THE JAMES A. BAKER III INSTITUTE FOR PUBLIC POLICY
RICE UNIVERSITY

CHINESE NOCS' OVERSEAS STRATEGIES:
BACKGROUND, COMPARISON AND REMARKS

BY

XIAOJIE XU
CNPC RESEARCH ACADEMY OF ECONOMICS AND TECHNOLOGY

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ABOUT THE POLICY REPORT

THE CHANGING ROLE OF NATIONAL OIL COMPANIES IN INTERNATIONAL ENERGY MARKETS

Of world proven oil reserves of 1,148 billion barrels, approximately 77% of these resources are under the control of national oil companies (NOCs) with no equity participation by foreign, international oil companies. The Western international oil companies now control less than 10% of the world's oil and gas resource base. In terms of current world oil production, NOCs also dominate. Of the top 20 oil producing companies in the world, 14 are NOCs or newly privatized NOCs. However, many of the Western major oil companies continue to achieve a dramatically higher return on capital than NOCs of similar size and operations.

Many NOCs are in the process of reevaluating and adjusting business strategies, with substantial consequences for international oil and gas markets. Several NOCs have increasingly been jockeying for strategic resources in the Middle East, Eurasia, and Africa, in some cases knocking the Western majors out of important resource development plays. Often these emerging NOCs have close and interlocking relationships with their national governments, with geopolitical and strategic aims factored into foreign investments rather than purely commercial considerations. At home, these emerging NOCs fulfill important social and economic functions that compete for capital budgets that might otherwise be spent on more commercial reserve replacement and production activities.

The Baker Institute Policy Report on NOCs focuses on the changing strategies and behavior of NOCs and the impact NOC activities will have on the future supply, security, and pricing of oil. The goals, strategies, and behaviors of NOCs have changed over time. Understanding this transformation is important to understanding the future organization and operation of the international energy industry.

Case Study Authors

Nelson Altamirano

Ariel I. Ahram

Joe Barnes

Daniel Brumberg

Matthew E. Chen

Jareer Elass

Stacy L. Eller

Richard Gordon

Isabel Gorst

Peter Hartley

Donald I. Hertzmark

Amy Myers Jaffe

Steven W. Lewis

Tanvi Madan

David R. Mares

Kenneth B. Medlock III

Fred R. von der Mehden

Edward Morse

G. Ugo Nwokeji

Martha Brill Olcott

Nina Poussenkova

Ronald Soligo

Thomas Stenvoll

Al Troner

Xiaojie Xu

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WALLACE S. WILSON

ABOUT THE AUTHOR

XIAOJIE XU

DIRECTOR, INSTITUTE OF OVERSEAS INVESTMENT

CNPC RESEARCH ACADEMY OF ECONOMICS AND TECHNOLOGY

Xiaojie Xu is director of the Institute of Overseas Investment at CNPC Research Academy of Economics and Technology in Beijing, the chief professor of the Institute of Geopolitics and Energy Economics at the East China Normal University in Shanghai, and a participating fellow of the Energy Forum at the James A. Baker III Institute for Public Policy at Rice University in Houston. Dr. Xu focuses on geopolitics of oil and gas, evaluation of international oil and gas investment climate, risk management and NOC corporate strategy. He is the author of numerous English and Chinese professional articles, speeches, papers/chapters and books, including Petro-Dragon's Rise: What It Means for China and the World (European Press, 2002). Dr. Xu has been with the petroleum industry since 1983. He was educated and trained in Canada, the United States and France as a visiting scholar during 1995-1997 and early 2001.

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The James A. Baker III Institute for Public Policy
Rice University – MS 40
P.O. Box 1892
Houston, TX 77251-1892

http://www.bakerinstitute.org
bipp@rice.edu

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Japan Petroleum Energy Center
Sumitomo Shin-Toranomon bldg. 3-9
Toranomon 4-choume
Minatoku Tokyo 105-0001, Japan

http://www.pecj.or.jp/english/index_e.html

CHINESE NOCS' OVERSEAS STRATEGIES:

BACKGROUND, COMPARISON AND REMARKS

Dr. Xiaojie Xu, Director, Institute of Overseas Investment,

CNPC Research Academy of Economics and Technology

In April 2005, an overseas Chinese researcher wrote an article entitled *China Goes Global*[1] and composed a shorter version for the London-based *Financial Times.*[2] Thereafter, many similar voices were widely heard in the media. China has received much attention not only as a huge energy consuming market but also as an increasingly important global stakeholder whose strategies and decisions will have a great impact on the entire world. As many noted in 2004, Chinese oil demand represented over 35-40 percent of the world's new requirements for oil. As a result, Chinese oil imports and overseas ventures by its national oil companies (NOCs) are receiving closer attention worldwide.

[1] Yongjin Zhang, "China Goes Global," *The Foreign Policy Centre*, April 2005.
[2] "China Goes Global," *Financial Times*¸ June 9, 2005. FT Asia Insight Digital Edition.

This author originally spelled out this phenomenon in his English book *Petro-Dragon Rise: What it means for China and the World.*[3] However, as China's *Going Abroad* campaign (see "Going Abroad Policy" in the *China Goes Global* section) has been rapidly expanding, justifying additional analysis on this important subject is vital. Undoubtedly, China National Petroleum Corporation (CNPC), China National Petro-Chemical Corporation (Sinopec) and China National Offshore Oil Company (CNOOC) all have achieved a great deal abroad over the past decade while encountering unprecedented challenges.

This essay kicks off a retrospective review of some of the key driving forces and policy incentives behind the Chinese NOCs' *Go Global* agendas (see the *China Goes Global* section) and provides a brief background of the Chinese overseas energy ventures (see the *Achievements Revisited* Section). The focus of this essay will be on a comparative analysis of corporate strategies applied by these NOCs (see the *Comparative Strategies* section) and an investigation of the political veil of the Chinese government (see the *Political Veil of the Chinese NOCs* section). The essay concludes with the argument that the Chinese NOCs' entries into foreign upstream energy ventures can prove to be an asset rather than a threat to other countries and regions involved. In addition, the author explores the pre-conditions and requirements for the Chinese NOCs to succeed in their overseas endeavors, and the additional strategies and sound policies they need to pursue to improve upon their investment climate.

CHINA GOES GLOBAL

Driving Forces

Most analyses of the Chinese quest for overseas energy sources point to the growing substantial gap between the country's booming demand and its flat supply. Indeed, the author

[3] Xiaojie Xu, *Petro-Dragon Rise: What it means for China and the World* (European Academic Press, 2002)

believes that this divide is the primary force pushing the country to secure its sustainable oil supply into the future. It is an established fact that China's economy has been on the upswing since the country began to pursue economic reforms in the early 1980s. However, China's indigenous hydrocarbon sources have proved insufficient to meet the burgeoning domestic demand. Thus, since 1993, participation in overseas energy ventures and cooperation abroad became a necessity for China.

At the same time, a point that is rarely addressed is that China's low oil reserve to production ratio (R/P ratio) has forced the NOCs to explore new energy resources both at home and abroad. Many surmise that China's domestic output has almost peaked, as some oil fields including the giant Daqing field in Northeast China are mature or aging.

As the biggest NOC, CNPC has since the mid-1980s focused on exploring for new domestic giant finds, particularly in the Tarim Basin. In the early 1990s, CNPC was prompted to look outside China's borders to enhance its R/P ratio as quickly as possible while pursuing its objective of becoming a multinational company. Recognizing the importance of adding international sources to their reserves base, CNPC and Sinopec began pursuing overseas investment strategies beginning in the early 1990s.

Faced with new pressures for restructuring and improved strategies, many NOCs around the world have moved towards becoming international investors in both the upstream and downstream sectors. This move to be more global is driven because access to foreign resources is needed to replace either limited or depleted domestic energy assets. As they have gained a better understanding of the international rules and practices, the Chinese NOCs have become global investors and even have become publicly listed on the New York, Hong Kong and London exchanges.

China has also sought to develop key cross-border energy links, notably with major Middle East oil exporters, while establishing ties into Central Asia, and cultivating a Sino-Russian energy partnership and Sino-Africa economic cooperation. Oil and natural gas transportation routes from Central Asia and the Middle East to China are currently guiding CNPC and Sinopec to enhance their energy investments and ties in these regions.

Driven by the above-mentioned forces, CNPC called for the need to seek out overseas investments in the early 1990s when Chinese internal demand overtook domestic supply. Ironically, the government planners took little notice of the company's first forays into Peru, Sudan and Kazakhstan until the mid-1990s. A contingent of the country's top leaders did not envision overseas upstream investments as a sound strategy, and instead even emphasized continued domestic investments. Fortunately, all of the overseas projects in which CNPC invested have survived and proven successful.

Going Abroad Policy

China's top leadership ultimately recognized the importance and significance of international business to China's sustainable economic and energy development and national security in the late 1990's. Different from the previous open policy and so-called "twin market" targets at home and abroad, *Going Abroad* was generated as a national strategy in late 1997 and paved the way for Chinese oil majors to expand their businesses abroad.

The *Going Abroad* policy yielded a series of investment incentives for many Chinese companies to go global, including the gradual liberalization and reform of regulatory systems, of financial regimes (involving liberalized taxation and foreign exchange policies) and of administrative rules. These rules and regulations were liberalized gradually and reformed to more closely reflect international standards or practices, including rules of the World Trade

Organization (WTO) and other broadly applied international standards. However, reforms that would prevent Chinese firms from suffering from dual taxation with foreign countries have yet to be extended accordingly.

ACHIEVEMENTS REVISITED

Flagship: CNPC

CNPC is the largest NOC in China and the fourth largest oil company in the world in terms of reserves, according to an *Oil and Gas Journal*-200 company list.

The CNPC Group is a leading integrated oil and gas conglomerate that emerged from the former Ministry of Petroleum and was the first state NOC, focusing on upstream operations while also assuming some governmental functions and responsibilities. Its operations today cover oil and gas core businesses from the upstream (exploration, development and production), midstream (transportation and logistics) and downstream (marketing and sales and petrochemicals), and related service sector activities -- including seismic exploration, drilling, logging, work-over, construction and manufacturing -- as well as state-of-art science & technology development.

PetroChina is the biggest subsidiary within the CNPC Group and is a publicly-traded company listed in both New York and Hong Kong. In addition to being positioned as the largest crude and natural gas producer in China, PetroChina is ranked seventh in *Petroleum Intelligence Weekly*'s 2005 ranking of the top 50 oil companies. The company has also been deemed the most profitable firm in Asia for years.

International business is one of four key businesses within the CNPC Group. Overseas businesses and ventures under the CNPC flag are run by CNPC International (CNPCI), an international arm of the CNPC Group. CNPCI first launched its overseas exploration and

production activities by gaining the rights to develop blocks in the aging Talala oil field in Peru in 1992. CNPC is currently enjoying business successes in a total of 65 projects in 25 countries, including Peru, Sudan, Kazakhstan, Venezuela, and Indonesia, under various contract models.

Remarkable Start

Talala is a 100-year old oil field that witnessed serious depletion when Exxon was operator between 1980 and 1990. The field was farmed out in 1992. Despite opposition in China, CNPC took on the development of Blocks 6 and 7 in the field. CNPCI had early success, drilling several wells that each produced 1,000 barrels a day (b/d). The crude output from the two blocks was ultimately increased to more than 7,000 b/d by 1997. Most importantly, it was the first time that CNPC was able to demonstrate its enhanced oil recovery (EOR) expertise and Chinese technical skills abroad.

In the wake of its initial success, CNPCI shifted its E&P focus to several other untouched but strategically important oil provinces in 1996 and 1997 by taking over several major E&P assets in Sudan, Kazakhstan and Venezuela.

Making the Sudanese Dream Come True

CNPCI acquired one of its most controversial foreign oil assets, Blocks 1/2/4, in Sudan in 1996. It has 40 percent equity in it and is the operator of the Greater Nile Petroleum Operating Company (GNPOC), which has developed these Sudanese blocks. Through a sizable exploration and development campaign that was enhanced by a series of geophysical breakthroughs, the oil production capacity in Blocks 1/2/4 quickly reached more than 226,000 b/d as a result of an increase in recoverable oil reserves. In parallel, a 1,506-km pipeline with throughput capacity of 257,000 b/d stretching from the field to the Port of Sudan was built for exports. On August 30,

1999, the first crude ship was loaded at the port with exports to a global market. Current production from GNPOC's 10 fields is estimated at a combined average of 285,000 b/d.

CNPCI constructed the Khartoum refinery with an initial processing capacity of roughly 50,000 b/d with a start up in May 2000. Oil service stations carrying the CNPC brand in Khartoum went into operation in March 2001. The following month, CNPC began to produce jet fuel to meet both Sudanese domestic needs and for export. In 2002, CNPC built a polypropylene plant with an annual capacity 15,000 tons/a year.

CNPC, with 41 percent equity in Blocks 3/7, saw three new oilfield discoveries in 2004-2005, with production from the blocks beginning to produce 100,000 b/d in 2006. CNPC has 95 percent equity in Block 6, which is producing at 100,000 b/d currently with expectations of reaching 170,000 b/d.

The assets mentioned above reflected CNPC's ability to compete with the best of the oil firms specializing in utilizing new industry technology to achieve impressive oil field production results. More importantly, based on these achievements, Sudan has established a sizable petroleum industry using state-of-art technology within a short time frame, moving from being an oil importer to being an oil exporter in 1999.

One of the Best Investors in Kazakhstan

CNPCI took over responsibility of the Aktobe oil field in western Kazakhstan, as the operator of the field with a 60.3 percent stake in 1997. CNPCI has strengthened the corporate operation and management of the field, resulting in a better performance and higher return on investment. As a result, the field is producing as much as 120,000 b/d today, double its initial output. CNPCI has been recognized as one of six best foreign investors in Kazakhstan.

In October 2003, CNPCI bought Chevron's 65 percent share of the North Buzachi oil and gas field in northwest Kazakhstan, after having purchased Saudi Nimr Petroleum's 35 percent stake in the field two months earlier. The Chinese company followed up that success by acquiring PetroKazakhstan's oil and gas assets in central Kazakhstan for U.S. $4.18 billion in August 2005. This move was CNPCI's biggest foreign acquisition to date and greatly expanded CNPCI operations in the neighboring country, particularly after the second section of the Kazakhstan-China oil pipeline was completed in December 2005. The pipeline, which is being built by CNPC and KazMunaiGaz, is currently supplied from the Aktobe region's fields and from the Kumkol field. In the future, the main supply source will be Kazakhstan's giant Kashagan field, which is still under development.

Chinese Model in Venezuela

CNPCI has achieved strong results in Venezuela as well. Some Latin American investors view CNPC's business operations in the region as a successful investment model. Having taken over the operatorship of the Intercampo and Caracoles oilfields in February and May 1998, CNPCI has applied its state-of-art technology and EOR expertise to these fields, with impressive development breakthroughs. By the end of 2000, the crude oil output from the two fields had reached 40,000 b/d, three times higher than the pre-CNPC take-over, with more gains made since then. CNPC and the Venezuelan state oil firm Petroleos de Venezuela S.A. (PDVSA) signed an Orimulsion Cooperation Agreement in April 2001, with the intent to produce orimulsion exclusively for shipment to China.

In addition to the inroads made in Venezuela, CNPC has entered into a dozen or so contracts involving foreign investments in former Soviet republics (Turkmenistan and

Azerbaijan), Africa (Libya, Algeria, Chad, Niger and Nigeria), the Middle East (Oman, Syria and Iran and Iraq) and Southeast Asia (Indonesia and Myanmar).

CNPC has moved with lightening speed to become a prominent global player. By and large, CNPCI signed 24 overseas project contracts by 2000 including 20 oil exploration and development contracts, two pipeline contracts, one refinery and one petrochemical contract covering petroleum exploration and production, refining and petrochemical, sale and marketing spreading 11 countries. Based on its initial exploration and accumulations, CNPCI had a big jump between 1996 and 2000 with an annual oil production capacity of 430,000 barrels daily. By 2006, the oil output that CNPC took part in producing through its foreign upstream ventures had reached over 1 million barrels a day. It is involved in more than 60 projects operating in 25 countries.

As mentioned earlier, CNPC's oil service sector work is an integral part of the conglomerate's operations. In comparison with the company's overseas oil and gas exploration and production, CNPC's service sector work extends into a much larger number of countries. By the end of 2005, there were some 429 CNPCI technical crews working abroad.

CNPCI has not achieved all of its impressive gains in its foreign upstream ventures without encountering fierce competition and hardships that included serious political and economic hurdles. These challenges included re-nationalization steps being taken in the energy sectors of several producer nations and the ongoing concern from the West of the so-called "Chinese Threat" to dominate oil supplies as consuming countries fight for incremental barrels in the future.

Follow-ups

Sinopec

Sinopec is the second largest NOC in China, and it effectively dominates the country's downstream sector. It has been an integrated oil company since 1998, when it received upstream assets from CNPC through a major asset swap. Following CNPC's move to be publicly-listed on the New York and Hong Kong stock exchanges in April 2000, Sinopec Ltd. became a publicly-held company listed in New York and Hong Kong in October 2000. Sinopec's greatest strength is in the downstream sector in coastal China, where growing oil demand has been met by imports from abroad, mainly the Middle East.

The Sinopec International Company was incorporated in 2002, almost 10 years behind CNPC. To date, its overseas oil and gas projects are being operated in some 20 countries, including in Saudi Arabia, Iran, Kazakhstan, Nigeria and a few other countries.

As a relative newcomer to foreign investment, the company has been working hard to put its overseas strategy into high gear, having enjoyed early success in the Middle East and Africa. Sinopec's two oil company subsidiaries, Sinopec Zhongyuan Petroleum Company and Sinopec Shengli Oilfield Dynamic Group Company, have played important roles in Sinopec's overseas activities. By 2005, Sinopec's foreign ventures involved 36 projects, including 40 percent interest in the Northern Lights Oil Sands Project in northeastern Alberta, Canada. However, equity oil is less than 20,000 barrels daily.

Among Sinopec's overseas investment deals are high-risk exploration projects in Yemen, Iran and Indonesia, EOR projects in Algeria, and several services contracts in Kyrgyzstan and Turkmenistan. In Iran, Sinopec started with high hopes for the high-risk Zavareh-Kashan Block in 2003 but disappointing results have left it now pursuing other options for expansion in the

region. With a fourth well at Zavareh-Kashan drilled in 2006 proved to be a third failure to produce commercial qualities of oil from the block, leaving Sinopec ready to abandon the exploration project, having met the terms of the deal.

Turnkey construction projects of three refining plants in Northern Iran and storage facilities in Neka construction were completed in December 2003. In January 2004, Sinopec International Company was rewarded Block B gas exploration license under the Saudi Gas Initiative and later negotiated to participate in the development of a major part of the oil field Yadavaran in Iran under a project including refinery construction and a liquefied natural gas (LNG) import commitment. In January 2005, Saudi Aramco, ExxonMobil and Chinese state oil firm Sinopec signed an agreement for a U.S. $3.5 billion expansion project that is to triple the capacity of the Quongang refinery in the Southeast China province of Fujian to 240,000 b/d. Saudi Aramco has stated that it is also in negotiations with Sinopec for a stake in a $1.2 billion grassroots refinery in Eastern China at Qingdao in the Shandong Province. Saudi counter investments are expected to expand into other Chinese sea port cities, including Hainan and Dalian.

CNOOC

CNOOC is China's third largest NOC specializing in offshore E&P and related businesses. Since its establishment in the early 1980s, CNOOC has been closely cooperating with its international partners.

However, the company is a newcomer to going beyond Chinese waters. As a relatively late entrant into overseas business development, the Chinese state oil firm has focused more specifically on mergers and acquisitions (M&A) activities. In 1994 and 1995, CNOOC seized its first opportunity to pursue a foreign oil venture through investment in the Malacca Straight oil

block in Indonesia. CNOOC's investment in the venture ultimately approached $20 million as it acquired 39.51% of the block and recouped about 11 million barrels up until 2001. The Chinese NOC experienced similar successes in two offshore blocks in Burma and seven blocks in the Gulf of Mexico.

In 2001, CNOOC's successful initial public offering (IPO) in both Hong Kong and New York contributed to a further enhancement of the company's capital operation and portfolio. CNOOC's top management started to expand the firm's overseas business through major M&A deals. Most notable was an April 2002 acquisition of five production-sharing agreements (PSA) blocks valued at $592 million in Indonesia from Repsol-YPF, making CNOOC the largest offshore oil producer in that country. It is estimated that CNOOC's annual oil and gas output from its foreign production totals 37.5 million barrels and 1.49 billion cubic meters. To date, its overseas assets are mainly concentrated in Australia, Southeast Asia, West Africa and the Caspian Sea, as well as Canada.

In addition, CNOOC was originally empowered by the government to operate LNG in coastal China and the company played a key role in building the first LNG receiving terminal in Guangdong Province. In order to secure the LNG resource supply to this terminal, CNOOC in May 2003 entered into an agreement with Australia for a stake in the North West Shelf (NWS) gas block. CNOOC paid $348 million for gas equity and reserves from the NWS block, partnering with BP, ChevronTexaco, Royal Dutch/Shell, BHP, Woodside and Japan Australia LNG (MIMI) on this world class acreage. Five months later, CNOOC acquired 12.5% of gas equity from the Gorgon LNG Project to supplement LNG to Chinese terminal.

Since 2001, CNOOC has made outstanding progress in its overseas expansion, with about 20 percent of the company's proven oil reserves and 25 percent of oil equivalent coming from

abroad. CNOOC became involved in oil sands development in Canada when it acquired 16.69 percent of the Canadian MEG Energy Company through its subsidiary CNOOC Belgium in April 2005.

It is well documented in the media that CNOOC struggled to acquire U.S. oil firm Unocal in 2005 with a final $18.5 billion bid competing against U.S. oil major ChevronTexaco. CNOOC's acquisition of Unocal would have been a win-win business solution for both companies. The merger would have increased CNOOC's integrated gas business and strong presence in Southeast Asia. Unocal would have benefited equally by the acquisition to cement its presence in Southeast Asia with links to Chinese market.

The CNOOC/Unocal bid was the first attempt of a merger between a Chinese NOC and an American oil firm, and the deal became the target of U.S. political scrutiny. Because the CNOOC offer for Unocal became severely politicized on the U.S. Capitol Hill, CNOOC had to drop the bid with great disappointment. However, as the smallest Chinese NOC and latest newcomer into the foreign investment arena, CNOOC gained a lot of positive attention as many around the world focused on this controversial deal in the first half of 2005 and even continue to discuss it today. Bolstered by its heightened publicity, the NOC continues to expand its overseas business elsewhere, and in particular, offshore Africa.

Others

It is worth mentioning several non-NOC but state-owned oil companies in China that are active doing business abroad. Among them are Sinochem's International E&P Company, Norinco's Zhenhua Oil Company and CITIC Energy.

Sinochem, the largest state-owned oil and petrochemical import and export company in China that is also renowned as a global oil trader, decided to extend its oil sector and value chain

into the international upstream beginning in 2002. As a new oil exploration and development company, the Sinochem International E&P Company in 2003 acquired Dubai-based Atlantis Holding Company with access to oil and gas exploration and production activities in Tunisia, Oman and the UAE. Recently, the company directed its business focus into Southeast Asia and South America.

Norinco (the North Industrial Company) is involved in arms sales and engineering construction abroad. Based on its small oil trading business, Zhenhua Oil was established to cooperate with CNPCI on oil development in Syria and to share its interests in Iraq. CITIC Energy remains a small firm but it has ambitions to do business abroad. Supported by its financial parent, the CITIC Group, CITIC Energy will no doubt greatly benefit from its parent company purchasing the Kazakhstan oil assets of Canada's Nations Energy Company Ltd. for $1.91 billion in December 2006.

COMPARATIVE STRATEGIES

CNPC

Having experience of more than a decade of development work abroad, CNPC has made a strong entry into several key regions and built its integrated value chain from exploration to retail marketing in Africa and Kazakhstan. In looking back, the company started with small and low risk foreign ventures and then gradually expanded into large ventures. Most importantly, it is the CNPC Group that endowed CNPCI to make the latter capable of expanding its overseas activities on various fronts, including oil and gas development and production, technological and construction services in both upstream and downstream sectors, and outward direct investment and inward service-making. In order to utilize the CNPC Group’s strength, CNPCI has preferred to be positioned as the operator of its major projects. CNPCI launched its expansion strategy in

1996 and has seen it unfolded in Sudan, Kazakhstan and Venezuela. Based on its successes in late 2001-02, CNPCI worked out a long range and forward-looking business development plan. Its present strategy is characterized by the following developments:

i. Successful M&A and strategic alliances with other peers;

ii. Successful integration of its regional assets and enhanced management system based on its value chain in Africa and Central Asia;

iii. Successful expansion into new strategic provinces and markets. Among them are Turkmenistan in Central Asia, Ecuador in South America, Niger and Chad in Africa, and Russia; and

iv. With the growing and widespread business expansion, CNPCI has positioned itself as a leading large independent oil company in the world.

Despite the changing global competition and challenges ahead, CNPCI realizes that its future energy development projects depend on how and whether it could cope with potential uncertainties. Therefore, its corporate priorities will focus on the following points:

(1) Enhancement of Portfolio Management

Facing the changing investment climate, CNPCI must enhance and even redevelop its overseas expansion strategy. To mitigate its risks, it has to push its portfolio management regionally and globally. Some asset consolidation and diversification and even an IPO might be among its top choices.

(2) Increased Commitment to Local Development

Based on successful experience from what it has accomplished in Kazakhstan, CNPC fully realizes the importance of its dedication to the local communities and the host country's development when implementing its widespread business plan. Commitments to HSE

compliance, contributions to local social and economic development, and harmonization with local culture and social behaviors are core operating procedures that CNPC must enhance.

(3) Expansion of Corporate Partnerships with Foreign Counterparts

CNPC has built up its strategic and/or corporate partnerships with Russia's Gazprom and Rosneft, France's TotalFinaElf, and Norway's Statoil. Its future corporate partnerships with Western counterparts will be emphasized. The reasons behind following this strategy are simple. As an NOC, CNPC shares and encounters similar interests and hardships with its partners and other NOCs and international oil companies (IOCs) in the same countries, such as Venezuela, Ecuador and Bolivia.

(4) Managerial System at Headquarters

So far, CNPC is a home-based NOC with an international branch (CNPC International) and an international department based at its headquarters. CNPC's history of overseas operations is similar to that of the Petronas, the Malaysian national oil company. However, the two major NOCs distinguish themselves in corporate culture and management behavior. At Petronas' headquarters, almost all major divisions have responsibility for their domestic and international businesses. Petronas' international unit is positioned at middle level and is affiliated to the corporate planning department. This is an example of an internationalized NOC.

In comparison, Brazil's state oil firm Petrobras has a smaller international business at this moment. Therefore, a single international department assumes all responsibility. CNPC's corporate management style regarding its international activities is currently somewhere between that of Petronas and Petrobras. Based on Chinese culture and its comprehensive strength, CNPC may prefer to centralize its corporate managerial functions in its international department at

headquarters (HQ) in the future while also fostering CNPCI to be an integrated international oil company. Both HQ's international department and CNPCI report to a senior vice president.

The above-mentioned criteria, not involving technologically and financially sensitive matters, underpin CNPC's future strategy.

Sinopec

Sinopec, as a downstream-based major, has closer relations with its oil trading partners and crude oil suppliers, mainly in the Middle East. Because of these ties, its future international strategy should reflect the following essential elements:

i. Continue to strengthen its risk exploration and related activities (e.g. refining) in the key countries in the Middle East in which it operates (Iran, Saudi Arabia and Yemen). Meanwhile, continue to promote its oil field technology services in the favorable format of a turnkey model or by sub-contracting one.

ii. Apply further expansion into some countries in Africa and South America with more flexible contracts, portfolios and operatorships;

iii. Utilize its domestic assets or strong market position inside China as an option to swap for foreign stakes as mentioned above. Its cooperation with Saudi Aramco on a huge crude stockpile facility project in the Hainan Province is an example. It is expected that this market-for-resource option strategy would continue in the future.

iv. Continue corporate partnership strategies. However, it has to harmonize its strategy with CNPC because of their common approach that targets similar or identical partners. This is critical for both NOCs to come to terms with each other regionally and globally.

CNOOC

CNOOC's international cooperation has been an inherent aspect of the company's operations since it was first formed. Its top management has introduced international practices though its activities with almost all major IOCs over the past two decades. In addition, the NOC has enjoyed a world-class management team and managerial professionals. CNOOC is undoubtedly strong at capturing major market opportunities and pursuing profitable M&A activities. A prime example of this is CNOOC completing three major M&A bids valued $1.23 billion and acquiring Repsol-YPF's assets in Indonesia in January 2002. The company will continue such policies in the future.

The market-for-resource option again is an outstanding leverage for CNOOC cross-border acquisitions. CNOOC has taken full advantage of being the original Chinese coordinator of LNG for gas resources from Australia beginning in the early 1990s. According to the agreement, the joint venture of Guangdong LNG – in which CNOOC holds a 25 percent stake -- is committed to purchase LNG from NWS starting in 2006 while CNOOC acquires upstream assets with 5.3 percent of the production, lease and exploration licenses. Its involvement in Australia's NWS and its purchase of 12.5 percent of Tangguh LNG in Indonesia from BP were two milestones showing CNOOC's great leap into foreign investment.

However, CNOOC learned more than just about business through its failed attempt to purchase Unocal. It is believed that the NOC will be more cautious in expanding its overseas business in the next a few years. The Gulf of Guinea and the Caspian Sea are emerging areas in which this NOC should get strategically involved.

Others

Sinochem started small in overseas oil development but is thinking "big" for its future based on its worldwide trading network. Strategically, it has to focus on one or two regions. Through a successful acquisition of Atlantis Holding Company in 2003, Sinochem has direct access to three E&P projects in Tunis and the United Arab Emirates (UAE). In addition, Sinochem has its eye on several refining plants and chemical facilities. Its ambition was to reach equity oil production of 3 million tons in 2005-06 and higher in 2010.

The Zhenhua Oil Company under the Norinco Group started its oil activities in Iraq with CNPC and is recommended to partner with CNPC in Syria and Iraq. CITIC Energy is the most recent entrant into the international oil business and is negotiating for oil ventures in offshore Kazakhstan and Africa. CITIC Energy is not the last Chinese firm to do energy upstream or downstream business abroad. However, facing the increasingly intense competition and given their size and weakness, neither Sinochem International E&P Company nor Norinco's Zhenghua Oil or CITIC Energy will be considered as competitive in the next five years. This might require some corporate restructuring programs to be considered and planned in the near future.

THE POLITICAL VEIL OF CHINESE NOCS

Oil is not just another commodity.[4] Oil gives birth to the twins of politics and money. For an NOC, geopolitics might be a more sensitive factor for it than for an IOC both at home and abroad. Many observers regard the political dimension as the most uncertain stress or risk for NOCs as some Western agencies and individuals are quick to criticize the geopolitical nature of NOCs' overseas campaigns. Therefore, any major movements by Chinese NOCs are often touted

[4] As put by Matthew Simmons on his Twilight in Desert, Wiley & Sons, 2005

as an “energy threat” when these companies pursue their new overseas ventures and continue their expansion strategies.

There are seemingly three veils or questions that have to be lifted for the Chinese NOCs.

i. Are the NOCs government agencies?

ii. Are these NOCs behaving on behalf of government or for government policy?

iii. Do these NOCs’ strategies contain political and geopolitical objectives?

These three questions of perceptions exist in many countries where NOCs plays a key role. However, the answers to these questions vary from NOC to NOC and country to country. Such NOCs as PDVSA in Venezuela, the National Iranian Oil Company (NIOC) in Iran and Gazprom and Rosneft in Russia are government tools and are strongly backed by the political will to a great extent. Some others may vary in terms of their histories, reforms and driving forces. Now, what are the differences in China? What are the governmental expectations for the NOCs in China? And what could the central government do to help the NOCs?

Are Chinese NOCs Government Agencies?

It is true that NOCs in China were totally state-owned previously and are largely state-owned today. CNPC and Sinopec as well as CNOOC all developed out of the former Ministry of Petroleum. The first two NOCs acted as more or less government agencies due to a lack of Ministry of Petroleum or Energy during the past decades. CNPC, for example, did take on some governmental responsibilities when it incorporated in the 1980s and has been criticized for its mixture of political functions and business roles. However, this mixture was resolved in the early 1990s when the then State Development and Planning Commission were formed and CNPC was corporatized. Now the State Development and Reform Commission along with the Energy Bureau within it have taken over full governmental regulatory and public sector responsibility

from the national oil companies. Neither CNPC nor Sinopec are governmental regulatory or public agencies. Furthermore, PetroChina and Sinopec Ltd, which are largely state-owned, are publicly traded companies in Hong Kong and New York as of 1999 and 2001, respectively. Facing intense global competition, Chinese NOCs have been prompted to act as IOCs while the central government does want the NOCs to take on public duties. The central government does expect the Chinese NOCs to run as commercial successes, while more focus has been turned to corporate social responsibilities at home and abroad. The top managements of these NOCs are facing health, safety and environmental pressures when the firms do business globally.

Are NOCs Behaving on Behalf of Government?

As a NOC, CNPC prioritizes its goal to secure national oil supplies. However, this goal is first based on its corporate performance. CNPC's international businesses are driven by the company's corporate strategy instead of governmental policy. CNPC went abroad without governmental approval as mentioned in Section II. Now *Going Abroad* is applied as a policy incentive that encourages almost all domestic major oil companies to pursue corporate interests worldwide. In this regard, the central government will continue to work to create sound regulations and policy settings for NOCs.

Do These NOC Strategies Contain Political and Geopolitical Objectives?

CNPC has streamlined its corporate strategy and operates with lesser top down political will. With several major driving forces behind it, CNPC pursues its overseas expansion for its continued survival and development as a multinational firm to improve its low R/P ratio. Geopolitical goals were subordinated as an internal bottom up factor. Moreover, the Chinese central government has no geopolitical purpose for nor placed any political pressure on these NOCs in any form.

As a growing energy consuming country, however, China has to work out a national energy strategy and an energy diplomacy to encourage the NOCs to cooperate with host countries and other IOCs. In this regard, there is political transparency behind almost all major international initiatives taken by NOCs. Currently, the central government is working on keeping good bilateral and multilateral relations with other oil and gas producing countries and transit countries, while creating effective bilateral and multilateral cooperation mechanisms for the NOCs' cross border investments. The central government will cultivate its legal and official relations with international agencies, including the World Bank, World Trade Organization, International Energy Agency (IEA) and Energy Charter Treaty. Giving the growing high foreign exchanges deposit of more than $1 trillion by the end of 2006, some senior advisors including this author are encouraging the central government to transfer some monetary deposits into oil majors through commercial banks for overseas assets.

China is no different in acknowledging that a good business climate deserves sound political support. However, extreme politicization could either push a futile project or kill feasible projects. Again, CNOOC's failed acquisition of Unocal is widely blamed on such extreme political meddling in the U.S., especially reflected by the lobbying of opposition groups blocking the deal solely out of narrow political interests, plus their little knowledge of the consequences and details of the proposed investment. By contrast, views of some groups with better knowledge of the deal were relegated to a minority voice. In the future, the central government should be more helpful in cooling down the international and regional political temperature for major acquisitions. As this author advised repeatedly elsewhere, the central government should enhance energy diplomacy at the Ministry of Foreign Affairs and its regional

offices worldwide and dispatch its senior foreign diplomats to the NOCs, where they should assist in coaching the NOCs to develop corporate diplomatic capabilities.

CONCLUDING REMARKS

Chinese Overseas Expansion: Threat or Contribution?

There are several world energy outlooks that project into 2030. Among them, the IEA World Outlook 2005 concluded that the world oil demand would be increased by 50 percent in 2030, which will require ample supplies worldwide, mainly from the Middle East. The IEA has assumed that there are seemingly no problems with the supply curve given the great potential in place in the Middle East and beyond and cast light on a serious *lack of investment* in both upstream and downstream capacity that had contributed to the extreme tightness in the global oil market over the past few years. Based on whether the adequate investment is not available or consuming countries' policies remain unchanged, the IEA developed two other scenarios: a Deferred Investment Scenario, in which investment in the producing countries is delayed; and a World Alternative Policy Scenario, in which energy-importing countries take determined action to cut demand and change the pattern of fuel use, driven by high prices, environmental and/or security goals. The two scenarios have significant implications for both oil producers and consumers.

In addition to a lack of investment, a big global concern is the lack of production capacity. It is well known that today's spare capacity is too low both for crude production and refining sector. The narrow spare capacity of some key Opec members should be blamed for future oil price hikes or even possible energy crises ahead, highlighted by such literature as books such as *Twilight in the Desert*, by Matt Simmons. Although there remains sharp disagreement over the status of Saudi Arabia's ultimate oil production potential, it is

acknowledged that current Saudi oil output heavily relies on a handful of aging giant fields. Furthermore, the Saudi oil story is not alone, as an examination of the other Gulf producers and major non-Opec producers including Russia indicates similar worries. Meanwhile, global demands for oil and gas are growing, particularly from emerging economies. The world is facing Mr. Simmons' "Clash of Age" -- that is, supply is too old while demand is too young.

Therefore, the answer to the "Clash of Age" is simple: the world needs higher spare capacity and greater output from additional resources, both conventional and non-conventional, and more intense investment in capacity building. Both NOCs and IOCs are playing increasingly important roles in this investment.

Like other NOCs doing business abroad, the Chinese NOCs have achieved a great deal in the past and continue to bring additional oil on stream thanks to intensive E&P activities in the countries where they invest. There is no reason for these NOCs should be viewed as any kind of threat, but rather as providing a great contribution to increasing supplies and capacity building in the world energy system.

Further Internationalization

As the points addressed above make evident, the Chinese NOCs are at an early stage of internationalization and are not close to comparison with the international operations of the major IOCs, especially in terms of daily oil production. The International arms of CNPC, Sinopec and CNOOC realize this current limitation. The biggest challenge for them is how to internationalize management and re-allocate their assets worldwide. In addition, the other top tasks are to comply with international law and business practices, manage cultural differences, and commit to prospects for world economic and social development. There is a long way to go

in this direction. Two pre-conditions are: (1) seasoned top management needs to be educated and trained; and (2) sound strategies must be implemented wisely.

Obviously, internationalization is not only a task for these NOC international units but top goals for their parents. However, it is a fact that the mainstays of Chinese NOCs remain tied in the Chinese culture and political system. The author foresees there is a long transition in the next decades to come.

Corporate Partnership Between NOCs and IOCs

For this NOC research program and based on the author's observation, it is necessary to explore a possibility of corporate partnership or even strategic cooperation or alliances between NOCs and IOCs. For years, CNPC has been exploring long-term strategic cooperation with other NOCs and IOCs. Such a corporate partnership or even strategic cooperation may have proved to be a foregone conclusion but has been a tough task to accomplish.

In recent years, cooperation between the Chinese NOCs and other NOCs has emerged. CNPC established long-term strategic cooperation with state-owned Gazprom and Rosneft in Russia in 2004 and 2005. Such a close cooperation or alliance will be beneficial for the foreseeable future. CNPC has also partnered with New Delhi-based Oil And Natural Gas Corporation (ONGC) successfully in Sudan for years and, most recently, the two NOCs jointly acquired PetroCanada's 38% stake in Syrian assets, despite the fact that they have vied against each other for major assets in Kazakhstan and offshore Nigeria.

Meanwhile, CNPC and the other Chinese NOCs are seeking corporate partnerships with western IOCs. Among the ventures being pursued are partnerships between CNPC and Total and Statoil. It turns out that a better understanding of mutual interests is a foundation for such NOC-IOC cooperation.

However, there are some political factors that remain between Chinese NOCs and some Western IOCs. Some geopolitical considerations addressed in Section V of this paper on Chinese NOCs should be removed or addressed before both NOC and IOCs can work together for a brighter energy future.

APPENDIX A: CHINESE NOC CRUDE PRODUCTION 2000-2005
(UNIT: 10,000 TONS)

Fields/field companies	2000	2001	2002	2003	2004	2005
Daqing	5300	5150.16	5013.1	4840.03	4640.03	4495.1
Liaohe	1401	1385.01	1351.15	1322.1	1283.19	1242.02
Huabei	456	450.72	438	435.2	432.29	435.1
Dagang	400	395.16	393.91	421	488.38	509.95
Jilin	375	404.3	444.03	475.09	505.52	550.57
Xinjiang	920	968.3	1005.02	1060.1	1111.06	1165.37
Changqing	464	520.08	610.12	701.56	811	940
Yumen	43	52	60.1	70	75.03	77.01
Qinghai	200	206.02	214.02	220.02	222.02	221.49
Sichuan	17	14.28	13.8	13.7	13.81	13.81
Jidong	62	62.51	65.26	74.82	100.32	125.02
Tarim	435	472.63	502.01	525.28	538.36	600.06
Tuha	285	255.01	251	235.01	225	209.84
Zhejiang	—	—	—	—	—	0.03
South Co.*	—	3.05	4.71	7.57	9.13	10.07
CNPC Subtotal	**10358.97**	**10339.21**	**10366.24**	**10401.49**	**10455.13**	**10595.42**
Shengli	2675	2668	2671.52	2665.51	2674.3	2694.54
Zhongyuan	377	380.18	380.03	361.57	335.11	320.01
Henan	185	185.01	188.02	186	188.31	187.15
Jianghan	87	95.21	96.53	95.12	96	95.61
Jiangsu	155	157.02	157.02	158.24	162	164.7
Yunnan-Guizhou-Guangxi	3	3.3	3.01	2.7	2.88	3.03
NewStar Co.**	240	294.15	292.98	—	—	—
Sinopec Northwest	—	—	—	292.83	358.17	420.01
Sinopec Southwest	—	—	—	0.93	1.09	0.8
Sinopec East	—	—	—	17.04	17.51	18
Sinopec North	—	—	—		0.19	2.3
Sinopec Northeast	—	—	—	4.42	5.15	4.72
Sinopec Central South	—	—	—	0.71	0.85	0.9
Sinopec NorthOil	—	—	—	11.69	10.03	7.7
Sinopec Subtotal	**3724**	**3783.87**	**3789.11**	**3804.78**	**3851.59**	**3919.47**
CNOOC	**1757**	**1822**	**2098.6**	**2185.89**	**2439.72**	**2763.82**
Shanghai Oil and Gas Corp.	**—**	**58.93**	**47.32**	**38.02**	**31.86**	**25.27**
Yanchang Group Ltd.	**246**	**316.4**	**380.15**	**552.93**	**720.94**	**838.24**
Rest of China	**—**	**—**	**205.17**	**—**	**—**	**—**
Total	**16086**	**16317.21**	**16886.59**	**16983.11**	**17499.24**	**18142.22**

Note: *South Co refers to CNPC's CNODC Hainan Branch ; **NewStar dismantled into six regional branches in 2003, plus remainder NorthOil. (Source: CNPC, Sinopec and CNOOC by February 2006)

APPENDIX B: CHINESE NOC GAS PRODUCTION 2000-2005
(UNIT: 100 MILLION CUBICMETER)

Fields/field companies	2000	2001	2002	2003	2004	2005
Daqing	23	22.03	20.22	20.34	20.34	24.43
Liaohe	11.5	11.77	11.31	10.57	10.04	9.21
Huabei	4.4	4.63	5.33	5.75	5.85	5.73
Dagang	4	3.89	3.94	3.57	3.38	3.32
Xinjiang	16.2	17.6	20.19	22.1	25.5	28.95
Tarim	7.5	9.57	10.88	10.89	13.56	56.77
Tuha	9.2	10.48	11.43	12.34	13.26	15.32
Sichuan	79.9	83.59	87.61	91.88	97.77	118.3
Changqing	20.6	33.67	39.14	51.85	74.46	75.31
Qinghai	3.9	5.87	11.51	15.41	17.94	21.21
Yumen	0.2	0.37	0.62	0.21	0.2	0.79
Jidong	0.6	0.43	0.41	0.44	0.55	0.77
Jilin	2	1.91	2.17	2.32	2.47	2.73
South Co.*	—	—	0.52	1.14	1.29	1.66
Sichuan Bureau	—	—	—	—	—	2.19
CNPC Subtotal	**183.1**	**205.81**	**224.75**	**248.82**	**286.6**	**366.67**
Shengli	6.88	8.5	7.5	8.1	9	8.8
Zhongyuan	13.38	15.03	16.21	17.01	17.51	16.61
Henan	0.53	0.9	1.11	1	1.02	1.01
Jianghan	0.91	0.75	1.16	1	1.08	1.21
Jiangsu	0.24	0.23	0.23	0.33	0.5	0.64
Yunnan-Guizhou-Guangxi	0.79	0.77	0.73	0.9	1.01	0.8
NewStar Co.**	16.53	19.94	22.51	—	—	—
Sinopec Northwest	—	—	—	4.52	4.9	5.2
Sinopec Southwest	—	—	—	17.01	19.1	21.03
Sinopec East	—	—	—	0.05	—	—
Sinopec North	—	—	—	0.07	0.98	3.98
Sinopec Northeast	—	—	—	1.7	1.81	1.75
Sinopec Subtotal	**39.16**	**46.12**	**49.45**	**51.69**	**56.91**	**61.03**
CNOOC	**39.6**	**38.57**	**37.16**	**32.52**	**48.88**	**50.89**
Shanghai Oil and Gas Corp.	**—**	**3.3**	**4.33**	**4.97**	**5.73**	**6.04**
Rest of China	**—**	**8.89**	**10.62**	**3.28**	**11.68**	**14.87**
Total	**262**	**302.69**	**326.3**	**341.28**	**409.8**	**499.5**

APPENDIX C: CHINESE NET OIL IMPORTS 1990-2005

(UNIT: 10,000 TONS)

Oil	1990	1995	2000	2002	2003	2004	2005
Crude	-2106	-174	5983	6220	8299	11732	11902
Products	-224	1024	978	964	1439	2642	1746
Gasoline	-163	-170	-455	-612	-754	-541	-563
Naphtha	-54	40	-56	-67	-89	-135	-143
Jet oil	-44	39	46	42	5	74	51
Light diesel	46	469	-30	-78	-139	211	-94
Gfuel oil	6	582	0	1589	2304	2874	2373
LPG	11	224	480	620	634	635	611
Olefin	-18	-27	-50	-60	-60	-61	-70
Oil coke	-13	-43	-129	50	42	-39	-141
Oilasphalt	1	13	124	217	251	242	314
Crude+products total	-2350	1017	7384	8011	10606	15151	14361

(Source: China Custom Bureau)

APPENDIX D: CRUDE IMPORTS/EXPORTS BY COUNTRY
(UNIT: 10,000 TONS)

	2000	2001	2002	2003	2004	2005
Imports from:						
Saudi Arabia*	573.02	877.84	1139.04	1517.62	1724.43	2217.89
Iran*	700.05	1084.7	1063	1238.89	1323.74	1427.28
Oman	1566.08	814.04	804.59	927.74	1634.78	1083.46
Yemen	361.24	228.69	226.17	699.68	491.22	697.85
UAE*	43.05	64.98	0	86.35	134.39	256.77
Kuwait*	43.34	145.98	106.97	90.72	125.4	164.57
Iraq*	318.32	37.21	53.68	0	130.65	117.04
Qatar*	159.89	132.56	45.76	67.58	14.24	34.32
Syria	-	-	-	7.93	-	-
Middle East Subtotal	**3764.99**	**3385.99**	**3439.22**	**4636.51**	**5578.85**	**5999.19**
Angola	863.66	379.89	570.51	1010.15	1620.82	1746.28
Sudan	331.36	497.34	642.56	625.84	577.05	662.08
Congo	145.44	64.16	104.73	338.93	477.33	553.48
Equatorial Guinea	91.59	214.64	178.02	146.02	348.48	383.89
Libya*	13	25.04	-	12.89	133.85	225.92
Nigeria*	118.66	77.25	48.79	12.2	148.9	131.02
Algeria*	-	-	-	12.85	67.62	81.64
Chad	-	-	-	-	83.08	54.75
Egypt	12.01	-	-	7.52	-	7.98
Others	119.15	96.23	35.07	51.8	72.92	-
Africa Subtotal	**1694.86**	**1354.54**	**1579.67**	**2218.2**	**3530.03**	**3847.05**
Indonesia*	464.11	264.51	323.75	333.37	342.86	408.52
Vietnam	315.85	336.24	354.28	350.59	534.82	319.55
Thailand	28.51	22.68	73.95	161.02	91.47	119.23
Brunei	27.55	75.39	129.58	135.85	88.28	50.15
Malaysia	74.43	89.95	164.87	203.1	169.15	34.79
Australia	110.84	70.91	115.64	177.93	151.02	23.24
the Philippines	-	-	-	3.77	25.76	10.74
Mongolia	0.96	0.99	1.69	2.05	2.43	2.17
Others	39.06	7.6	21.23	17.67	10.36	-
Asia-Pacific Subtotal	**1061.31**	**868.26**	**1185.01**	**1385.35**	**1416.16**	**968.39**

APPENDIX D (CONT):

	2000	2001	2002	2003	2004	2005
Imports from:						
Russia	147.67	176.6	302.96	525.48	1077.66	1277.59
Venezuela*	0	5.56	-	44.38	33.41	192.79
Brazil	22.78	-	-	12.37	157.69	134.32
Kazakhstan	72.42	64.96	100.36	119.82	128.56	129
Argentina	-	13.7	0	13.13	71.36	91.23
Norway	147.78	91.57	211.06	93.18	200.89	51.77
Ecuador	-	-	-	13.91	28.26	9.3
Others	114.71	64.36	122.5	50.3	58.67	7.7
Europe/West Hemisphere Subtotal	**505.36**	**416.75**	**736.87**	**872.57**	**1756.5**	**1893.69**
Imports Total	**7026.53**	**6025.54**	**6940.77**	**9112.63**	**12281.55**	**12708.32**
Opec	2433.43	2715.61	2780.99	3416.85	4179.48	5257.78
Sour Crude	1849.67	2343.26	2408.46	3008.69	3452.85	4225.87
Export to:						
South Korea	68.3	36.64	68.45	146.48	144.57	205.08
Indonesia*	98.07	126.81	104.39	133.96	138.28	162.31
USA	174.95	64.94	83.15	67.84	58.14	121.34
Japan	496.36	417.99	322.72	355.55	49.32	95.48
Singapore	35.28	16.4	23.35	16.32	5.93	70.44
Malaysia	-	6.82	44.58	13.67	49.83	58.87
North Korea	38.92	57.93	47.22	57.36	53.18	52.28
Australia	22.43	14.55	20.43	22.15	44.42	35.01
Thailand	66.21	6.86	-	-	0	5.87
Others	43.25	6.12	6.51	0	5.47	-
Export Total	**1043.78**	**755.06**	**720.81**	**813.33**	**549.16**	**806.69**

APPENDIX E: CNPC UPSTREAM OPERATING HIGHLIGHTS

	2003	2004	2005
Newly Proven Oil in Place (million metric tons)	**928.09**	**758.5**	**772.93**
Domestic	439.03	521.07	574.62
Overseas	489.06	237.43	198.31
Newly Proven Gas in Place (billion cubic meters)	**384.53**	**200.88**	**362.44**
Domestic	383.89	200.88	357.98
Overseas	0.64	0	4.46
Remaining Recoverable Oil Reserves (million metric tons)	**2170.92**	**2208.16**	**2292.3**
Domestic	1639.72	1648.58	1654.29
Overseas	531.2	559.58	638.01
Remaining Recoverable Gas Reserves (billion cubic meters)	**1758.8**	**1885.4**	**2057.8**
Domestic	1674	1804	1953.2
Overseas	84.8	81.4	104.6
Crude Oil Production (million metric tons)	**116.946**	**120.974**	**125.976**
Domestic	104.015	104.551	105.954
Overseas	12.931	16.423	20.021
Natural Gas Production (billion cubic meters)	**26.27**	**31.25**	**39.58**
Domestic	24.88	28.66	36.67
Overseas	1.39	2.59	2.91

(Source: CNPC Annual Report 2006)

APPENDIX F: CNPC DOWNSTREAM OPERATING HIGHLIGHTS

	2003	2004	2005
Crude Runs (million metric tons)	**95.056**	**106.649**	**115.409**
Domestic	92.546	103.698	110.606
Overseas	2.51	2.951	4.802
Refined Products Output (million metric tons)	**59.832**	**67.926**	**74.37**
Domestic	57.843	65.612	71.163
Overseas	1.989	2.314	3.207
Refined Products Sales (million metric tons)	**60.515**	**67.009**	**75.715**
Major Chemicals Output (million metric tons)	**10.971**	**11.492**	**11.527**

(Source: CNPC Annual Report 2006)

APPENDIX G: CNPC FINANCIAL STATEMENT
(UNIT: MILLION RMB YUAN)

(I) CONSOLIDATED BALANCE SHEET

Items	2003	2004	2005
Assets			
Cash and Cash Equivalent	94,537.96	105,587.02	210,954.26
Short-Term Investment	48,150.10	64,143.16	20,848.07
Net Bills and Accounts Receivable	20,624.81	23,053.52	25,314.31
Other Accounts Receivable	7,482.16	6,857.73	35,723.04
Inventories	50,118.44	71,086.76	95,601.83
Other Current Assets	10,910.61	15,618.88	26,446.85
Total Current Assets	**231,824.08**	**286,347.07**	**414,888.36**
Long-Term Investments	47,137.68	49,957.26	77,063.66
Fixed Assets	499,767.53	494,386.37	618,662.64
Other Long-Term Assets	29,547.75	83,003.52	49,610.07
Total Assets	**808,277.04**	**913,694.23**	**1,160,224.73**
Liabilities			
Short-Term Debt	14,355.43	18,921.46	22,843.82
Bills and Accounts Payable	53,328.46	56,556.81	7 9,544.63
Other Accounts Payable	26,714.66	28,136.36	37,522.37
Taxes Payable	30,002.36	24,894.79	26,653.54
Other Current Liabilities	68,663.28	75,511.86	85,880.34
Total Current Liabilities	**193,064.19**	**204,021.27**	**252,444.70**
Long-Term Debt	51,598.45	45,643.94	73,806.19
Other Long-Term Liabilities	20,271.49	10,900.64	10,546.44
Total Long-Term Liabilities	71,869.94	56,544.58	84,352.63
Total Liabilities	**264,934.13**	**260,565.85**	**336,797.33**
Minority Equity	**46,530.93**	**57,762.11**	**74,924.00**
Owner Equity			
Paid-In Capital	192,729.84	207,962.37	240,440.02
Capital Reserve	200,254.54	214,559.11	226,190.21
Reserved Surplus	103,827.60	172,844.78	281,873.17
Total Owner Equity	**496,811.98**	**595,366.27**	**748,503.40**
Total Liabilities Plus Total Equity	**808,277.04**	**913,694.23**	**1,160,224.73**

(Source: CNPC Annual Report 2006)

APPENDIX G (CONT.):

(II) CONSOLIDATED PROFIT STATEMENT

Items	2003	2004	2005
Income from Core Business	**475,287.03**	**570,684.55**	**693,704.84**
Less: Cost of Core Business	320,630.95	348,199.98	406,050.81
Core Business Tax and Supertax	16,278.13	19,581.22	23,701.31
Plus: Income from Procurement Service and Consignment	253.13	320.74	356.69
Profit from Core Business	**138,631.08**	**203,224.09**	**264,309.41**
Plus: Profit from Other Businesses	242.43	258.33	296.99
Less: Operating Expenses	20,651.28	25,542.50	32,551.44
Management Expenses	34,742.94	37,238.72	46,809.29
Financial Expenses	1,315.28	680.35	1,242.73
Operating Profit	**82,164.01**	**140,020.85**	**184,002.94**
Plus: Income from Investments	1,824.44	743.2	1,907.06
Income from Subsidies	541.58	641.31	1,297.25
Non-Operating Income	1,231.93	2,450.60	1,897.99
Less: Non-Operating Expenses	12,095.03	15,003.53	11,093.81
Total Profit	**73,666.93**	**128,852.43**	**178,011.43**
Less: Income Tax	28,835.93	42,828.93	54,404.94
Loss and Gain of Minority	7,989.65	13,831.24	16,696.17
Net Profit	**37,016.53**	**72,481.22**	**107,147.41**

(Source: CNPC Annual Report 2006)

APPENDIX H: CHINESE NOC OVERSEAS E&P PROJECTS

Country	CNPC	Sinopec	CNOOC
Africa			
Sudan	Block 1/2/4		
	Block 6		
	Block 3/7	Block 3/7	
	Refining		
	Pipeline to Sudan port		
	Polypropylene		
	Retail services		
Algeria	Adar integrated project	Zharze EOR	
	Block 350	Block 418-419-438a	
	Block 112/102a	Block 416a-417	
	Block 438b		
Tunisia	Kufpec-NK Block		
	CTKCP-SLK Block		
Libya	Block 17-4		
Mauritania	Block 12		
	Block Ta13 & Ta 21		
	BPL's Block 20		
Chad	Mimosa and Kubla structures		
	Block H		
Niger	Block Tenere		
Nigeria		Stubb Creek field, OML64/OML66	OPL229
		JDZ block 2 offshore	OML130
Angola		Block 15, 17, 18	
Gabon		G4-188	
Equator Guinea			Block S offshore
Kenya			Six PSA blocks

APPENDIX H (CONT.):

Country	CNPC	Sinopec	CNOOC
Middle East			
Oman	Block 5	Block 36 and 38	
Syria	Gbeibe field development		
	Acquisition of 38% from PetroCanada with ONGC		
Iraq	al-Ahdab		
Iran	MIS Development project	Zavareh-Kashan, Garmsar	
	Block 3	Abadan refinery	
		Yadavaran	
Saudi Arabia		Block B gas project	
		Petrochemical EPC	
Yemen		Block S2 and Block 1	
		Block 69/71	
UAE			
Americas			
Canada	8 blocks, operates three of them		MEG assets
Peru	Block 111		
	Block 113		
	Block 1-AB/8		
Ecuador	Block Tarapoa 14, 17, and Shiripuno, drilling in Block 11	EnCana assets	
Venezuela	Intercampo field		
	Orimulsion project		
Brazil		Gas pipeline construction	
Cuba		Oil development	

APPENDIX H (CONT.):

Country	CNPC	Sinopec	CNOOC
FSU			
Russia	Oil pipeline	Acquisition of Uzmurneft	
	Gas pipeline	Sakhalin-3	
Azerbaijan	Gobustan	Pirshagi field development	
	KK project		
Turkmenistan	Gumda oilfield		
Kazakhstan	AktobeMunaiGas	Acquisition of FIOC assets	
	Zhanazhol oilfield	Exploration blocks	
	sub-salt Kenkijak oilfield		
	North Buzachi		
	PK project		
	Sino-Kazakh Oil Pipeline		
	KAM project		
	Darkhan Block		Darkhan Block
Uzbekistan	Ariel Sea block	Joint Venture	
Asia-Pacific			
Thailand	Banya development block		
	L21/43 risk exploration block		
Myanmar	IOR-4 block	Block D	offshore
	Bagan block		
Mongolia	Block 19		
	Block 21		
	Block 22		
Indonesia	Production blocks	Exploration projects	Five blocks
			Tanggu gas blocks
			Four gas blocks
Australia			NWS Gas assets

(Source: Xiaojie Xu)

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