



Faculty Research Working Papers Series

Searching for Oil: China's Oil Initiatives in the Middle East

Henry Lee

John F. Kennedy School of Government - Harvard University

Dan A. Shalmon

John F. Kennedy School of Government - Harvard University

March 2007

RWP07-017

The views expressed in the [KSG Faculty Research Working Paper Series](#) are those of the author(s) and do not necessarily reflect those of the John F. Kennedy School of Government or of Harvard University. Faculty Research Working Papers have not undergone formal review and approval. Such papers are included in this series to elicit feedback and to encourage debate on important public policy challenges. Copyright belongs to the author(s). Papers may be downloaded for personal use only.

HARVARD
UNIVERSITY



JOHN F. KENNEDY
SCHOOL OF GOVERNMENT

**SEARCHING FOR OIL:
CHINA'S OIL
INITIATIVES IN
THE MIDDLE EAST**

Henry Lee and Dan A. Shalmon

Environment and Natural Resources Program
Belfer Center for Science and International Affairs

January 2007

SEARCHING FOR OIL:
CHINA'S OIL INITIATIVES IN THE MIDDLE EAST

Henry Lee and Dan A. Shalmon

Henry Lee is the Jassim M. Jaidah Family Director of the Environment and Natural Resources Program, Belfer Center for Science and International Affairs, at the John F. Kennedy School of Government of Harvard University. Dan A. Shalmon served as a Research Associate at the Belfer Center for Science and International Affairs.

Sixty-seven years ago, oil starved Japan embarked on an aggressive expansionary policy designed to secure its growing energy needs, which eventually led the nation into a world war. Today, another Asian power thirsts for oil: China - Luft Gal¹

Key Asian powers increasingly compete in the same producing areas and countries.—They are choosing bilateral approaches that link energy trade, and often military cooperation rather than multilateral and market approaches. —A type of ‘energy nationalism’ appears to be setting in”
Mikkal E. Herberg²

In a world in which the supply of oil is limited both by geology and politics, China’s determination to fuel its rapidly growing economy is seen by many as a looming source of conflict. It is not simply the geographic breadth of China’s initiatives that cause anxiety in western capitals, but also its willingness to enter into economic arrangements with “rogue” states. Unfettered by concerns about human rights and willing to link oil investments with foreign policy goals, critics believe that China has been able to gain an unfair advantage in the competition for both oil and regional influence. They point to China’s budding relationship with nations such as Angola, Sudan, and Venezuela.

Is this concern warranted? Do China’s recent initiatives augur a future replete with tensions over access to oil? What motivates Chinese oil policy and are its policies inevitably in conflict with long term western interests? Unfortunately the answers are complicated and are clouded by incomplete data and conflicting signals. One can find evidence to support almost any particular argument. A number of factors influence Chinese policy, and these are often uncoordinated and sometimes in conflict. This paper attempts to identify and unravel several of these and to explore how they have manifested themselves in China’s relationship with one region: the Middle East. Definitive conclusions and simple paradigms may be beyond our reach given the evidence, information and data that we have at our disposal, but we have attempted to provide a more nuanced assessment of China’s past oil investments in the hope that a better understanding of these initiatives will broaden and enhance the debate.

¹ Luft G., “U.S., China Are on a Collision Course Over Oil,” *Los Angeles Times*, February 2, 2004, pg. B11. Gal Luft is the Director of the Institute for Analysis of Global Security.

² Herberg, M. , “Energy: Asia's Energy Insecurity – Cooperation or Conflict?,” *Strategic Asia 2004-05: Confronting Terrorism in the Pursuit of Power*, ed. A. Tellis and M. Wills, September 2004, pg. 368.

CHINA'S GROWING APPETITE FOR OIL

China is the world's largest country with a population of 1.4 billion people. Its economy has grown at a pace unprecedented in modern history: more than nine percent per annum between 1978 and 2005. Energy is critical to service this growth, but despite building 199,300 megawatts (MW) of new electric generating plants over the last five years, increasing its coal consumption by 21% over the same period³, and initiating one of the world's most aggressive campaigns to increase energy productivity, China continues to be plagued by localized energy shortages. Frustrated by inadequate electricity supplies, many industrial and commercial consumers have been forced to rely on small, inefficient diesel-fueled generators in order to meet their production schedules. This increase in oil demand is mirrored by a dramatic increase in motor vehicle sales and modal shifts in the movement of freight to truck and barge transportation.⁴ Overall, China's reliance on imports as a percent of total energy remains low (approximately eight percent), but as China becomes more urbanized and its demand for transportation services grows, this situation will change rapidly.⁵ Between 2000 and 2005 China's oil consumption increased from 4.7 million b/d to almost 7 million b/d in 2005, 43% of which was derived from imports.⁶ In 2004, China's annual growth in oil demand approached 800,000 barrels per day, accounting for one-third of the world's incremental increase and 70% of the growth in the Asia-Pacific region.

Despite its vastness, China has never discovered large oil reserves. Its traditional fields in and around Daqing and Shengli are old and their production is either flat or declining, while its newer discoveries in the Junggar and Tarim basins are modest on a global scale and are far from China's population centers on the coast. There remains a dwindling cadre of experts who believe that China will be able to achieve energy self-sufficiency (or close to it), if the government aggressively invests in new oil and gas exploration.⁷ Their rhetoric has the same

³ BP, *BP Statistical Review of World Energy*, 2006 edition. Available at <http://www.bp.com>

⁴ In the first months of 2006, 5.8 million cars were sold in China, an increase of 26% over the same period in 2005. *The Economist*, "The Fast and the Furious: Carmaking in China," November 29, 2006.

⁵ Zhang, Guobo, "How Can Energy Shortage Be Blamed on China," *People's Daily*, September 21, 2005. Available at: <http://english.peopledaily.com.cn>

⁶ BP, *BP Statistical Review of World Energy*, 2006 edition.

⁷ International Energy Agency, *2000 China's Worldwide Quest for Energy Security*, Paris: OECD/IEA, 2000.

allure as that of the Energy Independence advocates in the US, but their vision of the future is neither cost effective nor realistic. There is no evidence to suggest that China's domestic oil reserves will double or triple in the next decade, and thus a significant proportion of its incremental consumption will have to be met by imports. Most Chinese officials agree that the country has no choice but to aggressively venture into the global oil market. In fact, the International Energy Agency (IEA) predicts that China's oil imports will grow from 1.5 million barrels in 2000 to approximately 10.9 million barrels in 2030, when China will be importing about 77 % of its crude oil with more than half of its imports coming from the Gulf States.⁸

China's Oil Import Strategy

Recognizing that its domestic demand was increasing rapidly, China began to pursue oil supplies outside its borders. By 1997, it was negotiating billions of dollars in oil investments throughout Asia, Africa, the Middle East and even South America. While the geographic scope of its efforts was broad, the strategies and structures underlying these initiatives were far from homogeneous. Clearly China's oil policies were, and to an extent are, a work in progress. The country is groping its way through the complexities of the international oil marketplace. Even under the best of circumstances, countries (and for that matter international oil companies) are forced to adjust their strategies to the policies and political environments in which they are operating. These differ from one country to the next. There are several factors, though, that are particular to China's past oil initiatives. First, the structure of China's oil industry is unique. The government simultaneously strives to retain control of the industry while encouraging its state oil companies to be aggressively entrepreneurial. Its oil and gas infrastructure is less developed than that of many western countries, and this reality shapes its investments and its policies. Second, China is a new entrant in the global market, and this creates both advantages and disadvantages. Finally, while China worries about its vulnerability to future oil disruptions, the character of its concern is different than that of its western counterparts.

⁸ International Energy Agency, *2006 World Energy Outlook*, Paris: OECD/IEA, 2006, pg. 34 and 145. In addition to crude oil imports, product imports are also increasing, especially for aviation fuels.

An Oil industry in Transition

The first characteristic that strikes one about China's oil decision process is the number of key actors with a voice in that process. While western governments influence their petroleum industry, the companies pursue strategies that are primarily driven by commercial factors. In China the decision structure is more complicated. Prior to the mid 1990s, China's energy policy emphasized self sufficiency. The country's leaders eventually realized that an oil independence scenario was financially and technically unrealistic, and China needed to build the capability to participate in global oil markets. In response, it restructured its pre-existing state oil and gas enterprises into two major companies: the China National Petroleum Corporation (CNPC) and the Chinese National Petrochemical Corporation (Sinopec). Both produce, import, trade and process oil. While there are exceptions, CNPC has a stronger presence in the north and the west of China, and Sinopec is more visible in the south and east.⁹ Sinopec owns more refining capacity and thus is a major buyer of foreign oil, while CNPC is more likely to enter into exploration and production contracts, both within and outside China. There is a smaller company China National Offshore Oil Company (CNOOC) that, as its name suggests, focuses on offshore investments.

In the 1980's and early 1990's, one could think of Sinopec and CNPC as arms of the state. But in 1998, as China's economic policies became more market-oriented, the companies and associated ministries were reorganized to respond to commercial, more than social, goals. These changes, however, only went so far. The result is a mixture of decisions, some exclusively driven by commercial opportunity and others evidencing strong government intervention. It is not always clear which of these is operational, since there is little transparency. For example, CNPC could enter into an investment that in hindsight was not profitable. Was the failure a case of the government pushing CNPC to make an investment for non-commercial reasons or was it simply a result of the company underestimating the commercial risks?

Not surprisingly this uncertainty made it difficult for CNPC and Sinopec to raise foreign capital, so in 1999, CNPC, with the assistance of the US investment bank, Goldman and Sachs, established a subsidiary, PetroChina, to pursue profitable investment opportunities. An IPO was

⁹ IEA, 2000. Ob.Cit. pg. 36.

held on April 7, 2000 in New York and Hong Kong and the company raised about \$3 billion, although CNPC hoped to earn three times that much and was forced to scale the offering back.¹⁰ Maintaining the profitability of the state oil companies is a priority for the PRC since it is critical to China's efforts to meet its long-term energy security goals and supplies a significant percentage of the total revenues realized from the struggling state sector.¹¹

While PetroChina resembles a private, investor-owned oil company, a majority of its shares are still owned by CNPC. China's government may very well leave the management and many of the investment decisions to the professional executives, but clearly it has the legal means to intervene, if it so decides. Further, the boards of all of its oil companies consist of senior government officials, many of whom hope to be promoted to higher government posts. Their ambition makes it difficult for them to ignore "requests" made by the central government since failure to respond could decrease the probability of future promotions. This is not to suggest that government intervention is not costless. In fact, the costs could be high, since investors will raise the cost of capital in reaction to a perceived increase in political risk. PetroChina stock sells at a discount because its board is not independent of the government, and when Chinese companies seek significant debt financing in the international market, the cost of this debt is affected by the possibility that strategic targets of opportunity may supersede commercial goals.

In summary, China's oil companies are now an unusual agglomeration of modern entrepreneurial talent striving for earnings growth and ever greater profitability, while at the same time remaining arms of a government, increasingly focused on shaping energy policy to meet national strategic and economic goals.

If the government has the ability to intervene, where is this intervention likely to come from? Here again there are a host of agencies that have both an interest in the issue and jurisdiction to become involved. As they shaped China's oil policies, both the State Economic

¹⁰ Merolli, P., "PetroChina Lowers Expectations for IPO As Investors Steer Clear of Controversy," *Oil Daily*, March 14, 2000.

¹¹ Pietz, D. and Ellsworth C., *Fueling China: Oil and Gas Demand to 2010*, Wakefield, MA: Energy Security Analysis, Inc, January 2000, pg.17.

and Trade Commission (SETC) and its replacement, the National Development and Reform Commission (NDRC), were heavily influenced by several other ministries. The result was a decision process that resembled a competition, rather than a coherent operation, resulting in poor communication and inconsistent cooperation among the relevant agencies. This situation was further aggravated by two factors. First, each of the major ministries had powerful constituencies and fought to advance their interests. Second, the most knowledgeable energy experts employed by the now defunct Petroleum Ministry left to manage CNPC and Sinopec, leaving the government bereft of its most able energy strategists and analysts. This brain drain created a substantial asymmetry of expertise and knowledge between the government and the national oil companies, which is only now being rectified.

Because there is so little transparency, it is difficult to weigh the influence of the various parties in shaping a particular energy policy on investment strategy. Further, China's decision process is notoriously stove-piped. One agency may be unaware of what the other is doing. This often results in investment and initiatives that seem internally inconsistent. If these inconsistencies are sufficiently serious or visible, they are adjusted, but if not, they are left alone to puzzle outside observers.

Recognizing these structural problems, the government established the National Energy Leading Group (NELG) as a part of the State Council, the highest decision body in China. The group is chaired by the Prime Minister and includes the heads of the twelve relevant ministries and commissions, including Defense. To staff this body, the NELG created the National Energy Office, which will be responsible for developing policies and programs for NELG consideration and for insuring the Group's decisions are implemented.¹²

This reorganization will not eliminate all of the inherent tensions in the system. As they become more profit-motivated, China's oil companies will be less willing to sacrifice their bottom-line to achieve political goals. Authority is still fragmented with multiple agencies or commissions with some statutory responsibility for energy, but over time the asymmetry of

¹² US DOE, "Energy Policy Act of 2005 Section 1837: National Security Review of International Energy Requirements," February 2006, pg. 12.

information between the government and its oil companies will decrease, insuring that China's oil strategies will be more coherent. If the trend towards better governance continues and intensifies, China's oil policies will be significantly more sophisticated and effective five years hence than they are today.

Late to the Party

In the mid 1930s, the fledgling US oil industry and its government confronted a world in which the largest known oil reserves outside North America – Iraq, Southeast Asia, and Iran – were tied up by British and European interests. The probability that those interests would voluntarily accept the US oil companies as an equal partner was slim. Hence the companies looked for potential resources outside the European sphere of influence. Some of these were in neighboring countries, but others were in regions that heretofore had been ignored by the established industry, such as Saudi Arabia. Even though the stated US policy was to achieve oil self-sufficiency, both corporate and government officials understood the long-term strategic value of foreign oil. To compete with the European companies, the US government granted its companies generous tax credits and subsidies to invest in oil production outside the US. These efforts were actively supported by the US Department of State and eventually by the US military.

Fifty-five years later, China faces a similar situation. Over the past five decades, US, Japanese, and European companies have forged relationships with key producing countries. The Chinese perceive these partnerships as entrenched and believed that it would be difficult for their companies to enjoy equal opportunity in those markets. Chinese companies felt compelled to find alternative sources of oil. Not surprisingly, they faced the same choices that US companies had six decades earlier: 1) neighbors, such as Russia and Kazakhstan; 2) countries where entrenched western energy interests were less prominent, such as Yemen, Oman, and several African nations; and 3) countries in which the government had severed most of its historical ties to European and US interests, such as Sudan and Iran. These three categories were all targets of opportunity for China, some more so than others.

There are risks inherent in doing business with each set of countries. Neighbors may have significant supplies and shorter and more secure transportation routes, but often they have endured centuries of border conflicts and distrust that will have to be overcome if a future partnership is to become sustainable. If other oil companies are ignoring certain producing countries, it is often because that country's resources are perceived as small, or its governance and industrial infrastructure inadequate. Finally, countries where the government repudiates the contracts signed by its predecessors are also countries where the government can change again, throwing out present relationships and contracts.

When the US oil companies went abroad in the twenty-five year period from 1935 through 1970, they were often able to secure multi-year concessions under generous conditions. Again it is not surprising that China sought to follow the same path. The protests of US congressmen that China is attempting to hoard future world oil supplies is disingenuous, since this is exactly what British and US companies attempted to do in the past.

China, however, is discovering that this strategy of "controlling" its own oil is of limited feasibility in today's oil market. Approximately 85% of the oil traded is controlled by state oil companies owned by producing governments. Concession agreements, which used to be common, are now rare. Instead, producing states prefer to contract with foreign oil companies for expertise, technical services, and investment dollars, but not to take ownership of "their" oil. In a recent report, the US Department of Energy (DOE) assessed China's success in "hoarding" equity oil. "By early 2005, China's cumulative overseas investment in oil and gas supply was \$7 billion, averaging less than \$600 million per year. The total equity oil secured is around 400 thousand barrels per day, equivalent to roughly 15% of China's total crude imports or 6% of China's current oil consumption."¹³

¹³ DOE, Ob.Cit. pg. 28. DOE does not include loans to third parties for oil exploration and production projects. Also, China sells a portion of its equity oil to other parties and does not import all of it to China.

US DOE goes onto compare China's "hoarding" to the activities of the three largest US companies: Exxon Mobil, Chevron, and Conoco Phillips. The latter produces 3.9 million barrels per day of equity oil or almost ten times the volume owned by the Chinese companies.¹⁴

China recognized that the availability of equity oil is limited under the best of circumstances and insufficient to meet its future needs. To address this political shortfall, China has attempted to incorporate oil into a broader trading regime. Countries that were reluctant to sell China "equity oil" welcomed Chinese expertise, purchasing efforts, and investment dollars. Therefore Chinese companies developed a strong technical and service capability that could be exported. If countries did not want to enter into concession agreements with China, they often had a strong interest in contracting for Chinese technical expertise. More significantly, China also offered ancillary trading arrangements. Often these were oil related, such as rights to construct downstream facilities in China, but in some cases they involve the purchase of other Chinese goods, and in some instances, weapons. In 2005, over 80% of China's imported oil was purchased under some type of bilateral arrangement.¹⁵

These bilateral arrangements have a more pronounced government-to-government flavor than the US and European oil strategies, which have relied on multilateral market approaches. Exxon Mobil does not offer grain sales as a means to cement an oil concession. It is not altogether clear whether this strategy will prove to be effective. Japan enthusiastically pursued similar initiatives in the 1980s and 1990s, but recently has moved away from this approach to a more market-based strategy.

What concerns westerns governments is not so much the expanded scope of these equity arrangements, as the fact that some of them have been consummated with "rogue states" that are openly hostile to the United States (Iran) or have shown a marked disdain for human rights (Sudan). The concern has two elements, which are slightly contradictory. The first is that China is taking advantage of the international embargos that prohibit western oil companies from investing in these states. Instead of joining the West and condemning these rogue states, China,

¹⁴ Ibid, pg. 28.

¹⁵ Zhou, Dadi, presentation on November 13, 2005, Energy Research Institute CNDRC.

from the perspective of the US, is taking advantage of international sanctions to reap competitive benefits. The second concern is that China's actions are aiding and abetting bad regimes, which because of Chinese investments and technical assistance are able to stay in power longer and continue their record of belligerence and abuse.

The first of the two charges does not survive close scrutiny. In fact, a strategy of entering into oil concessions with rogue states may actually turn out to hurt China's long term interests. Rogue states are often characterized by an autocratic leadership, lack of long-term civil stability and corruption.¹⁶

Governments that fit this description usually do not have workable legal and civil institutions, thus contracts depend on the disposition of a few government leaders. When they are replaced, there is no guarantee that the new leadership will honor the agreements of their predecessors. If a contract rests primarily on the good will of the head of state and not on the principles of law when a nation's leadership changes, the contract is vulnerable to expropriation. A new leader will calculate whether he or she can extract better conditions or benefits from other governments than he or she can from continuing – or renegotiating – the existing arrangement. If he or she reaches the former conclusion, the incumbent will find it fighting to avoid being pushed out of the country. At a minimum, the incumbent will be forced to give back some of its contractual benefits for the right to continue to operate. This will only encourage the next government to expropriate or claw back still greater benefits.

Relying on oil deals from rogue states is highly risky and may not be economically sustainable over the long term.

The second objection is more valid. Certainly in a situation in which the international community is refusing to invest in a rogue state, Chinese investments and trade will increase the host government's coffers, giving it the ability to buy more arms. China is seeking greater acceptance in international circles and has recently joined the World Trade Organization (WTO),

¹⁶ There is some question as to how one might define "rogue state." Is a country such as Venezuela that is outside the sphere of US influence considered a rogue in the same way as a country like Sudan?

being seen by the world community as supporting rogue states has a cost. It affects the country's credibility in other forums.

In a world in which Chinese oil companies feel that they have few other options, the benefits of having relatively uncontested access to oil supplies may be worth the short-term political costs, but going forward, these costs will rise as China becomes an even greater player in the international market. In future years, a strategy based on international cooperation may look more attractive than one that relies on special arrangements with a few rogue states. China's role in the UN, its recent conference of African leaders in Shanghai, and its central role in the formation of the Shanghai Cooperative Organization (a collection of Central Asian countries) is testimony to China's evolving recognition that it has a growing stake in promoting international stability and cooperation. Whether China will become the international stakeholder that the US would like is uncertain, but clearly China aspires to be a stability-oriented stakeholder in the global system.

Oil Security: The Chinese Perspective

As in the United States, there are different views in the Chinese government about the scope and magnitude of the oil security problem. There are hardliners, especially in the Ministry of Defense and the PLA, who are much more skeptical of cooperative ventures and the global marketplace than those in other agencies. While officials may differ on the character of the threat and what to do in response, all are focused on the question posed by Professor Shen Dingli of Fudan University; "If world oil stocks were exceeded by growth, who will provide energy to China?"¹⁷ Under these circumstances will the United States and Japan be willing to share "their oil"? Most Chinese leaders are skeptical. Recognizing that future economic growth requires a continual flow of oil and that future demand can only be met by going outside traditional Asian markets, Chinese officials are fully aware that they must venture out into an international marketplace – a marketplace they believe is controlled by western interests.

¹⁷ Goodman, P., "Big Shift in China's Oil Policy," *The Washington Post*, July 13, 2005, pg. D01.

In an excellent paper, Kenneth Lieberthal and Mikkal Herberg argue that (Chinese) “distrust of energy markets is aggravated by the perception that these markets are dominated by the United States, a perception that overlaps with concerns that the United States is out to exploit China’s energy weakness. Based upon strategic dominance in the Persian Gulf, the US Navy’s control over critical energy transport sea lanes, and enormous power in the global oil industry and institutions, many (in China) believe the United States exerts a powerful influence on global oil prices and flow. The strident rhetoric during the 2005 CNOOC-Unocal episode has reinforced these perceptions.”¹⁸

Chinese leaders have read their history books and are very aware that the US was able to cut off Japan’s access to oil in 1939. Eighty percent of China’s imported oil passes through the Straits of Malacca.¹⁹ If a war over Taiwan breaks out, they fear the US will do the same to China. One critical difference exists: China has sufficient domestic resources to supply its military even in the event of a completely effective US embargo. Without involving neutral third parties, disrupting neutral shipping or declaring an all-out war on China, a US energy embargo is likely to be ineffective.²⁰ Recent efforts to build strategic oil storage reserves in China only lower China’s vulnerability.

Further, China is investing in building up its navy. But in order for China to truly be capable of displacing the US naval presence along its energy-related sea lanes and then continuing to control and patrol them, China would have to significantly alter its budgetary priorities. China’s new capabilities are designed to disrupt US control or defeat an attempted embargo, not to seize the lanes as Japan did in WWII.²¹ It is also negotiating for port facilities along these sea lanes. It is constructing a military port in Gwadar, in SW Pakistan and another at Chittagong in Bangladesh.²² Probably its most ambitious project to date is a proposed canal across the Kra Isthmus in Thailand, thereby providing an alternative route to the Straits of

¹⁸ Lieberthal, Kenneth and Mikkal Herberg, “China’s Search for Energy Security: Implications for US Policy,” National Bureau of Asian Research, April 2006, p. 16. Available at <http://www.nbr.org/programs/energy/index.html>

¹⁹ Han, P., “Kazakhstan Oil Pours into China through Crossborder Pipeline,” *Xinhua*, May 25, 2005. Available at: http://news.xinhuanet.com/english/2006-05/25/content_4600061.htm

²⁰ Cole, B., “Chinese Naval Modernization and Energy Security,” Washington, DC: National Defense University, June 20, 2006, pg. 7. Available at: www.ndu.edu/inss/symposia/pacific2006/colepaper.pdf

²¹ Cole, 2006, pg. 9.

²² Kaneda, H., “The rise of China’s Sea Power,” *Philippine Daily Inquirer*, September 22, 2005.

Malacca. The economics of the canal as well as several pipeline projects connecting China to the aforementioned ports are highly suspect. The bottom line is even if China has not committed the funds, it is investing time and effort to address how it can protect its future flow of Middle East oil and gas without being seen as offensively challenging the US as the guarantor of secure oil transit from the Gulf.

China and the US share an interest in long-term stability in the Middle East and both are worried about the rise in Islamic terrorism. China shares its western borders with several countries experiencing a growth in Islamic fundamentalism, including Afghanistan. It is concerned that the unrest in these regions will be exported to its Xinjiang Uighur Autonomous region.²³ It also realizes that the flow of oil from Central Asia, and perhaps in the future from Iran, will traverse thousand of miles of territory, primarily populated by Islamic populations. Growing unrest will put these pipelines in jeopardy. Thus it is not surprising that after the attack on the World Trade Center, China did not oppose the US invasion of Afghanistan.

Summary

Given its projections of growth in oil consumption, a significant portion of China's future growth will be met by oil from the Middle East and specifically the Gulf States. China is well aware that historically the US has a very strong influence in this region. The US invasion of Iraq has only reinforced China's previous suspicions of American motives and the US's strong interest in retaining control of the region's oil. Aware of the US's relationship with Saudi Arabia and its presence in Iraq, China believes that it is at a disadvantage in its efforts to secure Gulf oil supplies.

Despite the obvious challenges, China believes that over time it can make inroads with several key Middle East countries, especially given the growing interest by key Gulf countries to balance their historical over reliance on the United States – a position that is becoming less tenable, given the lack of improvement in the Israel-Palestine conflict and the US invasion of

²³ Jin L., "Energy First – China and the Middle East," *Middle East Quarterly*, Spring 2005, vol 12(2). Available at: <http://www.meforum.org/article/694>

Iraq. From the perspective of the Gulf States, China has two big advantages: It brings a paucity of political baggage to the negotiation table and has an enormous market for Middle East goods and services. As we will demonstrate below, China is leveraging both of these factors to build relationships in the region.

CHINA AND THE MIDDLE EAST

Barring stunning discoveries elsewhere, the Middle East will continue to have the largest oil reserves and the lowest production costs. Sixty-four percent of proven oil reserves are located in the Middle East and 42% are in the Gulf Cooperation Council (GCC) countries.²⁴ The US Energy Information Agency (EIA) predicts that global oil production will be increasingly concentrated in the region.²⁵ Gulf oil production, currently at 24 million barrels per day, is predicted to reach 35 million barrels per day by 2020.²⁶ Much of this growth will be targeted towards Asian markets, which already receive a majority of its imports from the Middle East.²⁷ Adnan Shihab-Eldin, former Acting Secretary General of OPEC, points out that the dollar value of GCC oil to Asia increased from \$100 billion to \$240 billion between 2000 and 2004.²⁸

If China only needed to import two to three million barrels per day, it might be able to cobble together a portfolio of oil purchases from neighboring countries, such as Russia and Kazakhstan, and Asian countries, such as Indonesia and Malaysia, supplemented by purchases from smaller Middle Eastern and African nations. But with import levels predicted to double in the next decade, China must look to the Persian Gulf and more specifically, Saudi Arabia, Iran, and perhaps at the end of the next decade, Iraq. These three countries sit on top of 70% of the region's oil.²⁹

²⁴ Shihab-Eldin, A., "GCC-Asia Strategic Relations: Development, Opportunities and Challenges," Background Paper for the IMF/WB POS 2006, September 16-18, 2006, pg. 2. Available at: [wbln0018.worldbank.org/.../c34e4ce88430f1cc852571a8008078f1/\\$FILE/Shihab-Eldin_Background%20paper.pdf](http://wbln0018.worldbank.org/.../c34e4ce88430f1cc852571a8008078f1/$FILE/Shihab-Eldin_Background%20paper.pdf)

²⁵ EIA, Persian Gulf Fact Sheet, September 2004. Available at: <http://www.eia.doe.gov/emeu/cabs/pgulf.html>

²⁶ OPEC database, 2006.

²⁷ Shihab-Eldin, Ob Cit.

²⁸ Ibid, pg. 7.

²⁹ EIA, Persian Gulf Fact Sheet, September 2004. Available at: <http://www.eia.doe.gov/emeu/cabs/pgulf.html>

Recognizing this reality, China has gradually developed partnerships with key Middle Eastern countries. In 1992, China imported approximately 37% of its crude oil from this region compared with 59% from Asian Pacific countries, but by 2004, Asian Pacific imports had fallen to no more than 12% and Middle East imports had risen to 45%.³⁰ In 2004, 30% of China's Middle East imports came from Saudi Arabia and 23% from Iran.³¹ (See figure 1.)

Chinese trading companies initiated business ventures in the Gulf as early as 1979, and by 1983, CNPC's construction division was active in Kuwait. During the 1990s Chinese oil companies signed service and technical contracts with GCC worth over ten billion dollars.³² A major part of China's strategy was to develop a foothold in the region through exporting its engineering expertise. To be able to provide this capacity, China expanded petroleum engineering programs in several of its major universities. These programs are closely associated with Chinese oil companies.³³

Realizing that it did not have the historical linkages with key Gulf countries enjoyed by US and European multilateral companies, China had to approach the Middle East not simply as an oil resource base, but as part of a greater interdependent trade relationship. Economists in China see moderate Gulf Cooperation Council states as a key entry point for Chinese goods and services. In 2004, trade with these countries reached twenty billion dollars, a remarkable statistic considering that GCC exports to China remain small relative to those to Western countries.³⁴ In its relationships with Gulf countries, China has deliberately avoided a singular focus on oil supplies and has attempted to enlarge the range of economic exchanges. Its goal is to create a level of economic interdependence that will lead to greater trade, including the purchase of oil and gas supplies, but also will make it more difficult and economically painful for Gulf countries to disrupt the flow of oil to China.

³⁰ Chinese Customs Statistical Review, 2000.

³¹ Dale, S. and Tam, S., "China's Wide Reach," *International Oil Daily*, February 4, 2005 (Lexis-Nexis).

³² Xu, X., "China and the Middle East: Cross-Investment in the Energy Sector," *Middle East Policy*, v.7 n. 3, June 2000. Available at: http://www.mepc.org/journal_vol7/0006_xu.asp

³³ Downs, E.S., *China's Energy Security*, PhD Dissertation, Princeton University, January 2004, pg. 78-80.

³⁴ Daragahi, B., "China Goes Beyond Oil in Forging Ties to Persian Gulf," *New York Times*, January 13, 2005, pg. C8. In 2000, China exported \$5.36 billion in merchandise to Middle Eastern countries. In 2005, it exported \$16.1 billion in merchandise to Middle Eastern countries.

A closer look at China's interaction with specific Gulf countries illustrates this strategy – one that the US has been reluctant to mirror, especially after the 9/11 attacks.

Saudi Arabia

In 1999, China's President, Jiang Zemin, visited Saudi Arabia. At the conclusion of the visit, he announced the inauguration of a "strategic partnership" with the Kingdom. This partnership created a cross-investment environment where Saudi Arabia agreed to open up select portions of its upstream market (excluding equity oil) to China, and China agreed to open up its refining and marketing sectors to the Saudis. While this agreement was driven by mutual strategic benefits, it was also catalyzed by the need to resolve a major technical obstacle.

China realized that if it was to be able to meet its projected import levels, it needed to be able to access Saudi crude. However in the last twenty years, much of the oil from newer Saudi reserves (including the offshore fields) is heavier and sourer than those produced from its older reserves. China's oil refining industry has been unable to keep up with growing demand, creating a short-term need to import more oil products. Chinese oil refineries are limited in their capacity to process heavier and sourer crudes. China is building six new refineries, and is committed to making significant investments in this sector over the next five years.³⁵ From the Saudi perspective, to penetrate China's markets it will need to insure that its crude oil can be refined into useful products. Aramco, the Saudi national oil company, could build refining capacity in Saudi Arabia and import product to China, but China seems determined to build domestic capacity sufficient to meet its demand for oil product. Alternatively, Saudi Arabia can invest in China's refining industry and upgrade the capacity to handle Saudi crude oil. Not only will this give China priority access to Saudi crude, it also will give Saudi Arabia a direct entry into the downstream sectors in China, one of the fastest growing markets in the world.

In 2001, after several years of negotiations, Aramco signed an agreement with Sinopec for a 25% share in a \$3.5 billion dollar expansion of an existing refinery in Fujian province, coupled with a new, large ethylene production facility. The plant is due to be complete by

³⁵ Reuters, November 10, 2005. China had 580,000 barrels per day of new refining capacity under construction.

2008.³⁶ China agreed to allow the partners in this deal to open and manage 600 gas stations throughout the province. In return China received a 30-year, long-term supply contract for 30,000 barrels per day of Saudi crude.³⁷

Aramco is now negotiating to build a second refinery in Qingdao. It would be the largest in China with an initial capacity of 200,000 barrels per day to be expanded to 400,000 at a later date. The facility would be designed to handle Arab Heavy crude oil. The refinery would be operated by Aramco, but Sinopec will have an ownership interest.³⁸ These two projects together require investment totaling over six billion dollars.

While the benefits to both countries could be significant, Aramco and the Saudi government have expressed concern about China's policy to control the price of refined products – a policy that the Chinese government has supported in order to maintain domestic economic and political stability. When world oil prices increase, Chinese regulators ensure that those increases are not immediately passed on to their consumers. While it is unclear whether the refineries or the retailers have to absorb the cost increases, Aramco is purchasing an interest in both sectors. Hence, it wants the Chinese government to amend its price control regime prior to completing its proposed downstream investments.

To win over Sinopec and prevent opposition to the Qingdao project, the Saudi government granted the company a \$300 million concession to explore and produce natural gas in Saudi Arabia. Under this arrangement Sinopec will own 80% of a special purpose company and Aramco will own 20%. This partnership is part of the Saudi government's effort to salvage its Gas Initiative. In many ways it is a symbolic deal, since Sinopec has little experience in natural gas production. But if China was to open up its refinery market, it needed a reciprocal concession by the Saudis – specifically a toehold in Saudi Arabia's upstream markets.

³⁶ Exxon Mobil bought a 25% interest in this facility. "Exxon Joins China Project with 2 Others," *New York Times*, July 9, 2005, pg. C4.

³⁷ Calabrese J, "China and the Persian Gulf: Energy and Security," *Middle East Journal*, 52 (3), July 1998, pg. 351-366.

³⁸ The Qingdao refinery is included in the latest Five Year Plan. Jin 2005, Ob. Cit.

The advantage for Saudi Arabia is clear. It obtains a market for its sour crude oil, access to both China's refining and petrochemical industry, and reduces its political and economic reliance on the United States. China gains long-term contracts for crude, greater economic interdependence and with its greater security of supply, a flow of investment dollars, and, while limited, some access to certain Saudi upstream markets.

In 2006, Saudi oil minister, Ali Naimi traveled to China and signed several agreements, including one calling for Saudi investment in a proposed 30 million barrel strategic storage facility on Hainan island. The Chinese are now building an advanced telecommunications network in Saudi Arabia and have opened up several new businesses in the Kingdom. The worry in some western circles is that the Saudi government may also decide to diversify its arms purchases, which heretofore have been primarily with US firms. In a report on Sino-Saudi rapprochement to the US Defense department, the Gracia Group, a New York consulting company, argued that the Chinese would "not have a problem selling the Saudis any kind of weaponry as long as it gets paid."³⁹ There is considerable doubt, however, that their report accurately reflects the present thinking of senior Chinese officials. China's last major arms sale to Saudi Arabia occurred in the 1980s before Saudi Arabia had even diplomatically recognized the PRC, and was for a set of now-obsolete medium-range ballistic missiles.⁴⁰ Since then, China has joined numerous non-proliferation agreements and has not sold additional arms to the Saudis. Thus the concern expressed by the Gracia Group seems to be speculative and focused on a worst-case-scenario as opposed to any overt negotiations or even discussions.

In summary, China is in the early stages of building a long-term, sustainable relationship with Saudi Arabia built on mutual economic advantage. Despite its initiatives elsewhere, China recognizes that its reliance on Middle Eastern and, more specifically, on Saudi Arabian oil will grow. At the same time, Saudi Arabia realizes that world oil demand is shifting and that much of the growth over the next ten years will be in Asia, and the largest market will be China. While oil trade is at the core of this emerging partnership, China has been careful to expand the

³⁹ The Gracia Group, "The Sino-Saudi Energy Rapprochement: Implications for US National Security," Prepared for the Office of Net Assessment, January 8, 2002, pg. 32-34. Available at: www.rice.edu/energy/publications/docs/SinoSaudiStudyFinal.pdf

⁴⁰ Cliff, R. and Byman, D., *China's Arms Sales: Motivations and Implications*, Santa Monica, CA: RAND Corp, 1999, pg. 28, 29.

relationship to include a range of goods and services as well as opening its downstream petroleum sector to significant Saudi investment. This strategy contrasts with that of the United States, which has been reluctant to open either its upstream or downstream industries to foreign ownership. This attitudinal difference does not go unnoticed in Riyadh or Beijing.

Iran

Sino-Iranian trade dates back 2000 years when the Parthians served as a bridge between China and the Mediterranean world. There are geographic and historical links that make a partnership with Iran a logical extension of Chinese energy policy. Iran sits on enormous supplies of both oil and gas, and it is technically feasible to link Iranian supplies with China by building a connecting line to the Sino-Kazakh pipeline. Energy trade options between Iran and China can be overland or by sea. Furthermore, barring some new discoveries, the Saudis have no gas for export, while Iran has significant volumes. Finally US sanctions on commercial trade with Iran provide China with limited competition in this market, since US-based companies are prevented from doing business with the Iranian government. Thus Iran provides a tremendous opportunity for China. It has supply, it has a need for both markets and capital, which China can supply, and it is strategically located along traditional trading routes through Central Asia.

Yet Sino-Iranian trade is only 0.6% of China's total and through 2003, Iran remains China's sixth largest trading partner.⁴¹ China's imports from Iran have hovered in the 200,000-300,000 barrel per day range, significantly less than those from Saudi Arabia.⁴² Despite negotiations around several LNG deals, not one cubic foot of Iranian gas has reached China. The obvious question is, if Iran is such an obvious target of opportunity for China, why has there been so little to show for it?

Several factors seem to have complicated Sino-Iranian oil and gas relationships. These include the character of earlier Iran-China sales, the limitations of Iranian contracting practices, a lack of capital on the Iranian side and most importantly caution on the Chinese part due to an

⁴¹ Jin, 2005.

⁴² Dale, S. and Tam, S. Ob. Cit.

unwillingness to trigger a confrontation not only with the United States, but also with GCC countries, especially Saudi Arabia, which are uneasy about Iranian intentions

Until recently, the sole Chinese buyer of Iranian oil was Zhuhai Zhenrong. Zhuhai is a trading company, which is openly tied to the Chinese military and is not an oil company. Zhuhai is a subsidiary of NORINCO, a Chinese industrial conglomerate. Although never as large as those from Russia, arms sales to Iran were substantial in the early and mid 1990s. It is significant that in China's most recent oil and gas negotiations with Iran, Zhuhai was replaced by Sinopec, an indication that China's strategic agenda may be changing.⁴³

By the late 1990s, China had agreed to the Missile Technology Control Regime and had pledged to stop "new" nuclear cooperation with Iran. There are those that argue that China has not always lived up to these agreements, but there is no question that China's arm sales to Iran slowed by the beginning of the new century. Instead of arms, China has elected to expand its economic interactions with Iran in other areas. Today many Chinese manufacturers have facilities in Iran and a Chinese firm is building the Tehran subway. Furthermore both Sinopec and CNPC have become more involved in discussions around various pipeline and refinery projects, but the Chinese companies have been constrained in those negotiations both by the difficulties of coming to mutually beneficial arrangements with the Iranians and a desire not to come into conflict with the United States and Saudi Arabia. Sinopec's withdrawal from the Neka-Tehran pipeline project and it's on again/off again discussions around the development of the Yadavaran field are indications of the challenges of doing business with the existing Iranian regime.

It is very difficult for a foreign petroleum company to enter into a mutually attractive arrangement with the Iranian government. The Iranian constitution prohibits production sharing agreements or outright concessions, thus the Iranians have relied on "buyback" contracts in which foreign companies act as contractors for the National Iranian Oil Company (NIOC). The foreigners provide technology and capital and receive a preset payment in the form of oil supplies plus an agreed upon fee. Once the foreign firm is paid, all the oil reverts to the NOIC.

⁴³ Sampson, P., "Iran-China Energy Deal Still Needs Work," *Oil Daily* 54 (212), November 3, 2004. (Lexis-Nexis).

The Iranians are very leery of granting foreign firms overly generous terms. Thus negotiations surrounding proposed projects often become stalled. Sinopec and CNPC evaluate possible Iranian projects, not solely along national strategic lines, but in comparison with other investment opportunities. Chinese oil companies have made it clear that if Iranian projects do not allow them to make attractive commercial returns they will stay on the sidelines. If one adds this reality to the political concerns surrounding the US sanctions, Iran's poor relationship with Saudi Arabia, and the ongoing controversy around Iran's nuclear ambitions, it is not surprising that Chinese companies have walked away from several major Iranian projects and not pursued others.

In summary, it makes strategic, logistic, and economic sense for China to pursue long-term opportunities in Iran. In recent years, however, China's efforts have been constrained by Iranian policies and actions. It has found negotiating mutually beneficial deals challenging due to a combination of Iran's contractual demands and in some projects, Iran's inability to coordinate its own actors. Simultaneously, Iranian actions on the nuclear front and its deteriorating relationships with other Gulf countries have placed Chinese officials in an uncomfortable position. If stability in the Middle East is one of their principal policy goals, then being seen by both the US and the Gulf countries as tilting towards the present Iranian government is not a tenable position. In the longer-term, the fundamentals in favor of closer Sino-Iranian oil and gas trade are strong, and if and when the present Iranian policies become less antagonistic to China's short-term strategic interests, trade should expand. When it does, it is likely to take the same form as the present arrangement with the Saudis – emphasizing Iranian investments in downstream facilities in China, and Chinese investments in new oil and gas fields in Iran. These would be coupled with a range of investments by both countries in non-energy projects.

Other Middle East Countries

China has also entered into contracts with Iraq, Kuwait, Oman, Yemen and Syria. In 2004, the total volume imported from these five countries (minus Syria) was 526,000 barrels per day.⁴⁴ More than 62% of the imports were from Oman and another 19% were purchased from

⁴⁴ Dale, S. and Tam, S. Ob. Cit.

Yemen. While three of China's oil companies are active in Oman, almost all of the country's oil is produced by Petroleum Development Oman (PDO), of which the Omani government owns 60%. Chinese companies only provide technical assistance.

The situation with Yemen is not much different. Sinopec is the only Chinese company licensed to import Yemeni crude.⁴⁵ In recent years, Yemen has been more willing to open up its reserves to foreign investment, and Sinopec has acquired a 37% interest in Block S2 which may produce up to 32,000 barrels per day by the end of 2009.⁴⁶ But this would not appreciably change the nature of Yemen's relationship with China, since almost 90% of the oil exported to China will continue to be produced and marketed by the Yemen government or one of its subsidiaries.

In neither Oman nor Yemen is there any evidence that China is locking up and hoarding significant reserves. Oman and, to a lesser extent, Yemen, export a vast majority of its crude oil to Asia. Thus China perceived these countries as less linked to western interests, and a more secure source of supply.

Iraq sits on huge oil reserves, but as one might expect, its government lacks any semblance of stability. As a result, foreign oil companies are reluctant to invest in Iraq, believing that any contract has limited sustainability. China was active in Iraq in the 1990s, but since the US invasion, its activities have been limited to purchasing a small amount of oil for import.

China recently approved a \$5 billion 15 million ton/year refinery joint venture between Sinopec and the Kuwaiti Petroleum Corporation (KPC); which, if completed, will be the largest such venture in the petrochemicals sector.

The history of Sino-Kuwaiti ties illustrates that China's lack of political baggage is not a permanent condition and that China has paid substantial economic costs for aggressive political moves. Chinese involvement with Kuwait was set back by more than ten years as a result of

⁴⁵ "Yemeni Delegation Discusses Investment," *China Daily*, May 12, 2004. (Lexis-Nexis).

⁴⁶ "OMV Targets Yemeni Output Later this Year." *Energy Compass*, January 13, 2006. (Lexis-Nexis).

China's unwillingness to support the UN resolution condemning Saddam Hussein's invasion of Kuwait. After the war ended, Kuwait cancelled \$300 million in loans to China in retaliation.⁴⁷ China hit back in 1997. Just as China announced a \$1.2 billion deal with the Hussein regime, the PRC threatened to vote against renewal of UN sanctions – unless Kuwait bought \$300 million in Chinese artillery.⁴⁸ Between 1997 and 2003, several Sino-Kuwaiti oil service projects failed, and imports from Kuwait did not exceed 23,000 barrels per day.⁴⁹

Until quite recently, China perceived Kuwait as firmly within the US's sphere of influence, but in the last few years, Kuwait-China relations have begun to thaw. In 2003, both countries pledged to increase trade.⁵⁰ However, like Saudi Arabia, Kuwait's crude oil is high in sulfur content and thus can not be handled by the current slate of Chinese refineries. Thus China is attempting to interest Kuwait in a cross-investment arrangement similar to that pursued with Saudi Arabia, but smaller in scope. While such an arrangement makes economic sense, it has proven difficult to achieve. Like Saudi Arabia, Kuwait has constitutional limits on foreign investment in its domestic production, and KPC's negotiations to build a \$5 billion refinery in Guangzhou have floundered due to China's present price control regulations governing oil products.⁵¹

China's reliance on imports from these five countries is unlikely to grow rapidly, due more to domestic limitations than China's lack of interest. There have been no opportunities to hoard equity oil, because China has been unable to acquire such oil and is unlikely to be able to do so in the future. Cross-investment policies, where the producing government invests downstream in China and China invests upstream in that country, are seen as an attractive means to promote greater interdependence and enhance long-term oil security. However, China has not made appreciable inroads in establishing such relationships with these five countries. Kuwait may prove to be an exception, but not for another few years.

⁴⁷ Calabrese, Ob. Cit.

⁴⁸ Lancaster, J., "U.S. Role as Arms Merchant to Kuwait Faces Challenge by China," *The Washington Post*, July 15, 1997, pg. A14.

⁴⁹ Teo, K. and Husari R., "Kuwait Looks to Plant Deeper Roots in Key Chinese Oil Market," *International Oil Daily*, July 30, 2004. (Lexis-Nexis).

⁵⁰ Ibid.

⁵¹ "OPEC's progress might be delayed by China's hesitations on oil reform," *China Energy Weekly*, December 23, 2005. (Interfax).

Sudan

When critics accuse China of hoarding equity oil, partnering with rogue states, and ignoring human rights, they point to Sudan. There are multiple examples of each, but from a short-term, strategic and commercial perspective, Sudan provided China with a unique opportunity to obtain a dominant position in one of the few remaining underdeveloped oil regions in the world. While the short-term benefits have been significant, there are signs that China's initiatives may not be sustainable over the long-term, at least in their present form.

As much as 52% of China's equity oil comes from Sudan.⁵² While Sudan is clearly of major importance to China, the reverse is also true. China is of critical importance to Sudan, since 65% of its exports go to China.⁵³ The number of Chinese workers in Sudan has tripled, since the early 1990s and reached 24,000 in 2006.⁵⁴ Chinese non-oil investments are significant and include hydro-electric facilities, a new airport for Khartoum, and several textile plants. China also operates the vast bulk of Sudan's oil production and has a 50% stake in the nation's only major refinery in Khartoum.

To understand the factors that induced China to make these commitments, it is helpful to put them in an historical context. Chevron USA began exploring for oil in 1974 in the Muglad Basin. But when civil war broke out for the second time in the mid 1980s, Chevron abandoned over one billion dollars of private investments and sold its interests to a Canadian firm, which formed the Greater Nile Petroleum Operating Company (GNPOC). In 1997, the firm sold a 40% share to CNPC. The goal of the newly formed company was to develop Sudan's oil fields in the south-central part of the country and build a 1500km pipeline to a coastal port facility at Marsa al-Bashair, near Port Sudan.

Despite the fact that oil was first discovered in the early 1970s, it was not until 1999 that Sudan actually exported a barrel of oil. Thus when China initiated its negotiations with Sudan, its

⁵² "China's CNPC Targets Overseas Integration Deals," *Petroleum Intelligence Weekly*, Jan, 23, 2006.

⁵³ "Sudan Energy Data, Statistics and Analysis," EIA, March 2006. Available at: <http://www.eia.doe.gov/emeu/cabs/Sudan/Full.html>

⁵⁴ "Friend or Forager?," *Financial Times*, February 23, 2006, pg. 15.

petroleum resources were undeveloped and most of its territory unexplored. It was one of the few areas in the world that geologists felt might still hold large unexploited resources. While proven reserves remain low, some geologists estimate that investment in exploration and development could allow Sudan to produce more than 600,000 barrels per day in the near future.⁵⁵

Hence from China's perspective, Sudan had enormous upside potential. Further, US and European companies had left the region, insuring virtually no competition for access to the country's oil resources.

By 1997, Sudan was in desperate financial straits. Its debt was 250% of GDP. Interest payments were \$4.5 million per day, and each day the civil war was draining another one million dollars from its treasury. Rural areas were devastated, undermining its agricultural economy. GDP was in freefall. The only escape from this financial death spiral was to increase oil revenues. Western companies had left, and China was the only country prepared to fill this vacuum. To attract investment, Sudan agreed to give China generous concession terms. For example, there are no restrictions on profit repatriations, and the Sudanese government exempts CNPC from all domestic taxes on exported oil (although CNPC does pay royalties). Further, the concession acreage is significantly larger than that awarded by other countries. These terms are among the most generous in the world. Thus from a purely commercial basis, investments in Sudan were almost too good to turn down, especially given China's perception that most other producing regions were tied to US, European and Japanese interests, and might be less receptive to Chinese overtures.

The character of China's involvement in Sudan is shaped by the domestic political context in which it found itself. Sudan has been racked by civil wars, since the 1950s. While there are multiple factions, the basic split has been between the south which has closer cultural links to its African heritage and the north which has a more traditional Islamic culture. Northern factions have controlled the government for the last half century and the south has sought either independence or greater autonomy. In 1989, Col. Omar Hassan al-Bashir, backed by the National Islamist Front, overthrew the elected government and escalated military actions against Sudan

⁵⁵ EIA, March 2006. Ob. Cit.

People's Liberation Army Movement in the South. By the time the Civil War ended over two million people had died and four million were displaced.

While a campaign to convert the southern population to Islam was the public issue that split the two sides, oil played a significant role. Sudan's oil reserves are located in the south. Initially all oil revenues went to the autonomous southern government, but this was during a period in which reserves estimates were quite small. When it became clear that Sudan might be sitting on major supplies, the north reasserted control. It created a new province – Benitui – that primarily consisted of the existing oil fields. Concerned about security of supply, it decided to locate the country's only refinery near Khartoum over 1000 kilometers away and build a pipeline from the oil fields to the refinery. This allowed the government to control all the oil revenues, which were used to fund the army and various militia groups. China supplied the technical expertise to develop these reserves. It also agreed to finance the development and provided the workers to expand, construct, and operate the oil fields, the pipeline and the refinery. In other words, China agreed to serve as a total turnkey contractor.

Given that oil revenue was essential to the north's ability to fight the war, militia forces from the south targeted the oil facilities. Conversely the government spent considerable resources in defending the infrastructure. China was caught in a difficult position. With thousands of its citizens at risk, it was under pressure to protect its workers and the facilities that they had built. China had three choices, 1) withdraw from Sudan and leave their investments behind, 2) send security personnel to protect their managers and workers, or 3) provide technical assistance and equipment to the Sudanese army, so it could protect its workers. While the details remain sketchy, it is clear that the Chinese chose some combination of the second and third option.⁵⁶ Although there is no hard evidence that Chinese troops were present in Sudan, from the perspective of the rebel forces in the south, the Chinese had clearly sided with the north and the military government in Khartoum. This view was shared by the government of Chad, which was sympathetic to the south and was fighting its own civil war against Islamic rebels supported by the Sudanese government.

⁵⁶ China built several munitions factories for the Sudanese government, in part to avoid being accused of exporting arms to the Sudan.

After years of bitter fighting, the two sides finally signed a peace treaty in 2005: the Comprehensive Peace Agreement. Under its terms, the South will begin a six year period of autonomous self-rule, followed by a vote on secession.⁵⁷ If the country votes to stay together the oil revenues will be split, as will the jobs in the industry. The South has formed its own oil company, Nilepet, and disputes are already emerging about which side has the rights to grant concessions for future oil exploration. To no one's surprise, the new government in the south has no interest in dealing with the Chinese. Meanwhile the Khartoum government is expressing concern that the concession terms given to CNPC in the late 1990s were overgenerous. In a world of high oil prices, the lost opportunity cost of these agreements is becoming politically uncomfortable to the Khartoum government, which has suggested that renegotiation is the only fair way to proceed. In addition, Khartoum has initiated negotiations with the Indian Oil and Natural Gas Corporation with the intent to sell a portion of its stake in the Greater Nile Petroleum Operating Company and unofficially agreed to sell two new blocks – one to the Romanian company, Rompetrol, and the other to the Algerian national oil and gas company, Sonatrach. It seems that China's position of exclusivity is rapidly disappearing.

China has been repeatedly criticized for not condemning the conduct of the Khartoum regime. China's response is that it does not get involved in domestic political affairs and that its activities in Sudan are commercial in nature. But this explanation seems hollow to much of the international establishment that points out that Chinese investments were essential to the financial viability of the al-Bashir government and its military operations.

Has China benefited from its experience in Sudan, and is it likely that the benefits will be sustainable into the future? The answer to the first question is not clear. Certainly China's CNPC was able to acquire a significant amount of equity oil which is a scarce commodity in today's world, and they were able to gain a large foothold in a country located in one of the last relatively unexplored oil and gas frontiers. However China has invested substantial sums upfront with the expectation that over a longer period of time it will get this money back plus a generous rate of return. If these concessions are renegotiated or expropriated by the Sudanese government

⁵⁷ "Sudan's New Peace," *The Middle East*, February 2005, pg. 353.

or its successors, China may find that the net present value of its returns, which looked so good four years ago, may be far lower than anticipated.

While one cannot foresee the future with certainty, the probability that China's concessions will be sustainable in their present form is quite low. Governments of rogue states often rest on the authority of one man or at best a small cadre of individuals. When a regime falls, the companies and constituents that benefited from their generosity are often distrusted by the new regime. Secondly, an autocratic government, especially one that has waged a bloody civil war, has enemies and those enemies will be decidedly uncooperative with those favored by the previous government. With most of the reserves and potential oil resources located in the south, this takes on an added dimension. If Sudan splits into two countries, the southern regime will gain a greater role in selecting which companies will operate, build and perhaps own the oil facilities. Given the history of China's partiality to the government in the North, it is unlikely that the authorities in the South will look favorably on Chinese companies.

Moreover, even their friends in Khartoum are upset that China is obtaining what they feel are windfall profits, and there is growing talk of renegotiating the existing contracts. Finally, the backlash in neighboring states, is often more intense. Chad is an example. It has significant oil and gas resources, but due to recent events, Chinese companies will not be welcomed in N'Djamena due to Khartoum's support of rebel groups seeking to overthrow Chad's president.⁵⁸

Dealing with an unstable autocratic government has long-term liabilities that China may have undervalued in its rush to take advantage of what they saw as a unique commercial and strategic opportunity. It is clear that today, China could never negotiate the favorable terms that it received in the late 1990s nor is it evident that China would feel as comfortable harnessing its African oil strategy to the al Bashir regimes. Officials in Beijing are becoming aware that the more generous the deal, the greater the risk of expropriation.

⁵⁸ It is likely that Chad will follow the example of many other oil producing countries and provide its state oil company exclusive access to its reserves.

Conclusion

In the first quarter of 2006, China demanded 7.15 million barrels of oil per day, but only produced 3.85 million barrels per day – a differential of 3.3 million barrels that had to be made up by imports.⁵⁹ If one assumes very conservative projections, China must double its imports within ten years to meet its growing demand. It will have to do so in a market in which most of the world's oil will be owned by state petroleum companies. Seeking and purchasing equity oil outside China's borders is an option that is fast disappearing. Hence the fear that China will be able to control and hoard large volumes of foreign oil insuring that they are not available to the West, might be an attractive vision for some Chinese officials, but it is not realistic in tomorrow's oil market.

China may prefer equity oil and state-on-state arrangements, but it is more likely that Chinese oil companies have little choice but to compete to purchase oil in the international market, in the same way Exxon or British Petroleum buys supplies. More specifically, unless major new oil reserves are discovered elsewhere, it will inevitably have to compete to purchase supplies from Middle East producers, specifically Saudi Arabia and Iran. Iraq might also play a significant role sometime in the future, but unless the present state of civil war is resolved quickly, it will not do so for at least a decade.

While the future is fraught with uncertainty, there are several factors that will characterize the Middle East. First, a large proportion of the world's oil supply is located in this region, and as world consumption increases, a greater proportion of the world's oil will originate from it.

Second, China understands that the oil development in the Middle East is vulnerable to underinvestment. There is no guarantee that state-run petroleum companies will synchronize their investments with the projected increases in global demand. In many instances, this underinvestment may not be a deliberate effort to manipulate the market, but rather an inevitable result of inefficiencies common in state-owned enterprises. Hence Chinese companies and other

⁵⁹ EIA, *International Petroleum Monthly*, August 2006. Available at: <http://www.eia.doe.gov/ipm/>

multinational oil companies will be periodically competing for supplies in a constrained marketplace.

Finally, the Middle East remains a tinder box of instability and unrest, and thus the threat of disruptions is always in the background, lurking like a specter in a Greek drama. From China's view this vulnerability is compounded by the fear, whether realistic or not, of US naval interdiction of the sea lanes from the Gulf to the Sea of China.

As China's demand continues to rise, it knows that it cannot eliminate its vulnerability to future disruptions, and thus its only option is to develop strategies that will allow it to reduce the probability of the impacts.

Like other western countries, China is building strategic storage capacity that will allow it to offset some of the oil lost in a disruption. As seen above, it is trying to persuade countries, such as Saudi Arabia and Kuwait, to invest large sums of money in domestic downstream facilities, thereby creating greater interdependence. China has shown a sophisticated understanding of the Gulf countries desire to be seen as strategic trading partners as opposed to simply a supplier of crude oil. A partnership built around a portfolio of needs and interests is likely to forge stronger bonds than one that focuses only on oil. China also realizes that for many Gulf countries, it is becoming politically uncomfortable to be too reliant on the US. Building new partnerships with China and its oil companies will provide Gulf countries with greater political flexibility and less dependence on the US. China recognizes that it is not about to replace the US in this region, rather it is focusing on shifts at the margin. However, as oil and gas exports to Asia, particularly China, become an even greater percentage of total exports, the relationship between the two regions will grow in mutual importance.

China recognizes that it has a large stake in fostering stability in the region and not provoking unrest. The experiences with Sudan have taught it important lessons, and many of its recent actions are characterized more by caution than aggressive opportunism. Pundits point out that although Iran could play a very important role in its long-term energy strategy, China has been careful not to provoke the United States by aggressively pursuing certain oil and gas

arrangements. It has also been careful not to endanger its growing connections and relationships on the other side of the Gulf. As it gains more experience, China will become more sophisticated in the diplomatic and strategic intricacies of oil geopolitics.

China's future oil strategy will be influenced by the growing strength of its oil companies. CNPC, Sinopec, and CNOOC may still not be on a par with the first tier of private multinational oil companies, but they are becoming more expert in participating in the international marketplace, accessing capital markets and competing for supplies in every corner of the globe. At the same time, these companies are new to the market and inevitably they will sometimes miscalculate the financial and strategic risks and rewards to their own detriment. They are trying to learn the complex ropes of the international marketplace. The Chinese leadership recognizes that a strong and commercially successful industry will be of enormous value to the country's efforts to build both the relationships and the credibility – financial, technical and economic – needed for success in the energy markets of the future. Where strategic and commercial goals are complimentary, the state will continue to aggressively back its companies.

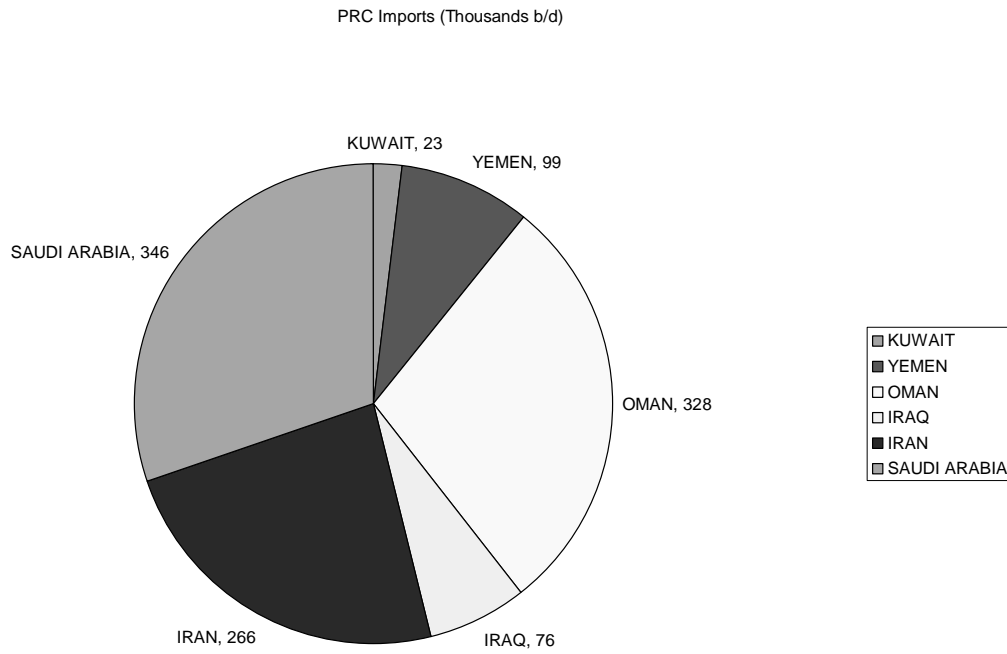
Nurturing its industry and helping its companies increase their asset values and their credibility in the international marketplace will be as valuable a step in enhancing China's oil security as any programmatic initiative. It also plays into China's strength, since its brightest and best energy minds are working in these companies. Further in dealing with the political minefields that characterize the Middle East, there is strategic value in separating the government to government negotiations from the commercial discussions, while retaining the ability and willingness on both sides to complement each other's interest. To some extent this type of dual structure is what has allowed the United States and its oil companies to build successful partnerships in the Gulf over the past half century.

The US and China have a choice: they can enter into an aggressive and hostile, politicized competition for oil supplies. Alternatively, they can cooperate with each other on strategic issues vital to each other's national interests, and agree to compete (and cooperate) commercially in the energy marketplace. Politicizing the search for oil will lead to increased

tensions, as each country attempts to capture its fair share of the world's oil. Evidence from the Middle East suggests that in the world of a global energy market, if anyone wins in such great power competition, it is the oil producers themselves. Importers rarely "win" anything of value. Our study suggests that it is in the United States' interest to facilitate, and if possible accelerate, the commercialization and depoliticization of China's energy policies.

It is difficult to extrapolate from a limited sample of events and projects in one region. But if China's experiences in the Middle East are representative of the strategies it will adopt in the future, China is already making its selection and will follow the second route, not because it prefers it, but because it may not have any other choice if it is to be able to meet its oil demand over the next two decades.

Figure 1



Source: International Oil Daily "China's Wide Reach" 2/4/2

Acknowledgements

We would like to express our deep appreciation to the many individuals who helped us with this paper: Bill Hogan, Joe Nye, Ed Cunningham, and Yuan Wu read drafts and made helpful and insightful comments. We also are grateful to Iain Johnston, Taylor Fravel, Bernard Cole and Erica S. Downs, who took the time to discuss China's energy security policies and foreign policy more broadly with us. We would especially like to thank Amanda Swanson, who helped proofread, format, and produce this paper.

The views expressed in this paper are those of the authors. Publication does not imply endorsement by the Environment and Natural Resources Program, the Belfer Center for Science and International Affairs, the John F. Kennedy School of Government, or Harvard University. The paper can be cited as Lee, Henry and Dan Shalmon. "Searching for Oil: China's Oil Initiatives in the Middle East," BCSIA Discussion Paper, Cambridge, MA: Belfer Center for Science and International Affairs, Kennedy School of Government, Harvard University, January 2007.