, just two years after the conclusion of the Iran-Iraq War, Iraq invaded and quickly occupied

Kuwait, and it seemed poised to threaten Saudi Arabia as well.

Following the 1991 Gulf War, the threat posed by Iraq to its neighbors was neutralized by a combination of UN sanctions and a greatly increased U.S. military presence in the region. The former made it difficult for the country to reconstitute its military power, while the latter was intended to deter any future Iraqi attempts at aggression. Nevertheless, many outside observers believed that Saddam Hussein had abandoned neither his ambitions to dominate the Gulf nor his efforts to develop an arsenal of weapons of mass destruction that would help him to realize that goal. As time passed, moreover, it was becoming increasingly difficult to maintain both the sanctions required to limit Iraq's military power and the U.S. military presence required to deter its use. Consequently, as the Bush Administration settled into office in 2001, it was possible to imagine that Saddam Hussein might once again make a bid for regional hegemony and control over the Gulf's oil resources if he were allowed to remain in power.

A. Nature of the Threat

Indeed, prior to the invasion of Iraq in March 2003, members of the Bush Administration justified a tough U.S. policy primarily in terms of the threat that Iraq posed to the United States and its most fundamental interests. Iraq was described in no uncertain terms as possessing a substantial arsenal of weapons of mass destruction that might soon include nuclear

weapons, and high-level officials insisted that Saddam Hussein would not hesitate to use these weapons directly once it had the opportunity or to make them available to terrorists. As Vice-President Cheney told an audience in Nashville in August 2002, "Simply stated, there is no doubt Saddam Hussein has weapons of mass destruction. There is no doubt that he is amassing them to use against our friends, against our allies, and against us. And there is no doubt that his aggressive regional ambitions will lead him into future confrontations with his neighbors."¹⁷

As a result, much has been made of the fact that no weapons of mass destruction have been found in Iraq. Nevertheless, prior to the war, U.S. and other Western intelligence agencies believed that Iraq probably possessed significant quantities of chemical and biological weapons (or the ability to produce them) and that it had an active nuclear weapons program.¹⁸ Most importantly, many reasonable people feared that Saddam Hussein would be able to acquire a formidable arsenal of nuclear weapons in as little as a few years, if left unchecked. Kenneth Pollack, a former CIA and NSC official, presented one of the most compelling cases for military action. In his view, Iraq had essentially figured out how to build nuclear weapons, had been able to hang on to most of the knowledge and equipment that it needed, and was probably working to enrich uranium. Consequently, according to German and U.S. intelligence estimates he cited, Iraq might have been able to

make a nuclear weapon in as few as three to five years. And, Pollack concluded, if Iraq was able to buy enriched uranium, as it appeared to be attempting to do, "it could probably build a workable device in a year or two."¹⁹

Largely overlooked in the debates over Iraq's weapons of mass destruction (WMD), moreover, were the country's conventional military capabilities. Yet these, too, posed a significant potential threat to its neighbors, just as they had in the past. As Pollack also observed, "Despite the devastation of the Gulf War and sanctions, Iraqi forces remain large enough to give them an edge over any single Persian Gulf state or any combination of them.... Moreover, Iraqi forces possess a qualitative edge over the Persian Gulf states that magnify their quantitative advantage."²⁰ To be sure, the Gulf War and subsequent UN sanctions had exacted a considerable toll, especially in the area of logistics. As a result, "Iraq almost certainly ha[d] lost the ability to mount sustained ground offensives that could threaten GCC oil production beyond Kuwait and, perhaps, northernmost Saudi Arabia."²¹ Nevertheless, he continued, in the absence of U.S. forces, the Republican Guards could probably overrun Kuwait again as they did in 1990, albeit with greater difficulty because of the state of Iraqi logistics. Iraqi forces might be able to undertake similarly limited operations versus Saudi Arabia, Jordan, and Iran, although they probably could not replicate the multi-corps offensives they staged against Iran in 1988. Thus, Pollack concluded, "Even in their current weakened state, Iraq's [conventional] capabilities would pose a significant threat to regional stability if the

United States were ever to pull its forces out of the region."²²

What might Saddam Hussein have been expected to do with such an arsenal? Even with nuclear weapons, it is almost inconceivable that he would have tried to attack directly the United States or any of its traditional allies, including Israel. Such an attack would certainly have been met by a devastating response. Hardly more likely was the possibility that Saddam would have provided weapons of mass destruction to terrorists bent on striking the United States. Any weapons so used might well have been traced back to their source, prompting no less devastating a retaliation, and even if no direct link could have been found, U.S. officials are likely, with some justification, to have blamed Saddam and responded accordingly. Thus, Pollack flatly concluded, "Terrorism is the least of the threats posed by Iraq to the interests of the United States," and "Saddam Hussein is not likely to give weapons of mass destruction to terrorists."²³

Instead, the far more likely scenario was that Iraq would have sought to use its weapons to dominate the Middle East, and especially its oil-rich neighbors, as evidenced not least by its previous behavior. In Pollack's view, "Saddam Hussein [was] determined to overturn the status quo to make himself the hegemon of the Persian Gulf region and the leader of the Arab world...."²⁴ Likewise, Vice President Cheney argued in his August 2002 Nashville speech, "Armed with an arsenal of these weapons of terror, and seated atop ten percent of the world's oil reserves, Saddam Hussein could then be expected to seek domination of the entire

Middle East [and] take control of a great portion of the world's energy supplies..."²⁵

If Saddam Hussein achieved this objective, Pollack noted, "He [would] use this power to advance Iraq's political interests, even to the detriment of its economic interests and the world's... If Saddam Hussein were ever to control the Persian Gulf oil resources, his past record suggests that he would be willing to cut or even halt oil exports altogether whenever it suited him, in order to force concessions from his fellow Arabs, Europe, the United States, or the world as a whole."²⁶ And even if he failed, he could still wreak considerable havoc on the region and world oil supplies. Thus, Cheney concluded in a retrospective defense of the decision to go to war, "had we followed the counsel of inaction, the Iraqi regime would still be a menace to its neighbors and a destabilizing force in the Middle East."²⁷

B. Growing Difficulties with Containing and Deterring Iraq

Fortunately, Saddam had not yet been able to realize his ambition of regional hegemony. Iran had managed to reverse its initial losses in the Iran-Iraq War, and the United States and others had intervened decisively to roll back the Iraqi occupation of Kuwait. Subsequently, the UN mandated the destruction of Iraq's WMD, imposed inspections to verify Iraqi compliance, and erected a tough sanctions regime to prevent Iraq from reconstituting its conventional and unconventional military capabilities. In addition,

the United States had established a significant military presence in the Gulf designed to deter any future Iraqi acts of aggression.

For the better part of a decade, these measures were largely successful at neutralizing the Iraqi threat. In the late 1990s, however, UN inspections were ended and, as time wore on, the sanctions regime and important components of the U.S. military presence had become increasingly difficult to maintain. As a result, one could again imagine a time when Saddam Hussein would once more be free to pursue his goal of dominating the Gulf.

A number of countries, including some permanent members of the UN Security Council, had never been enthusiastic about the sanctions in view of the costs they imposed and the lost economic opportunities they represented. And over the years, the sanctions had come under increasing international criticism because of the humanitarian crisis that they were allegedly causing in Iraq. In the mid-1990s, the Security Council had made a serious attempt to address the latter problem by allowing Iraq to export a considerable amount of oil in order to earn the foreign exchange required to purchase foodstuffs, medicines, and other humanitarian supplies abroad, the so-called "oil for food" program. But the crisis did not seem to abate, in no small part because of Saddam's deft manipulation of the sanctions, and pressure continued to grow to eliminate or at least dilute the sanctions substantially. Thus in December 1999, the Security Council lifted the cap on the

amount of oil Iraq could sell and greatly expanded the types of goods it could import.

At the same time, Saddam Hussein was proving increasingly adept at evading the sanctions. Iraq was able to divert a rapidly growing amount of oil from legitimate sales via the oil for food program to smuggling by truck, pipeline, and boat. In 1999, according to Kenneth Pollack, the United States estimated that only about five percent of Iraq's oil revenues were skirting the UN system, whereas just two years later, that share had grown to roughly 20 percent.²⁸ Simultaneously, Iraq had also managed since 2000 to skim money from the legitimate oil sales by demanding surcharges on each barrel of sold. All told, Pollack estimated, "Whereas as recently as 1999, Saddam's regime netted only about \$350 million [outside the oil for food program], in 2002 it will rake in \$2.5-3 billion, representing 15-22 percent of all Iraqi revenue."²⁹ This was a vast sum that Saddam could spend however he liked, and Iraq was "using the money to import prohibited items for its conventional military and WMD programs."³⁰

In the face of these mounting challenges to the sanctions regime, the Bush Administration pursued a two-prong strategy. On the one hand, it agreed to loosen further restrictions on the import of civilian goods while attempting to ensure that items with overt military applications remained blocked in order to blunt the pressure to end sanctions altogether. On the other hand, it sought to deal with the problem of smuggling by bringing illegal oil shipments within the UN program. By mid-2002, however, both efforts had floundered in the face of determined opposition to any toughening of the sanctions

from Russia, France, and China, which favored even looser restrictions, and the Security Council could agree on no more than narrowing the list of prohibited dual-use items.³¹

As a result, U.S. officials could not count on the sanctions regime to remain effective at containing Saddam's military power indefinitely. To the contrary, according to Pollack, "the changes the UN agreed to in the spring of 2002... [Would] probably allow Iraq to make a partial recovery of its Gulf War military strength.... Within a period of as little as three to five years, Iraqi may be able to recover its former logistical prowess...."³²

Of course, a robust U.S. military presence in the Gulf region might have been sufficient to keep even a strengthening Iraq in check, although there was some question as to whether it could deter a nuclear-armed Saddam Hussein. In any case, however, the difficulties of maintaining the critical American military presence were growing. The problem was most acute in Saudi Arabia, where U.S. military facilities had already been subjected to attacks. In fact, the U.S. presence in the land of Islam's two holiest shrines was stoking anti-American sentiment throughout the Muslim world, as well as criticism of the Saudi ruling family. Indeed, Usama bin Ladin had cited it as a major reason for his war against the United States.

One immediate consequence of this growing antipathy was the imposition of restrictions on how U.S. forces in the region could be employed. Most prominently, Saudi Arabia insisted in 2001 that American bases on its soil not be used to carry out air strikes against the Taliban in Afghanistan, although it did allow the

United States to use the command and control center at Prince Sultan airbase to coordinate the air campaign.³³ More fundamentally, it raised questions about the long-term viability of the American military presence. Indeed, regional expert Gregory Gause concluded, "After the attacks of September 11, 2002, an American military presence in the kingdom [was] no longer sustainable in the political system of either the United States or Saudi Arabia."³⁴ Consequently, as Kenneth Pollack wrote in mid-2003, "The best way for the United States to address the rise of terrorism and the threat of internal instability in Saudi Arabia and the other GCC states would be to reduce its military presence in the region to the absolute minimum, or even to withdraw entirely."³⁵

Instead, the United States would have to rely increasingly "on the smaller gulf monarchies to provide the infrastructure for its military presence in the region."³⁶ It had already made use of these countries, especially Kuwait and Bahrain, which had hosted U.S. forces, and there were several reasons to expect greater acceptance of the American military in those states than in Saudi Arabia. Nevertheless, an American presence there was not unproblematic, and Gause concluded, "A close military association with the United States might become more difficult to sustain domestically in the future." Public opinion, where it could be measured, held unfavorable views of U.S. policies in the region, and elections were expected to result in parliaments that were less supportive of U.S. policy objectives than

were the ruling regimes.³⁷

In view of these developments, it became reasonable to fear that the political-military edifice erected to contain and deter Iraq following the Gulf War might not last. Instead, it would become increasingly difficult to prevent Iraq from acquiring weapons of mass destruction and from embarking once again upon the path of regional domination, with tumultuous consequences for world oil markets. Indeed, this danger was recognized by Rumsfeld and a number of other future high-level Bush Administration officials in a January 1998 letter to President Clinton:

If Saddam does acquire the capability to deliver weapons of mass destruction, as he is almost certain to do if we continue along the present course, the safety of American troops in the region, of our friends and allies like Israel and the moderate Arab states, and *a significant portion of the world's supply of oil* will all be put at hazard (emphasis added).⁸

The only sure way to avoid this highly undesirable outcome would be to make certain that Saddam did not outlast the UN sanctions regime and the U.S. military presence.

FREEING UP IRAQI OIL PRODUCTION

A second general way in which the United States might have been expected to benefit from the removal of Saddam Hussein was through the

effect such a move might have on Iraqi oil production and exports.

A. Iraq's Oil Production Potential

By all accounts, Iraq has had the potential to be one of the world's largest oil producers and exporters. In 2002, it possessed the second-largest proven oil reserves, approximately 112 billion barrels, and its probable and possible reserves have been estimated as high as 220 billion barrels. Ninety percent of the country, including most of its Western desert, has not been explored. Of the 74 oil fields--including nine supergiant fields--that had been discovered and evaluated as of 2002, moreover, only 15, containing less than 40 billion barrels, had actually been developed.³⁹ In short, "Iraq is one of the few countries where giant and even supergiant fields have been discovered but remain undeveloped and where the probability of further discoveries is among the highest."⁴⁰

Not only does Iraq boast substantial untapped reserves, but its oil exploration, development, and production costs are among the lowest. Because Iraq's oil is often close to the surface, it is more easily accessible than in many parts of the world, and it has been necessary to drill only a relatively small number of wells--approximately 2,300 in all of Iraq compared with about one million in Texas alone--to exploit it.⁴¹ According to one estimate, the cost of future expansion around the existing major fields should be in the region of \$1.9 billion per MMBD of production capacity in the south and \$950 million per MMBD in the north. New production capacity in other discovered fields would cost \$3-4 billion per MMBD and

should not exceed \$5 billion per MMBD.⁴² And once the wells are in the ground, Iraqi oil costs as little as a dollar per barrel to produce.⁴³

Nevertheless, for political reasons, Iraq's oil potential was developed relatively slowly. In 1961, shortly after gaining its independence, Iraq revoked almost the entire oil concession held by the privately owned Iraq Petroleum Company. As a result, foreign investment in new exploration and production virtually stopped, and Iraqi output edged up only gradually through the 1960s, achieving an annual rate of just 1.55 MMBD in 1970.⁴⁴ It was only after the oil industry was nationalized in the 1970s that investment resumed, resulting in new discoveries and rapid growth in production, which reached 3.7 MMBD in 1979.⁴⁵

B. Constraints on Iraqi Oil Production under Saddam Hussein

Since then, however, Iraqi oil production has labored under a number of constraints, which have caused it to remain far short of its potential. The first of these constraints was the damage inflicted on Iraq's oil infrastructure during the wars initiated by Saddam Hussein. During the early weeks of the Iran-Iraq War, Iraq's deepwater oil terminal at Al-Bakr in the Persian Gulf was seriously disabled.⁴⁶ As a result, Iraqi oil exports plummeted from over 3 MMBD to less than 1 MMBD in 1981, and Iraq would be unable to make oil shipments from its Gulf terminals for eight years.⁴⁷

Following the conclusion of the Iran-Iraq War, Iraq set about repairing the remaining damage, and its oil exports grew rapidly. In 1990, the level of production reached 3.5

MMBD, just shy of the all-time high of 1979. Hardly had the Iraqi oil industry recovered from that war, however, than it received an even more devastating blow during the 1991 Gulf War. According to the EIA, an estimated 60 percent of the Northern Oil Company's facilities were damaged in the conflict, and the southern oil industry was decimated.⁴⁸ Overall, by one estimate, U.S.-led bombing during the Gulf War cut Iraq's production capacity to 1.1 MMBD.⁴⁹

In theory, much of the damage incurred during the Gulf War could have been quickly repaired, just as it had been during and immediately after the Iran-Iraq War. This time, however, repair and reconstruction were obstructed by the comprehensive UN sanctions imposed on Iraq in 1990 and left in place after the war. The sanctions prevented Iraq from obtaining the latest technology, spare parts, and foreign investment for its oil fields.⁵⁰ Even after Iraq was authorized to spend up to \$600 million per year on spare parts and equipment under the oil-for-food program, the actual delivery was largely delayed on account of restrictions imposed by the UN Sanctions Committee.⁵¹ As one report bluntly concluded, "After two major wars and a decade of sanctions, Iraq's oil industry is in desperate need of repair and investment."⁵²

As a result of these constraints, Iraq's oil production capacity remained well below its potential, and was even falling in the late 1990s and early 2000s. A significant number of wells had ceased production, and many of those had

suffered irreparable damage.⁵³ Just months before the 2003 Iraq war, a Council on Foreign Relations/Baker Institute report estimated Iraq's sustainable oil production capacity at no higher than 2.6 to 2.8 MMBD, with production levels declining by 100,000 barrels per day each year.⁵⁴ And a secret government task force established in fall 2002 offered an even bleaker assessment, pegging Iraq's production capacity at only 2.1 to 2.4 MMBD.⁵⁵

The situation was not helped by Saddam Hussein's attempts to manipulate Iraqi oil for political advantage. As recently as early 2002, he had temporarily suspended oil exports in order to exert pressure on the United States and Israel.⁵⁶ In the process, "Iraq [had] severely tested the resilience of its oil fields by sporadically shutting down oil exports for political reasons over the past two years."⁵⁷

C. Future Oil Production Scenarios

By 2002, if not much earlier, it had become clear that the quickest way to remove the constraints that had hobbled Iraqi oil production was to remove Saddam Hussein from power. Regime change could occasion the lifting of the UN sanctions and, perhaps even more importantly, facilitate a resumption of investment in exploration and development. It would also mean the end of Saddam's manipulation of Iraqi oil production and exports for political purposes.

Although the impact on Iraqi oil production would not be felt overnight, many experts estimated that a significant increase could be

effected in a relatively short amount of time by historical standards. As a first step, Iraq's pre-existing production capacity of approximately 3.5 MMBD would have to be restored, but this could be accomplished in just 18 months to three years.⁵⁸

Beyond that, estimates varied considerably, but all foresaw a further significant increase in Iraq's oil production capacity. At the low end, the Middle East Economic Survey estimated that Iraq could reach a production capacity of 4.5-6.0 MMBD within seven years.⁵⁹ Energy expert Daniel Yergin noted that Iraqi production could rise to 5.5 MMBD sometime after 2010.⁶⁰ And former Iraqi Oil Minister Issam Chalabi estimated that, with the right investments, Iraq could be producing around 6 MMBD by the end of the decade.⁶¹ Under any of these scenarios, Iraq would become the fourth-largest producer and third largest exporter of oil in the world.

Others offered even more optimistic views of Iraq's production potential. Former Iraqi Undersecretary of Oil Fadhil Chalabi estimated that, with sufficient foreign investment, Iraq's production capacity could be increased to 7 MMBD within five years and 8 MMBD over six to eight years.⁶² In the longer term, he ventured, "A totally rehabilitated and sanctions-free Iraq could expand its production capacity way beyond 8 [MMBD], easily reaching 10 [MMBD], and theoretically even 12 [MMBD] under certain conditions..."⁶³ Likewise, former Vice-President and Executive Director of the Iraq National Oil Company (INOC) Tariq Shafiq, estimated after the war that Iraq's present proven reserves could support a production rate of 10 MMBD and 12 MMBD

as new potential reserves were brought in.⁶⁴

D. Benefits of Increased Iraqi Oil Production

Freeing up Iraq's tremendous oil production potential could have been expected to result in several significant benefits. First, it could help to meet anticipated growth in the world demand for oil. Although demand had stagnated for a decade following the price hikes of 1973, it resumed its upward course in 1983, growing by more than 30 percent (17.9 MMBD) by 2002. Of that growth, more than half was met by additional production in the Middle East. A similar pattern was expected during the first quarter of the 21st century. In late 2001, the EIA estimated that global oil consumption would rise from 77.1 MMBD to 118.8 MMBD in 2025, an increase of 54 percent. At the same time, it estimated that 48 percent of the increase in production required to meet that demand would come from the Persian Gulf, which would see its output nearly double, from 20.6 MMBD to 40.5 MMBD.⁶⁵ "If such forecasts are to be believed," Fadhil Chalabi commented in 2000, "the expansion of Iraqi oil production would be a prerequisite for satisfying world oil demand."⁶⁶

A possible related benefit of freeing up Iraq's production potential would take the form of a more stable world oil market through the creation of greater redundancy in oil supplies and, ideally, additional excess production capacity. Given the short-term inelasticity of demand for oil, the price is highly sensitive to fluctuations in supply. As noted above, a temporary reduction in oil supplies of less than ten percent in 1973 precipitated a four-fold increase in oil prices, and a brief but sharp drop in Iranian production prompted another doubling

of oil prices in 1979.

Since the late 1970s, Saudi Arabia has generally sought to use its excess production capacity to stabilize the oil market and prevent dramatic price increases by increasing production whenever supplies were disrupted elsewhere (more on this below). Beginning in the early 1990s, however, the kingdom had been producing at annual average rates (8.7 to 9.4 MMBD) within 1 to 2 MMBD of its total capacity, which limited its ability to respond to unexpected supply disruptions. More generally, as an authoritative 2001 report on energy policy noted, strong economic growth across the globe and new global demands for more energy have meant the end of sustained surplus capacity in hydrocarbon fuels and the beginning of capacity limitations. In fact, the world is precariously close to utilizing all of its available global oil production capacity, raising the chances of an oil-supply crisis with more substantial consequences than seen in three decades.⁶⁷

At the same time, the potential for supply disruptions--and concomitant sharp price increases--seemed as great as ever. As one long-time observer of the oil markets remarked in early 2004, "A number of OPEC members (and for that matter non-OPEC producers as well) are suffering from internal socio-economic as well as internal and external political pressures which could boil over and, at a minimum, lead to temporary supply disruptions."⁶⁸

Most importantly, growing tensions within Saudi Arabia itself had begun to call into

question the kingdom's very ability to maintain output at existing, not to mention higher, levels. Although this internal threat has become much more visible since the war, with high-profile terrorist attacks against non-U.S. targets, it was present well beforehand. Since the early 1980s, a combination of rapid population growth and declining oil revenue has resulted in economic stagnation, falling living standards, and rising unemployment. And in the last decade, the already substantial potential for political discontent had been reinforced by growing hostility toward the regime on the part of Islamic fundamentalists. Indeed, "one of Usama bin Ladin's chief goals is toppling the Saudi monarchy, which he regards as corrupt and un-Islamic because it is allied with the United States and has allowed American troops to be stationed there since the Gulf War."⁶⁹

To be sure, some Saudi experts have been more optimistic about the prospects for continued stability in the kingdom. "Right now," Greg Gause wrote shortly after the Iraq war began, "the Al Saud face no serious challenge to their rule in Arabia."⁷⁰ Nevertheless, the potential costs of an upheaval in Saudi Arabia have dictated that the risks be taken very seriously. As Fadhil Chalabi observed with some understatement, "If anything happened to Saudi oil, there would be great oil market disruption."⁷¹ Or, in the blunt words of Herbert Franssen, "in case of a major and prolonged supply disruption in Saudi Arabia, the world would not be able to cope..."⁷²

In this context, a significant increase in Iraqi oil production capacity could have been seen as necessary to help avert a potential future oil crisis. Given its tremendous production potential, Iraq is perhaps uniquely positioned to help to buffer the world oil supply in the event of such a contingency. Speaking just before the beginning of the war, Fadhil Chalabi reportedly stated "that Iraqi oil [is] important as the only alternative source of oil reserves of sufficient magnitude to compare with Saudi Arabia's, and that increased Iraqi production capacity could be seen as establishing a more stabilized and secure system of supplies."⁷³ Likewise, an unnamed U.S. diplomatic source told an interviewer that "a rehabilitated Iraq is the only sound long-term strategic alternative to Saudi Arabia."⁷⁴

E. Reducing Saudi Influence over World Oil Markets

Even if worries about political instability in Saudi Arabia have been exaggerated and the House of Saud is able to surmount peacefully the internal challenges to its rule, freeing up Iraq's oil production might have been expected to benefit the United States in yet another way. For at least a decade, Saudi Arabia has possessed the greatest oil production capacity--estimated at 10.0-10.5 MMBD--of any country.⁷⁵ Unique among oil producers, however, actual Saudi production levels have typically been substantially lower, leaving a significant amount of excess production capacity. Although the precise amount has been a well kept secret and has in any case varied with production levels, it has generally amounted to at least half of all the surplus capacity in the world and an even higher

percentage of that held by OPEC countries. As Morse and Richard noted in 2002, Saudi Arabia's "spare capacity is usually ample enough to entirely displace the production of another large oil-exporting country."⁷⁶ In addition, Saudi Arabia can raise and lower output levels relatively quickly.⁷⁷

This substantial amount of surplus capacity has afforded Saudi Arabia unrivaled influence in world oil markets. One way that the kingdom has employed it has been by stabilizing the market and preventing sharp price increases during times of uncertainty about supply or in response to actual supply disruptions. In the words of J. Robinson West, the president of the Petroleum Finance Co., "The Saudis are the central bank of oil. They provide stability and liquidity to the market."⁷⁸

Saudi Arabia has used its surplus capacity in this way on several occasions. In late 1978 and again in 1980, it raised its oil production to as much as 10.4 MMBD to compensate first for the disruption of Iranian oil production caused by the Iranian Revolution and then the loss of both Iranian and Iraqi oil production following the outbreak of the Iran-Iraq War in 1980. In response to the removal of Iraqi and Kuwaiti oil from the market in 1990, Saudi Arabia increased its output by more than 3 MMBD between August and December of that year. And during the first months of 2003, Saudi Arabia raised production by over 1 MMBD--to perhaps as much as 10.0 MMBD--to help compensate for losses from Venezuela, Nigeria, and then Iraq.⁷⁹

Successive U.S. governments have generally been supportive of and even encouraged this role, if only because no other potential market

stabilizer was available. Nevertheless, U.S. reliance on Saudi Arabia to stabilize world oil markets has imposed costs and risks, which have seemed to grow only more acute in recent years. In the first place, this dependence has placed constraints on other aspects of U.S. policy toward the kingdom and the region. In particular, it has limited the ability of the United States to criticize Saudi policies and to promote desired domestic political, economic, and social reforms.

In addition, Saudi Arabia's spare capacity has given it a degree of influence over the oil market and other oil producers that has not always conformed to U.S. interests. On at least three occasions since the mid-1980s, Saudi Arabia has sought to deter or punish production increases by other large exporters by flooding the market with its own relatively inexpensive output, thereby undercutting the competition.⁸⁰ Although the cost of oil has fallen in the short term, the long-term effect has been to discourage new investment and excess production and thereby prop up prices. Thus in the words of veteran oil market watchers Morse and Richard, Saudi spare capacity "is the energy equivalent of nuclear weapons, a powerful deterrent against those who try to challenge Saudi leadership and Saudi goals."⁸¹

The wisdom of relying on Saudi Arabia was further called into question in the wake of the terrorist attacks of September 11, 2001. Americans were shocked by the fact that a majority of the hijackers were Saudi nationals,

and they have been troubled by Saudi Arabia's mixed record of cooperation with the United States in the war on terrorism.⁸² Perhaps most disturbing of all has been the discovery that "for years, individuals and charities based in Saudi Arabia have been the most important source of funds for al-Qa'ida; and for years, Saudi officials have turned a blind eye to the problem."⁸³

Indeed, the events of September 11 may have precipitated a sea change in U.S. attitudes toward Saudi Arabia. At the public level, "many Americans now perceive Saudi Arabia as a hotbed of Islamic fanatics bent on destroying the West."⁸⁴ And within the government, a number of members of Congress and a faction of the national security establishment now "believe Saudi Arabia is an unreliable ally that exerts too much influence over U.S. foreign policy."⁸⁵ Thus, as Washington Post columnist Michael Dobbs wrote shortly before the invasion of Iraq, "The Bush administration does not want to be held hostage to a potentially Arab country rife with anti-Americanism that has previously used oil as a weapon against the United States."⁸⁶

In this context, the possibility of building up Iraq as an oil-producing counterweight to Saudi Arabia could have appeared very attractive. Perhaps few in the administration would have gone so far as to agree with Jay Mandle that "a U.S.-Iraq war would acquire a compliant swing producer in one blow."⁸⁷ But it would have been tempting to believe the assessment published in the *New York Times* just months before the war that, "revived by the lifting of sanctions and a

flow of foreign investment, Iraq's production could rival Saudi Arabia's in five to seven years."⁸⁸ And as the controversial July 2002 briefing by a Rand analyst for the Defense Advisory Board, which described Saudi Arabia as the "kernel of evil" in the Middle East, concluded, a pro-Western Iraq could reduce U.S. dependence on Saudi energy exports and enable the United States to force the monarchy to crack down on financing and support for terrorism within its boundaries.⁸⁹

CAVEATS

Some people are likely to be skeptical of the preceding analysis, if only because there is as yet little or no evidence that such considerations actually influenced U.S. decision making in the run-up to the Iraq war. More importantly, a number of questions could have been--and still can be--raised about whether the United States could have truly expected to benefit, in the ways alleged above, from ending Saddam Hussein's regime.

A. Limitations on the Need for Iraqi Oil

The first question that might have been raised is whether additional Iraqi oil production was really necessary. On the one hand, estimates of future demand for oil could have been exaggerated. On the other hand, it might have been possible to meet even a substantial growth in global consumption with increased production in other parts of the world. In this regard, particular attention has been devoted in recent years to the oil-producing potential of Russia and the Caspian region.

As noted above, the EIA estimated in early 2003, in its most likely or reference case, that

global oil consumption would rise from 77.1 MMBD to 118.8 MMBD in 2025, a 54 percent increase. For a variety of reasons, forecasts of future oil consumption are unreliable and subject to revision. For this reason, the EIA also offers projections that assume higher and lower levels of economic growth than are assumed in the reference case. Its January 2003 estimate for the low economic growth case forecast an increase in consumption to 98.8 MMBD in 2025, or 28 percent. Even this low forecast was nearly as great in relative terms as--and was greater in absolute terms than--the growth in oil consumption that took place over the nearly 20-year period between 1982 and 2002. The projection in the high-growth case, which should be no less likely than the low growth case, was for 145.7 MMBD in 2025, or an increase of 89 percent.

Thus, even in the low growth case, the demand for oil was expected to increase by more than 20 MMBD by 2025, and in the reference case, by more than 40 MMBD. Where would this additional oil come from? One important potential source was Russia, where production had been increasing by some 500 kbd per year and reached 8.6 MMBD in mid-2003. As a result, by 2003 Russia had become the second largest exporter after Saudi Arabia, with some 4 MMBD in exports, and a further expansion of exports by nearly 2 MMBD by the end of the decade seemed possible.⁹⁰ Thus Morse and Richard argued that "with more efficient energy use in Russia and additional foreign investment, oil and gas production from the former Soviet Union could well take the lion's share of new market growth for a decade

or longer."⁹¹

But as Telhami and Hill noted, "Russia cannot ever displace the Middle East as the world's primary supplier of oil...."⁹² In 2002, Russia had only 60 billion barrels in proven oil reserves, far less than either Iraq, Iran, Kuwait, or the UAE, not to mention Saudi Arabia.⁹³ Thus, according to the 2003 EIA forecast for the reference case, nearly half of the additional 2025 production (19.9 of 41.3 MMBD) would come from the Persian Gulf, whereas the increased production in the former Soviet Union (including Russia and the Caspian region) would amount to only 7.1 MMBD.⁹⁴ Moreover, "Russia's uncertain tax and legal regimes [had] created disincentives to foreign and even domestic investment," and the relatively high cost of new Russian oil would make continued production expansion more vulnerable there than in the Persian Gulf to fluctuations in oil prices.⁹⁵

In the Gulf itself, the EIA had regularly estimated that the bulk of the required growth in production capacity would be created in Saudi Arabia. Indeed, in early 2003, the EIA projected that Saudi capacity would increase from 10.2 MMBD in 2001 to between 17.6 and 30.3 MMBD in 2025.⁹⁶ But such dramatic growth in Saudi capacity and associated output could have been expected only to exacerbate the problems associated with U.S. dependence on the Saudis. Conversely, doubts have recently arisen about Saudi Arabia's willingness or ability to come anywhere near these targets, resulting in a potentially large gap between global oil supply

and demand.⁹⁷ Thus substantial additional amounts of Iraqi oil should almost certainly have been seen as necessary or highly desirable.

B. Foreseeable Obstacles to Increasing Iraqi Production Capacity

A second important question that could have been asked is whether Iraq could actually realize its oil production and export potential. Above all, repair of the existing oil infrastructure and especially the development of new oil fields were expected to require substantial sums of money. Prewar estimates for the cost of restoring production to levels of 3.0-3.5 MMBD ran as high as \$5 billion to \$7 billion, while the cost of further expanding production capacity to a total of just 6 MMBD had been put at up to \$30-40 billion.⁹⁸ Yet in the short to medium term, Iraqi authorities were expected to have relatively little money to invest in the oil sector, given other pressing humanitarian and reconstruction needs.⁹⁹ Thus, Fadhil Chalabi argued, "in order to secure capital, good management, and good market outlets, Iraq would have to allow the participation of foreign oil companies...and allow at least partial privatization."¹⁰⁰

There was no guarantee, however, that foreign investment, especially in the required amounts, would be forthcoming. Iraqis were expected to be reluctant to allow international oil companies back in to the country. At least within the Iraqi oil bureaucracy, according to Issam Chalabi, there was "close to unanimity" that "natural resources should remain under the

sovereignty of the state."¹⁰¹ And even if foreign investors were welcomed, they were not expected to come in significant numbers until security was restored, the political situation was clarified, and adequate legal protections were in place.¹⁰²

Nevertheless, once the right conditions were created, foreign investors were likely to find the opportunities irresistible. As Barnes, Jaffe, and Morse have noted, "Under optimal circumstances, Iraq could be very attractive to foreign investors, not least because of its low production costs and proximity to both the Persian Gulf and Mediterranean Sea, giving it easy access to major European and Asian markets."¹⁰³ Even under Saddam, a number of foreign oil companies, mainly from France, Russia, and China, had reportedly signed exploration, development, and production deals with Iraq totaling an estimated \$38 billion.¹⁰⁴ This investment was expected to result in an increase in Iraq's production capacity of up to 4.7 MMBD, or enough to amortize the costs very quickly.¹⁰⁵

And even if significant foreign investment was not forthcoming, a future Iraqi government might have been expected to have little difficulty raising the necessary funds on its own. As Shafiq, has noted:

An investment cost by the national oil company of the order of \$5,000 per [barrel per day] would be recovered in seven months of production at a price of \$24. Under normal conditions, the necessary capital could be borrowed from financial institutions. Production

capacity would be built in stages in such a way that the capital inflow pays for the investment and original debt, along a predetermined time scale....The oil industry elsewhere has been built on a 80-90% loan basis, and there is no reason for Iraq's industry not to consider this as one way to proceed.¹⁰⁶

C. International Political Constraints on Iraqi Oil Production

Even if Iraq were to increase its oil production capacity substantially, perhaps to the point where it seriously rivaled that of Saudi Arabia, one could nevertheless have questioned whether external political considerations would have made Iraq reluctant to exploit this capacity fully. First, it was widely expected that any new Iraqi government would remain in OPEC, of which Iraq was a founding member. Doing so would both help the country establish its nationalist credentials and maintain good relations with its oil-producing neighbors.¹⁰⁷ And although Iraqi oil output had not been constrained by OPEC quotas in recent years, it was likely to be brought back into the quota system as production increased.

Nevertheless, OPEC production ceiling allocations are subject to renegotiation, and a future Iraqi government could make a compelling case for receiving a higher share than it did in the past (approximately 3.2 MMBD). After all, Saudi Arabia, with a comparable number of citizens, has enjoyed a quota of at least 7 MMBD (and usually more than 8 MMBD) since 1991,¹⁰⁸ and the Iraqi population has suffered from years of unparalleled economic privation.

Even if humanitarian arguments and pleas for equity were to fall on deaf ears, moreover, Iraq could in the longer term use the threat to flood the markets inherent in a growing production capacity to bargain for a significant increase in its quota.

Alternatively, if Iraq were to disregard its production quota or to leave OPEC altogether, it would have to contend with possible adverse responses of other member states. Until Iraq built up sufficient export facilities of its own, for example, its neighbors could punish it by refusing to allow Iraqi oil to be piped or transported through their territories. Moreover, as one commentary noted, the Sheikhs in Riyadh are not going to want the Iraqis getting too uppity. And in order to teach the new Iraqi oil powers a lesson, the Saudis could well boost production significantly and allow prices to come down sharply. That in turn would slow critically needed investment in Iraq's dilapidated oil sector... The Saudis might strangle the baby before it gets too big.¹⁰⁹

There were limits, however, to Saudi Arabia's willingness to employ such punitive measures. An acute price war would hurt all the other oil producers, provoking widespread antipathy toward the kingdom. And given its heavy dependence on oil revenues, Saudi Arabia would suffer as well, even with substantial foreign assets to draw upon, and the existing domestic challenges would only be exacerbated. Consequently, some concluded, flooding the markets was a step the ruling family might no

longer be able to afford and would be extremely reluctant to embark upon.¹¹⁰

D. Risks of Military Action

A final question that would have had to be considered by U.S. decision makers was whether the short-term risks of military action might outweigh the long-term benefits. It was widely expected that a war could result in a substantial short-term loss of production, disrupting oil supplies and possibly causing sharp price hikes.¹¹¹ Even if U.S. and coalition forces sought to avoid attacking the oil infrastructure, strikes against other targets could result in collateral damage, and Saddam might order the destruction of oil facilities as part of a "scorched earth strategy."¹¹² In addition, Iraq might try to retaliate against U.S. allies by bombing or firing missiles at oil facilities in Saudi Arabia or Kuwait. Indeed, in anticipation of such attacks, Kuwait closed two of its northern oil wells prior to the war, losing 35,000 barrels per day of production, and announced it would close all of its wells in the north, which account for about 18 percent of its total production, if necessary.¹¹³ Moreover, any sudden production shutdowns could cause long-term damage to the affected oil reservoirs.¹¹⁴

For the most part, however, experts regarded these risks as manageable, with some even claiming that a war in Iraq would have little short-term impact on world oil prices.¹¹⁵ First, there were good reasons to expect that the damage in the region could be limited. One

authoritative report noted that it was unlikely that Iraqi troops or oil technocrats would carry out orders to destroy oil facilities, calling it a "low probability/high risk" scenario.¹¹⁶ And U.S. military operations could be designed to minimize the risks by quickly seizing oil fields and other critical facilities, as actually happened. Likewise, experts viewed attacks on oil facilities in other countries as unlikely to occur and even less likely to have any lasting effects. Saudi Arabia in particular had invested heavily in oil facility security and defenses, and Saudi officials claimed they could quickly repair any damage that nevertheless might be inflicted. It is worth noting that even the badly damaged Kuwaiti oil fields were largely restored within about a year after the end of the Gulf War.¹¹⁷

Second, it was expected that whatever oil production might be temporarily lost as a result of a war could be compensated by other sources. In late 2002, OPEC members other than Iraq had about 6 MMBD of unused production capacity that could be used to make up for any shortfall, and the U.S. Department of Energy estimated that Saudi Arabia alone "could flood the market within 30 days with as much as 2 [MMBD] from wells it is not now using."¹¹⁸ Although this margin turned out to be smaller than expected because of near simultaneous supply disruptions in Venezuela and Nigeria, it still proved to be sufficient. And had it not, the United States stood ready to release oil from its Strategic Petroleum Reserve, which contained some 600 million barrels, or enough to replace Iraq's entire output for approximately 240 days.¹¹⁹

CONCLUSION

This paper has made two arguments about how the United States might have expected to benefit from going to war against Iraq. First, by removing Saddam Hussein and his Ba'hist regime from power, the United States would simultaneously eliminate the possibility that Iraq might once again seek to dominate the Gulf and, by extension, world oil supplies. Although Iraq did not pose an immediate military threat to its oil-rich neighbors, the likely weakening of UN sanctions and growing difficulties with maintaining the U.S. military presence in the Gulf meant that this possibility could not be excluded. Second, regime change could unleash Iraq's tremendous potential as an oil producer, thereby helping meet future growth in world demand, buffer the oil market from possible supply disruptions, and reduce Saudi Arabia's unrivaled and increasingly undesirable influence over the oil market.

Of course, the fact that the United States might well have expected to benefit in these ways does not mean that such considerations played an important role--or any role at all--in the calculations of the Bush Administration. Publicly at least, U.S. officials offered a number of other seemingly plausible justifications for going to war. Consequently, it may not be possible to ascertain what, if any, role considerations of oil actually played until better records of the administration's internal deliberations become available. Nevertheless, given existing doubts about whether other expected benefits of the war will in fact be realized, the oil-related consequences may turn out to be among the most important.

A. Outcomes versus Expectations

To what degree have such plausible, if hypothetical, expectations been borne out by events? On the one hand, the war has ended for the foreseeable future the regional threat posed by Iraq. Its conventional military forces have been disbanded, and its programs for creating weapons of mass destruction have either been eliminated or shown definitively not to exist. In fact, Iraq's relations with the two states it most recently invaded, Iran and Kuwait, have become friendlier than at any time in many years. As an added benefit, the United States has been able to withdraw all of its combat forces from Saudi Arabia, which are no longer needed to enforce the no-fly-zones over Iraq or to deter a possible Iraqi attack on its neighbors. In so doing, it has removed one of the main sources of domestic criticism of the Saudi government and may have thereby further contributed to stability in world oil markets.

On the other hand, the prospects for rehabilitating and expanding Iraq's oil sector remain uncertain, at least in the short term. Some two years after President Bush declared the end of major combat operations, it is still too early to tell how much Iraq will eventually be able to increase its oil production capacity and how quickly it will do so, given the persistent political instability and violence. In particular, the recovery of oil production and exports has been impeded by looting and sabotage, which has in turn darkened the investment climate.

During the U.S. invasion of Iraq, a number of

critical facilities, such as pumping stations, were not secured promptly and thus subjected to widespread looting. According to one estimate, 80 percent of the war-related damage to the oil infrastructure occurred in the several weeks *after* major combat operations ended.¹²⁰ Even more importantly, since the invasion, the oil infrastructure has been subjected to more than 200 significant acts of sabotage by those opposed to the U.S. occupation or seeking to destabilize the new Iraqi regime.¹²¹ For the first year or so, most of these attacks occurred in the northern and central parts of the country. As a result, the Kirkuk-Ceyhan export pipeline to Turkey has been closed much of the time and otherwise able to deliver only a small fraction of its full capacity of 1.1 MMBD. In 2004, however, a number of attacks were directed at the southern oil facilities, which have been the main outlet for of Iraqi exports. Consequently, they too have been subjected to periodic shutdowns and restricted flows.¹²²

The overall effect of this sabotage campaign has been to slow the recovery of the oil sector and, in particular, to limit the volume of oil exports, thereby depriving Iraq of much needed financial resources. After the end of major combat operations, levels of oil production and exports grew more or less steadily, reaching an average of 2.3 MMBD and 1.8 MMBD, respectively, or just short of prewar levels, in April 2004. During the following months, however, both production and exports declined, with the latter dropping as low as 1.0 MMBD in

August 2004.¹²³ And as of January 2005, both continued to fall below their postwar highs.¹²⁴

As a result, oil export revenues have been well below expectations. They totaled only \$5 billion in 2003 and just over \$17 billion in 2004, causing revenue losses variously estimated at between \$7 billion and \$13 billion.¹²⁵ In addition, the sabotage campaign has created an inhospitable investment climate for foreign oil companies, a number of which have been reluctant to bid on contracts for oil field evaluation and development because of the security situation.¹²⁶

Should these problems have been anticipated? With the benefit of hindsight, it is tempting to answer the question affirmatively. In fact, however, they tended to be overlooked or underestimated by all sides. Certainly, members of the Bush Administration appeared to believe that U.S. forces would be welcomed as liberators and that order--and Iraqi oil production--would be quickly restored. Before the war began, Deputy Defense Secretary Paul Wolfowitz estimated that Iraqi oil revenues could bring in between \$50 and \$100 billion over the next two to three years, assuming that production could be quickly restored to about 3 MMBD.¹²⁷ And as late as mid-April 2003, Cheney and other administration officials opined that oil production could be as high as 2.5 to 3 MMBD by the end of the year. Even at that time, the most serious challenges to Iraq's future oil production were regarded as political and legal.¹²⁸ As Wolfowitz told the press in July, perhaps somewhat self-servingly, no amount of advance planning could have foreseen the collapse of law and order.¹²⁹

Other observers, including those who opposed the war, however, were hardly more prescient. Arguments against an invasion focused on the flimsiness of the rationales offered by the administration and the risks of military action, not the longer-term difficulties of pacifying and stabilizing Iraq. A few analyses pointed to the dangers of a breakdown of law and order or civil war, but suggested that the former could be managed through carefully crafted occupation policies and that the latter would most likely be precipitated by a premature U.S. withdrawal, not an American presence.¹³⁰ Only one little-remarked study raised the possibility of terrorism and other violent measures directed at U.S. forces, but even it judged that a mass uprising was "unlikely in the early stages of any U.S. occupation of Iraq, probably up to at least a year."¹³¹ Thus it seems fair to conclude that virtually no one anticipated the rapid development of a widespread insurgency marked by persistent attacks on Iraq's oil infrastructure.

Moreover, some detailed reviews of postwar developments in Iraq have argued that these problems could have been avoided and thus were largely of the administration's own making.¹³² According to these analyses, in the months immediately preceding and following the invasion, U.S. leaders made a number of errors, both of omission and commission, that set the stage for the insurgency. Among the more important mistakes, they failed to secure broad international support, which cast doubt on the legitimacy of the war and left the United States largely on its own to establish stability in Iraq. They did not prepare adequately for the period

after hostilities and may even have dismissed much of the planning that was conducted prior to the war under the auspices of the State Department. And they did not deploy sufficient ground forces to establish order and maintain security, especially in view of the early decision to disband the remnants of the Iraqi army.¹³³

B. Implications for U.S. Policy

Notwithstanding these problems, the United States continues to have a strong interest in seeing that Iraq first complete the rehabilitation of its oil sector and then increase its oil production and export capacity, at least as long as the United States and its major economic partners remain heavily dependent on foreign oil. Indeed, unexpected growth in world demand in combination with actual and potential supply disruptions in a number of key oil producing countries, including Saudi Arabia, Russia, and Nigeria, means that the need for Iraqi oil is even greater than anyone could have anticipated just two years ago. From this interest follow at least two implications for U.S. policy in the short to medium term.

First, the United States should assign higher priority to providing security for Iraq's oil infrastructure from sabotage. During the invasion, U.S. forces moved quickly to seize the oil fields and some other oil-related sites, such the Ministry of Oil building in Baghdad. Given the limited number of American and other coalition troops in the country, however, the United States then largely turned over the task of

protecting oil facilities to private firms. Overall, it has awarded contracts totaling about \$100 million, primarily to Erinys, to train as many as 14,500 armed security guards and to provide aerial surveillance.¹³⁴ According to one report, the guards are generally seen as underpaid (they earn between \$2 and \$4 per day), demoralized, and lacking in the equipment and intelligence they need.¹³⁵ Regardless of the causes, the provision of security has been less than adequate.

Given the difficulty of obtaining detailed information about the security situation, it is hard for an outside observer to offer precise policy prescriptions. Nevertheless, at least three possible and potentially complementary approaches suggest themselves.¹³⁶ One would be for the United States to spend even more money on private contractors and, after the contracts expire, in the form of grants to the Iraqi government for the purpose of securing the oil infrastructure. Indeed, in September 2004, President Bush sought to increase spending on law enforcement and security by \$1.8 billion in Iraq, although it was not clear if any of this money was intended for the protection of oil facilities in particular.¹³⁷ A second approach would be for the United States to devote more of its own military resources to the protection of especially high-value targets, although this might require the deployment of additional troops to Iraq. U.S. forces already guard the critical offshore oil terminals in the Persian Gulf, through which most Iraqi exports have flowed, but they have not assumed much responsibility for

protecting the equally important pipelines that transport oil to those terminals and to the Turkish border in the north.¹³⁸ Finally, the protection of the oil infrastructure might be a promising area for seeking to involve an effective international force. The potential rewards would be great, since increased oil production and exports would be seen as benefiting both the Iraqi people and the international community. At the same time, the costs and risks would be relatively low, since most of the oil infrastructure is located away from heavily populated areas.

A second implication is that the United States should be prepared to devote yet more resources to helping Iraq rehabilitate and expand its oil sector. In 2003, the Congress appropriated nearly \$2.7 billion for repairing, maintaining, and upgrading Iraqi oil facilities.¹³⁹ And in September 2004, the Bush Administration indicated that it wanted to invest an additional \$450 million in increasing Iraq's production capacity by an additional 650,000 barrels per day within ten months.¹⁴⁰

One problem has been the slowness with which the appropriations have been spent. As of mid-2004, work had begun on only 119 of 226 postwar oil reconstruction projects, and only half the work had been completed in 94 of those underway.¹⁴¹ And by January 2005, of the \$1.7 billion designated for oil infrastructure in the \$18.4 billion Iraq Relief and Reconstruction Fund, \$941 million had been obligated and only \$123 million had been expended.¹⁴² Even when fully utilized, moreover, this U.S. contribution would fall well short of meeting Iraq's near-term needs. As early as October 2003, official estimates of the cost of rebuilding just the oil

industry had risen to some \$8 billion over four years.¹⁴³ And a more recent report put the amount needed for repairs, maintenance, and operations at \$4 billion in 2004 alone.¹⁴⁴

At the same time, Iraq's own ability to finance this work has been constrained by lower-than-expected oil revenues. And it is unlikely that much help will be forthcoming from the international community. The International Monetary Fund and World Bank together have so far indicated that they are prepared to lend Iraq a total of no more than \$5.5 billion to \$9.25 billion over the next several years, and individual countries have pledged another \$8 billion, against an overall estimate of \$55 billion in reconstruction needs between 2004 and 2007.¹⁴⁵

Thus in the short- to medium-term, additional U.S. assistance may be essential for the successful rehabilitation of the Iraqi oil industry, not to mention any capacity expansion. Beyond the obvious U.S. self-interest in helping Iraq in this way, such assistance could be justified as compensation for the unexpected loss of oil revenues that occurred during the American occupation of the country. And as long as oil prices remain above \$30 per barrel, every additional 1 MMBD in production and export capacity that the United States funds could generate upwards of \$10 billion in revenue annually and thus would go far toward helping Iraq become financially self-sufficient.

Indeed, in the longer term, the problem is likely to take care of itself, once the political situation stabilizes. Unless Iraq descends into anarchy, just about any government(s) that emerge(s) will have strong incentives to restore

and then expand the oil sector. It may be true that "a pro-American Iraq is not in the cards; the best that can be hoped for now is an uneasy partnership based on an unsentimental assessment of shared interests."¹⁴⁶ But barring the establishment of a violently anti-American regime that is subject to U.S. sanctions, among those shared interests will almost certainly be a substantial increase in Iraqi oil production and exports.

Table 1: Oil Consumption and Imports, 2002 (millions of barrels per day)

	Consumption	Gross Imports	Net Imports	Imports from the Middle East	Middle East Imports as % of Consumption
United States	19.7	11.4	10.4	2.30	11.7%
Europe (less Former Soviet Union)	16.0	11.9	9.66	3.23	20.2%
Japan	5.3	5.07	4.99	3.92	74.0%
Subtotal (US, Europe, and Japan)	41.0	28.4	25.1	9.45	23.0%
World Total	75.7	43.6	43.6	18.1	23.4%
US, Europe, and Japan as Share of World	54.2%	65.1%	57.6%	52.2%	

Source: BP, BP Statistical Review of World Energy, June 2003.

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NOTES

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