

Chapter 4

New Configuration or Reconfiguration? Conflict in North–South Energy Trade Relations

Paul A. Williams

Introduction

As energy prices in the early twenty-first century approached figures last seen during the 1970s “oil shocks,” confrontation between developed consumer countries and less developed supplier countries gained renewed saliency. However, while optimists view price-related pressures leading to conflict as cyclical and transitory, incapable of overwhelming larger North–South trade complementarities, others emphasize the stronger momentum of rising demand and declining supply trends, conjoined with asymmetrical Northern military power, in the direction of “resource wars.”

The optimistic case rests largely on the parallel logics of the “product cycle” and “obsolescing bargain” (Vernon 1971). As learning and technological diffusion lower barriers to entry and earlier expropriations have positive demonstration effects (Kobrin 1985), host governments seek to curtail multinational corporations’ (MNC) role in their commodity sectors. While the former concept implies that increased supply from developing countries’ national oil companies (NOCs) would lower prices, thereby reinforcing the need for MNCs’ marketing skills and limiting seizure of their “upstream” assets, countervailing demand pressures allowed NOCs to find their own marketing outlets (Vernon 1977, 1980). Recent accounts point to how signal events, such as the 1982 Debt Crisis, tilted power back to MNCs, which have availed themselves of official Northern institutions to guarantee FDI (foreign direct investment) prerogatives (Mommer 2002; Hildyard & Muttitt 2006; Holland 2006a, 2006b). Thus, the post-2003 resurgence in “resource nationalism” seems anomalous.

Nonetheless, this depiction of North–South energy-centric conflict omits the incentives of Northern governments, representing *consumer* majorities, to use more

coercion in countering supply manipulation and in preserving their economic latitude to sanction particular Southern exporters. The “resource wars” argument holds that Northern countries, notably the United States, are deploying force to ensure access to stable lower-priced imports (Klare 2002; Rutledge 2005; Hallinan 2006), partially in anticipation of post-2005 “peaks” in global oil and gas output (Darley 2004; Peters 2004; Deffeyes 2005). What remains puzzling, however, is that it was only after the 2003 Iraq War, thought by many to have been motivated by oil, that an incipient post-1998 seller’s market became full-blown, vesting greater economic power in Southern exporting states. Just as US counter-measures to the 1970s “energy crisis” were constrained, the probability of further “resource war” is reduced by US experiences in Iraq, leaving economic adjustment as the most viable alternative response.

This chapter elucidates general patterns and types of North–South energy trade conflict pitting governments of less-developed host countries and their organizations against MNCs and major consumer-country governments. Based on the example of oil, it delineates the sociopolitical economy of the “energy trade cycle,” an analytical construct of a general oscillation between “buyers’ markets” and “sellers’ markets,” based not simply on the product cycle model, but also on realism, prospect theory, and constructivism. Realism is consistent with the assumption that host governments have greater incentives to keep prices high than Northern consumers have to suppress them, such that sellers’ markets advantage “offensive” actions by Southern states (to alter the status quo), inclusive of sanctioning selected consumer countries, yet it also concedes a higher likelihood of Northern “counter-offensives” to restore corporate privileges and compel increased or stable supply. Conversely, prospect theory highlights the leverage inhering in actions intended to avert losses, suggesting that buyers’ markets favor “defensive” actions by consumer governments (to defend the status quo), including deterrence of forcible supply cuts by, and the application of sanctions against, select producer governments, but allows that this market structure also stimulates efforts by producer states to prevent price collapses.

Finally, a constructivist approach stresses the role of historical events in shifting the relative weight of legitimacy attached to different modes of behavior constituting “offensive” or “defensive” actions. Whereas post-World War II decolonization gradually elevated the importance of, and prevented the erosion of, Southern state sovereignty over territorial resources, later experiences with high inflation rates, commodity price fluctuations, excessive military spending, and “resource” conflict, as well as corruption and NOC underinvestment in the energy sector, produced a different social knowledge that resource wealth can be a “curse” for its holders and should be held in trust for the benefit of Third World populations (Ross 1999; Le Billon 2001; Birdsall & Subramanian 2004; Pegg 2006). The larger insight from constructivism is that divergent social understandings may account for Southern and Northern state behaviors that persist despite unfavorably altered material conditions.

The chapter proceeds as follows. The first part surveys the aforementioned theoretical frameworks of inquiry into North–South energy-centric relations. It then

delineates the “trade cycle” for oil and explicates how its different phases (i.e., buyer’s vs. seller’s market conditions) account both for the occurrence of certain North–South energy-related conflict types as well as limitations on the representative conflict strategies in question. The last section explicitly addresses whether recent North–South energy trade problems represent a basic “reconfiguration” of passing divisions reminiscent of the 1970s or augur a “new configuration” of intensifying conflict between established Northern importer–consumers and growing Southern producer–consumers before considering policy implications and directions for further research.

Theoretical Frameworks

Realism

Energy-related trade conflict lends itself to realist analysis in important respects. According to this school of thought, the anarchic structure of the international system, in which states remain final arbiters of the ends they pursue and the means they apply, makes conflict endemic. States define the national interest to encompass both a necessary concern for survival, coterminous with territorial sovereignty, and an irreducible minimum of power to ensure survival (Waltz 1979). As states remain uncertain about each other’s intentions, their pursuit of power, even if only for security, results in a collective security dilemma (Jervis 1978).

Realism divides on whether states maximize security or power. Defensive realists posit that security can be attained at less than maximum power, notably when defensive means are advantageous to deploy relative to offensive ones (Glaser 1997). Offensive realists counter that, because all capabilities are inherently offensive, states seek security through hegemony, leading to counterbalancing and war (Mearsheimer 2001: 21, 34–6). Hegemony is particularly problematic for lesser powers because the preponderance of power that encompasses singular control over material resources to stabilize the world economy (Keohane 1984: 32) also permits predatory behavior (Snidal 1985: 585–90). For example, the Carter Doctrine, articulating a US prerogative to use force in the Persian Gulf region, is as consistent with denying territorial assets to competitors (Pape 2005: 30–2) as with preserving the egress of petroleum for the sake of the world economy.

Structural realists relegate specific motives behind conflict to the unit level of analysis. However, as neoclassical realists contend (Layne 2006: 10–11) and Waltz (1959: 232–4) admits, specific conflicts have “efficient” causes. Chronic material scarcity, not just scarcity of security inhering in anarchy, provides a key impetus for human aggression (Thayer 2000). Others root the drive to acquire more resources in the expanding consumption requirements of modern economies (Klare 2002: 5–15) or, more particularly, in the American capitalist economy and its corollary “Open Door” requirements (Layne 2006: 7–10).

If resource shortages seem dire enough, major importing–consuming states face heightened motives to use military force to secure desired supplies against perceived sources of blockage. For the United States, after the “peaking” of protected

domestic oil output and loss of spare capacity in 1970 (Mommer 2002: 152), incentives grew to ensure flows of Persian Gulf oil. The American government, then trying to extricate troops from Vietnam and facing Soviet expansion of its Mediterranean naval fleet and increased shipments of materiel to its Arab allies, responded to the 1973–4 Arab oil embargo in part by threats of force (Knorr 1976: 236–7), backed by non-activated contingency plans for seizing Gulf oilfields (Alvarez 2004). The collapse of the Soviet counterbalance (Mitchell et al. 2001: 183–4) and a technological shift in favor of offensive means (Orme 1997–8) established the “permissive” context within which forecasts of rising imports of Persian Gulf oil (Klare 2004: 74–8; Rutledge 2005: 141–4) and a post-2005 “peaking” in global oil output could be construed as precipitating the 1990–1 Gulf War and 2003 Iraq invasion (Peters 2004; Deffeyes 2005: 9).

Conversely, other realist accounts do stress the *ultima ratio* nature of great-power interventions. Foreign military occupations must surmount large logistical hurdles and the nationalist resistance (Jervis 1978: 194–5; Le Billon 2001: 570) that prevails in many resource-rich areas of the Third World and that is bolstered by Southern commodity exporters’ dependence on high revenues. As suggested by Kuwaiti threats in early 1974 to detonate oil installations in the event of invasion (Knorr 1976: 236), or by the notion that the value of capturing “upstream” assets can be degraded by otherwise weaker opponents’ efforts to obstruct “downstream” flows (Ross 2004: 350), geographical advantages may favor smaller defenders (Glaser 1997: 189).

Prospect theory

Developed to explain anomalies in expected-utility models of decision making, prospect theory serves as an adjunct to realism in accounting for core powers’ persistence in losing military ventures on the periphery, the relative efficacy of deterrence over compellence, preventive war and crisis escalation. It argues that deviations from optimal behavior stem from “reference point bias” (i.e., relating choices to salient expectations), “loss aversion” (striving to avoid losses rather than seeking gains), the “endowment effect” (overvaluing existing possessions), “renormalization” (assimilating new acquisitions faster than perceived losses), and “risk acceptance” (taking risks to avoid certain losses, not to achieve probable gains) (Jervis 1992, 2004; Levy 1997).

The relevance of this theory in the issue area of North–South energy relations relates to the supposition that, because leverage devolves on those facing losses, relatively more gradual emergence and longer duration of alternating phases in the “trade cycle” tend to favor “defensive” actions by the side attempting to limit reductions in their existing benefits. For example, multinational corporations’ unilateral lowering of the “posted prices” of their Persian Gulf oil supplies during the buyer’s market conditions of the late 1950s galvanized formation of the Organization of Petroleum Exporting Countries (OPEC) in 1960 (Skeet 1988: 17). Over the following decade, only at a gradual rate often lagging behind demand growth, did OPEC members obtain larger shares of returns from energy-sector FDI. Curtailment

of demand and export revenues after the 1982 and 1998 market slumps stimulated OPEC coordination with non-OPEC exporters in restricting output to shore up weak prices (Skeet 1988: 201; Mitchell et al. 2001: 166–9). Conversely, as a buyer's market had become entrenched by the late 1980s, perceptions of Iraq's "offensive" endeavor to raise prices via attacking Kuwait and expectations that it would sever more oil trade by invading Saudi Arabia and the UAE (United Arab Emirates) led to Northern states' "defensive" use of force (Copeland 1996: 40).

Identifying reference points by which motivations for seemingly risky behavior can be ascertained remains problematic. Incentives exist to manipulate frames of reference to "make an identical situation seem different in terms of people being in the realm of gains in one and being in the realm of losses in the other" (Jervis 2004: 172), as when OPEC countries linked their own post-August 1971 demands for higher "posted prices" and subsequent inflation to the destabilizing efforts of earlier US suspension of the dollar's convertibility into gold and its falling value (Penrose 1976: 44, 46–7; Skeet 1988: 71–2; Venn 2002: 164). Moreover, motivated biases exist to evade responsibility for adverse changes. Attribution theory, implying that actors tend to blame conflict on others and take credit for successful cooperation (Jervis 1992: 192), can account for Northern officials' view that sellers' markets reflect deliberate exporter (in)action, rather than rising consumer demand (Venn 2002: 161). Exporters have obverse incentives to attribute high prices to inadequate consumer-country refining capacity, which also limits Chinese crude imports (Ratliff 2006), or to speculative activity that accompanies supply disruptions (Alster 2006).

Social constructivism

Determining the relative defensibility of conflictive actions requires insight into how historical experiences shape the institutional prevalence of specific reference points. Constructivist approaches argue that material resources acquire particular meanings only within larger social structures, which also consist of intersubjective knowledge and practices that (re)produce these structures (Wendt 1995: 73). Some constructivists concede "ontological priority" to "brute facts" over institutional ones (Wendt 1999: 110), but others maintain that "[o]nly because of socially defined use do . . . raw materials constitute resources, which are also assets when they are constituted in reference to immediate ends, or interests" (Onuf 1989: 285).

Post-World War II decolonization juxtaposed Southern states' developmental aspirations against foreign corporate FDI and operational control in their hydrocarbon sectors. Undergirded by rights to seek international arbitration of disputes, the concession system granted sovereign states rents, comprising royalties and taxes, while allowing companies to find, produce, and sell oil, thus consolidating tacit cartel power, outside of the US market, in seven major MNCs (Mommer 2002: 99, 118–25, 161). The norms and rules of the issue area were reproduced by corporate cartel practices of denying export markets for countries, such as Mexico (1938) and Iran (1951), which unilaterally exerted greater sovereignty over their oil industries (Kobrin 1985: 20–3).

The cartelization of the market, as well as corporate derogation of social norms, as perceived in Esso's (later Exxon's) unilateral reduction in crude oil's "posted price," then the basis for calculating Gulf Arab governments' fiscal take, inspired the 1960 creation of OPEC, "a nationalist response to an economic colonialism . . . expressed in the concession system" (Skeet 1988: 222). OPEC's charter text decried "the attitude . . . adopted by the Oil Companies in effecting price modification" and exhorted member states to try to restore earlier pricing conditions and to stabilize prices through output regulation (*ibid.*: 246). The latter goal signalled an inchoate shared understanding among its founding members that OPEC should be a cartel, like that of the seven majors abroad and the Interstate Oil Compact Commission in the United States (Mommer 2002: 134–5). OPEC's evident defensiveness lay in its inability to alter the extant buyer's market.

Decades later, Southern control of territorial resources had become the prevailing norm. Despite evidence of flagging sectoral productivity, key exporting states have tightly guarded power over resource production (Marcel 2006: 3), such that Western scholars were surprised that Venezuela would assent to the insertion of outside arbitration provisos into joint-venture contracts (Mommer 2002: 216–17). Norway was instrumental in getting the 1994 Energy Charter Treaty, intended to open access to Russian reserves and pipelines, to include "Sovereignty over Energy Resources" (*ibid.*: 176–7), and NAFTA (North American Free Trade Agreement) leaves Mexico's oil sector nationalized (Rutledge 2005: 99). Before the 2003 Iraq invasion, coalition authorities were admonished to minimize "risks of popular resentment of US neo-colonialism leading to violence in the region" (Marcel & Mitchell 2003: 5). The "resource curse" concept (Ross 1999) forms the kernel of an alternative discourse, but using it to justify reversion to pre-1970s norms, rather than to guide efforts to organize transparent collection and popular distribution of revenue in post-conflict locales (Le Billon 2005: 699; Hayes & Victor 2006: 347–8), risks more conflict stemming from resistance to perceived sovereignty losses.

Sociopolitical Economy of the Energy "Trade Cycle"

In energy trade relations, scarcity of crucial raw materials relative to demand periodically tilts leverage to the South. The related "product cycle" and "obsolescing bargain" concepts (Vernon 1971, 1980) partially elucidate this shift. While formal sovereignty and the locational immobility of extraction form latent bases for Southern state power, high risks and fixed costs of exploratory mining operations compared to uncertain returns require concessions on royalty, taxation, and ownership to entice MNCs to develop raw materials. However, with technological diffusion, falling output costs, and rising dependence on energy revenues, as exemplified by the fact that OPEC's petroleum sales totalled nearly one-quarter of collective GDP and over four-fifths of its aggregate export revenue by 1970 (OPEC 2005: 13–15), host governments have firmer incentives to modify the terms of FDI (Vernon 1971: 48).

In the product cycle, falling costs of technology and expertise lower prices by multiplying the number of producers, including Southern national oil companies

(NOCs). Consequently, only the residual need for MNCs' marketing access would curb encroachment on their "upstream" assets (Vernon 1980: 521–2). Yet, Northern economies and oil demand expanded in the 1960s, and US imports of Middle East petroleum increased sharply after 1970 to compensate for the fall in domestic output and loss of spare capacity (Darmstadter & Landsberg 1976; Mommer 2002: 63–4, 151). This allowed OPEC members to enlarge the extent of their control over "upstream" assets, turning their own NOCs into direct suppliers to oil MNCs and other large industrial consumers (Wilkins 1976: 174; Vernon 1977: 85–6), a trend underscored by the Saudi oil minister's July 1971 remark that, "due to the coming energy shortages, a seller's market had arrived" (Penrose 1976: 45). The obsolescing bargain implies, however, that softer markets redound to MNCs' advantage (Vernon 1980: 523).

Until the Arab oil embargo following the 1973 October War, energy conflict was mainly confined to "upstream" property holders (i.e., producer governments versus MNCs). The embargo, by which MNCs were forced to conform to Arab states' destination restrictions, but could still blunt the boycott's discriminatory intent by re-routing non-Arab supplies, further propelled NOC "participation" in MNC operations, already identified as a key aim in the UN's 1962 resolution on Permanent Sovereignty over Natural Resources and OPEC's 1968 Declaratory Policy (Mommer 2002: 146–60), to the logical end of nationalization (Marcel 2006: 28–9). Between 1970 and 1980, OPEC NOCs' average share of production increased from one-fifth to nearly four-fifths, while the majors' fell from 72 to 17 percent (Venn 2002: 44–5). As the boycott did more harm via its broader impact on *all* consumers, i.e., by subtracting 5 million daily barrels during its initial two months and shrinking world oil trade by 14 percent (Stoubagh 1976: 180), it placed Southern states and Northern populations in direct opposition to each other.

Thus, a "trade cycle" should also incorporate the role of consumer majorities in shaping Northern countries' spectrum of responses to energy scarcity. Consumer countries that are asymmetrically vulnerable in an interdependent relationship face costlier response options (Keohane & Nye 2001: 9–17), regardless of whether these entail adjustment, burden sharing, or force. A seller's energy market advantages "offensive" action and that by producing–exporting states. Given oil's low short-term demand elasticity (Rutledge 2005: 156), boycott-induced price hikes, which cost OECD (Organization for Economic Cooperation and Development) countries \$40–50 billion during 1973–4 (Skeet 1988: 103) while boosting OPEC's "petrodollar" yield from \$6 billion to \$107 billion during 1973–80, worsened inflation, yet consumption did not fully fall off until energy-market deregulation allowed the 1979–80 oil shock to register its full recessionary impact (Venn 2002: 138–9, 156–7).

The near-term context of a seller's market exacerbated by deliberate cutbacks or cutoffs may even present more salient countervailing imperatives for Northern governments to craft side deals and pursue group "dialogue" with key source states. Oil-consuming states embarked on this path during and after the 1973–4 Arab boycott (Skeet 1988: 106, 118–21), similar to European responses to Russian Gazprom's gas cutoff in January 2006 (Socor 2006c). Consumer countries in hege-

monic position, such as the United States, have the greatest latitude to engage in “counteroffensive” action. America could even afford “inaction” in the form of price controls, which muffled signals to reduce post-1973 US consumption and inflationary pressures (Ikenberry 1988: 100–1). The political clout of the US dollar has arguably exempted American consumers either from having to pay higher real prices for oil imports, via currency devaluation (Venn 2002: 160–1), or from having to factor the costs of projected military power into oil prices (Baker 2002: 144). Conversely, other OECD countries, even oil producer Britain, have levied higher end-use taxes (Baker 2002: 147; Mommer 2002: 191–2).

Nonetheless, the hegemonic consumer country *qua* hegemon has not entirely eschewed belligerency. West Europe and Japan had vastly more exposed positions, yet the United States was not immune to the effects of boycott, as Arab countries were supplying 20–25 percent of its oil imports, which accounted for one-third of its oil, during June–October 1973 (Darmstadter & Landsberg 1976: 21–2). US threats and voiced desires for OPEC’s “demise” fed a shared understanding among OPEC’s members that even consumer adjustment efforts, like the November 1974 creation of the International Energy Agency (IEA), were confrontational (Skeet 1988: 124–8). The IEA created mechanisms to coordinate stockpiling and release of supplies to cover OECD-country shortages, but with MNCs having lost OPEC-area concessions, consumer-country activity, expressed in the IEA’s 1976 Long Term Program, centered mainly on altering market structure by lowering demand and increasing non-OPEC oil purchases (Keohane 1984: 217–40; Mommer 2002: 170–1).

In the longer term, as the “obsolescing bargaining” model would expect, MNCs expanded to locations where offsetting compensation enticed them to undertake the costlier effort of extracting oil volumes that are smaller, more fragmented, deeper offshore, contained in landlocked areas, or more difficult to process. Private firms increased offshore drilling, which grew to one-third of oil production in 1995 (Khadduri 1997: 136), extracted oil and built ancillary pipelines from the Caspian Sea region (Jaffe 2000: 150–2), and ventured into heavy-oil drilling in Canada and Venezuela (Deffeyes 2005: 99–108). These endeavors, in conjunction with recession, conservation, and development of alternative energy sources, reduced energy demand by 3 percent during 1979–83, with oil losing 10 percent of energy demand and OPEC losing the same share of total oil demand after 1973 (Mitchell et al. 2001: 178). By 1983, OPEC had been relegated to “residual supplier” of a shrinking gap between falling demand and rising non-OPEC “baseload supply” (Stevens 1997: 20), pressuring OPEC members to violate quotas and some even to court foreign investors (Mommer 2002: 172).

Later, concern in major consuming countries shifted to inadequate investment in state-run hydrocarbon firms. Because export revenue expansion tends to ratchet state spending on non-oil-sector items upwards more than revenue shrinkage compels budget cutbacks, producer–exporter governments have high discount rates, preferring to sell more oil than leaving it in the ground (Adelman 1995: 33). The idea that resource wealth brings the “curse” of skewed economic development, authoritarianism, wasteful spending, rising external debt, and corruption (Ross 1999; Pegg

2006) is consonant with observations that rent-seeking dictators arm heavily for repression and warfare (Le Billon 2001: 566–8). Exemplifying this phenomenon, Iraq used its military capabilities and proximity to the world’s largest oil reserves to threaten enforcement of (neighbors’) OPEC quotas in the 1980s buyer’s market (Adelman 1995: 290), although the same market conditions impelled major consumer countries to oppose Iraq, while also easing the economic burden, notably for the United States, of later sanctioning Iraq and certain other oil producers (Mitchell et al. 2001: 201).

However, as the “trade cycle” ascended again, rising dependence on Persian Gulf oil more sharply underscored the implications of underfunded OPEC oil sectors. Finding Gulf opportunities to invest in and book new reserves blocked by NOC monopolies or Northern government-led sanctions, energy MNCs turned to the Caspian region, but, with the historical experience of earlier expropriations, sought Northern official guarantees of the integrity of FDI contracts via a pro-corporate “non-proprietary fiscal regime” (Mommer 2002: 169) and a host of related devices, notably production-sharing agreements (PSAs), by which host regimes partake of profits only after MNC costs, which can be inflated, are recouped (Rutledge 2005: 184–5; Hildyard & Muttitt 2006: 54–5). However, Russian opposition to the ECT (Energy Charter Treaty) (Mommer 2002: 179), downward revision of estimates of Caspian reserves (Rutledge 2005: 117–19), and US-based MNCs’ dissatisfaction with sanctions (Klare 2004: 95–110; Holland 2006a) undergirded support for regime change elsewhere.

American consumer and corporate interests dovetailed in the post-1999 seller’s market. The latter was partially attributed to OPEC actions (NEPDG 2001: 1–12; Venn 2002: 58–60), and suspicions festered that the 2003 Iraq invasion represented an offensive to grab oil and weaken OPEC, backed by evidence that coalition oversight would envelop Iraq into the fold of neoliberal governance centered on PSAs backed by arbitration provisos (Hildyard & Muttitt 2006: 55–7). However, subnational violence in post-invasion Iraq not only reduced US capacity to respond to turmoil in other oil-producing regions, but also boosted prices, thereby helping to reverse liberalization of hydrocarbon FDI everywhere in the South (Mouawad 2006), weaken Northern trade sanctions, and lend greater credence to Southern threats to manipulate levels and destinations of supply (Stroue 2006a, 2006b).

Market Influences on Types of North–South Energy Trade Conflict

The construct discussed also provides a map of North–South energy conflicts that demarcate respective phases (i.e., buyer’s market and seller’s market) of the “trade cycle.” That is, different energy market conditions correspond to salient types of conflictive actions, while movement along the cycle renders these actions more or less viable. Here, seven ideal types of conflict, initiated by Southern producer–exporters against Northern importing–consuming countries or vice versa, occur under fluctuating market conditions that also determine the “defensive” or “offensive” quality of the initial action (a slightly different use of this distinction is found in Ikenberry 1988: 16–19). While resource-related conflict also occurs among

Table 4.1 North–South energy trade conflict

| | Buyer's | MARKET STRUCTURE | Seller's |
|--|---|------------------|---|
| | ASSET/REVENUE ACCRUAL | | |
| Producer– Exporter | Cartel creation and coordinated output cuts to prop up prices | | Tax and royalty hikes and expropriation to increase share of higher asset values |
| INITIATOR (target is the other actor) | | | ENERGY CUTOFFS Sanctions on select consumers |
| | ASSET/REVENUE DENIAL | | |
| Importer– Consumer | Sanctions on select exporters | | Augmentation of MNC energy FDI privileges |
| | ENERGY WAR | | |
| | Deterrence of forcible supply cuts | | Compellance of supply increases or stabilization |

exporters as well as among consumers, interest in the above North–South juxtaposition reflects major consuming countries' more salient need and greater potential ability to acquire supplies from the South. Thus, while the “trade cycle” strongly influences the issue-area balance of power, the consuming majors can more easily avail themselves of extraneous sources of counter-leverage to mitigate “sensitivity” and “vulnerability” interdependence (Keohane & Nye 2001: 9–17).

Energy “war” indicates threat or use of force by importing–consuming governments to challenge producer–exporter actions having adverse effects on customer-preferred terms of energy trade. As the lower-left quadrant of Table 4.1 indicates, a defensive “energy war” is executed in a buyer's market to forestall likely or impending supply cutoffs (see also Copeland 1996). If overall power is also less unbalanced (in favor of Northern countries), efficacy of action is related to collective unity of relevant consuming states in the face of probable resistance by the target state or non-state opposition originating from within that state's territorial boundaries.

Initiated by the United States and its allies Britain and France, the 1990–1 Desert Shield/Storm campaign is an exemplary counter-response to one target state's (Iraq's) forcible effort to resolve an inter-producer competition over market share that was suppressing already low prices.

While the cases involve less overtly belligerent uses of force, this category might be broadened to cover such actions as multilateral Persian Gulf naval protection, by the United States, Britain, France, and the Soviet Union, of Kuwaiti tanker traffic from Iranian attack during the 1980s Iran–Iraq War as well as US military cooperation with amenable producer–exporter regimes, especially the FSU (former Soviet Union) Caspian Sea littoral states of Azerbaijan and Kazakhstan. The latter countries numbered among those exporters registering uninterrupted average annual output increases since 1993 and 1995, respectively, even during the 1998 market downturn (BP 2006: 9), but continued to rely commensurably more on FDI and official Northern assistance to surmount their multiple disadvantages of landlocked position, the late 1990s’ soft market, and (indirect target) Russia’s desire to constrict non-Russian routes of egress for Central Asian oil and gas (Klare 2002: 1–5, 88–92).

In addition, a buyer’s market enables Northern actors, aligned with corporate and/or consumer interests, to undertake a defensive type of “asset/revenue denial” (also found in lower-left quadrant) – i.e., banning FDI in the energy sectors of sanctioned exporters and the latter’s global energy sales. A key factor heightening sanctions’ salient “defensive” quality, other than proximity to hostile acts by sanctioned regimes, consists of concomitant enlargement of market share for the remaining non-sanctioned producer–exporters (Luft 2005b). Their respective governments ordered or otherwise condoned boycotts by American or British MNCs of nationalized Mexican and Iranian oil in the late 1930s and early 1950s, respectively (Wilkins 1976: 164–5; Kobrin 1985: 20–3; Mommer 2002: 147), and during various overlapping periods commencing in the 1980s, the US government spearheaded sanctions against Iraq and other countries, such as Iran, Libya, Myanmar, and Sudan (Mitchell et al. 2001: 201).

As prices rise, turning the “trade cycle” oscillation upwards, the discipline associated with more nearly universal corporate and/or consumer willingness not to buy sanctioned assets and goods weakens. The US government failed in 1972–3 to prevent Libya from selling oil “stolen” via successive expropriations of British Petroleum assets and those of various American firms (Wilkins 1976: 169). Although a roughly 30 percent increase in mean annual oil prices between 1994 and 1996 (BP 2006: 31) cannot explain US Congressional enactment of the 1995 Iran–Libya Sanctions Act, it may account in part for the growing proclivity of various actors, notably foreign investors, to circumvent UN sanctions against Iraq in the 1990–6 period, as well as the gradual lifting of oil-export restrictions during the 1996–2003 Oil for Food Program (see also Le Billon 2005: 692–4). As the vitiation of sanctions accelerated with the post-2001 strengthening of a seller’s market, burgeoning importers China, and, to a much lesser extent, India, began to apply a perceived “neo-mercantilist” strategy of proffering FDI, concessional loans, politico-diplomatic support, and arms supplies to secure equity positions in, and purchases from, various foreign energy sectors, even those of sanctioned countries like Iran, Myanmar, and Sudan (Shuja 2005; Sichor 2005; Perlez 2006).

On the other hand, the near-term context of a buyer’s market exacerbated by more extreme price drops should stimulate and favor a defensive strategy of “asset/

revenue accrual” (upper-left quadrant) – in short, actions launched by producer-exporters to organize cartels and coordinate output cuts, which diffusely target all consumer countries. Landmark cases include OPEC’s 1960 formation as well as the more widely coordinated and disciplined efforts to cap collective supply after the 1982, 1986, and 1998 price downturns and later the 1986 and 1998 price collapses (Skeet 1988: 201; Mitchell et al. 2001: 166–9). As issue-area power now favors consumers, barriers to effective action depend on an unexpected degree of inter-producer quota adherence. In practice, unity has either been enforced by a “swing” producer – an exporter like Saudi Arabia that holds sufficient reserves and spare production capacity to allow it to pursue tactical overproduction in the strategic interest of reining in cheaters – or by one exporter’s use of force against another (Adelman 1995: 290; Claes 2001: 201–37).

Sustained ascent of the “trade cycle,” reflecting real shortages or entrenched perceptions of greater scarcity trends, advantages “offensive” action in general, but offers relatively more leverage to producing-exporting states (thus inverting the buyer’s market situation). An overall balance of power that is less favorable to Northern countries further supports the issue-area configuration of power. Consistent with the “obsolescing bargain,” the type of “asset/revenue accrual” indicated in the upper-right quadrant, encompassing tax and royalty hikes, retroactive financial penalties on MNCs, and enlargement of national control over FDI to the extent of outright asset expropriation, reallocates more revenue and property to sovereign exporters. Moreover, these moves widen latitude to sanction consumer countries via “energy cuts” (see below).

Notable events include 1970–1 actions by Algeria and Libya. They could act forcefully sooner because their MNCs tended to be less diversified, European demand for light crude had been rising, amplified by reduced flow of Persian Gulf oil after the Suez Canal’s closure during the 1967 Arab oil embargo (Skeet 1988: 40, 46), and US and French officials preferred to avoid a response that would push Algeria into the Soviet orbit (Marcel 2006: 26). In 1970, aided by sabotage of the Saudi Tapline that crossed Syria to the Mediterranean, Libya halted operations of Shell and various US-based firms in order to compel them to raise posted prices and pay retroactive revenue, which was equivalent to increasing their tax rate to 55 percent, while Algeria nationalized Shell and Phillips assets and raised the tax-reference price on French output by 37 percent (Penrose 1976: 41; Skeet 1988: 58–61). “Demonstration” effects of these successes resulted in OPEC using the threat of embargo to foist price and tax increases on MNCs, in the 1971 Teheran and Tripoli agreements (Kobrin 1985: 24–5). Yet, “leapfrogging” by exporting sovereigns to better each other’s terms ratcheted up pressures on MNCs, resulting in Algeria’s 1971 seizure of majority control of French firms, Libya’s expropriation of British Petroleum’s and other firms’ assets prior to October 1973, and OPEC member efforts to enlarge NOC “participation” in MNC operations, from 25 percent before the embargo to 60 percent in 1974, on the way to full nationalization (Skeet 1988: 69–81; Marcel 2006: 28–9).

Analogous events recurred after 2003. Average prices of crude oil in OECD countries, increasing by one-fifth between 2001 and 2003, rose by at least four-fifths

between 2003 and 2005, while prices in the 2002–5 period increased by 42 percent for Japan's LNG (liquefied natural gas) and by nearly four-fifths for EU-area gas (BP 2006: 31), creating incentives for reversing more liberal FDI terms of the 1990s. Following the 2004 levy of back tax claims on private domestic firm Yukos that led to the forced sale of its assets to state-run Rosneft, Russian agencies leveled charges of ecological damage and cost overruns, widely regarded as tools for asserting national control, against the TNK–BP Kovykta gas venture, Total's Kharyaga oil holding, the ExxonMobil-led Sakhalin I oil project, and Russia's only PSA, the Sakhalin II project, then comprising only of Shell, Mitsui, and Mitsubishi (MT 2004; Platts 2006b). Within a similar timeframe, Venezuela raised royalty rates on the heavy-oil joint ventures of ExxonMobil, Chevron, BP, ConocoPhillips, Total, and Statoil, and tax rates on private conventional-oil pumping, assessed back tax penalties on foreign firms, and enlarged the state's shares in their various projects (AP 2006; DJN 2006a; Forero 2006b).

Less likely candidate sovereigns to tighten the terms of energy transactions include landlocked countries. Nonetheless, in May 2006, after previously hiking royalty rates, Bolivia, backed by a dispatch of troops along with Venezuelan-assisted tax auditors to foreign plants and by estimates that costs to largest purchaser Brazil's Petrobras of LNG imports could quadruple those of lost Bolivian supplies, demanded four-fifths of gas output and revenues generated by Petrobras, British Gas, Total, and Spain's Repsol, complementing this ultimatum by seeking to raise Petrobras's contracted price (Forero 2006a; Platts 2006a, 2006c; Reel & Mufson 2006). Chad's leadership employed back tax assessments and threatened Chevron and Malaysia's Petronas with expulsion in the context of seeking a 60 percent share in the Chad–Cameroon Pipeline (WSJE 2006), proceeds of which have been held in trust in exchange for World Bank loans (Polgreen 2006).

Related to the offensive type of “asset/revenue accrual” (also in the upper-right quadrant), “energy cutoffs” work to the extent that targeted consumer governments lack access to alternatives. In a position akin to that of Arab exporters in 1973, Gazprom- and Transneft-dominated trans-Russian pipeline networks, while affording a near monopsony on Central Asia's westward energy exports (Olcott 2006: 224–8; Socor 2006a), have served as levers, in the cases of Azerbaijan, Georgia, and the Ukraine, to impose steep gas price hikes on hitherto subsidized FSU importers (an effort undergirded by higher European market prices) in retaliation for perceived anti-Russian acts, or to procure “downstream” assets elsewhere in Europe (Torbakov 2005, 2006; Kramer 2006a; Marples 2006; Socor 2006b). Gazprom has demanded European rates on supplies to Azerbaijan in order to undercut the latter's shipment of its own gas through the South Caucasus Pipeline, which can be used to assist transit country Georgia and provide a trans-Turkey alternative conduit to Europe (Ismailzade 2006; Socor 2006d). To counter any West European consumer-country resistance to Gazprom's efforts to acquire distribution networks in Europe, Russia has raised the prospect of diverting more energy supplies to Asia (Kramer 2006b).

While most oil is traded fungibly, numerous aspects of the growing energy trade with Asia could potentially establish a conducive basis for targeted supply squeezes. Venezuela's concessionary and bartered energy sales to favored actors, its building

of a pipeline to Colombia's Pacific coast, and cooperation in enhancing China's capacity to refine heavier and sour crudes (DJN 2005; Hallinan 2006; Tu 2006) lend more credence to Venezuelan – and, in terms of the latter category of action, occasional Canadian – calls to sell more oil to China (Brinkley 2005; Luft 2005a). Other than affiliated “neo-mercantilist” and “resource nationalist” trends, factors based on a seller's market that may restore pre-1973 levels of market inflexibility, making targeted diversions or cuts more feasible, include (Asian) expansion in the volume of long-term contracts for energy imports and shifts to non-dollar-denominated transactions (Pape 2005: 42; Rutledge 2005: 144; Stroupe 2006a, 2006b).

However, to the extent that these trends constrict the scope of the open market, they raise the probability of a more offensive type of “energy war” (lower-right quadrant) by importing countries seeking to compel sovereign exporters to increase or stabilize supply (this may also involve forcing Southern exporters to relinquish control over reserves to Northern firms, as indicated in offensive “asset/revenue denial” below). Actions of this type presuppose an offsetting imbalance of overall power in favor of consumer countries, so coercion may be countered only by potential subnational resistance in the targeted state. Operation Iraq Liberation in 2003 approximates an executed example of this type of action, in contrast to dormant US plans to occupy Gulf states during the 1973 embargo.

Evidence for defining this endeavor as an offensive “energy war” is decidedly mixed, but it merits closer analysis. While motives related to Iraq's resource base cannot be conclusively disentangled from each other or from other factors, and, if existing, were more likely aimed at facilitating corporate activities, a consumer-oriented concern cannot be precluded entirely. The conjoined post-1999 contributions of OPEC output restraints and Chinese demand growth led to a seller's market – prices fluctuated but rose by 93 percent over the 1998–2002 period (BP 2006: 31), yet trends in Iraq's annual output, which increased slightly on average over the same period, should have attenuated this market structure. However, while average annual output and US-bound exports in the first three years after the invasion were less than under the Oil for Food Program, a fact attributable to unabated infrastructural sabotage, cross-monthly deviations in output and exports decreased in the post-invasion period (Williams 2006: 1078). Nonetheless, while preparations for invasion promoted expectations of future glut, resistance to occupation served to reinforce the inchoate seller's market and may even have directly encouraged and enabled strategies consonant with “asset/revenue accrual.”

The offensive form of “asset/revenue denial” encompasses corporate efforts to increase and guarantee FDI values and may work in tandem with “energy war.” Examples of this include specific endeavors to create a wider space for the PSA form of FDI in Iraq itself (Holland 2006a, 2006b), but it could extend to include resource-sector FDI backed by larger consumer-oriented Southern governments like China or Brazil. It is likely to encounter obstacles resembling those facing energy-centric “warfare,” primarily low-level opposition to privatization, its effects on revenue distribution, and corporate symbols of alien presence that forces stoppages of energy output or exports through violence against foreign installations and personnel, as in Bolivia, Ecuador, Iraq, Nigeria, Pakistan, or Saudi Arabia (Economist 2004;

Niazi 2005; Timmons 2005; AFP 2006; DJN 2006b; Marquardt 2006; Yardley 2006).

Cyclical Patterns and Secular Trends in North–South Energy Trade Conflict

The previous discussion lends itself to postulating that North–South energy trade conflict experienced after 2003 matches a cyclical and temporary “reconfiguration” of divisions reminiscent of the 1970s “oil shocks.” This may also extend to encompass the future of long-distance LNG transport centered on present and potential exporting areas, such as Algeria, Egypt, Indonesia, Iran, Nigeria, Qatar, Russia, Trinidad, and Venezuela. While spreading risk and covering the high fixed costs of this undertaking favors initial North–South cooperation, little in the history of the oil and piped-gas trades guarantees against the recurring conflict typical of mature markets, where a “gas-OPEC” and a swing producer like Qatar could act to set prices (Jaffe & Soligo 2006). Nonetheless, the view of trade conflict patterns in terms of “reconfiguration” suggests that seller’s-market-related tensions will not permanently supersede basic economic complementarities.

Conversely, more pessimistic standpoints posit a “new configuration” of intensifying North–South conflict in the context of supply depletion and rising consumption by Southern exporters. Some hold that cumulative non-OPEC production of conventional oil, and possibly gas, are nearing “peaks” or maxima (Darley 2004; Peters 2004; Deffeyes 2005). Even the largest Persian Gulf onshore fields may be maturing (Luft 2003; Simmons 2005), and OPEC data show average daily crude output totals from Venezuela, Kuwait, Iran, Indonesia, Iraq, and Saudi Arabia having reached respective maxima in 1970, 1972, 1974, 1977, 1979, and 1980 (OPEC 2005: 53–62). Indeed, given concern for wasteful practices, including gas flaring, in which MNC operators seemed complicit, OPEC social knowledge of the developmental role of its oil supplies has contained at least a kernel of expressed interest in conservation (Skeet 1988: 49, 126; Simmons 2005: 49–52; Marcel 2006: 26–7). Thus, the 1970s production cuts that Northern governments were likely to have construed as strategic (Skeet 1988: 50–1) may have reflected real geophysical strains (Simmons 2005: 52). NOCs withhold field-level data (Platts 2005), magnifying uncertainty over whether proven reserves could be enlarged by new FDI (Maugeri 2006: 152–155). This obscurity does not contradict the “resource curse” assumption that officials have fewer incentives to invest in state-run energy sectors, nor is it inconsistent with motives to forestall precautionary consumer shifts to alternatives. In the case of Russia, for example, subsidized domestic consumption requirements may have deprived Gazprom of needed revenues to replace reserves as well as worsened the domestic shortages that were externalized to Ukraine in early 2006 (Victor 2006).

Warnings of impending supply downturns are legion, but if exporting states ratchet up consumption levels, conflict-moderating North–South complementarities could diminish in the face of inter-consumer rivalries. This is presaged in the

example of China, which became a net oil importer in 1993 and imported just under half of its total supply in 2004, intensifying competition for supplies (Zweig & Jianhai 2005). However, if energy revenues successfully promote economic diversification, major Southern states would most readily be able to consume more of their own output (Peters 2004: 198–201). Revenues of over US\$1.3 trillion and \$400 billion, respectively, for OPEC and Russia since 1998 (PIN 2006), instead of being as heavily recycled in the Northern banking sector as in the 1970s (Porter 2005), are also supporting oil stabilization funds, external debt retirement, currency reserve accumulation, and domestic business growth (Aris 2002; Mouawad 2005). While OPEC's share of world refined products consumption rose only slightly between 1973 and 2003, average OPEC products consumption as a fraction of its total crude output rose from 3 percent to over one-fifth (OPEC 2005: 23, 29–31). OPEC members and Russia also consume most of their natural gas output, which may supply over 50 percent of the total Arab energy market by 2015 for environmental reasons (ENA 2005).

Policy implications associated with the optimistic and pessimistic scenarios diverge. Optimistic depictions of the energy “trade cycle” imply a tractably smooth pattern of oscillations, indicating that market conditions, which favor disparate degrees of conflict, modes of action, and relevant initiating actors, tend to be self-correcting, but less susceptible to purposive counter-action (Ikenberry 1988), including unilateral exercises of military coercion. By contrast, Malthusian perspectives see an increasingly pronounced volatility in the “trade cycle,” reflecting a convergence of falling supply and rising demand trajectories that can be corrected only by more costly consumer-government responses, as suggested by the Iraq invasion or by recurring American appeals for a “Manhattan Project” to achieve energy independence (Skeet 1988: 117; Layne 2006: 189), and as demonstrated by the Brazilian military government's shepherding in the 1970s of what is now the world's premier ethanol fuel production base (Martines-Filho et al. 2006).

The account here suggests directions for future research. For one, it necessitates more precise clarification of the antecedent conditions determining where specific countries are located along the North–South spectrum (i.e., depending on the circumstances, countries like Canada, Norway, and Russia are analytically akin to “Southern” exporting sovereigns, while typically Southern states like Brazil, China, and India might identify more closely with “Northern” corporate and consumption interests). Moreover, the framework laid out here does not address whether, and the extent to which, certain actions associated with given market structures lead to conflict because both sides understand that the actions aim to alter the status quo (which also favors other subsidiary actions by one side or the other) or because the changed status quo permits the pursuit, for unrelated ends, of action that itself engenders conflict (i.e., consumer governments may oppose those price rises that allow enemy regimes to better arm themselves). Finally, in suggesting that “buyers' markets” favor “defensive” actions, while “sellers' markets” favor “offensive” ones, the treatment here does not fully specify whether the relevant property of the action hinges on motives or means, or whether, and to what extent, the proximity of response to market change also defines the “defensive” or “offensive” quality of

motives behind this response (e.g., defensively motivated actors cannot necessarily abjure the use of offensive force). Thus, we need more precise methods of determining, operationalizing, and measuring strength of motive as well as differentiating it from advantageousness of means.

References

- Adelman, M. A. (1995) *Genie out of the Bottle: World Oil since 1970*. Cambridge, MA: MIT Press.
- AFP (Agence France Presse) (2006) "Ecuador's Oil Exports in Turmoil as Protests Continue," *Alexander's Oil & Gas Connections*, March 9: [<http://www.gasandoil.com/goc/company/cnl61029.htm>].
- Alster, N. (2006) "Is a Futures Stampede Keeping Oil Prices High?" *New York Times*, August 13, p. 8.
- Alvarez, L. (2004) "Britain Says US Planned to Seize Oil in 1973 Crisis," *New York Times*, January 2: [<http://www.nytimes.com/2004/01/02/international/middleeast/02DOCU.html>]. Last accessed April 8, 2004.
- AP (Associated Press) (2006) "Venezuela Tax Chief Reports Oil Back Taxes," *New York Times*, January 16: [<http://www.nytimes.com/aponline/business/AP-Venezuela-Oil-Taxes.html>]. Last accessed January 17, 2006.
- Aris, B. (2002) "Russian Oil Policy and the Comfort Zone," *Alexander's Oil and Gas Connections*, May 16: [<http://www.gasandoil.com/goc/news/ntr22041.htm>].
- Baker, R. (2002) "Energy Policy: The Problem of Public Perception." In *Energy: Science, Policy, and the Pursuit of Sustainability*, edited by R. Bent, L. Orr, and R. Baker, pp. 131–56. Washington, DC: Island Press.
- Birdsall, N. & Subramanian, A. (2004) "Saving Iraq from Its Oil," *Foreign Affairs* 83: 77–89.
- BP (British Petroleum) (2006) *BP Statistical Review of World Energy June 2006*: [www.bp.com/statisticalreview].
- Brinkley, J. (2005) "Canada's Smiles for Camera Mask Chill in Ties with US," *New York Times*, October 25: [<http://www.nytimes.com/2005/10/25/international/americas/25diplo.html>]. Last accessed October 25, 2005.
- Claes, D. H. (2001) *The Politics of Oil-Producer Cooperation*. Boulder, CO: Westview Press.
- Copeland, D. C. (1996) "Economic Interdependence and War: A Theory of Trade Expectations," *International Security* 20: 5–41.
- Darley, J. (2004) *High Noon for Natural Gas: The New Energy Crisis*. White River Junction, VT: Chelsea Green.
- Darmstadter, J. & Landsberg, H. H. (1976) "The Economic Background." In *The Oil Crisis*, edited by R. Vernon, pp. 15–37. New York: W. W. Norton.
- Deffeyes, K. S. (2005) *Beyond Oil: The View from Hubbert's Peak*. New York: Hill and Wang.

- DJN (Dow Jones Newswires) (2005) "Uruguay Benefits from Venezuelan Oil Export Policy Shift," *Alexander's Oil & Gas Connections*, January 12: [<http://www.gasandoil.com/goc/company/cnl60244.htm>].
- DJN (Dow Jones Newswires) (2006a) "Venezuela to Hit Heavy Oil Projects with Natural Gas Bill," *Alexander's Oil & Gas Connections*, April 5: [<http://www.gasandoil.com/goc/company/cnl61480.htm>].
- DJN (Dow Jones Newswires) (2006b) "Bolivia in Talks with Guarani Indians over Pipeline," *Alexander's Oil & Gas Connections*, September 27: [<http://www.gasandoil.com/goc/news/ntl63938.htm>].
- The Economist (2004) "Saudi Arabia: A Reactionary Regime Reacts Too Slowly to a Growing Threat," *The Economist*, June 5: 35–6.
- ENA (Emirates News Agency) (2005) "Arab Gas Consumption is Increasing Steadily," *Alexander's Gas & Oil Connections*, May 26: [<http://www.gasandoil.com/goc/news/ntm52127.htm>].
- Forero, J. (2006a) "Step 1 in Bolivian Takeover: Audit of Foreign Companies," *New York Times*, May 4: [<http://www.nytimes.com/2006/05/04/world/americas/04bolivia.html>]. Last accessed May 4, 2006.
- Forero, J. (2006b) "For Venezuela, a Treasure in Oil Sludge," *New York Times*, June 1: [<http://www.nytimes.com/2006/06/01/business/worldbusiness/01oil.html>]. Last accessed June 4, 2006.
- Glaser, C. L. (1997) "The Security Dilemma Revisited," *World Politics* 50: 171–201.
- Hallinan, C. (2006) "US Military and Latin American Energy," *Alexander's Oil & Gas Connections*, November 9: [<http://www.gasandoil.com/goc/news/ntl64565.htm>].
- Hayes, M. H. & Victor, D. G. (2006) "Politics, Markets, and the Shift to Gas: Insights from the Seven Historical Case Studies." In *Natural Gas and Geopolitics: From 1970 to 2040*, edited by D. G. Victor, A. M. Jaffe, and M. H. Hayes, pp. 319–53. Cambridge: Cambridge University Press.
- Hildyard, N. & Muttitt, G. (2006) "Turbo-Charging Investor Sovereignty: Investment Agreements and Corporate Colonialism." In *Destroy and Profit: Wars, Disasters and Corporations*, edited by Focus on the South, pp. 43–63. Bangkok: Focus on the South. [http://www.focusweb.org/pdf/Reconstruction_Dossier.pdf].
- Holland, J. (2006a) "US Petro-Cartel Almost Has Iraq's Oil – Part I," *Alexander's Oil & Gas Connections*, November 9: [<http://www.gasandoil.com/goc/news/ntm64516.htm>].
- Holland, J. (2006b) "US Petro-Cartel Almost Has Iraq's Oil – II," *Alexander's Oil & Gas Connections*, November 9: [<http://www.gasandoil.com/goc/news/ntm64515.htm>].
- Ikenberry, G. J. (1988) *Reasons of State: Oil Politics and the Capacities of American Government*. Ithaca, NY: Cornell University Press.
- Ismailzade, Fariz (2006) "Azerbaijani–Russian Relations Enter Turbulent Phase," *Eurasia Daily Monitor*, November 30: [http://jamestown.org/edm/article.php?article_id=2371687].

- Jaffe, A. M. (2000) "Price vs. Market Share for the Arab Gulf Oil Producers: Do Caspian Oil Reserves Tilt the Balance?" In *Caspian Energy Resources: Implications for the Arab Gulf*, edited by The Emirates Center for Strategic Studies and Research, pp. 143–54. Abu Dhabi: The Emirates Center for Strategic Studies and Research.
- Jaffe, A. M. & Soligo, R. (2006). "Market Structure in the New Gas Economy: Is Cartelization Possible?" In *Natural Gas and Geopolitics: From 1970 to 2040*, edited by D. G. Victor, A. M. Jaffe, and M. H. Hayes, pp. 439–64. Cambridge: Cambridge University Press.
- Jervis, R. (1978) "Cooperation under the Security Dilemma," *World Politics* 30: 167–214.
- Jervis, R. (1992) "Political Implications of Loss Aversion," *Political Psychology* 13: 187–204.
- Jervis, R. (2004) "The Implications of Prospect Theory for Human Nature and Values," *Political Psychology* 25: 163–75.
- Keohane, R. O. (1984) *After Hegemony: Cooperation and Discord in the World Political Economy*. Princeton, NJ: Princeton University Press.
- Keohane, R. O. & Nye, J. S. (2001) *Power and Interdependence*, 3rd edn. New York: Longman.
- Khadduri, W. (1997) "Challenges for Gulf Optimization Strategies: Constraints of the Past." In *Gulf Energy and the World: Challenges and Threats*, edited by The Emirates Center for Strategic Studies and Research, pp. 132–46. Abu Dhabi: The Emirates Center for Strategic Studies and Research.
- Klare, M. T. (2002) *Resource Wars: The New Landscape of Global Conflict*. New York: Henry Holt.
- Klare, M. T. (2004) *Blood and Oil: The Dangers and Consequences of America's Growing Dependency on Imported Petroleum*. New York: Henry Holt.
- Knorr, K. (1976) "The Limits of Economic and Military Power." In *The Oil Crisis*, edited by R. Vernon, pp. 229–43. New York: W. W. Norton.
- Kobrin, S. J. (1985) "Diffusion as an Explanation of Oil Nationalization: Or the Domino Effect Rides Again," *Journal of Conflict Resolution* 29: 3–32.
- Kramer, A. E. (2006a) "Resolving a Supply Dispute, Armenia to Buy Russian Gas," *New York Times*, April 7: [<http://www.nytimes.com/2006/04/07/business/worldbusiness/07gas.html>]. Last accessed April 7 2006.
- Kramer, A. E. (2006b) "Putin Talks of Sending Oil to Asia, Not Europe," *New York Times*, April 27: C14.
- Layne, C. (2006) *The Peace of Illusions: American Grand Strategy from 1940 to the Present*. Ithaca and London: Cornell University Press.
- Le Billon, P. (2001) "The Political Ecology of War: Natural Resources and Armed Conflicts," *Political Geography* 20: 561–84.
- Le Billon, P. (2004) "The Geopolitical Economy of "Resource Wars," *Geopolitics* 9: 1–28.
- Le Billon, P. (2005) "Corruption, Reconstruction and Oil Governance in Iraq," *Third World Quarterly* 26: 685–703.

- Levy, J. (1997) "Prospect Theory, Rational Choice, and International Relations," *International Studies Quarterly* 41: 87–112.
- Luft, G. (2003) "How Much Oil Does Iraq Have?" *Iraq Memo* 16: [<http://www.brookings.edu/views/op-ed/fellows/luft20030512.htm>].
- Luft, G. (2005a) "In Search of Crude China Goes to the Americas," *Energy Security*, January 18: [<http://www.iags.org/n0118041.htm>]
- Luft, G. (2005b) "Reconstructing Iraq: Bringing Iraq's Economy Back Online," *The Middle East Quarterly* 7: [<http://www.meforum.org/article/736>].
- Marcel, V. (2006) *Oil Titans: National Oil Companies in the Middle East*. London: Chatham House and Washington, DC: Brookings Institution.
- Marcel, V. & Mitchell, J. V. (2003) "Iraq's Oil Tomorrow": [<http://www.chathamhouse.org.uk/pdf/research/sdp/Tomorrow.pdf>].
- Marples, D. (2006) "Lukashenka Seeks New Allies to End the Russian Gas Impasse," *Eurasia Daily Monitor*, November 29: [http://jamestown.org/edm/article.php?article_id=2371685].
- Marquardt, E. (2006) "The Niger Delta Insurgency and Its Threat to Energy Security," *Terrorism Monitor* 4: 3–6: [http://www.jamestown.org/terrorism/news/uploads/TM_004_016.pdf].
- Martines-Filho, J., Burnquist, H. L., & Vian, C. E. F. (2006) "Bioenergy and the Rise of Sugarcane-Based Ethanol in Brazil," *Choices: The Magazine of Food, Farm and Resource Issues* 21: 91–6.
- Maugeri, L. (2006) "Two Cheers for Expensive Oil," *Foreign Affairs* 85: 149–61.
- Mearsheimer, J. J. (2001) *The Tragedy of Great Power Politics*. New York & London: W. W. Norton.
- Mitchell, J., Morita, K., Selley, N., & Stern, J. (2001) *The New Economy of Oil: Impacts on Business, Geopolitics and Society*. London: Earthscan Publications.
- Mommer, B. (2002) *Global Oil and the Nation State*. Oxford: Oxford University Press.
- Mouawad, J. (2005) "Saudi Arabia Looks Past Oil in Attempt to Diversify," *New York Times*, December 13: [<http://www.nytimes.com/2005/12/13/business/worldbusiness/13saudiecon.htm>]. Last accessed December 13, 2005.
- Mouawad, J. (2006) "Once Marginal, Now Kings of the World," *New York Times*, April 23: [<http://www.nytimes.com/2006/04/23/weekinreview/23mouawad.html>]. Last accessed April 23, 2006.
- MT (*Moscow Times*) (2004) "The Dismantling of Russian Oil Giant Yukos," *Alexander's Gas & Oil Connections*, November 11: [<http://www.gasandoil.com/goc/company/cnr44550.htm>].
- NEPDG (National Energy Policy Development Group) (2001) *National Energy Policy*. Washington, DC: US Government Printing Office. [<http://www.whitehouse.gov/energy/National-Energy-Policy.pdf>].
- Niazi, T. (2005) "Gwadar: China's Naval Outpost on the Indian Ocean," *ChinaBrief* 5: 6–8: [http://www.jamestown.org/images/pdf/cb_005_004.pdf].
- Olcott, Martha Brill (2006) "International Gas Trade in Central Asia: Turkmenistan, Iran, Russia, and Afghanistan." In *Natural Gas and Geopolitics: From 1970 to*

- 2040, edited by D. G. Victor, A. M. Jaffe, and M. H. Hayes, pp. 202–33. Cambridge: Cambridge University Press.
- Onuf, N. G. (1989) *World of Our Making: Rules and Rule in Social Theory and International Relations*. Columbia, SC: University of South Carolina Press.
- OPEC (Organization of Petroleum Exporting Countries) (2005) *Annual Statistical Bulletin 2005*: [<http://www.opec.org/library/Annual%20Statistical%20Bulletin/asb2005.htm>].
- Orme, J. (1997–8) “The Utility of Force in a World of Scarcity,” *International Security* 22: 138–67.
- Pape, R. A. (2005) “Soft Balancing against the United States,” *International Security* 30: 7–45.
- Pegg, S. (2006) “Mining and Poverty Reduction: Transforming Rhetoric into Reality,” *Journal of Cleaner Production* 14: 376–87.
- Penrose, E. (1976) “The Development of Crisis.” In *The Oil Crisis*, edited by R. Vernon, pp. 39–57. New York: W. W. Norton.
- Perlez, J. (2006) “Myanmar is Left in the Dark, an Energy-Rich Orphan,” *New York Times*, November 17: [<http://www.nytimes.com/2006/11/17/world/asia/17myanmar.html>].
- Peters, S. (2004) “Coercive Western Energy Security Strategies: ‘Resource Wars’ as a New Threat to Global Security,” *Geopolitics* 9(1): 187–212.
- PIN (2006) “OPEC Nations Pile Petrodollars into Range of Middle East Assets,” *Alexander’s Oil & Gas Connections*, 11(4): [<http://www.gasandoil.com/goc/news/ntm60939.htm>].
- Platts (2005) “What Price Politics?” *Platts*: [http://www.platts.com/Oil/Resources/News%20Features/peakoil/3_2.xml]. Last accessed June 3, 2005.
- Platts (2006a) “Brazil’s Petrobras to Begin Talks with Bolivia Wednesday,” *Platts*, May 10: [<http://www.platts.com/Natural%20Gas/News/9852452.xml>]. Last accessed May 16, 2006.
- Platts (2006b) “Foreign Investment in Russia,” *Platts*, October 18: [<http://www.platts.com/Natural%20Gas/Resources/News%20Features/sakhalin>]. Last accessed October 29, 2006.
- Platts (2006c) “Bolivia’s YPFB, Brazil’s Petrobras Yet to Agree on New Gas Price,” *Platts*, November 23: [<http://www.platts.com/Natural%20Gas/News/9598019.xml>]. Last accessed November 26, 2006.
- Polgreen, L. (2006) “World Bank Reaches Pact with Chad over Use of Oil Profits,” *New York Times*, July 15: [<http://www.nytimes.com/2006/07/15/world/africa/15chad.html>]. Last accessed July 16, 2006.
- Porter, E. (2005) “Waiting for the Petrodollars to Trickle Down,” *New York Times*, October 16: [<http://www.nytimes.com/2005/10/16/business/worldbusiness/16view.html>]. Last accessed October 16, 2005.
- Ratliff, W. (2006) “Pragmatism over Ideology: China’s Relations with Venezuela,” *ChinaBrief* 6: 3–5: [http://www.jamestown.org/images/pdf/cb_006_006.pdf].
- Reel, M. & Mufson, S. (2006) “Bolivian President Seizes Gas Industry,” *Washington Post*, May 2: A01.

- Ross, M. L. (1999) "The Political Economy of the Resource Curse," *World Politics* 51: 297–322.
- Ross, M. L. (2004) "What Do We Know about Natural Resources and Civil War?" *Journal of Peace Research* 41: 337–56.
- Rutledge, I. (2005) *Addicted to Oil: America's Relentless Drive for Energy Security*. London: I. B. Tauris.
- Shuja, S. (2005) "Warming Sino-Iranian Relations: Will China Trade Nuclear Technology for Oil?" *ChinaBrief* 5: 8–10: [http://www.jamestown.org/images/pdf/cb_005_012.pdf].
- Sichor, Y. (2005) "Sudan: China's Outpost in Africa," *ChinaBrief* 5: 9–11: [http://www.jamestown.org/images/pdf/cb_005_021.pdf].
- Simmons, M. R. (2005) *Twilight in the Desert: The Coming Saudi Oil Shock and the World Economy*. Hoboken, NJ: John Wiley.
- Skeet, I. (1988) *Opec: Twenty-Five Years of Prices and Politics*. Cambridge: Cambridge University Press.
- Snidal, D. (1985) "The Limits of Hegemonic Stability Theory," *International Organization* 39: 579–614.
- Socor, V. (2006a) "Central Asian Gas: Lost to Europe After Russian-Ukrainian Deal?" *Eurasia Daily Monitor*, January 10: [http://jamestown.org/edm/article.php?article_id=2370643].
- Socor, V. (2006b) "Seven Russian Challenges to the West's Energy Security," *Eurasia Daily Monitor*, September 6: [http://jamestown.org/edm/article.php?article_id=2371410].
- Socor, V. (2006c) "Lugar Urges Active Role for NATO in Energy Security Policy," *Eurasia Daily Monitor*, December 1: [http://jamestown.org/edm/article.php?article_id=2371701].
- Socor, V. (2006d) "Azerbaijan Keeps Solidarity with Georgia Despite Russian Energy Supply Cuts," *Eurasia Daily Monitor*, December 8: [http://jamestown.org/edm/article.php?article_id=2371730].
- Stevens, P. (1997) "The Role of the Gulf in World Energy: Lessons from the Past." In *Gulf Energy and the World: Challenges and Threats*, edited by The Emirates Center for Strategic Studies and Research, pp. 7–24. Abu Dhabi: The Emirates Center for Strategic Studies and Research.
- Stoubagh, R. B. (1976) "The Oil Companies in the Crisis." In *The Oil Crisis*, edited by R. Vernon, pp. 179–202. New York: W. W. Norton.
- Stroupe, W. J. (2006a) "The New World Order, Part 1 – Russia Attacks the West's Achilles Heel," *Alexander's Oil & Gas Connections*, December 8: [<http://www.gasandoil.com/goc/news/ntr64958.htm>].
- Stroupe, W. J. (2006b) "The New World Order, Part 2 – Russia Attacks the West's Achilles Heel," *Alexander's Oil & Gas Connections*, December 8: [<http://www.gasandoil.com/goc/news/ntr64954.htm>].
- Thayer, B. (2000) "Bringing in Darwin: Evolutionary Theory, Realism, and International Politics," *International Security* 25: 124–51.
- Timmons, H. (2005) "Going Where Oil Giants Fear to Tread," *New York Times*, October 22: [<http://www.nytimes.com/2005/10/22/business/22iraqoil.html>]. Last accessed October 22, 2005.

- Torbakov, I. (2005) "Kremlin Uses Energy to Teach Ex-Soviet Neighbors a Lesson in Geopolitical Rivalry," *Eurasia Daily Monitor*, December 2: [http://jamestown.org/edm/article.php?article_id=2370546].
- Torbakov, I. (2006) "Russian Energy Monopolies March Toward Hydrocarbons Empire," *Eurasia Daily Monitor*, July 28: [http://jamestown.org/edm/article.php?article_id=2371327].
- Tu, J. (2006) "The Strategic Considerations of the Sino-Saudi Oil Deal," *ChinaBrief* 6: 3–5: [http://www.jamestown.org/images/pdf/cb_006_004.pdf].
- Venn, F. (2002) *The Oil Crisis*. London: Longman.
- Vernon, R. (1971) *Sovereignty at Bay: The Multinational Spread of US Enterprises*. New York and London: Basic Books.
- Vernon, R. (1977) *Storm over the Multinationals: The Real Issues*. Cambridge, MA: Harvard University Press.
- Vernon, R. (1980) "Sovereignty at Bay Ten Years After," *International Organization* 35: 517–29.
- Victor, N. (2006) "Russia's Gas Crunch: Looming Shortfall Poses a Tough Choice," *Washington Post*, April 6: A29.
- Waltz, K. N. (1959) *Man, the State and War: A Theoretical Analysis*. New York: Columbia University Press.
- Waltz, K. N. (1979) *Theory of International Politics*. New York: Random House.
- Wendt, A. (1995) "Constructing International Politics," *International Security* 20: 71–81.
- Wendt, A. (1999) *Social Theory of International Politics*. Cambridge: Cambridge University Press.
- Wilkins, M. (1976) "The Oil Companies in Perspective." In *The Oil Crisis*, edited by R. Vernon, pp. 159–78. New York: W. W. Norton.
- Williams, P. A. (2006) "Projections for the Geopolitical Economy of Oil after War in Iraq," *Futures* 38: 1074–88.
- WSJE (*Wall Street Journal Europe*) (2006) "Chad Seeks a Share in Oil Consortium Run by Exxon Mobil," *Wall Street Journal Europe*, August 31: A6.
- Yardley, J. (2006) "China's Leader Signs Oil Deals with Africans," *New York Times*, May 1: A4.
- Zweig, D. & Jianhai, B. (2005) "China's Hunt for Global Energy," *Foreign Affairs* 84: 25–37.