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Dismantling the Oil Wars Myth

EMILY MEIERDING

This article argues that, contrary to the assumptions of international relations scholars, policymakers, and the general public, states do not engage in oil wars. A twofold strategy is employed to support this assertion. First, the article scrutinizes the logical underpinnings of oil war claims, arguing that proponents have underestimated the obstacles to seizing and exploiting foreign resources and, consequently, exaggerated the likelihood of oil wars. Second, the article examines four conflicts that are commonly identified as international oil wars: Japan's attack on the Dutch East Indies in World War II, Iraq's invasion of Kuwait, the Iran—Iraq War, and the Chaco War between Bolivia and Paraguay. It finds that the desire to control additional oil resources was not the fundamental cause of aggression in any of these conflicts. In the latter two cases, aggression was unconnected to oil interests. In the former, states fought for their survival, not for an oil prize.

In the mid-2000s, as oil prices rose to over \$140 per barrel, many analysts predicted imminent international oil wars over the world's increasingly scarce petroleum resources. Michael T. Klare described interstate oil competition as "a voracious, zero-sum contest that, if allowed to continue along present paths, can only lead to conflict among the major powers." Gal Luft, director

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¹ Throughout the article, the terms oil and petroleum are used interchangeably.

² Michael T. Klare, *Rising Powers, Shrinking Planet: The New Geopolitics of Energy* (New York: Metropolitan Books, 2008), 30. For other expressions of oil alarmism, see Joshua Olaniyi Alabi, "Resource Conflicts: Energy Worth Fighting For?" in *International Handbook of Energy Security*, ed. Hugh Dyer and Maria Julia Trombetta (Cheltenham, UK: Edward Elgar, 2013), 70–91; Nader Elhefnawy, "The Impending Oil Shock," *Survival: Global Politics and Strategy* 50, no. 2 (2008): 37–66; Susanne Peters, "Coercive Western Energy Security Strategies: 'Resource Wars' as a New Threat to Global Security," *Geopolitics* 9, no. 1 (2004): 187–212; Matthew Yeomans, "Crude Politics: The United States, China, and the Race for Oil Security," *Atlantic*, April 2005, 49–50.

of the Institute for the Analysis of Global Security, predicted that China and the United States would come to blows over oil resources: "You have two powers competing over the same sandbox.... As a country of China's size grows, there will be a moment when the moment of reckoning comes." Politicians expressed similar alarm; in her nomination hearings before the Senate Foreign Relations Committee, former US Secretary of State Hillary Clinton asserted: "We know that there will be disputes over energy resources ... in the Arctic."

Expectations of great power oil wars have declined somewhat as a result of the North American shale gas and tight oil boom. However, observers continue to predict that oil will provoke regional conflicts in resource-rich areas such as the South China Sea, East China Sea, and the eastern Mediterranean. The Arctic is also still a source of concern, especially following Russia's expansionism in Crimea. In addition, the idea of interstate oil wars remains widely accepted amongst the general public, policymakers, and international relations theorists. Although realists and liberals usually disagree about the likelihood of militarized conflict in the international system, their views converge on the question of whether fighting for oil can pay. Most people assume that competition over control of oil resources is a significant cause of interstate conflict.

However, there is little empirical evidence to support this claim. Few researchers have attempted to systematically evaluate the relationships between oil and international militarized conflict, and studies that have been conducted have produced mixed results. Scholars have also failed to rigorously articulate or critique the logical underpinnings of oil war claims. As a result, our understanding of the frequency and dynamics of interstate oil

³ Evan Osnos, "The Coming Fight for Oil," *Chicago Tribune*, 19 December 2006.

⁴ Nomination of Hillary Rodham Clinton to be Secretary of State of the United States: Hearing Before the Committee on Foreign Relations, U.S. Senate, 111th Cong., 1st Sess. (13 January 2009) (Washington, DC: U.S. Government Printing Office), 54.

⁵ Susanne Peters and Kirsten Westphal, "Global Energy Supply: Scale, Perception, and the Return to Geopolitics," in *International Handbook of Energy Security*, ed. Dyer and Trombetta, 92–113.

⁶ Alexei Anishchuk, "Russia's Putin Wants Beefed-Up Presence in Arctic," *Reuters*, 22 April 2014.

⁷ For exceptions, see Eugene Gholz and Daryl G. Press, *Energy Alarmism: The Myths That Make Americans Worry about Oil*, Cato Institute Policy Analysis Series, no. 589 (5 April 2007); Ronnie D. Lipschutz, and John P. Holdren, "Crossing Borders: Resource Flows, the Global Environment, and International Security," *Bulletin of Peace Proposals* 21, no. 2 (April 1990): 121–33; Daniel Moran and James A. Russell, "Introduction: The Militarization of Energy Security," in *Energy Security and Global Politics: The Militarization of Resource Management*, ed. Daniel Moran and James A. Russell (New York: Routledge, 2009), 1–18; David G. Victor, "What Resource Wars?" *National Interest* no. 92 (November/December 2007): 48–55. Also, see Rosemary A. Kelanic, "The Petroleum Paradox: Oil, Coercive Vulnerability, and Great Power Behavior," *Security Studies* 25, no. 2 (April–June 2016) on the strategies great powers use to avoid oil wars.

⁸ Francesco Caselli, Massimo Morelli, and Dominic Rohner, "The Geography of Interstate Resource Wars," *Quarterly Journal of Economics* 130, no. 1 (February 2015): 267–315; Indra de Soysa, Erik Gartzke, and Tove Grete Lie, "Oil, Blood, and Strategy: How Petroleum Influences Interstate Conflict" (unpublished manuscript, 15 April 2011).

wars is minimal. This lack of knowledge is problematic, as overly or insufficiently alarmist expectations are likely to inspire costly and ineffective conflict prevention efforts. The lacuna also means that researchers and policymakers should not be reassured by the recent collapse in oil prices, as it has not yet been established that low oil prices are correlated with a reduced frequency of oil wars. Indeed, many of our assumptions need to be tested before we can confidently claim that oil does or does not cause interstate conflict.

This article argues that the risk of international oil wars has been overstated. People's belief in oil wars is rooted in the assumption that fighting for oil can pay. This assumption is based on an accurate assessment of oil's utility; it is an extremely valuable natural resource. However, proponents of what I label the oil war hypothesis err by overlooking the extensive obstacles to seizing, producing, and marketing foreign oil resources. As a result, they overestimate the utility of fighting for oil and, consequently, the significance of oil as a cause of international conflict. This article identifies four sets of impediments to exploiting foreign oil: invasion costs, occupation costs, international costs, and investment costs. It argues that, collectively, these obstacles dramatically reduce the payoffs of fighting for oil. As a result, oil wars are unlikely. Conflicts may occur in oil-rich territories. However, these are not wars for oil.

The argument is tested through an examination of four historical conflicts that are commonly identified as international oil wars: Japan's invasion of the Dutch East Indies (1941-42), Iraq's invasion of Kuwait (1990), the Iran-Iraq War (1980-88), and the Chaco War between Bolivia and Paraguay (1932-35). Three of these four contests are highly likely cases of oil wars, based on the causal logic underpinning the oil war hypothesis. Yet, through close historical analysis, I find that the desire to control additional oil resources was not the fundamental cause of any of the conflicts. In the Chaco War and Iran-Iraq War, oil interests did not contribute to leaders' decisions for international aggression. In the other two conflicts, the Japanese and Iraqi governments aimed to acquire foreign oil reserves. However, their motives did not conform to the causal logic underpinning the oil war hypothesis. Leaders were not attempting to seize profitable petroleum prizes. Instead, Japanese and Iraqi officials believed that foreign petroleum access was a requirement for regime survival. Security needs, not oil greed, were the fundamental cause of their attacks. Absent this existential threat, they would not have attempted to seize foreign oil.

The article proceeds in four sections. In the first section, I define the object of analysis—the oil war—and outline the oil war hypothesis. I also demonstrate that belief in oil wars is widespread; both realist and liberal international relations theorists presume that fighting for oil can pay and, consequently, that states will periodically engage in conflicts to control it. In addition, this section discusses previous efforts to test the oil war hypothesis,

noting the paucity of studies and their inconsistent findings. The second section evaluates the logical underpinnings of authors' claims that fighting for oil pays, showing how their conflation of domestic oil resources and foreign oil resources leads them to overlook the extensive obstacles to exploiting the latter and to miscalculate the likelihood of oil wars. The third section presents the empirical analysis, demonstrating that oil wars do not exist. The fourth concludes by discussing the significance of the article's findings for contemporary interstate disputes. I argue that oil contention poses little threat to international security. Although states compete for control over petroleum resources, they are unlikely to fight for them. If contemporary disagreements over oil-endowed territories escalate, it will be for other reasons, not for oil.

THE OIL WAR HYPOTHESIS

There are numerous possible connections between oil and international conflict. This article focuses on the relationship that has attracted the greatest popular attention: the oil war. Oil wars are intense militarized conflicts in which states attempt to gain direct, sustained control over known or prospective oil resources. Since oil is a geographically fixed natural resource, oil wars are inherently territorial; in order to gain full authority over an oil reservoir, a state must control the territory in which it is located. Petroleum does not have to be the only issue at stake in an oil war. However, for a conflict to acquire this label, the desire to control more oil resources must be a major contributor to leaders' decisions for international aggression. As Jeff D. Colgan observes, in oil wars, "the presence or perception of oil reserves creates a significant incentive for conquest."

Many international relations theorists, as well as politicians and the general public, take the existence of oil wars for granted. This assumption is particularly evident in the continuing international relations debate about the value of conquest. Participants in this debate have conventionally been divided into liberal and realist camps, with the two groups disagreeing about the utility of territorial conquest. Liberals assert that conquering advanced industrialized societies does not pay, because economic shifts such as increases in international trade, expanding overseas investment, and the globalization

⁹ Eight connections are identified by Jeff D. Colgan, "Fueling the Fire: Pathways from Oil to War," *International Security* 38, no. 2 (Fall 2013): 147–80.

¹⁰ This definition draws on Colgan's "resource wars" pathway, de Soysa, Gartzke, and Lie's "blood oil" hypothesis, and Victor's description of "classic resource wars." Colgan, "Fueling the Fire," 154–56; de Soysa, Gartzke, and Lie, "Oil, Blood, and Strategy," 3–4; Victor, "What Resource Wars?" 48–50. Like previous studies, this article focuses on oil, rather than natural gas.

¹¹ Colgan labels these "resource wars," but focuses on oil. Colgan, "Fueling the Fire," 154.

of industrial production processes have rendered it unprofitable.¹² Liberals also argue that the utility of conquest is reduced by the increased nationalist sentiment in contemporary societies; modern populations put up more resistance against foreign occupation.¹³ Realists, in contrast, assert that occupation of advanced, industrialized societies can still pay if the occupiers' policies are sufficiently repressive.¹⁴

The debate over the utility of seizing advanced, industrialized economies is therefore ongoing. However, when it comes to the utility of seizing oil-rich territories, liberals and realists display a remarkable unanimity. Both groups agree that fighting for oil can be worth the effort. In the realist camp, John I. Mearsheimer asserts that "any Great Power that conquered Saudi Arabia would surely reap great value from the country's petroleum resources." ¹⁵ Realists' assumption that oil conquest pays arises from their emphasis on the material bases of national power and from their perception of natural resources as "cumulative"; they argue that, by acquiring more resources, states enhance their ability to further extend their territorial control, as well as defend the territories they already possess. 16 Since oil resources are exceptionally valuable, realists believe, acquiring more of them is bound to be beneficial. As Hans J. Morgenthau observed, "whoever is able to add them to his other sources of raw materials adds that much strength to his resources and deprives his competitors proportionately."¹⁷ For this reason, while "overt military action" is not usually an efficient way to secure access to raw materials, oil is an exception.¹⁸

Liberals also claim that conquering oil-endowed territory can pay. Christopher J. Fettweis asserts that the "conquest of oil-rich regions could

¹² Norman Angell, *The Great Illusion: A Study of the Relation of Military Power to National Advantage* (New York: G.P. Putnam's Sons, 1911); Stephen G. Brooks, *Producing Security: Multinational Corporations, Globalization, and the Changing Calculus of Conflict* (Princeton, NJ: Princeton University Press, 2005); Richard Rosecrance, *The Rise of the Trading State: Commerce and Conquest in the Modern World* (New York: Basic Books, 1986). The liberal and realist labels in the debate were first used by Peter Liberman, "The Spoils of Conquest," *International Security* 18, no. 2 (Fall 1993): 125–53. Brooks identifies himself as a realist, but his arguments are more consistent with the liberal camp.

¹³ Carl Kaysen, "Is War Obsolete? A Review Essay," *International Security* 14, no. 4 (Spring 1990): 54; Klaus Eugen Knorr, *On the Uses of Military Power in the Nuclear Age* (Princeton, NJ: Princeton University Press, 1966), 73–74; Rosecrance, *Rise of the Trading State*, 34. Some realists also make this argument. See, for example, Stephen Van Evera, *Causes of War: Power and the Roots of Conflict* (Ithaca, NY: Cornell University Press, 1999), 107, 115.

¹⁴ Peter Liberman, *Does Conquest Pay? The Exploitation of Occupied Industrial Societies* (Princeton, NJ: Princeton University Press, 1996).

¹⁵ John J. Mearsheimer, *The Tragedy of Great Power Politics* (New York: W. W. Norton, 2001), 150.

¹⁶ Van Evera, Causes of War, 105-106.

¹⁷ Hans J. Morgenthau, *Politics Among Nations: The Struggle for Power and Peace*, 7th ed. (New York: McGraw-Hill, 2005), 128.

¹⁸ Stephen D. Krasner, *Defending the National Interest: Raw Materials Investments and U.S. Foreign Policy* (Princeton, NJ: Princeton University Press, 1978), 336–37.

pay substantial dividends." Similarly, Stephen G. Brooks declares, "countries with high GDP per capita whose economies are tied to extractable resources (e.g. Kuwait) still offer high cumulative gains to a conqueror." Liberals are able to reconcile these claims about the utility of oil-related aggression with their broader arguments that conquest does not pay by asserting that oil-producing states have not undergone the economic changes that rendered conquest of advanced, industrialized societies unprofitable. As Richard Rosecrance asserts, "[w]here land and its products still remain the vital factor for production—in the agriculture of Eastern Europe, the oil of the Caspian or the Middle East—territory will continue to exert a decisive influence."

If fighting for oil pays, then states are likely to periodically engage in oil wars. I label the belief that states' desire to control valuable oil resources inspires international wars the oil war hypothesis. The hypothesis is implicit in both liberals' and realists' claims that fighting for oil pays and has been discussed in previous studies of oil's connections to international conflict. The causal logic underpinning the hypothesis emphasizes oil's utility and states' greed. ²² Since oil is an extremely valuable commodity, leaders would like to gain control over additional supplies. Consequently, oil-rich territories are more likely to become the objects of international competition, aggression, and war. The more valuable the resources at stake, the greater the potential for violence. Oil wars can occur whenever the payoffs of fighting for petroleum exceed the costs. Since fighting for oil can convey substantial profits, these conditions—and oil wars—will arise periodically. Petroleum may not be the only cause of the resultant conflicts. However, it is described as a "major determinant" and "significant incentive" for aggression. 23 In oil wars, states fight largely to seize an oil prize.

Empirical tests of the oil war hypothesis have produced mixed results. Many analyses of oil wars examine petroleum's contribution to only one or

¹⁹ Christopher J. Fettweis, *Dangerous Times? The International Politics of Great Power Peace* (Washington, DC: Georgetown University Press, 2010), 111.

²⁰ Brooks, *Producing Security*, 49.

²¹ Richard Rosecrance, *The Rise of the Virtual State: Wealth and Power in the Coming Century* (New York: Basic Books, 1999), xiv–xv.

²² The causal logic presented here is a synthesis of discussions in Caselli, Morelli, and Rohner, "Geography of Interstate Resource Wars"; Colgan, "Fueling the Fire"; de Soysa, Gartzke, and Lie, "Oil, Blood, and Strategy"; Charles L. Glaser, "How Oil Influences U.S. National Security," *International Security* 38, no. 2 (Fall 2013): 112–46; Cullen S. Hendrix, "Oil Prices and Interstate Conflict Behavior," (working paper, Peterson Institute for International Economics Working Paper Series, WP14-3, Washington DC, 31 July 2014); Michael T. Klare, *Resource Wars: The New Landscape of Global Conflict* (New York: Henry Holt, 2001); and Elizabeth Nyman, "Offshore Oil Development and Maritime Conflict in the 20th Century: A Statistical Analysis of International Trends," *Energy Research and Social Sciences* 6 (March 2015): 1–7.

²³ de Soysa, Gartzke, and Lie, "Oil, Blood, and Strategy," 1; and Colgan, "Fueling the Fire," 154.

two cases of interstate conflict.²⁴ Territorial dispute scholars have conducted large-*N* analyses of the relationship between resource endowments and contention. However, they employ aggregate measures of natural resource value in their statistical models, so they cannot isolate the independent effects of petroleum endowments.²⁵ Only two studies have directly tested the oil war hypothesis and they produced inconsistent results. One, by de Soysa, Gartzke, and Lie, found that petroleum exporters are not targeted for aggression any more frequently than states that do not export oil.²⁶ The other, by Caselli, Morelli, and Rohner, found that oil endowments increase the likelihood of intense militarized interstate disputes (MIDs), especially when oil resources are located near international boundaries.²⁷

The Caselli, Morelli, and Rohner result offers the strongest evidence of a correlation between oil endowments and international war. However, the study cannot test the oil war hypothesis' causal logic since it includes no measures of resource value, such as oil prices or the size of contested reservoirs. As a result, states' incentives for attacking oil-rich territory remain ambiguous. Although leaders could be fighting because they expect to profit from acquiring valuable petroleum reserves, as anticipated by the oil war hypothesis, they might have alternative oil-related motives, unrecognized by the hypothesis. Alternatively, they may not be fighting for oil at all; the correlation could be spurious. This possibility is heightened by Caselli, Morelli, and Rohner's failure to examine oil's relative importance as a cause of conflict. If oil makes only a marginal contribution to leaders' decisions for aggression, contests fought in petroleum-endowed territories are not oil wars.

The frequency and dynamics of oil wars are therefore very poorly understood.²⁸ In the next section, I probe the logical underpinnings of the oil war hypothesis, arguing that scholars have overestimated the petroleum-related payoffs of seizing oil-endowed territories and, consequently, have exaggerated oil's ability to inspire interstate conflict. To make this argument, I draw on liberal contributions to the value of conquest debate, demonstrating that

²⁴ For examples, see David A. Deese, "Oil, War, and Grand Strategy," *Orbis* 25, no. 4 (Fall 1981): 525–55; Ian O. Lesser, *Resources and Strategy* (London: MacMillan, 1989).

²⁵ Paul K. Huth's measure, for example, includes all natural resources with export value, scarce water resources, and ports. Paul K. Huth, *Standing Your Ground: Territorial Disputes and International Conflict* (Ann Arbor: The University of Michigan Press, 1996), 75.

²⁶ de Soysa, Gartzke, and Lie, "Oil, Blood, and Strategy." See also Kenneth A. Schultz, "Mapping Interstate Territorial Conflict: A New Data Set and Applications," *Journal of Conflict Resolution* (published online before print, 27 December 2015), who finds that areas with oil are less likely to experience international territorial disputes.

²⁷ Caselli, Morelli, and Rohner, "Geography of Interstate Resource Wars." Another analysis finds that the availability of offshore oil resources increases the likelihood that states will militarize competing maritime territorial claims. However, this study employs a questionable proxy for resource availability. Nyman, "Offshore Oil," 4.

²⁸ Colgan, "Fueling the Fire," 155, 180; Vally Koubi et al., "Do Natural Resources Matter for Interstate and Intrastate Armed Conflict?" *Journal of Peace Research* 51, no. 2 (March 2014): 227–43.

many of their arguments apply to oil-rich territories as well as advanced industrialized countries.

OIL IS NOT THE EXCEPTION

One component of the oil war hypothesis is incontrovertible; oil resources have exceptional military and economic value. Oil's military importance was recognized during the First World War, as "[t]he Allies floated to victory on a wave of oil" following the United States' entry into the conflict.²⁹ Oil was also critical to the outcome of World War II, as the German and Japanese militaries were increasingly crippled by their lack of access to petroleum supplies.³⁰ Oil dependence persists in contemporary defense establishments; the US military relies on petroleum for almost 80 percent of its energy consumption, including most of the fuel for the services' land, sea, and air vehicles. Although the Department of Defense has committed itself to greater energy efficiency and using a larger proportion of renewable energy sources to meet its energy needs, at the moment there are no viable substitutes for oil inputs.³¹ Militaries that lack access to oil resources cannot function effectively.

States are also economically dependent on petroleum.³² Lack of access to affordable oil supplies has been correlated with economic recessions in petroleum-importing states.³³ Oil-exporting states are even more dependent on resource access. Many producers, including Nigeria, Venezuela, and Kuwait, rely on petroleum income for more than half of government revenue and over ninety percent of export earnings.³⁴ In these countries, oil rents are vital to the maintenance of internal stability; regimes use petroleum profits to buy popular support and finance robust domestic security apparatuses.³⁵

²⁹ Lord George Curzon, quoted in Morgenthau, *Politics Among Nations*, 157.

³⁰ Daniel Yergin, *The Prize: The Epic Quest for Oil, Money, and Power* (New York: Simon & Schuster, 1991).

³¹Office of the Deputy Under Secretary of Defense (Installations and Environment), *Department of Defense Annual Energy Management Report, Fiscal Year 2012* (June 2013), 28, available at http://www.acq.osd.mil/eie/Downloads/Reports/FY%202012%20AEMR.pdf.; U.S. Department of Defense, *Quadrennial Defense Review Report* (February 2010), 86–88, available at http://www.defense.gov/Portals/1/features/defenseReviews/QDR/QDR_as_of_29JAN10_1600.pdf.

³² Stephen D. Krasner asserts that American governments have consistently been as concerned with civilian access as military access because, although the United States military is highly dependent on oil inputs, these account for less than two percent of national petroleum consumption. Krasner, *Defending the National Interest*, 52.

³³ Amy Myers Jaffe, "Opportunity, Not War," in Jaffe, Michael T. Klare, and Nader Elhafnawy, "The Impending Oil Shock: An Exchange," *Survival: Global Politics and Strategy* 50, no. 4 (2008): 65.

³⁴ U.S. Energy Information Administration (EIA), Country Analysis Briefs for Kuwait (updated October 2014), Nigeria (updated 27 February 2015), and Venezuela (updated 20 June 2014), http://www.eia.gov/countries/.

³⁵ Richard Snyder and Ravi Bhavnani, "Diamonds, Blood, and Taxes: A Revenue-Centered Framework For Explaining Political Order," *Journal of Conflict Resolution* 49, no. 4 (August 2005): 563–97.

Oil revenue is also used to finance national defense. Thus, a loss of oil resources or a drop in international oil prices constitutes a significant threat to oil producers' internal and external security.

Control over oil resources also conveys more subtle benefits. Large oil producers can attempt to leverage their resource authority in order to influence the foreign policies of oil-importing states.³⁶ Consequently, states that are highly dependent on oil imports may possess limited foreign policy autonomy. In contrast, countries that produce most of their oil domestically can resist foreign pressures without undermining national energy security.³⁷ States that import little foreign oil are also less vulnerable to international petroleum price fluctuations, as their governments can shield citizens from volatility by manipulating domestic prices. Countries that are less dependent on oil imports may also have more favorable balances of trade. Over the last four years, the United States' unconventional oil boom has contributed to significant decreases in the national trade deficit by reducing purchases of foreign petroleum.³⁸

Owning oil resources can therefore be a boon to petroleum-exporting and -importing states.³⁹ Quantifying these benefits is difficult, as they vary dramatically depending on a country's resource endowments, the government's fiscal regime for oil production, and oil prices. Nevertheless, this study offers a rough calculation, for illustrative purposes, of the economic rents that the United States government could accrue from seizing Kuwait's oil fields in the year 2014. In that year, Kuwait produced 2.78 million barrels a day and the average spot price for exports was \$96.70 per barrel.⁴⁰ The operating costs for extracting Kuwaiti oil are estimated to be \$4.50 per barrel.⁴¹

³⁶ Some of these efforts have failed; the Organization of Arab Petroleum Exporting Countries (OAPEC) oil embargo in 1973–74, for example, did not prompt changes in importing states' political positions. Roy Licklider, "The Power of Oil: The Arab Oil Weapon and the Netherlands, the United Kingdom, Canada, Japan, and the United States," *International Studies Quarterly* 32, no. 2 (June 1988): 205–26.

³⁷ Morgenthau, *Politics Among Nations*, 124–29, 157; Kenneth N. Waltz, "A Strategy for the Rapid Deployment Force," *International Security* 5, no. 4 (Spring 1981): 49–73.

³⁸ U.S. EIA, "Recent Improvements in Petroleum Trade Balance Mitigate U.S. Trade Deficit," *Today in Energy*, 21 July 2014, http://www.eia.gov/todayinenergy/detail.cfm?id=17191.

³⁹ The resource curse literature suggests that oil wealth can also have negative economic and security consequences, for example, by causing currency appreciation, which reduces international demand for a country's other exports. However, since proponents of the oil war hypothesis do not consider this dynamic, it is not addressed here.

⁴⁰ Total oil production figures are from US EIA, Country Analysis Brief for Kuwait. The price is the 2014 average for Dubai Fateh crude, the most common benchmark for Kuwaiti oil exports. Price data are from the International Monetary Fund (IMF) Primary Commodity Prices, accessed 2 April 2015, http://www.imf.org/external/np/res/commod/index.aspx. Kuwaiti crude is usually sold at a slight discount from the Dubai price. US EIA, Country Analysis Brief for Kuwait.

⁴¹ Estimates from IMF, *World Economic Outlook: Uneven Growth: Short- and Long-Term Factors* (Washington, DC: International Monetary Fund, April 2015), 35.

Thus, the upper bound of annual government rents from oil sales, minus production costs, is approximately \$93.6 billion. 42

In practice, it is highly unlikely that the Kuwaiti government received this sum. A share of profits also flows to the operator of oil projects, which may be an international oil company (IOC) or the state's national oil company (NOC). The division of revenue between a government and its operator varies significantly by time period, country, and project. However, according to a recent study, the average government take from current oil projects is seventy-two percent, collected in the form of royalties, taxes, or profit oil. When this figure is applied to Kuwait's estimated 2014 oil revenue, the government's annual take is approximately \$73.1 billion. In all likelihood, the government's oil rents in 2014 were therefore between \$73.1 and \$93.6 billion.

The precise level of oil rents a government receives depends on production decisions. If American leaders merely wanted to exploit discovered Kuwaiti oil fields over the short term, annual rents would be higher, as operators would only have to cover production costs. However, if leaders wanted to sustain extraction over the long term or exploit areas where resources were rumored but undiscovered, they would also have to pay exploration and development costs in order to reinvigorate old fields and find new reserves. Annual rents would therefore be significantly lower, although they would last longer. 45 Rents would also be affected by the United States' choice of operators for Kuwaiti oil fields. A government can demand a greater share of revenue from its NOC than from foreign oil companies. Yet, NOCs tend to generate less total revenue than private oil companies and may lack adequate capital and technical expertise to develop certain projects. 46 Lastly, rents would depend on how American leaders chose to sell seized oil resources. The government could maximize economic returns by offering oil on the open market, to the highest bidder. However, leaders might prefer to

 $^{^{42}}$ The terms production costs, operating costs, and lifting costs are used interchangeably by petroleum economists.

⁴³ Profit oil is generated through production sharing contracts (PSCs), in which the home government's NOC collaborates with foreign oil companies. The government take estimate is from an IHS–Cambridge Energy Research Associates (CERA) report commissioned by the US Bureau of Ocean Energy Management. Irena Agalliu, *Comparative Assessment of the Federal Oil and Gas Fiscal System* (Cambridge, MA: IHS Cambridge Energy Research Associates, 2011), 13, 86.

⁴⁴ As a comparison, it has been estimated that the United States spends fifty billion dollars a year on Persian Gulf security, not counting specific operations like the 2003 invasion of Iraq. Michael O'Hanlon, "How Much Does the United States Spend Protecting Persian Gulf Oil?" in *Energy Security: Economics, Politics, Strategies, and Implications*, ed. Carlos Pascual and Jonathan Elkind (Washington, DC: Brookings Institution Press, 2010), 60.

⁴⁵ US EIA, "Global Upstream Oil and Gas Spending Continues to Favor Exploration and Development," *Today in Energy*, 25 April 2014, http://www.eia.gov/todayinenergy/detail.cfm?id=16011.

⁴⁶ Silvana Tordo with Brandon S. Tracy and Noora Arfaa, "National Oil Companies and Value Creation," (working paper, World Bank Working Paper, no. 218, Washington, DC, The World Bank, 2011), 38. Some countries, including the United States, also lack NOCs.

direct oil to domestic markets to replace foreign imports. This policy would reduce oil rents, but enhance the security of national energy supplies.

The economic benefits of controlling oil can therefore vary substantially depending on a government's policy choices. Nonetheless, even at their lower bounds, petroleum rents appear to be substantial, suggesting that fighting for oil can pay. However, these calculations, like realist and liberal arguments, are based on a fundamental misconception. They assume that conquered oil resources are equivalent to domestic oil resources. Kuwaiti oil is treated like Texan oil. This assumption leads theorists to overlook the extensive obstacles to exploiting seized oil resources. In the following discussion, I group these obstacles into four categories: invasion costs, occupation costs, international costs, and investment costs. ⁴⁷ The severity of each set of costs varies, depending on the aggressor, target, and timing of international attacks. Nonetheless, when all four are taken into consideration, the profitability of fighting for oil declines dramatically, as does the plausibility of international oil wars.

Invasion costs are the first set of impediments to profiting from seized oil resources. They consist of the loss in rents generated by war-related damages to oil fields and petroleum industry infrastructure. Invasion costs arise because a country's oil industry is comprised of fixed assets, including oil wells, separation and stabilization plants, storage tanks, pipelines, refineries, and ports. These facilities are immobile, difficult to disguise, and often highly flammable, making them vulnerable to military attacks. Oil extraction, processing, and transportation infrastructure also tends to extend over a broad geographic area, increasing the difficulty of defense and the likelihood that some facilities will come under fire in militarized assaults.

Invasion costs can be incurred in numerous ways. An aggressor's aerial bombing and artillery campaigns may accidentally damage petroleum infrastructure by missing intended targets. An aggressor can also deliberately attack its opponent's oil industry. Iraq employed this tactic at the outset of the Iran–Iraq War (1980–88) when it bombed Iran's Abadan oil refinery. Such assaults increase the likelihood of an aggressor victory, as they reduce the target's fuel supplies and petroleum revenue. However, they also diminish the short-term benefits of seizing foreign oil resources, as petroleum income will be limited until wartime damages to infrastructure are repaired. Invasion costs mount if a target state retaliates for these strikes by assaulting the aggressor's domestic oil industry. This dynamic also characterized the early stages of the Iran–Iraq War. In response to Iraq's attacks on Abadan, Iran assaulted Iraqi oil facilities in Basra, Zubair, Mosul, and Kirkuk. Within two months, these tit-for-tat maneuvers had reduced both countries' oil output

⁴⁷ There are many additional costs of war, including manpower and matériel. However, this article follows contributors to the value of conquest debate by focusing on costs associated with the primary variable of interest: in this case, oil. Liberman, *Does Conquest Pay?*, x; Brooks, *Producing Security*, 161.

by two-thirds. 48 As a result, had either belligerent seized its neighbor's oil fields following these attacks, the immediate net petroleum payoffs would have been negative. 49

Short-term petroleum rents are also reduced when a target state responds to an attack by deliberately damaging its own oil industry. In 1942, as Japanese troops approached Indonesia, employees of the Shell and Standard Vacuum oil companies attempted to demolish oil refineries and damage oil wells so that they would be inoperable when the Japanese arrived. More recently, Iraqi troops retreating from Kuwait set fire to over seven hundred oil wells and damaged drilling machinery, gathering centers, and refineries. These destructive efforts are very effective at short-term denial. The Japanese required a year to restore Sumatran production to sixty percent of prewar levels. In Kuwait, the last oil well fire was extinguished nine months after the war ended and production did not return to prewar levels for over two years. Section 2012.

Invasion costs therefore limit an aggressor's "one-time opportunity for looting" after seizing oil-endowed territories.⁵³ The length of production delays and the extent of invasion costs vary depending on the tactics and capabilities of the aggressor and target states; weak aggressors are less likely to prevent local sabotage and more likely to attack the target's petroleum infrastructure in order to increase their chances of victory. However, historical experience suggests that even powerful states have difficulty avoiding invasion costs.⁵⁴ Retreating Iraqi forces were able to inflict expansive damage on Kuwait's oil industry in spite of a rapid, overpowering American bombing campaign. Consequently, seizing oil-rich territories, merely to exploit them in the short term, is unlikely to generate petroleum profits.

Occupation costs, the second set of obstacles, are the long-term reductions in oil rents caused by local resistance against foreign rule. Liberal contributors to the value of conquest debate have recognized that nationalist resistance in advanced, industrialized countries can generate extensive

⁴⁸ Abbas Alnasrawi, "Economic Consequences of the Iran–Iraq War," *Third World Quarterly* 8, no. 3 (July 1986): 873; Dilip Hiro, *The Longest War: The Iran–Iraq Military Conflict* (New York: Routledge, 1991). 42.

⁴⁹ Contributors to the value of conquest debate use the term "reverse cumulative" to capture this outcome. Van Evera, *Causes of War*, 112.

⁵⁰ Irvine H. Anderson Jr., *The Standard-Vacuum Oil Company and United States East Asian Policy*, 1933–1941 (Princeton, NJ: Princeton University Press, 1975), 193; Yergin, *The Prize*, 351–53.

⁵¹ Bob Tippee, "Kuwait Pressing Towards Preinvasion Oil Production Capacity," *Oil and Gas Journal* 91, no. 11 (March 1993): 41–47.

⁵² Ibid.; Raymond Vernon, *Two Hungry Giants: The United States and Japan in the Quest for Oil and Ores* (Cambridge, MA: Harvard University Press, 1983), 91.

⁵³ The phrase is used by Carl Kaysen, who claims that conquest always provides this opportunity. Kaysen, "Is War Obsolete?," ⁵⁴.

⁵⁴ Waltz, "A Strategy for the Rapid Deployment Force," 62.

occupation costs.⁵⁵ However, they tend to downplay the impact of local opposition in primary-commodity-producing countries. This is an oversight. The principle of national self-determination had gained traction beyond Europe and North America by the end of World War I and became a global norm during the decolonization wave that followed World War II. Moreover, during this time period, oil authority became a flashpoint for nationalist sentiments. Mexico nationalized its petroleum industry in 1938 in a show of resistance against foreign domination. Iran followed in 1951 and Iraq in 1961. By the 1970s, most states had reasserted national ownership over oil resources and were insisting on local participation in petroleum projects.⁵⁶ Given the intensity of popular attachment to oil authority, extractive operations are likely to be a flashpoint for local resistance in occupied territories.⁵⁷

Occupation costs can be created through attacks on oil industry infrastructure and personnel. Local opposition groups can kidnap oil company employees and hold them for ransom, raising the costs of producing oil in occupied territories. Local insurgents can also tap and bomb oil pipelines in order to deny revenue to occupiers or to finance resistance operations. In addition, insurgents may attempt to assault larger facilities, such as processing centers and ports. These tactics have been employed in many contemporary intrastate conflicts in oil-producing countries. Kidnappings and pipeline attacks were a major source of insecurity in Colombia from the mid-1980s through the early 2000s and in the Niger Delta in the mid-2000s. Pipelines were also frequent targets of attacks following the United States' 2003 invasion of Iraq.⁵⁸ In 2006, al Qaeda forces attacked Saudi Arabia's Abgaig stabilization facility.⁵⁹ More recently, Iraqi troops have battled Islamic State forces for control of the Baiji refinery in central Iraq, while competing factions in Libya have fought for control over much of the country's petroleum infrastructure.

The occupation costs created through these assaults vary. In their analysis of Saudi Arabian oil infrastructure, Joshua R. Itzkowitz Shifrinson and Miranda Priebe argue that "hard" targets like oil-processing installations are

⁵⁵ Knorr, *Uses of Military Power*, 74; Liberman, *Does Conquest Pay?*, 19; Rosecrance, *Rise of the Trading State*, 34–35. These arguments are also made by realists. See, for example, Krasner, *Defending the National Interest*, 275.

⁵⁶ For a brief overview of this process, see Michael L. Ross, *The Oil Curse: How Petroleum Wealth Shapes the Development of Nations* (Princeton, NJ: Princeton University Press, 2012), 38–43.

 $^{^{57}\,\}mathrm{In}$ 2004, Bin Laden called on Al Qaeda members to attack oil facilities in Iraq and the Gulf. "'Bin Laden' Tape Urges Oil Attack," BBC News, 16 December 2004.

⁵⁸ Thad Dunning and Leslie Wirpsa, "Oil and the Political Economy of Conflict in Colombia and Beyond: A Linkages Approach," *Geopolitics* 9, no. 1 (2004): 81–108; Jennifer Giroux, Peter Burgherr, and Laura Melkunaite, "Research Note on the Energy Infrastructure Attack Database (EIAD)," *Perspectives on Terrorism* 7, no. 6 (2013): 113–25; Ross, *Oil Curse*, 170–74; and Michael Watts, "Petro-Insurgency or Criminal Syndicate? Conflict and Violence in the Niger Delta," *Review of African Political Economy* 34, no. 114 (2007): 637–60.

⁵⁹ Khalid R. Al-Rodhan, *The Impact of the Abqaiq Attack on Saudi Energy Security* (Washington, DC: Center for Strategic and International Studies, 2006).

difficult to damage. Facilities are concentrated, so they are relatively easy to protect, and infrastructure redundancies hinder efforts to disable operations. For these reasons, the Abqaiq attack caused little physical damage and did not interrupt Saudi oil production. Shifrinson and Priebe also assert that "soft" targets, such as pipeline networks, can be quickly repaired through monitoring and by pre-positioning replacement parts. However, the Saudi system is exceptionally well developed. In other countries, where defensive arrangements are less comprehensive, attacks against oil infrastructure have been far more disruptive. From 2003 to 2007, bombings of Iraq's pipeline to Turkey brought exports along that route to a standstill. In Nigeria, attacks on infrastructure and personnel by the Movement for the Emancipation of the Niger Delta (MEND) reduced national output by up to 28%. MEND was even able to assault facilities that were believed to be impregnable; its attack on Shell's Bonga oil platform, 120 kilometers offshore, immediately shut down 10% of Nigerian oil production.

The costs of local resistance in intrastate conflicts are substantial. Nonetheless, the costs incurred by foreign occupiers are likely to be much higher. In intrastate conflicts, a relatively small percentage of the population resists the original ruling regime. In contrast, most of the population opposes foreign occupation. As a result, under occupation, insurgent organizations have far greater human, material, and financial resources to draw upon. This enables them to conduct more frequent and persistent attacks against a larger proportion of national petroleum infrastructure. These attacks are likely to be more effective at interrupting resource production due to their broader scope and because insurgents can exploit the expertise of local oil company employees, who are likely to be sympathetic to the opposition. These individuals can use their knowledge of and access to production and transportation facilities to design and execute more successful attacks. They can also raise occupation costs through work stoppages. In 1978–79, strikes in the Iranian oil industry reduced national production by almost 90%. Venezuelan oil production dropped by almost 80% during strikes in 2002–2003.⁶³ Similar actions in occupied countries could dramatically decrease national oil output.

Occupation costs are difficult to reduce. An aggressor can lessen the likelihood of production interruptions by increasing infrastructure redundancies, creating intricate systems for facility defense, and by changing project

⁶⁰ Joshua R. Itzkowitz Shifrinson and Miranda Priebe, "A Crude Threat: The Limits of an Iranian Missile Campaign against Saudi Arabian Oil," *International Security* 36, no. 1 (Summer 2011): 167–201

⁶¹ Daryl G. Press and Eugene Gholz, "Footprints in the Sand," *The American Interest* 5, no. 4 (March/April 2010): 62.

⁶² "Nigerian Attack Closes Oilfield," *BBC News*, 20 June 2008; Elisha Bala-Gbogbo, "Shell to Chevron Move Offshore as Nigerian Risks Mount," *Bloomberg*, 31 July 2013.

⁶³ Eugene Gholz and Daryl G. Press, "Protecting 'The Prize': Oil and the U.S. National Interest," *Security Studies* 19, no. 3 (July–September 2010): 464, 470.

operators: replacing a local NOC with its own NOC or an IOC. However, these measures also constitute occupation costs, which reduce the profitability of fighting for oil. As a result, occupation costs are severe enough to deter even the most powerful prospective aggressors. In 1974–75, the United States considered occupying Saudi Arabian or Libyan oil fields in order to secure American petroleum access in the aftermath of the first energy crisis. Yet, a congressional feasibility study concluded that preventing local sabotage would be almost impossible. ⁶⁴ Officials were unwilling to bear the costs of occupation and subsequently rejected the idea. For less powerful states, occupation costs are an even greater obstacle.

International costs are the third set of impediments to profiting from seized oil resources. They consist of the loss in rents generated by thirdparty responses to oil wars. 65 They arise for two reasons: the international "norm against conquest" and states' opposition to consolidation of control over global oil reserves. The first factor, the norm against conquest, asserts that seizing foreign territory is illegitimate. 66 It applies to all acts of foreign aggression. However, the international community is likely to view oil wars as particularly egregious violations, since these conflicts are regarded as anachronistic acts of naked state greed.⁶⁷ The second factor, the desire to prevent consolidation, is pragmatic. Should one country gain control over a large percentage of the world's oil, it could use its expanded market power to undermine other countries' energy security by manipulating production levels, pricing, and sales. 68 The fear that Saddam Hussein would exploit his authority over twenty percent of global reserves to impose an anti-Western agenda following his conquest of Kuwait contributed to international support for Operation Desert Storm.⁶⁹

Third parties can respond to oil wars with economic or military instruments. The most prominent economic punishment is multilateral sanctions.

⁶⁴ Congressional Research Service, *Oil Fields as Military Objectives: A Feasibility Study*, 94th Cong., 1st Sess. (21 August 1975) (prepared for the Special Subcommittee on Investigations of the Committee on International Relations). For a prior analysis of this report, see Thomas L. McNaugher, *Arms and Oil: U.S. Military Strategy and the Persian Gulf* (Washington, DC: The Brookings Institute, 1985), 184–95.

⁶⁵ The risks of third-party retaliation are highlighted in de Soysa, Gartkze, and Lie, "Oil, Blood, and Strategy," 12–15.

⁶⁶ Tanisha M. Fazal, *State Death: The Politics and Geography of Conquest, Occupation, and Annexation* (Princeton, NJ: Princeton University Press, 2007), 44–54. See also Knorr, *Uses of Military Power*, 67–68; Mark W. Zacher, "The Territorial Integrity Norm: International Boundaries and the Use of Force," *International Organization* 55, no. 2 (Spring 2001): 215–50.

⁶⁷ As former Canadian Minister of Foreign Affairs Peter MacKay declared in 2007, when a Russian submarine planted its state's flag in the seabed under the North Pole, "[t]his isn't the fifteenth century. You can't go around the world and just plant flags and say, '[w]e're claiming this territory." "Russia Plants Flag under N. Pole," *BBC News*, 2 August 2007. See also Drew Middleton, "Military Men Challenge Mideast 'Force' Strategy," *New York Times*, 10 January 1975; Congressional Research Service, *Oil Fields as Military Objectives*; Waltz, "A Strategy for the Rapid Deployment Force."

⁶⁸ Colgan, "Fueling the Fire," 156–59; Gholz and Press, "Protecting 'The Prize," 455.

⁶⁹ Gholz and Press, "Footprints in the Sand," 60.

Groups of states can refuse to purchase oil produced in occupied territories and in the aggressor's home territories. If economic sanctions campaigns are successful, the aggressor cannot profit from selling seized oil resources internationally, although it can consume them domestically.⁷⁰ When sanctions include the aggressor's own exports, foreign attacks can result in a net loss. Sanctions caused Iraq's oil production to drop by almost ninety percent after its invasion of Kuwait, and the state's low output persisted for years.⁷¹ Military retaliation is at least as damaging. Militarized responses to oil wars attempt to compel an aggressor to withdraw from occupied territory by force. If successful, the aggressor loses control over foreign oil, so it cannot profit from selling seized oil resources internationally or domestically.

The severity of international costs depends on an aggressor's plans for selling seized oil, global petroleum availability, and state capabilities. Aggressors that aim to sell oil internationally are more likely to incur international costs, as their rents can be reduced by sanctions and military campaigns, whereas aggressors that plan to consume resources domestically are only vulnerable to the latter. Sanctions are also more likely to impose costs when global oil supplies are abundant and prices low. Under these circumstances, the loss of one producer's output has less impact on other countries' energy security, so third party states are more willing to participate in sanctions campaigns. 72 The intensity of costs also depends on state power. Weak aggressors are more vulnerable to sanctions and military responses. Yet, even powerful states can be discouraged from oil wars by the prospects of international retaliation. Another factor constraining a US invasion of Saudi Arabia or Libya in the 1970s was fear that the Soviet Union would intervene.⁷³ International costs can therefore be a major impediment to fighting for oil, even for great powers that plan to consume resources domestically when global petroleum supplies are tight.

The final impediments to profiting from seized oil are investment costs. These are the loss of rents incurred through an aggressor's dependence on foreign oil companies. Many prospective aggressors cannot exploit oil deposits without outside assistance. Either they lack their own NOC that can be charged with operations in seized territory, or their NOC lacks the financial capital or technical expertise to independently explore for and produce foreign oil resources. To compensate for these limitations, an aggressor

⁷⁰ Sanctions campaigns against oil producers have had mixed results. However, some, including the recent sanctions regime against Iran, have effectively constrained oil sales.

⁷¹ Iraq's production drop is calculated from US EIA crude oil production data, accessed 20 March 2015, http://www.eia.gov/countries/country-data.cfm?fips=IZ#pet. Iraqi output began to revive in 1997 due to the oil for food program.

⁷² Thijs Van de Graaf, "The 'Oil Weapon' Reversed? Sanctions Against Iran and US–EU Structural Power," *Middle East Policy* 20, no. 3 (Fall 2013): 145–63. This factor contributed to the success of sanctions campaigns against Iraq in the 1990s and Iran since the mid-2000s.

⁷³ McNaugher, *Arms and Oil*, 195. Since the 1990s, Iraq's experience has also been an effective deterrent. Richard H. Ullman, *Securing Europe* (Princeton, NJ: Princeton University Press, 1991), 25.

must persuade foreign oil companies to participate in petroleum projects in occupied territories.

Investment costs arise because, as liberals have recognized, conquest undermines investor confidence. Aggressors are likely to be viewed as unreliable partners. A state that is willing to violate the norm against conquest may also be inclined to violate contracts and confiscate private property.⁷⁴ Investors are also worried about occupation costs, as local insecurity can reduce their profits, as well as the government's. Fears of instability in Colombia deterred exploration for new reserves, while insecurity in the Niger Delta led oil companies to relinquish many of their onshore assets. 75 International sanctions can also discourage companies from investing in seized territories. In addition, oil companies are deterred by the possibility of revanchism. If the target state regains control over occupied territories, it can cancel companies' contracts and expropriate their fixed assets. Since oil projects require large up-front capital investments in exploration and production facilities, the losses from these political changes can be expansive. Consequently, companies either refrain from participating in projects in occupied territories or demand a greater share of revenue to compensate for the risks they are undertaking. Both scenarios reduce an aggressor's payoffs.

The severity of investment costs varies depending on an aggressor's capabilities and the status of seized resources. Costs are higher when an occupier requires extensive foreign financing and expertise to exploit seized fields. In contrast, if an aggressor can independently maximize oil production in occupied territories, investment costs are null. Costs are also higher for prospective resources than proved reserves. Oil exploration projects entail much higher capital costs and generate less certain returns than oil production projects, so companies demand a greater share of profits to investigate oil rumors than to sustain existing operations. Consequently, seizing territories where oil endowments are unproven is a particularly risky endeavor.

Taken together, invasion, occupation, international, and investment costs substantially reduce the payoffs that aggressors can accrue from exploiting foreign oil resources. Often, petroleum profits decline to zero. Under more favorable conditions, aggressors may be able to eke out some profits from exploiting seized resources. However, these payoffs are much lower than proponents of the oil war hypothesis have assumed and insufficient to compensate for the other, non-oil-related costs of international war, including manpower, matériel, and broader damages to belligerents' bilateral relations. Consequently, even under the most favorable circumstances, oil ambitions can only play a marginal role in leaders' decisions for international aggression. This renders oil wars—conflicts in which oil aspirations

⁷⁴ Angell, *The Great Illusion*, 121–22; Brooks, *Producing Security*, 60.

⁷⁵ Bala-Gbogbo, "Shell to Chevron Move Offshore" and Giroux et al., "Research Note," 120.

are a powerful contributor to conflict initiation—impossible. International wars must be fought predominantly for other reasons.⁷⁶

Yet, deductive arguments alone cannot disprove the oil war hypothesis, especially because, like the value of conquest debate, they rely on rationalist assumptions: specifically, that state leaders will accurately evaluate the utility of fighting for oil and base their foreign policy decisions on these calculations. To test whether leaders actually refrain from fighting for oil, the next section examines four historical conflicts that are commonly identified as oil wars to determine whether states' petroleum interests contributed to conflict initiation. It finds that the desire to control more oil resources was not the fundamental cause of any of these supposed oil wars.

SEARCHING FOR OIL WARS

This study employs qualitative case study methods to search for historical oil wars. Purely correlational analyses, such as the statistical tests employed in previous evaluations of the oil war hypothesis, cannot distinguish between conflicts in which the desire to control more oil resources inspires interstate contention and those in which oil endowments and conflict geography merely overlap. Consequently, statistical analyses are likely to overstate the frequency of oil wars and draw spurious conclusions about oil's capacity to inspire conflict. In contrast, case studies can determine whether and how oil interests contributed to leaders' decisions for international aggression.⁷⁷ This study examines four conflicts that are commonly identified as interstate oil wars: Japan's invasion of the Dutch East Indies (1941–42), Iraq's invasion of Kuwait (1990), the Iran–Iraq War (1980–88), and the Chaco War between Bolivia and Paraguay (1932–35).⁷⁸

To maximize analytic leverage, this study would ideally examine most likely cases of oil wars, because demonstrating that these conflicts were not fought for oil would constitute the strongest challenge to the oil war hypothesis. Most likely cases are identified based on extreme values on independent variables of theoretical interest.⁷⁹ For oil wars, these variables include the size

⁷⁶ On oil's subordinate role, see Lipschutz and Holdren, "Crossing Borders," 123.

 $^{^{77}}$ James Mahoney, "Qualitative Methodology and Comparative Politics," $\it Comparative Political Studies 40, no. 2 (February 2007): 122–44.$

⁷⁸ The list is compiled from Caselli, Morelli, and Rohner, "Geography of Interstate Resource Wars"; Colgan, "Fueling the Fire"; de Soysa, Gartzke, and Lie, "Oil, Blood, and Strategy"; Mary Kaldor, Terry Lynn Karl, and Yahia Said, eds., *Oil Wars* (London: Pluto Press, 2007); Klare, *Resource Wars*; Moran and Russell, "Introduction"; Arthur H. Westing, ed., *Global Resources and International Conflict: Environmental Factors in Strategic Policy and Action* (Oxford: Oxford University Press, 1986). In these conflicts, aggressors purportedly aimed to gain permanent control over contested territories' oil resources. The 2003 invasion of Iraq is not included in this analysis because the United States did not aim to obtain direct, sustained control over Iraq's oil reserves. See also Fazal, *State Death*, 234–37.

⁷⁹ Harry Eckstein, "Case Study and Theory in Political Science," in *Handbook of Political Science: Scope and Theory*, ed. Fred I. Greenstein and Nelson W. Polsby (Reading, MA: Addison–Wesley, 1975),

of oil reservoirs and their location; according to previous studies, aggression should be particularly common when deposits are large and situated near international boundaries. My assessment of the obstacles to profiting from oil wars suggests that these conflicts are also most likely when reservoirs have already been discovered and developed, when aggressors can maintain resource production without foreign capital or technical expertise, when they plan to consume resources domestically, and when they do not expect extensive local or international resistance against their occupation.

This study cannot examine cases that fit all of these criteria, however, because no wars have been fought under those precise circumstances. All conflicts that are commonly identified as oil wars lack at least one of these characteristics. The conflicts examined in this article therefore include three highly likely cases, which fit most of the criteria: Japan's invasion of the Dutch East Indies, Iraq's invasion of Kuwait, and the Iran–Iraq War. The fourth case, the Chaco War, is included to increase generalizability, and because it is widely believed to be an oil war. ⁸¹

To evaluate oil's contribution to each war's initiation, I examined secondary source case histories, contemporary news accounts, and leaders' private statements about their aspirations in the conflict. ⁸² I also assessed aggressors' behaviors during the early stages of each war to determine whether they were consistent with the oil war hypothesis: for example, whether leaders expressed the belief that contested territories contained valuable oil resources and whether their initial territorial claims included oil-endowed areas. In addition, I identified any other factors that contributed to leaders' decisions for international aggression. My central questions in evaluating the data were whether an aggressor aimed to establish direct, sustained control over a contested territory's oil resources and how this interest contributed to the decision to attack.

My analysis finds no support for the oil war hypothesis. In the Iran–Iraq and Chaco Wars, leaders had no ambitions to control additional oil resources. In Japan's invasion of the Dutch East Indies and Iraq's invasion of Kuwait, in contrast, aggressors did aspire to seize foreign oil fields. However, these cases contradict the causal logic underpinning the oil war hypothesis. Japan and Iraq did not launch their wars out of oil greed. Leaders did not expect to profit from seizing foreign resources. Nor did they perceive petroleum access as an end in itself. Instead, their attacks were driven by security needs.

^{1:79–137;} Stephen Van Evera, *Guide to Methods for Students of Political Science* (Ithaca, NY: Cornell University Press, 1997), 79–82.

⁸⁰ The finding that reservoirs near boundaries are more likely to encourage conflict is from Caselli, Morelli, and Rohner, "Geography of Interstate Resource Wars."

⁸¹ On diverse case selection, see John Gerring, *Case Study Research: Principles and Practices* (Cambridge: Cambridge University Press, 2007), 88–99.

⁸² I placed less weight on leaders' public statements, as they are likely to downplay their oil-related incentives for aggression in order to avoid triggering international censure.

Japanese and Iraqi officials believed that controlling foreign petroleum was a material requirement for state survival. Security imperatives, not oil prizes, were the fundamental cause of their aggression. In the absence of these existential threats, they would not have attacked foreign oil fields.⁸³

Japan's Invasion of the Dutch East Indies (1941–42)

Japan's invasion of the Dutch East Indies and associated attack on Pearl Harbor is often labeled an oil war. ⁸⁴ This conflict displays many of the most likely characteristics of such conflicts. The colonial territories contained extensive oil fields, which were already in production, prior to Japan's attack. Japanese engineers were capable of repairing damages caused by the invasion and managing subsequent operations. Also, while not bordering Japan, the fields were easily accessible due to the state's earlier incursions into French Indochina and its extensive power projection capabilities. Dutch colonial authorities were not expected to put up much resistance against a Japanese invasion, as their home country had been occupied by Nazi Germany. ⁸⁵

What prevents this from being a most likely case is Japanese leaders' anticipation of American retaliation. Officials were aware that an attack on the Dutch East Indies would provoke a militarized response. They were also pessimistic about their country's chances in a war against the United States. ⁸⁶ They invaded, nonetheless, because they believed that their country's survival was at stake. Over the preceding decades, Japan's leaders had come to believe that the United States was determined to prevent their country's rise as a regional power. ⁸⁷ These perceptions were reinforced by American reactions to Japan's incursions into China and Southeast Asia. In 1938, the United States implemented a "moral embargo" in response to Japan's bombing of Canton. Over the next three years, trade restrictions intensified. They

⁸³ Colgan uses the term "scarcity wars" to describe contests that are "driven by intense, immediate oil shortages," rather than greed. He considers them a subset of resource wars. I resist this classification because it suggests that these contests are fundamentally driven by oil interests, rather than survival imperatives. Colgan, "Fueling the Fire," 154–55.

⁸⁴ Ibid., 152, 154; Kaldor, Karl, and Said, *Oil Wars*, 17–18; Klare, *Resource Wars*, 27; Moran and Russell, "Introduction," 17; and Westing, *Global Resources and International Conflict*, 205. Japan also invaded British Borneo, another oil-producing territory.

⁸⁵ Deese, "Oil, War, and Grand Strategy," 539.

⁸⁶ Nobutaka Ike, trans. and ed., *Japan's Decision for War: Records of the 1941 Policy Conferences* (Stanford, CA: Stanford University Press, 1967), 131, 153, 181; Jun Tsunoda, "The Decision for War," in *The Final Confrontation: Japan's Negotiations With the United States, 1941*, ed. James William Morley and trans. David A. Titus (New York: Columbia University Press, 1994), 230, 268, 276, 287.

⁸⁷ Robert J. C. Butow, *Tojo and the Coming of War* (Stanford, CA: Stanford University Press, 1961), 25, 125, 223; Charles E. Neu, *The Troubled Encounter: The United States and Japan* (New York: John Wiley and Sons, 1975), 103. Previous actions that Japanese leaders interpreted as evidence of the United States' hostile intent included the state's restrictive immigration policies, large tariffs on Japanese manufactured goods, support for Chiang Kai-Shek in China, and resistance to Japan achieving naval parity with the United States and Great Britain.

culminated in July 1941, when the Roosevelt administration froze all Japanese assets in the United States, creating a de facto embargo on purchases of crude oil and refined petroleum products. Great Britain and the Netherlands followed suit; by September, no oil imports were reaching Japan.⁸⁸ If the embargo persisted, the state would rapidly exhaust its oil stockpiles and military operations would come to a standstill.

Japanese leaders felt that they had been backed into a corner. Togo Shigenori, Japan's foreign minister, predicted that unless oil supplies were restored, his state "would inevitably collapse," either from an external attack or internal opposition. ⁸⁹ To prevent that outcome, during the autumn of 1941 Japanese leaders intensified diplomatic negotiations with the United States, trying to persuade American officials to lift the oil embargo. However, the talks failed due to mutual mistrust and Japanese leaders' resistance to a full withdrawal from China and Manchuria. The latter was perceived as a threat to national survival; in a private meeting, Togo claimed that "[f]or the United States to insist that Japan disregard the sacrifices she is making in China is tantamount to telling us to commit suicide."

By November 1941, Japan's leaders had become convinced that the United States and Great Britain were determined to reduce their state to "a third rate country." Moreover, the embargo was not expected to be the end of American pressure. As Prime Minister Konoe Fumimaro asserted at a leaders' conference that autumn, "[e]ven if we should make concessions to the United States by giving up part of our national policy for the sake of a temporary peace, the United States, its military position strengthened, is sure to demand more and more concessions on our part; and ultimately our empire will lie prostrate at the feet of the United States." The only possible means of avoiding this outcome, the Japanese believed, was to resist the United States by force. Although leaders recognized that they were militarily outmatched, they preferred aggression to inaction; as historian Herbert Feis paraphrased Japanese Prime Minister Tojo Hideki, "... rather than await extinction it were better to face death ... "93

The invasion of the Dutch East Indies was initiated out of security needs, not oil greed. Once Japanese leaders recognized that the oil embargo would not be lifted through international diplomacy, seizing foreign resources

⁸⁸ Herbert Feis, *The Road to Pearl Harbor: The Coming of the War Between the United States and Japan* (Princeton, NJ: Princeton University Press, 1950), 206–207, 261.

⁸⁹ This prediction was expressed to American Ambassador Joseph C. Grew. US Department of State, *Papers Relating to the Foreign Relations of the United States, Japan: 1931–1941* (Washington, DC: US Government Printing Office, 1943), 2:714.

⁹⁰ Ike, *Japan's Decision*, 246. See also U.S. Department of State, Papers Relating to the Foreign Relations of the United States, Japan, 2:662, 676.

⁹¹ Ike, Japan's Decision, 198.

⁹² Quoted in Scott D. Sagan, "The Origins of the Pacific War," *Journal of Interdisciplinary History* 18, no. 4 (Spring 1988): 912.

⁹³ Feis, Road to Pearl Harbor, 293.

became a material requirement for resisting the perceived American threat. The Dutch East Indies' oil reserves were therefore a critical target for Japanese aggression. However, Japan did not expect the war to be profitable. Nor was controlling additional oil an end in itself. Instead, it was an instrument for achieving a larger goal: Japan's survival as something more than a minor power.

Iraq's Invasion of Kuwait (1990)

The desperate nature of Japan's attack on the Dutch East Indies is widely recognized. Haq's invasion of Kuwait, in contrast, is commonly identified as the quintessential greedy oil war. The contest also displays many of the most likely characteristics of oil wars. The sprawling Rumailah field crosses the border between Iraq and Kuwait and had already been developed when the invasion occurred. Iraq had the technical capacity to maintain production from Kuwaiti fields. In addition, local resistance against an invasion was expected to be relatively limited; Kuwait had a small population and was militarily outmatched by Iraq. Nonetheless, Iraq faced two major impediments to prosecuting an oil war. First, it would have to sell Kuwait's resources internationally rather than domestically. Second, like the Japanese, Iraqi leaders expected an American military response to their invasion.

They attacked nonetheless out of a sense of desperation, not because of oil greed. Hike Japanese leaders, Iraqi authorities believed that gaining control over foreign oil was necessary for their survival. Iraq's specific oil requirements diverged from Japan's; as an oil producer, it needed additional oil revenue, rather than additional crude and petroleum products. However, Iraqi officials, like Japanese authorities, sensed that they faced a mounting national crisis. Iraq had emerged from its war with Iran owing eighty billion dollars to Arab and Western creditors. The economic situation deteriorated further following a series of privatization initiatives, which aimed to strengthen non-oil sectors of the economy, but instead exacerbated inflation, unemployment, income inequality, and shortages of basic goods, leading to widespread public discontent. A precipitous drop

⁹⁴ The term "desperate" is employed in many studies of Japan's aggression, including Deese, "Oil, War, and Grand Strategy," 542 and Sagan, "Origins of the Pacific War," 895.

⁹⁵ Caselli, Morelli, and Rohner, "Geography of Interstate Resource Wars," 267; Colgan, "Fueling the Fire," 152, 154; de Soysa, Gartzke, and Lie, "Oil, Blood, and Strategy," 3; Klare, *Resource Wars*, 28; Moran and Russell, "Introduction," 17.

⁹⁶ The term "desperation" is used in Kevin M. Woods, David D. Palkki, and Mark E. Stout, *The Saddam Tapes: The Inner Workings of a Tyrant's Regime, 1978–2001* (Cambridge: Cambridge University Press, 2011), 166.

⁹⁷ Martin Viorst, "Report from Baghdad," New Yorker, 24 September 1990, 91.

⁹⁸ Kiren Aziz Chaudhry, "On the Way to Market: Economic Liberalization and Iraq's Invasion of Kuwait," *Middle East Report*, no. 170 (May/June 1991): 14–23.

in international oil prices made the regime's position even more precarious. From January to July 1990, international prices declined from \$20.50 per barrel to \$13.00 per barrel, largely because of Kuwait and the United Arab Emirates exceeding their OPEC production quotas. Iraq's national budget was based on an \$18.00 per barrel price. ⁹⁹ Iraqi leaders feared that, unless the economic situation improved, domestic opposition would soon lead to the regime's collapse. ¹⁰⁰

Like the Japanese, the Iraqis initially attempted to escape their crisis through international diplomacy. They asked the Gulf States to respect their production quotas, forgive Iraq's debts, and grant them new loans. Some countries were responsive but others, including Kuwait, repeatedly refused Iraqi entreaties and even threatened to push for termination of the OPEC quota system. Surprised by the persistence of Kuwaiti intransigence, Saddam Hussein became convinced that his neighbor's resistance was driven by the United States. As an Iraqi letter to the Arab League stated on 24 July 1990, "[t]he Kuwaiti Government's policy was a US policy." 102

Saddam believed that the United States wanted to prevent Iraq's rise as a regional power in order to preserve its own "imperialist" authority in the Gulf. In his words, "they wanted to force our status backwards ... to crush us spiritually and force us to abandon our role. In these suspicions had emerged in the 1970s, when the United States supported a Kurdish rebellion against the regime, and deepened with the revelation of the Iran–Contra scandal in 1986, when Saddam discovered that the United States had sold arms to his adversary while nominally supporting Iraq. In From late 1989 to 1990, American antagonism appeared to intensify; officials criticized Iraq's human rights record, threatened sanctions, imposed increasingly severe restrictions on Iraqi access to American agricultural exports, and broadcast radio programs comparing Saddam's regime to recently fallen governments in

⁹⁹ Janice Gross Stein, "Deterrence and Compellence in the Gulf, 1990–91: A Failed or Impossible Task?" *International Security* 17, no. 2 (Fall 1992): 158.

 $^{^{100}}$ F. Gregory Gause III, "Iraq's Decisions to Go to War, 1980 and 1990," *Middle East Journal* 56, no. 1 (Winter 2002): 47–70.

Majid Khadduri and Edmund Ghareeb, War in the Gulf, 1990–91: The Iraq-Kuwait Conflict and Its Implications (New York: Oxford University Press, 1997), 87 and Joseph Kostiner, "Kuwait: Confusing Friend and Foe," in Iraq's Road to War, ed. Amatzia Baram and Barry Rubin (New York: St. Martin's Press, 1993), 112.

¹⁰² Quoted in Richard N. Schofield, ed., *Documentary Studies in Arabian Geopolitics: The Iraq-Kuwait Dispute, 1830–1994* (Cambridge: Cambridge Archive Editions, 1995), 6:795.

¹⁰³ SH-BATH-A-000-300, February 1987, Saddam Hussein Regime Collection, Conflict Records Research Center (CRRC), National Defense University (NDU). This collection of documents was seized during the 2003 U.S. invasion of Iraq.

¹⁰⁴ Gause, "Iraq's Decisions to Go to War," 58.

¹⁰⁵ Hal Brands, "Making the Conspiracy Theorist a Prophet: Covert Action and the Contours of United States–Iraq Relations," *International History Review* 33, no. 3 (2011): 381–408 and SH-SHTP-D-000-557, 15 December 1990, Saddam Hussein Regime Collection, CRRC, NDU.

Eastern Europe. ¹⁰⁶ Saddam was increasingly convinced that American opposition was implacable; if oil price manipulations failed to unseat his regime, the United States would eventually turn to assassination attempts, airstrikes, or an invasion in order to overthrow him. ¹⁰⁷

By the summer of 1990, attacking Kuwait appeared to offer the only possible means of escaping Iraq's economic crisis and resisting American pressure. By controlling Kuwait, Iraq could increase its share of global oil resources, thereby enhancing its influence over international oil prices, as well as gaining additional petroleum to sell. Iraq would also eliminate a portion of its debts and, by occupying the entire country, create a buffer around its homeland territory and reduce basing options for Western troops, impeding American retaliation.¹⁰⁸ The invasion of Kuwait therefore served multiple purposes, all of which were devoted to a larger goal: regime survival.

Had Saddam merely wished to control Kuwait's oil, he should have attacked at a more opportune moment: in the immediate aftermath of his war with Iran, when third parties were less likely to retaliate, or later, when his state had achieved a nuclear capability. ¹⁰⁹ Under those conditions, Iraq might have maintained its hold on Kuwaiti oil. Instead, Iraq, like Japan, attacked its neighbor with the knowledge that a prolonged occupation was unlikely. Iraqi authorities expected that the United States would respond militarily and attempt to force them out of Kuwait. ¹¹⁰ Saddam proceeded with aggression nonetheless because it offered some possibility of survival, while inaction was expected to lead to certain collapse. In the words of Iraq's Prime Minister, Tariq Aziz, "[w]e were pushed into a fatal struggle in the sense of a struggle in which your fate will be decided. You will either be hit inside your house and destroyed, economically and militarily. Or you go outside and attack the enemy in one of his bases. We had to do that, we had no choice, we had no other choice." ¹¹¹ Iraq's invasion of Kuwait,

¹⁰⁶ Hal Brands and David Palkki, "Conspiring Bastards': Saddam Hussein's Strategic View of the United States," *Diplomatic History* 36, no. 3 (June 2012): 625; Chaudhry, "On the Way to Market," 59; and Stein, "Deterrence and Compellence in the Gulf," 161–65.

¹⁰⁷ These assaults might have been launched with Israeli cooperation. SH-PDWN-D-000-546, 22 May 1990 and SH-PDWN-D-000-534, undated, Saddam Hussein Regime Collection, CRRC, NDU; "Interview Session 4" and "Interview Session 8" in *Saddam Hussein Talks to the FBI: Twenty Interviews and Five Conversations with 'High Value Detainee #1' in 2004*, ed. Joyce Battle (National Security Archive Electronic Briefing Book, no. 279), http://www2.gwu.edu/~nsarchiv/NSAEBB/NSAEBB279/.

¹⁰⁸ Saddam mistakenly expected that the Saudis would not allow Western troops to be stationed in their territory. Mohamed Heikal, *Illusions of Triumph: An Arab View of the Gulf War* (London: Fontana, 1993), 244.

¹⁰⁹ Gause, "Iraq's Decisions to Go to War," 61-62.

¹¹⁰ Interviews with Tariq Aziz and Wafic al-Samarrai for "The Gulf War: An In-Depth Examination of the 1990-1991 Persian Gulf Crisis," *Frontline*, PBS, 9 January 1996, http://www.pbs.org/wgbh/pages/frontline/gulf/oral/iraqis.html.; James A. Baker with Thomas M. DeFrank, *The Politics of Diplomacy: Revolution, War and Peace*, 1989–1992 (New York: G. P. Putnam's Sons, 1995), 361.

¹¹¹ Aziz, "The Gulf War."

like Japan's invasion of the Dutch East Indies, was fundamentally driven by security needs, not oil greed.

The Iran–Iraq War (1980–88)

In the Iran–Iraq War, in contrast, the desire to control additional oil resources did not contribute to Iraq's decision for aggression. This contest has been classified as an oil war, perhaps, because it displays many of the most likely conditions for these conflicts. Huch of the fighting occurred in the oil-rich province of Khuzestan, adjacent to the Iraqi border. The Iranian fields had been producing for many decades when the attack occurred, and Iraq was capable of repairing war-related damage and exploiting the fields without foreign assistance. Resistance against an invasion was expected to be relatively restrained. Khuzestan's population was largely Arab, which would reduce local hostility towards an Iraqi occupation. Military or economic retaliation by third-party states was also unlikely given the intense international enmity against Iran's new Islamic regime. The Iranian state was expected to oppose an Iraqi incursion. However, it had not yet regained its full strength following its revolution.

The Iran–Iraq case is therefore a very promising scenario for an oil war. However, seizing foreign petroleum resources was not one of Saddam's initial aims in the conflict. Instead, his goal was to retake only 335 square kilometers of territory along the central portion of Iran and Iraq's boundary, and to regain full control over the Shatt al-'Arab waterway, which forms the southernmost portion of the states' bilateral border. Iraq had lost full authority over the Shatt in 1975, when the Algiers Agreement shifted the boundary from the river's eastern bank to its central channel. Iraqi leaders had signed the accord under duress in exchange for Iran's promise to halt support for Iraq's Kurdish opposition and to re-demarcate the states' border in accordance with the 1913 Protocol of Constantinople. The Iraqis believed that the latter commitment obliged Iran to return territories in the central border zone along the main route from Tehran to Baghdad, as these fell on Iraq's side of the 1913 boundary. 113 However, the Shah failed to transfer the territories, as did the subsequent Islamic regime. By September 1980, Saddam had concluded that the contested areas could only be retaken by force. 114

¹¹² Caselli, Morelli, and Rohner, "Geography of Interstate Resource Wars," 267; Colgan, "Fueling the Fire," 154; Moran and Russell, "Introduction," 17.

¹¹³ Shahram Chubin and Charles Tripp, *Iran and Iraq at War* (London: I. B. Tauris, 1988), 28; Phebe Marr, *The Modern History of Iraq* (Boulder, CO: Westview Press, 1985), 293. The territories are located between Qasr-e Shirin and Mehran: specifically, 122 km² near Zain al-Qaws, 110 km² near Maimak, and 105 km² near Saif Sa'ad. Ministry of Foreign Affairs of the Republic of Iraq, *The Iraqi–Iranian Dispute: Facts v. Allegations* (New York: Ministry of Foreign Affairs of the Republic of Iraq, 1980). These areas' oil endowments are marginal compared to those of Khuzestan, which produces eighty percent of Iran's oil.

¹¹⁴ SH-SHTP-A-000-835, 16 September 1980, Saddam Hussein Regime Collection, CRRC, NDU.

Increasing bilateral political tensions provided an additional incentive for aggression. Although the Iraqis had initially welcomed the Shah's overthrow, relations between the two regimes deteriorated rapidly. By April 1980, the Iranian government was threatening to "export" the revolution, sponsoring assassination attempts on Iraqi politicians, encouraging Iraqis to overthrow the "criminal" Ba'ath regime, and resuming material support for the Kurds. By August, this opposition escalated to outright confrontation; militarized clashes began to occur in the central border region. On 7 September Iraqi forces advanced into the contested territories, determined to retake their land and counter the Iranian threat.

These initial attacks achieved most of Iraq's war aims. On 16 September Saddam told his close advisors that "[t]oday we can say that all of the lands extorted by Iran are back under our sovereignty." ¹¹⁶ Iraq's only remaining territorial goal was to retake the Shatt al-'Arab. On 17 September, Saddam unilaterally abrogated the Algiers Agreement, asserting that Iran had failed to uphold its end of the bargain, so Iraq was no longer tied to the accord. 117 In order to retake the Shatt, the Iraqis launched a major offensive in Khuzestan. Saddam hoped to compel Iran into territorial concessions by threatening the state's petroleum infrastructure. 118 However, Saddam had no ambitions to control additional Iranian oil reserves. In the first month of the war, the Iragis repeatedly offered a full withdrawal from Khuzestan if the Iranians would recognize their authority over the central territories and the Shatt. 119 It was only after Iran rejected these offers and the conflict persisted that the Iraqis began to threaten a prolonged intervention, asserting, "the occupation of territory in the course of the war might create 'certain rights which did not exist before the war began." 120

Iranian diplomats seized on such statements to accuse Iraq of attacking Khuzestan for its oil. However, the oil war hypothesis is not supported by internal Iraqi documents or by leaders' behavior in the opening stages of the conflict. Saddam's only initial war aim that bore any connection to oil was to reassert Iraq's control over the Shatt al'Arab, an oil transportation

¹¹⁵ Anthony H. Cordesman, and Abraham R. Wagner, *The Lessons of Modern War, vol. IV: The Gulf War* (Boulder, CO: Westview Press, 1996), 29–30; Efraim Karsh, "From Ideological Zeal to Geopolitical Realism: The Islamic Republic and the Gulf," in *The Iran–Iraq War: Impact and Implications*, ed. Efraim Karsh (Houndsmills, UK: Palgrave Macmillan, 1989), 29–30.

¹¹⁶ SH-SHTP-A-000-835, translated in Woods et al., *The Saddam Tapes*, 132.

¹¹⁷ Ibid.; "Iraq President's Speech: Abrogation of 1975 Agreement with Iran," *BBC Summary of World Broadcasts*, 17 September 1980.

¹¹⁸ SH-MISC-D-000-827, 1 October 1980, Saddam Hussein Regime Collection, CRRC, NDU.

¹¹⁹ Richard Eder, "Iraq Envoy in Paris Sets Peace Terms," *New York Times*, 26 September 1980; Nicola Firzli, *The Iran–Iraq Conflict* (Paris: Institute of Studies and Research, Éditions du Monde Arabe, 1981), 217–18.

¹²⁰ Chubin and Tripp, Iran and Iraq at War, 55.

¹²¹ One early accusation was included in an Iranian statement at the United Nations on 17 October 1980. Tareq Y. Ismael, *Iran and Iraq: Roots of Conflict* (Syracuse, NY: Syracuse University Press, 1982), 217.

route. However, the desire to secure oil transportation networks is a separate conflict mechanism from the oil war hypothesis. ¹²² Moreover, if safeguarding oil transportation had been a central Iraqi goal, war with Iran was a poor strategy for achieving it. Vessels in the Shatt were an easy target for Iranian bombers and artillery, as were Iraq's port facilities. Consequently, within the first few months of combat, burned-out ships fully blocked the Shatt and oil transportation along the waterway ceased for the remainder of the war. Absent the conflict, shipping would likely have proceeded uninterrupted. Saddam's goals in attacking Iran were therefore neither to secure oil transportation nor to gain control over foreign oil fields. Instead, he aimed to reverse the "humiliations" of the Algiers Accord by retaking Iraq's "rightful" territory and to strike a blow against an increasingly hostile Iranian regime. ¹²³

The Chaco War (1932–35)

Like the previous three conflicts, Bolivia and Paraguay's devastating contest over the Chaco Boreal, a scrubland west of the Río Paraguay and north of the Río Pilcomayo, is often identified as an oil war. During the contest, leftist intellectuals in the region claimed that the conflict was a proxy war for Standard Oil and Royal Dutch Shell, who had pushed Bolivia and Paraguay to war in order to gain access to the Chaco's prospective oil resources. 124 Similar accusations were voiced by Louisiana Senator Huey Long, who blamed the war on Standard Oil specifically. 125 More recently, international relations scholars have also attributed the Chaco War to participants' oil ambitions. 126 However, in contrast to the other three contests, this conflict displays few of the most likely characteristics of oil wars. Not only was no oil subsequently found in the Chaco; oil companies were aware, prior to the conflict, that discoveries were unlikely. Both belligerents also lacked the capacity to explore for oil resources on their own. In addition, although neither state anticipated a militarized third party response to aggression, local resistance was expected to be substantial. Bolivia and Paraguay had been contesting control over the Chaco for more than fifty years. As efforts to negotiate a

¹²² Colgan, "Fueling the Fire," 166–68.

¹²³ SH-SHTP-A-000-835, Saddam Hussein Regime Collection, CRRC, NDU; Gause, "Iraq's Decisions to Go to War," 47–70; Chaim Herzog, "A Military-Strategic Overview," in *The Iran–Iraq War: Impact and Implications*, ed. Karsh, 257.

¹²⁴ For overviews of these arguments, see Herbert S. Klein, "American Oil Companies in Latin America: The Bolivian Experience," *Inter-American Economic Affairs* 18, no. 2 (Autumn 1964): 57 and Herbert S. Klein and José Alejandro Peres-Cajías, "Bolivian Oil and Natural Gas under State and Private Control, 1920–2010," *Bolivian Studies Journal* 20 (2014): 148.

¹²⁵ Michael L. Gillette, "Huey Long and the Chaco War," *Louisiana History: The Journal of the Louisiana Historical Association* 11, no. 4 (Autumn 1970): 293–311.

¹²⁶ Caselli, "Geography of Interstate Resource Wars," 268; Colgan, "Fueling the Fire," 152, 154, 172; Geoffrey Kemp, "The New Strategic Map," *Survival: Global Politics and Strategy* 19, no. 2 (1977): 50–59; and Westing, *Global Resources and International Conflict*, 205.

settlement repeatedly failed, resistance to territorial concessions deepened. Bilateral intransigence, rather than competition over oil resources, led the conflict to escalate to outright war.

The Chaco War began with minor confrontations near Lake Chuquisaca, in the center of the contested region, in June 1932. Bolivia and Paraguay's dispute over control of the Chaco had existed since the 1850s, but intensified after both states suffered territorial losses elsewhere. Bolivia forfeited control over the rubber-rich Acre territory in 1903 and lost its Pacific coastline in the 1904 settlement of the War of the Pacific (1879-83). Paraguay ceded large portions of its territory to Brazil and Argentina following the War of the Triple Alliance (1864–70). As a result of these losses, both states were deeply committed to maintaining their hold over the Chaco. A series of failed mediation efforts, starting in 1879, increased popular hostility and reduced leaders' confidence in the feasibility of negotiated solutions. 127 Meanwhile, both states were expanding their presence in the contested territory, leading to their armies' first fatal confrontation in February 1927. 128 For a few years, militarized incidents were contained by local restraint and third-party mediation. However, the June 1932 clash was allowed to escalate, as Bolivia and Paraguay sought to resolve their interminable dispute. The war persisted for three years, eventually resulting in ninety thousand fatalities. As popular opinion turned against the conflict, leaders in both countries attempted to shift responsibility by blaming the war on the machinations of foreign oil companies. 129

Yet, oil companies had no interest in the Chaco. The region's geology was considered unpromising. Moreover, Standard Oil's behavior during the war was inconsistent with an oil motive. Rather than supporting the Bolivian government, thereby putting itself in a favorable position for acquiring concessions in the Chaco after the conflict, Standard resisted increasing oil production from its Bolivian concessions, even to meet the state's wartime requirements. Instead, the company shut down most of its operations, lied about its refining capabilities, and shipped equipment out of the country. This obstructionism created such hostility against Standard that, in 1937, the Bolivian state expropriated all of the company's holdings. ¹³¹

Bolivia and Paraguay did not initiate the war in order to seize oil resources in the Chaco, either to serve the desires of foreign oil companies

¹²⁷ Leslie B. Rout Jr., *Politics of the Chaco Peace Conference*, 1935–1939 (Austin: University of Texas Press, 1970), 13.

¹²⁸ Bruce W. Farcau, *The Chaco War: Bolivia and Paraguay, 1932–1935* (Westport, CT: Praeger Publishers, 1996), 11–13.

¹²⁹ Stephen Cote, "A War for Oil in the Chaco, 1932–1935," *Environmental History* 18, no. 4 (October 2013): 2–13–15

¹³⁰ Ibid., 14-15; Enrique Finot, *The Chaco War and the United States* (New York: L. and S. Printing Company, 1934), 11–15; Rout, *Politics of the Chaco Peace Conference*, 49, 144.

¹³¹ Klein, "American Oil Companies in Latin America," 57–62; Klein and Peres-Cajías, "Bolivian Oil and Natural Gas," 148.

or for their own benefit. Neither government identified oil resources as a source of competition in the early stages of the war. Consequently, the conflict fails to support the oil war hypothesis. However, Bolivian officials did identify oil transportation as an incentive for war. The government was eager to expand the state's fledgling oil industry, but needed an export outlet in order to justify increased production. A Pacific route was unviable due to technical obstacles and Bolivia's loss of its coastal province. A southern route became uneconomical in 1927 when Argentina refused Bolivia's request to construct a pipeline across Argentine territory and increased taxes on rail transportation of Bolivian petroleum. The oil transportation argument asserts that Bolivia went to war in order to secure the last available export route: a pipeline across the Chaco to a port on the Río Paraguay.

Oil transportation is a distinct conflict mechanism from oil wars; therefore, even if the former were a significant motive for Bolivian aggression, the Chaco War would not support the oil war hypothesis. However, the oil transportation argument is unsatisfying on its own merits. A Chaco export route was unlikely to be cheaper or more secure than rail transportation through Argentina. The lack of development in the northern Chaco and the region's harsh environmental conditions would make pipeline and port construction very costly. 135 In addition, Buenos Aires could still impose shipping duties on Bolivian exports, since the Río Paraguay reaches the Atlantic via the Río Paraná, which traverses Argentina. Moreover, Bolivia would have to contend with Paraguayan resistance, which was likely to intensify if the two countries fought a war. 136 The only way to curb this opposition would be a complete rout of Paraguayan forces, an outcome that the Bolivian general staff judged to be impossible. 137 Consequently, exporting oil via the Río Paraguay was not a viable conflict goal. Having recognized these impediments, Standard Oil had rejected the idea of a Chaco pipeline by 1925. 138

The oil transportation argument was not a rational incentive for aggression. However, after Bolivia lost its Pacific coastline, the idea of a littoral elsewhere acquired enormous symbolic importance. As a result, the population was unwilling to compromise on authority in the Chaco or access to

¹³² Prior to Long's speeches in 1934, Paraguay's president had "scoffed" at the idea that Standard was behind the war. Gillette, "Huey Long and the Chaco War," 299.

¹³³ President Salamanca mentioned it in a speech before the Bolivian Congress on 6 August 1932. Text partially reprinted in Alfredo M. Seiferheld, *Economia y Petróleo durante la Guerra del Chaco* (Asunción: Instituto Paraguayo de Estudios Geopolíticos e Internacionales, 1983), 475.

¹³⁴ Rout, Politics of the Chaco Peace Conference, 47.

¹³⁵ Cote, "War for Oil in the Chaco," 8-9.

¹³⁶ Rout, *Politics of the Chaco Peace Conference*, 50–51.

¹³⁷ These views were expressed in a letter from the chief of the Bolivian General Staff to President Salamanca in August 1932. "Document no. 36" in *Documentos para una Historia de la Guerra del Chaco: Seleccionades del Archivo de Daniel Salamanca, vol. 1*, ed. Eduardo Arze Quiroga (La Paz: Editorial Don Bosco, 1951), 333–41.

¹³⁸ Rout, Politics of the Chaco Peace Conference, 46.

the Río Paraguay, regardless of the limited practical incentives for sustaining these claims. Bolivia's president, Daniel Salamanca, recognized and played on this popular sentiment, trumpeting the Chaco issue in order to compensate for his inability to resolve his country's deepening economic problems. The dispute with Paraguay was the one contest that he and Bolivia might be able to win. Meanwhile, Paraguayans viewed the Chaco conflict as a "fight for survival." They had invested heavily in the territory and believed that holding it was critical to their state's economy. Hence, neither side was willing to back down from a conflict. ¹³⁹ National pride and a fear of further territorial dismemberment, rather than a desire for more oil resources or oil transit security, brought the states to war.

THERE WON'T BE BLOOD

This article examined four conflicts that are commonly identified as oil wars. Three of the four are highly likely cases, displaying many of the characteristics that should make fighting for oil pay. They should therefore be easy cases for the oil war hypothesis. Yet, the hypothesis is not supported by any of them. In the Iran–Iraq War and Chaco War, the desire to control petroleum resources was not an incentive for international aggression. In Japan's invasion of the Dutch East Indies and Iraq's invasion of Kuwait, leaders did aim to seize foreign oil resources. However, the motives underlying their attacks were very different from those proposed by the oil war hypothesis. Japan and Iraq did not fight out of oil greed, expecting to profit from seizing a petroleum prize. Instead, they fought because of security needs, believing that gaining control over additional oil was a necessary tool for their survival. Had leaders not perceived this broader sense of threat, neither state would have attempted to seize foreign petroleum resources. Existential imperatives, rather than oil ambitions, drove international aggression.

These findings indicate that oil wars, as conventionally conceived, do not exist. Oil is an extremely valuable natural resource. However, invasion, occupation, international, and investment costs reduce the payoffs of seizing foreign resources. Profiting from seized oil is difficult at best and impossible at worst. As a result, petroleum prizes are not sufficiently valuable for oil to be a significant contributor to leaders' decisions for international war. Consequently, a territory's petroleum endowments are a poor predictor of its ability to inspire interstate conflict.

These observations have positive implications for contemporary disputes in oil-rich regions like the South China Sea, East China Sea, eastern

¹³⁹ The quotation is from Farcau, *Chaco War*, 24. See also ibid., 8–39; Herbert S. Klein, *A Concise History of Bolivia* (New York: Cambridge University Press, 2011), 172–75; Rout, *Politics of the Chaco Peace Conference*, 26–52.

Mediterranean, and Arctic, as they suggest that competition over these territories' oil resources will not lead to intense militarized conflicts. However, one might counter this optimistic assessment by arguing that the contemporary contests are not analogous to the historical cases. The greatest difference between them is that, in the current disputes, political authority is ambiguous; multiple countries have legitimate claims to contested territories. Consequently, in these areas, an aggressor would not be seizing "foreign" oil. This distinction would reduce occupation costs, as local resistance would be more restrained. Invasion costs would also be lower, since most of the resources at stake in these contests are prospective; there is less oil infrastructure for aggressors and targets to destroy.

These arguments have some merit. However, prospective resources also generate higher investment costs, as countries must explore for oil instead of just producing it. The total payoffs that an aggressor can accrue from prospective resources are also very uncertain. In addition, international costs remain high, as the international community condemns the use of force in all territorial disagreements, including those where political authority is ambiguous. Hence, the costs of aggression should still deter contemporary adversaries from fighting for oil. This is not to say that current disputes in purportedly oil-rich regions will never escalate. However, if they do, it will be for other, more pressing reasons. The resultant conflicts will not be oil wars.

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 $^{^{140}}$ Occupation costs may even be zero, as much of the territory contested in these cases is unoccupied.

¹⁴¹ A similar logic may explain Great Britain's decision to occupy Mesopotamia at the end of World War I. Invasion costs were low, as British forces were already present and the Ottoman Empire had been effectively defeated. In addition, the British were replacing another occupier, not an independent, indigenous government, so they could expect less local resistance. On this case, see Kelanic, "The Petroleum Paradox."