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CHINA'S DEPENDENCE UPON OIL SUPPLY

PART 1 of 3

SERIALIZED STUDY BY –

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> "War which has undergone the changes of modern technology and the market system will be launched even more in atypical forms. In other words, while we are seeing a relative reduction in military violence, at the same time we definitely are seeing an increase in political, economic, and technological violence. However, regardless of the form the violence takes, war is war, and a change in the external appearance does not keep any war from abiding by the principles of war."

The above quote is from the book *Unrestricted Warfare* jointly written by two People's Liberation Army (PLA) Colonels, namely Qaio Liang and Wang Xiangsui. The book was published in Beijing in early 1999**.** In the twelve years since it was unveiled to the West, the work has largely been dismissed as unlikely wishful thinking on the part of the authors. The book is not representative of PLA military philosophy or official policy. As recently as 2008, discussions held at the Pentagon in strategic-level war games were dismissive of Chinese capability and intent in the cyber realm.

Source: US Navy Institute Blog, Annapolis, Maryland: March 2010

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CHINA'S DEPENDENCE UPON OIL SUPPLY"

By CAPT David L.O. Hayward (Rtd), former IT consultant in the oil industry.

Introduction and Breaking News

In 1970, amongst an outpouring of gloomy forecasts predicting doom and disruption in global oil supply, the Central Intelligence Agency (CIA) forecast the following negative analysis:

> "We believe that world oil production is probably at or near its peak. Simply put, the expected decline in oil production is the result of a rapid exhaustion of accessible deposits of conventional crude oil. Politically, the cardinal issue is how vicious the struggle for energy supply will become".[105]

In more recent decades, these grim forecasts have persisted so much so that many nations believe it is inevitable the world will eventually run out of oil possibly by as early as 2050.

As recently as 10 February 2010, the UK Industry Taskforce on Peak Oil and Energy Security (ITPOES) in a report alleges: "that oil shortages, insecurity of supply, and price volatility will destabilize economic, political, and social activity potentially by 2015".[114]

The People's Republic of China (PRC) in its incessant and growing demand for oil will hasten this dilemma and in turn this will provoke a quantum change in the world economic order.

The PRC is a relative newcomer amongst the oil consuming nations and has upset and will continue to imbalance the equilibrium of global oil supply.

Disproportionate movements along established oil shipping routes reflective of greatly increased PRC oil/gas supply tonnages has given rise to new inflated supply arteries particularly in the Indian Ocean, the Strait of Malacca, in the Nan and Dong Hai (South China and East China Seas) and in the Western Pacific.

New supply conduits overland from the Caspian Sea region, across Myanmar, the Kra Isthmus, and from eastern Siberia will add further insurance to predictive certainty in sustained oil/gas supply to China. These new overland pipelines will supplement shipped oil/gas tonnages transported by undersea pipelines and by strategic marine shipping arteries.

The Dragon is seeking to quench its immense thirst by wholesale purchase of oil/gas supplies from all corners of the planet. In 2010 it is simply flapping its wings, by 2030 it will be soaring above the world and by 2050, if world oil supply runs out, it may spiral back down to earth. Future Chinese dynasties are about to take a roller coaster ride never before experienced to this extreme on the planet.

Will the Dragon always let the Eagle safely soar?

China's Dependence Upon Oil Supply

On our planet, post peak oil production, China is stepping up its means to secure additional oil supply contracts around the world.

The geopolitical, economic and military implications are immense.

Currently, after the USA, China is the second largest importer of oil in the world. According to the BP *Statistical Review of World Energy 2005*, (as outlined on page 36 in the CSIS report[1], Chinese oil imports totalled 3.40 million barrels a day (MMBD) in 2004. It is estimated that China will increase oil imports to as high as 9.60 MMBD in 2010, 11.40 MMBD in 2015, 13.50 MMBD in 2020, and 16.10 MMBD in 2025. (See[1], page 31, Figure 3: EIA Estimates of World Consumption by Region: 2001-2005.)

If these estimates remain true, then China's oil imports will grow close to 50% of the equivalent US oil imports taken over the same period. By 2025, it is predicted China will import 53.6% of the equivalent US oil imports. China will take several decades to equate to US oil imports and is a long way behind. Nonetheless, assuming China continues to demonstrate an expanding "driver" economy, whilst *pari passu* the US suffers financial meltdown and impending "double-dip" recession/depression, then China's oil imports will almost certainly become closer to those of the US. The percentages may be as high as 60% to 70%.

China started to suffer severely from oil supply shortages beginning in 2007. The shortages led to price rises in petrol and diesel of up to 18% in June 2008. In an effort to boost domestic oil production, China has invited foreign investment in its oil infrastructure. With a shortfall of some 0.16 MMBD predicted for 2010, China has asked six countries to help fill the gap. The UK, South Korea, Russia, United Arab Emirates (UAE), US and Saudi Arabia have jumped on the bandwagon. Joint venture proposals with China National Petroleum Company (CNPC) largely relate to the mainland based refining sector and include British Petroleum (BP), South Korea's SK and LG, Russia's Rosneft, a United Arab Emirates (UAE) led investor group, ExxonMobil Corporation, and various Saudi oil enterprises. Even though in 2008 China may be able to ramp up its refinery capacity by approximately 54.5 million tons, there is still the likelihood of a gaping shortfall in oil supply.

The US and Australasia have become steadily more dependent on Asian manufactured goods. In turn, this requires Asia to import petroleum, largely from the Middle East. The contrary argument to be stated is that much of China's increase in import dependence for direct petroleum products is actually to meet the demands of the US and other Western markets. Thus if those markets decline, China will be able to cut back oil consumption.

Notwithstanding, further analysis of China's oil consumption leads to the general conclusion that China is likely to treble or even quadruple oil imports by 2020 *ceteris paribus.* There are other market forces that could maintain high demand.

China's Worldwide Search for Oil Supply

China is aggressively looking for oil supply. The major Chinese state oil companies: China National Petroleum Corporation (CNPC), and the China Petrochemical Corporation (Sinopec) are the leaders behind such initiatives. The other state sector firm in China is the China National Offshore Oil Corporation (CNOOC). The latter accounts for more than 10% of China's domestic crude oil production. The State Energy Administration (SEA) is responsible for regulatory oversight of the industry.

CNPC, Sinopec, and CNOOC are vigorously pursuing oil supply contracts with foreign firms. To this end, the Chinese oil majors have acquired a variety of holdings in Azerbaijan, Brazil, Canada, Indonesia, Iraq, Iran, Kazakhstan, Malaysia, Myanmar (Burma), Nigeria, Peru, Russia, Saudi Arabia, Singapore, Sudan, Turkmenistan and Venezuela. The arrangements with some of these countries are briefly outlined below.

Malaysia

CNOOC acquired a stake in the small Malacca Strait oil field.

Singapore

In May 2009, PetroChina purchased Keppel Corp's 45.5 per cent stake in Singapore Company for US$1 billion.

Indonesia

In 2005, CNOOC purchased Repsol-YPF's oil field interests in Indonesia, making CNOOC the largest operator in the offshore Indonesian oil sector.[77]

East Timor

China has been courting East Timor. In fact, China was the first country with which independent Timor established diplomatic relations. Foreign Minister Ramos Horta initially announced that China would be Timor's "closest possible ally"[33], but later ameliorated this to simply mean that China and East Timor should develop the closest possible relationship. Since then, the Timorese government has given Chinese companies permission to undertake seismic studies in Timor. CNOOC now has opportunity to be involved in the extraction of oil and gas in the rich Timor Sea. The deposits may be worth more than US$30B.

Myanmar (Burma)

In Myanmar, PetroChina (subsidiary of CNPC) signed a deal in 2006 for the supply of 6.5 trillion cubic feet of Myanmar natural gas.[30]

In March 2009, China indicated the PRC is to start construction this year on oil and gas pipelines more than 2,000 km long from Kyaukypu Port on the Bay of Bengal through Myanmar to southwest China. The pipelines will pass through Kunming in Yunnan province and continue through Guizhou province to Chongqing municipality in China. The construction in Yunnan province will commence in the first half of 2009 as part of the US$10.5B energy project. The project includes railway, road and waterway construction, as well as upgrading the port at Kyaukpyu in Arakan State. China has secured a thirty-year deal from the Burmese military junta for natural gas tapped off the Burmese coast.[76]

On 3 November 2009, CNPC announced it had begun construction on an oil pipeline that runs from the port on Maday Island through Myanmar to China.[102]

China will use these new pipelines to avoid shipping crude oil and gas products through the Malacca Strait (discussed later in this paper). Military implications are also mentioned later in this paper.

It is not known what other agreements have been effected between China and Myanmar. Li Changchun, a senior official of the Communist Party of China, has met with top Burmese officials in Naypyidaw during a visit to the military-ruled country. Li has stated: “China will continue to encourage competent enterprises to invest in Myanmar or participate in your infrastructure construction.”[76]

Myanmar is a key element in China’s future energy security.

Argentina

CNPC is considering an offer to take a majority stake in Spain’s Repsol YPF’s Argentine business. This deal is valued at up to US$14.5 billion according to a press article entitled *China Races to feed the Dragon,* authored by Robert Guy, as reported in the “Australian Financial Review” 14 September 2009.

China’s biggest offshore oil explorer, CNOOC, has recently agreed to buy a 50 percent stake in rival Argentine producer Bridas for US$3.1 billion thus adding an estimated 318 million barrels of reserves as Chinese demand surges. CNOOC has calculated the Bridas investment will boost its average daily production by 46,000 barrels. Bridas owns a 40 percent stake in Pan American, Argentina’s largest oil exporter. Pan American has oil and gas assets in Chile and Bolivia and is Argentina’s second biggest producer of crude oil after Repsol YPF.[118]

Brazil

Chinese oil companies are taking a close interest in Brazil. However, this is proving to be difficult. “Faced with the world’s most important oil discovery in years, the Brazilian government is seeking to step back from more than a decade of close co-operation with foreign oil companies and more directly control the extraction”.[109] Fortunately, the Brazilian Government is not proposing that foreign companies be excluded altogether from in-country energy projects. Hence CNPC, Sinopec, and CNOOC are already involved in the development of the giant pre-salt field called Tupi. Jose Sergio, President of Brazilian company Petrobras, estimates this new field contains up to eight billion barrels of oil and natural gas.

In May 2009, the China Development Bank extended a US$10 billion loan to Petrobras. The company will supply Sinopec with 0.2 MMBD over the next decade.

Brazil is looking to more than double its oil production to 5.7 MMBD by 2020.

Peru

In Peru, a subsidiary of the CNPC has purchased a stake in Pluspetrol. This company has oilfields along the Ecuadorian border.

Venezuela

To sustain future long-term contracts for oil supply, China is talking with President Hugo Chavez in Venezuela. This country has been supplying the US with 3.00 MMBD making it America's fourth-largest supplier of crude. However, China now wants some of this crude oil and will therefore directly compete with the US. To facilitate this, China has already invested US$3B in Venezuela's oil sector.
In May 2008, Chinese energy company PetroChina, a subsidiary of CNPC, announced a deal with Venezuelan oil company Petroleos de Venezuela (PDVSA) to build a 0.40 MMBD refinery in China's Guangdong province. The deal allows Hugo Chavez to increase political and economic ties to China, but undervalues the oil it will export and puts pressure on an already overburdened PDVSA.

Later in August 2009, President Hugo Chavez announced he had secured a US$8 billion loan from CNPC in return for access to fuel oil until 2012.

Fundamentally, shipping oil from Venezuela to China is a dicey prospect. VLCC tankers, too big for the Panama Canal, are obliged to navigate round the Cabo de Hornos (Cape Horn) before beginning the long journey across the Pacific Ocean (or the other direction, around Africa). For China, the financial costs of importing oil from Venezuela are high, and the risks of extending supply lines across such long distances cannot be discounted. However, in a later development, Sinopec has expressed interest in upgrading an oil pipeline from Venezuela that would run through Panama and to the Pacific, thus orientating Venezuela toward China.[32]

If long-term supply contracts are eventually signed, then they may be honoured at the expense of US supplies. There simply is not enough oil sourced from Venezuela to go around to satisfy both China and the US. Statements by Condoleezza Rice, former US Secretary of State, welcomes China's initiatives, but hopes it will be "able and willing to match its growing capabilities to its international responsibilities". Potentially, this is a point of conflict between the two nations.[40]

To compound the issue, Russia is also negotiating with Venezuela for oil supply and in exchange has offered arms and munitions to the country. Theoretically Russia could exclude Chinese aspirations as well as impacting on US supplies. This contention may not be correct, however, as there may be hidden agendas between China and Russia. They may be *de facto* allies? They may have pre-agreed their strategy before negotiations by either party commenced with Venezuela? It is difficult to understand the precise relationship between China and Russia. This will be detailed later.

Attention should be drawn to the joint naval exercises being undertaken by Russia and Venezuela in the southern Caribbean in October/November 2008. This gives cause for further concern.

Another factor, which adds to the prospect of uncertainty, is that labour problems are inherent within Venezuela. In 2002, approximately half of Petroleos de Venezuela (PDVSA) workers went on strike and caused over 2.0 MMBD drop in oil production. There have been large fluctuations in the PDVSA's oil production level.

Political problems also abound. President Chavez's relations with Fidel Castro continue to worry the US and may prevent any real inflow of foreign investment to upgrade the ageing oil infrastructure. This is exacerbated by Chavez's threats to terminate oil exports to the US as a rebuke for US "aggressive" behaviour towards the Chavez regime.[40]

Far Eastern Russia and Caspian Sea Region

China has made notable inroads in the FSU and the far eastern region of Russia.

Initially in 1997, Beijing offered US$4.3B for a large stake in the Aktobe oil field near the Caspian Sea. The PRC promised another US$3.5B to build a 3,040 km pipeline from the Atyrau to China. Although the CNPC obtained an 86 percent stake in the Aktobe field, the pipeline was delayed in view of the high construction costs. Three construction phases eventuated. The first was completed in 2003. It connects the Aktobe field with the oil hub at Atyrau. The second segment, approximately 1,000 km in length, from Atasu in central Kazakhstan to Alashankou in the western Chinese province of Xinjiang (costing around US$750M) was completed in December 2005. The third and remaining segment will link up with the completed segments and is due for completion in 2011. This pipeline will have the capacity to supply three Chinese refineries with 0.200 MMBD of crude oil. CNPC also agreed to provide 20 years of development aid to Kazakh oil firm, Aktobemunaigaz, after purchasing a 60% share of the company.

The largest Chinese oil acquisition to date is that of the Canadian oil company PetroKazakhstan. This company has large reserves in Kazakhstan. The company's assets include eleven oil fields and licenses to seven exploration blocks. The company trades in New York. Early in 2007, CNPC offered US$4.18B for the company, including US$55 cash per share and US$76 per share toward the creation of an offshoot company. This was to be led by Bernard Isautier, CEO, for PetroKazakhstan. In August 2007, PetroKazakhstan officially announced its acceptance of the CNPC offer to takeover the Kazakh oil company. The purchase was complemented by the completion of the Sino-Kazakh oil pipeline that has already delivered in excess of an estimated 0.3MMB of crude oil to China.[77]

The PRC have been purchasing oil fields elsewhere in Kazakhstan. For instance, in 2003, CNPC bought a 50 percent share in the North Buzachi field. This field is thought to have reserves of some 2.0 billion barrels of oil.

CNPC subsequently aligned with Sinopec to bid for the 16.78 percent share of the Caspian Sea offshore Kashagan reservoir held by British Gas (BG Group). The Kashagan offshore field in the northern section of the Caspian Sea is possibly the largest oil field outside of the Middle East with estimated reserves of 8 – 14 billion barrels of oil and natural gas. The large international consortium, responsible for developing the Kashagan field, blocked the CNPC/Sinopec bid.

Even so, in spite of the failed bid, China still retains smaller investment holdings in the Kazakh state-owned company KazMunaiGaz – a useful source of reserves that the PRC can tap in the future.

In April 2009, CNPC in another attempt to secure investment holdings in the Caspian region, joined with KazMuniGaz in a US$5 billion offer for MangistauMunaiGas.

It would be interesting to study how much oil/gas will flow from the Caspian region to China once all the new pipelines are finally constructed and in full production. The new eastward bound flow might reduce the amount of oil/gas that would otherwise flow to the European oil/gas market. Reference is to be made to a research paper produced by Jennifer Coolidge. This paper considers the westward bound pipelines (Caspian and Middle East) affecting the future of the European gas market.[107] It would be a good starting point for studying the impact of any new eastward bound oil/gas pipelines.

The oil-consuming jackals, including China, are gathering around the shores of the Caspian Sea. They are aspiring to plunder the vast oil and gas reserves both onshore/offshore in this politically unstable region. These energy resources are likely to be exhausted before the end of the 21st Century.

China has signed an oil supply contract in Uzbekistan. This is a US$600M deal affording CNPC access to twenty-three Uzbek oil fields around Bukhara, in conjunction with Uzbekistan's state-owned company, Uzbekneftegaz.

In the longer term, China is hoping to encourage Turkmenistan to construct a planned gas pipeline supplying western China. This may not eventuate, as Turkmenistan currently supplies most of its gas to Gazprom in Russia. (On 13 October 2009, China's Wen Jiabao and Russian Prime Minister Vladimir Putin signed deals worth US$3.5 billion and reached tentative agreement on gas supplies from Gazprom that could attain 68 billion cubic metres cubic metres of gas per year from two planned pipelines, potentially diverting supplies from Europe. One of the planned pipelines could be constructed from Kovytka through the mountains to the PRC. China or Russia have not yet shown any interest in paying for the infrastructure necessary to deliver the gas using this particular planned pipeline).[101]

The RAND Corporation believes China is uncomfortable with the fact that the US is the preeminent power in the Middle East - the region that currently supplies China with the bulk of its oil imports. The PRC does "not possess the naval capabilities necessary to defend its sea shipments of oil and regards their passage through waters dominated by the US Navy ... as a key strategic vulnerability."[57] Chinese military strategists wish to minimise the vulnerability by increasing energy shipments by land, especially from the Caspian region and from Russia.

For economic and political reasons, China is turning to Kazakhstan, Turkmenistan, and other Central Asia energy sources for its oil and gas supply. Multiple countries, besides China, are courting Kazakhstan: namely Russia, Europe, US and Japan.

Libya

In September 2009, CNPC withdrew a US$460M offer to take over Verenex Energy. The Libyan government refused approval. Discussions are still continuing between Chinese principals and the Libyan government.

Iran

Again, Iran supplies 11% of China's oil imports, and is a crucial resource partner. Sinopec has recently implemented an oil and natural gas agreement with Tehran worth in excess of US$70B. This is the biggest energy deal yet by any member of OPEC. Under this agreement, Beijing is committed to develop the giant Yadavaran oil field and buy 275 million tons of LPG over the next 30 years. The Yadavaran oil field is expected to produce 0.300 MMBD at full capacity. Tehran has also agreed to export to China approximately 0.150 MMBD at market prices for 25 years.

Iraq

Sinopec, in competition with Exxon Mobil Corporation, Royal Dutch Shell, ENI, and Lukoil, is actively bidding for contracts with Iraq in June/July 2009. The new contracts are formulated to assist Iraq to boost its oil production to 4.2 MMBD within the next five years. Current production is 2.4 MMBD. The six Iraqi oilfields (dilapidated from years of war and neglect) subject to any awarded contracts are thought to hold reserves in excess of 44 MMBD. Successful foreign company bidders will not obtain ownership stakes in the reserves, but will be paid royalties for accelerating crude oil output.

In August 2009, SinoChem indicated it would participate in November's second round of auctions for Iraqi contracts to develop ten oil and gas fields.

Later in October 2009, CNPC confirmed that it and BP had signed an initial agreement with Iraq's Oil Ministry to develop Rumaila, Iraq's largest oil field. This deal still needs to be formally approved by Iraq's Cabinet. It requires an investment of at least US$15 billion.[100]

Saudi Arabia

In 1999, China established a "strategic oil partnership" with Saudi Aramco, under which Sinopec would cooperate with the Saudi company in developing oil and gas fields in Saudi Arabia while Saudi Aramco would invest in refineries and petrochemical plants in China.[50] In 2003, Saudi Aramco agreed to become part owner of a US$3.6B refinery and petrochemical complex Sinopec is building in the PRC's Fujian province. Sinopec was also awarded the right to develop natural gas in Block B of the Royal Kingdom's Empty Quarter. A few years later, in 2006, during the visit of Chinese President Hu Jintao to Riyadh, Prince Walid bin Talal, a member of the royal family indicated Saudi Arabia is opening up new channels and heading East. He amplified this by stating that as China is a big consumer of oil, the Royal Kingdom needs to open new channels beyond the West to provide a mutual beneficial arrangement.[51]

Canada

Sinopec hopes to import additional petroleum products through its May 2005 acquisition of a 40% share holding of Canada's Northern Lights oil sands project. This project is scheduled to be operational by 2010.

Alberta's oil sands place Canada second only to Saudi Arabia in proven oil reserves. The sands are extracted from surface mines in a 2,180 square km fragment of the vast Athabasca deposit. The Alberta government estimates that the province's three main oil sands deposits, of which Athabasca is one of the largest, contain 173 billion barrels of oil that are economically recoverable assuming the spot price for oil remains high. Furthermore, the Canadian company Athabasca Oil Sand's Corporation has asserted that the proven reserves in the oil sands are eight times those of the entire US. By 2020, production may triple to more than 2 MMBD.

Later, in 2005, CNPC and Sinopec jointly acquired the Ecuadorian oil and pipeline assets of the EnCana Corporation located in Calgary.[48] CNPC has also purchased PetroCanada's oil and gas assets in Syria.

In August 2009, PetroChina paid US$1.7 billion for a 60 per cent stake in Athabasca Oil Sands Corporation for the development of the MacKay River and Dover oil-sands projects. PetroChina may use some techniques it has used in northeastern China's heavy-oil projects to unlock oil trapped in the Alberta sand. The deal values Athabasca's recoverable reserves at about US63c a barrel. This is slightly more than recent valuations for other underdeveloped oil-sands properties.

United Kingdom (Columbia and Syria)

In August 2009, China's biggest chemicals firm, SinoChem, offered just over US$1 billion for UK based Emerald Energy, which has oil and gas assets in Columbia and Syria.

Nigeria

In Nigeria, CNOOC purchased a 45 percent stake for US$2.3B in a major oil and gas field in the Niger Delta. The Nigerian output amounts to some 2.00 MMBD and this country is the fifth-biggest supplier of oil to the US. China has won some US$4B worth of preferential Nigerian exploration rights. The PRC have provided military assistance to Nigeria, namely light patrol boats for the Niger River Delta, and two squadrons of F-811M jets to the Nigerian air force. Munitions assistance has also been provided to Nigeria. China is thus set to compete with the US for Nigerian oil supply.

CNOOC is trying to buy six billion barrels of oil, equivalent to one in every six barrels of Nigeria's proven reserves, in direct competition with Shell, Exxon Mobil and Total. Nigeria is sub-Saharan Africa's biggest crude oil producer and a major supplier to the US. The value of the Chinese offer made in October 2009 has not been disclosed, although it is estimated to be at least US$30 billion and perhaps as high as US$50 billion.[100]

Sudan

Additionally, China has implemented a powerful "oil for guns" programme with Sudan. This country has become China's largest overseas oil project (apart from Russia). CNPC owns 40 percent of the Greater Nile Petroleum Operating Company, a consortium that dominates Sudan's oil fields. CNPC has invested more than US$8B in the Sudanese oil sector, including funding for new oil pipelines. Another Chinese company, Sinopec is constructing a 1,500 km pipeline to Port Sudan on the Red Sea. China is building a new tanker terminal at this port possibly to handle VLCC tankers. Sudan now supplies China with 10 percent of its total oil imports. This percentage will increase.

Western countries are reluctant to do business with Sudan.[100] Not so China – it buys two thirds of Sudan's oil output. (China is negotiating with Kenyan Prime Minister Raila Odinga so as to build a new port on the Kenyan coastline. This port will be used to transport oil from Sudan.)

In return, China has supplied Chinese manufactured tanks, fighter planes, bombers, helicopters, machine guns, and RPG's to Sudan adding new impetus to the existing civil war. As reported by Peter Goodman in the *Washington Post*, in April 2005, the construction of Chinese oilrigs has led directly to the slaughter of Sudanese people.

Other African Countries

CNOOC has also negotiated smaller deals for exploration and development rights in Equatorial Guinea and Kenya among other countries

The PRC is looking farther afield to establish advantageous business connections with countries such as Angola, Chad, and elsewhere in Africa, East Timor, and in the US. Chinese oil infrastructure and other investments are likely to pervade in up to 53 African countries within the next five years.

Angola has the second-largest oil deposits in Africa. Following three decades of civil war, finally settled in 2002, China in 2005 offered Angola loans and credits for reconstruction estimated at some US$6B. A proportion of these monies will be used for oil infrastructure repair and enhancement. There are no strings attached to these loans, only the proviso that Angola uses Chinese firms for the reconstruction.

CNOOC stated in October 2009 that it was in advanced discussions with Ghana National Petroleum to make a rival bid challenging Exxon Mobile's US$4 billion for a stake in a giant oil discovery off West Africa.[100]

In 2006, Chad, one of Africa's emerging oil nations, suddenly ordered the Chevron-Texaco Company and a Malaysian oil company to leave the country. It was reported by the CNN news piece that the Chad government's true motive was to clear the way for Sinopec. In all probability, this was "reserving a seat" for Sinopec to enter Chad.

The PRC were not content with just two African nations. In the same year, China held a summit with the heads of forty-eight African nations in Beijing. This will be a forum for Chinese-African cooperation in which plans will be made for the period 2007-2009 to ensure the future of Chinese-African oil cooperation.

In the words of Mr. You, a 78 year old Chinese oil exploration pioneer: "If you follow the Gulf of Guinea south on an atlas you will see a group of African countries all marked with the sign for oil - that includes Equatorial Guinea, Gabon and the Congo, all the way down to Angola in the south. A whole series of new oilfields with rich potential have been discovered in the Sahara Desert in North Africa, Sudan in East Africa and Chad in central Africa".[62]

How much of this oil is destined to become Chinese oil? Is Mr. You too optimistic? Is this "tough oil" to extract? Are these small or large fields? Many questions remain.

In April 2009, CNPC announced it has agreed to buy Canada's Verenex Energy Inc for US390M in a further bid to boost its business interests in Africa. The Calgary-based Verenex's biggest asset is its fifty-percent stake in the Area 47 oilfield in northwest Libya along with other assets in the region. Professor Lin Boqiang at Xiamen University has stated: "Now the timing is good for Chinese companies to make overseas investments. Prices of some oil and gas assets have dropped because of the low oil prices."[74]

Worldwide Bids, Partnerships, Contracts, and Investments

CNOOC unsuccessfully bid for Unocal, a US-based firm that opted for a contract with Chevron after pressure from the US Congress not to sell to China. It is no small wonder the Congress turned down the CNOOC bid. Just days before Congress was due to vote for/against the bid, in prepared remarks to foreign journalists, Chinese GEN Zhu Chenghu warned that if "the Americans draw their missiles and position-guided ammunition onto the target zone on China's territory, I think we will have to respond with nuclear weapons. We Chinese will prepare ourselves for the destruction of all the cities east of Xian (in central China). Of course, the Americans will have to be prepared that hundreds of cities will be destroyed by the Chinese."[28]

Although not strictly relevant to crude oil supply, China and Turkmenistan have finally agreed on a price for Turkmen natural gas imported via the planned Central Asia Gas Pipeline as reported in the *China Securities Journal* in January 2008. A 7,000 km natural gas pipeline to China is under construction and is set for completion in 2009.

In Russia itself, Sinopec acquired a 97 percent stake in Udmurtneft, a mid-sized unit of British Petroleum's (BP's) Russian vehicle TNK-BP, for US$3.5B. This company produces 0.12MMB of crude oil and holds one billion barrels of proven oil reserves in Russia.[77]

It is to be noted that as recently as 1996, China relied primarily upon three countries, Oman, Yemen, and Indonesia, for 70% of its oil imports. Since then, China has pursued long-term supply contracts with a diverse range of supplier nations including Argentina, Australia, Brazil, Chad, Egypt, Indonesia, Kazakhstan, Nigeria, Oman, Peru, Russia, Tunisia, Saudi Arabia, Sudan and Venezuela. Some of these countries have very little significance as volume suppliers. At the present time, slightly over half of China's imported oil come from the Middle East and almost a quarter from Africa.

At another level, the PRC is looking for improved control over its oil imports and supply routes. The Shanghai Cooperation Organisation (SCO), made up of China, Russia, Kazakhstan, Kyrgyzstan, Tajikistan and Uzbekistan, has a component that involves energy as well as security. The SCO enables China and Russia to conduct military and security exercises and that the region does not harbour potential threats to China's security in its northwestern Xinjiang region. At SCO summit meetings, proposals for an oil pipeline from Iran to India, passing through Pakistan, have been discussed.

To summarise and including the oil industry investments described above, China's national oil companies have invested in oil ventures in over twenty other countries in North Africa, Central Asia, Southeast Asia, Latin America, and North America. The total investment, stemming from this frantic shopping spree of buying up oil and gas fields and companies worldwide, is conservatively estimated at some US$25B (own calculations). Some investments were purchased well above market price.

The aforementioned investments represent only a sample of the patchwork of international partnerships and acquisitions that Chinese oil and gas companies have finalised in recent years. The US Energy Information Administration (EIA) has suggested that: "While Chinese purchase of oil and gas assets abroad has received much attention, their total contribution to Chinese oil imports in mid-2005 was less than 0.3MMB, or 8.5 percent of total oil imports at that time. It is not clear if new Chinese investment in oil exploration and production assets overseas during the last year has increased this percentage".[77]
In 2009, post the global financial meltdown and consequent decline in world oil demand and consumption, this percentage estimate may have flattened out to (say) between 10-12 percent, but the volume of overseas investment continues to grow and in the future the percentage may surpass 20 percent in the immediate short term. Statistical sampling of the PRC's oil imports relative to its foreign investments in oil producing countries will have to undertaken to arrive at more precise percentage estimates. The mathematics involved is likely to be arbitrary and complex, as it may not be possible to obtain valid figures for Chinese investments.

The first phase of the PRC's strategic petroleum reserve is due to be completed this year. The reserve will hold 100 million barrels or the equivalent of twenty-five days of China's net oil imports. The second phase is planned to add 200 million barrels covering approximately forty-two days of net oil imports. After 2010, work on the third phase may increase net storage capacity to about 500 million barrels.[21] By way of comparison the US strategic reserve of oil is estimated at close to 800 million barrels in 2008/9 (enough for three months supply). The actual figure is classified information.

No mention has been made in this paper of China's intentions or progress in developing substitute synthetic fuels. This subject could be treated in a future RUSI research paper.

Negotiations between China and Russia

The complex relationship between China and Russia is now discussed in greater detail.

Professor Yu Bin, Associate Professor, Wittenburg University, in his treatise, states*:* "The specter of oil is haunting the world. The battle of oil, however, is not just being waged by oilmen from Texas and done with "shock-and-awe" in the era of preemption."[2] There has been, and there continues to be, a long lasting debate at ministerial level between the world's second largest oil importer, China, and the world's second largest oil producer, Russia. The two nations have been discussing the future destination of Siberia's vast oil reserves for more than a decade.

At a summit meeting held in Moscow in July 2005, China and Russia signed a "Declaration on World Order in the 21st Century". This document calls for regional collaboration in efforts to resist the "aspirations for monopoly and dominance in international affairs" exhibited by certain un-named countries, widely understood to be the US, UK, Japan, and Australia.[56] Sino-Russian strategic cooperation for implementing oil infrastructure projects must be realised to comply with the aforesaid Declaration.

China and Russia have been hotly deliberating over the final construction route the US$2.5B oil pipeline from Angarsk in Siberia will take to Daqing (Heilongjiang province) in northeastern China. The proposed pipeline is 2,400 km in length. Former Russian President Boris Yeltsin originally conceived this project as early as 1994. According to Professor Yu "a stable, close, and reasonably priced oil supply from Russia is paramount for China's future development."[2] At last, it appears both sides are likely to proceed with the construction of the pipeline. The annual capacity of the pipeline, when operational, is between 20-30 million tons of oil from resource rich Russia to energy thirsty China.

In September 2003, a high level ministerial meeting between the parties agreed that Russia would export between 4.5 million to 5.5 million tons of oil to China in the period 2004 to 2006.

There have been a series of ministerial meetings between both countries in more recent years. The protracted discussions have run "hot and cold"; largely stemming from Beijing's wariness concerning border disputes, suspicions about Russia's business dealings with North and South Korea and other issues. On the energy front, the Chinese suspect that Moscow is attempting to play Tokyo and Beijing against each other. Again, China is reluctant to allow Russia to utilise Northeast Asia as its political, economic, and strategic playground. Negotiations on oil industry infrastructure investment in the region continue to be very sensitive.

In the latest development on the "hot" theme of the continued discussions, on 27 October 2008, Chinese Vice-Premier Wang Qishan and Russian Deputy Prime Minister Igor Sechin announced that the two countries are moving ahead on energy cooperation with an oil pipeline link from the Chinese city of Daqing to the Siberian town of Skovorodino. The Russian state-owned oil distribution company, Transneft, has released the blueprints for the new link. It is to be provided by an extension of Russia's Eastern Siberia-Pacific Ocean (ESPO) oil pipeline currently under construction. The final destination of the ESPO pipeline on the Pacific Ocean is yet to be determined. Russia wants to place priority on developing the link to China rather than to the Pacific Ocean. The latter will eventuate later.

China has offered much encouragement to Russia. Firstly, it has offered Russia between US$20B-$25B in export backed loans; and secondly, it is prepared to build its own leg of the pipeline. China is prepared to put up with Russian politics to obtain 2.2 billion barrels of petroleum over the next twenty years. The proposed link with the ESPO pipeline enables Beijing to reduce its dependence on the Middle East or any other supply line, thus diversifying energy import sources. In the future, China will be able to circumnavigate the Malacca Strait "chokepoint" in times of crisis, buffer itself against potential shocks military or otherwise, and possibly renovate decrepit oil refineries in Manchuria.

Russia too, wants to do business with China. Two options are available to Russia in constructing the second phase of the ESPO pipeline: (a) the 850 km extension of the pipeline to Daqing or (b) extension of the pipeline all the way to Nakhodka on the Pacific coast adjacent to the Sea of Japan. The first option is economically preferable as it avoids expensive oil terminal infrastructure development. It is also the much shorter route. The second option requires the construction of an oil terminal capable of loading VLCC tankers for oil shipments to Japan, South Korea, and elsewhere overseas. It is not beyond the bounds of reality, that in the future, shipments could be effected to the US.

Hence, it makes for sound economic sense for China and Russia to complete the Chinese link first, especially as it will be mutually beneficial to both countries. The link to the Pacific Ocean can be implemented later.

Unfortunately, many impediments remain in the way. Russia still has to finish constructing the ESPO pipeline, confronted with the adverse Siberian steppes and the Stanovoy Khrebet 2,000m high mountain range. Meltdown of the permafrost, associated with climate change, will slow down construction work. Additionally, the global financial crisis will not help.

Russia will have to borrow capital from Beijing. The latter is cashed up with surplus liquidity largely derived from accumulated forex reserves as discussed later in this paper. China wants to use this cash to expand its energy options. Assuming all the physical and financial difficulties are overcome, it is thus apparent the Chinese link to the ESPO pipeline is a certainty. Russian oil might well flow very soon to the Chinese market. We shall have to wait and see if this proves to be the successful outcome.

On 12 November 2008, the discussions again ran "cold." It appeared the Chinese had second thoughts? The PRC allegedly stalled the negotiations with Russia on the US$25B loan to the Russian oil company Rosneft and the oil distribution firm Transneft. The Russian negotiators claimed that the Chinese had stalled talks by reneging on an offered 7% interest rate on the loan. Instead the PRC had asked for the rate to be pegged to the London Interbank Offered Rate. The Russian negotiators did not accept this new rate. Hence the discussions failed yet again and it was not certain when they would resume.

It is not easy to understand why the Chinese have obstructed the epicycloidal arguments/discussions. It could be that the PRC is motivated by the fear that as the global economy deteriorates its own economy could come under severe economic strain. China may need to protect its cash liquidity to counter threats to its manufacturing and export sectors from drastically dropping demand in foreign markets. The hiccup may only be a temporary measure until the world economic climate improves and/or China needs to increase its oil consumption. The delay is more likely to be vested in economic argument than in geopolitical or strategic misgivings.

Finally, on 17 February 2009, Transneft spokesman Igor Dyomin announced a deal had been finalised. China will give Russian energy firms Rosneft and Transneft loans for US$15B and US$10B respectively at a 6% annual interest rate. Russian state-owned oil pipeline company, Transneft, will use its loan to connect the long delayed ESPO pipeline to China. Rosneft will use its loan to expand East Siberian oil field development and production, notably at Sakha, Irkutsk, Krasnoyarsk, and eventually at Taymyr, Sakhalin, Lena-Tunguska, and Lake Baikal. In exchange for the loans, China will receive 0.3MMBD of oil for the next twenty years. (Reimbursement for the loan means that the PRC have purchased Rosneft crude for only about US$11.40 a barrel once interest is figured in – about one-third of what Russia's crude fetches on the open market at the present time.)

A Sino-Russian commercial alliance is now a reality. China, in respect of oil supply, is no longer at the mercy of US naval power in the Southern Seas.

Russian President Dmitri Medvedev announced in March 2009 that defence expenditure is to be expanded in order to rearm and modernise Russian armed forces. "Russia's windfall oil wealth over the last decade allowed the Kremlin to nearly quadruple its defence spending and start upgrading ageing arsenals... Military officials have said the government budgeted 30B (UK pounds sterling) for weapons purchases this year (2009), about 25 percent of it to be spent on upgrading the nation's ageing, Soviet-era nuclear force."[66] There are fears in the West that this new rearmament programme will inevitably lead to a new arms race!

Increased Sino-Russian military cooperation is likely to ensue as a result of this new policy. Peace loving Labor governments in Australia, the UK and the US may herald a return to retroactive/retrospective appeasement policies, as previously demonstrated by Neville Chamberlain immediately prior to WWII. There is nothing wrong with appeasement policy if the other side remains compliant and docile. But behind the diplomacy and political rhetoric this is not often the case. The other side may be priming its weapons for future conflict. The world clearly needs a new "Winston S. Churchill" voice to warn the West of the impending disaster. Today, as yesterday, no one is listening. Political mistakes made in the Middle East do not help. For instance, "President George W. Bush's decision to invade Iraq in 2003 ultimately may come to be seen as one of the most profligate actions in the history of American foreign policy."[67] A new visionary, able to rally the West, is unlikely to emerge from the current political wilderness.

Stemming from this important watershed announcement by the Russian Government, international events and increasing Sino-Russian militarism may unfold too quickly for effective control and containment by Western governments in the 21st Century.

One last moment tangential thought comes to mind. It could be said that in enabling China to accumulate forex surpluses and to become cash rich, the US may have indirectly financed the completion of the ESPO oil pipeline and assisted in the construction of the link to Daqing. This assumes the surplus monies held by China are reallocated to the oil industry infrastructure development as hitherto described and that the construction of the ESPO pipeline is finally completed.

For an update on the complex relationship between China, Russia, and central Asia, RUSI members are encouraged to read an article *China Scores Again in Energy: Russia and Central Asia,* authored by Kevin Rosner in the "Journal of Energy Security".[111]

Competitors to China for Russian Oil Supply

Japan is a rival competitor for the Siberian oil and has been for some time, prior to the above Chinese-Russian joint announcement in October this year. This has added another dimension to the would-be supply of Russian oil solely to China.

In the past, Japan has lobbied, backed by a US$10B offer, for a Russian pipeline to Russia's Pacific-coast city of Nakhodka. The Russian government proposed a compromise third route for the pipeline in March 2003. A branch line would run to China's Daqing from the middle of the Angarsk-Nakhodka line to the Pacific coast. For unknown reasons, Japan rejected the compromise route. There may be political factors involved in Japan's decision. Clearly, Japan was unable to offer Russia enough investment capital or other incentives for Russia to seriously contemplate, in the short term, the extension of the ESPO pipeline to the Pacific Ocean.

Suffice to say, east Siberia may not be able to produce enough oil for both China and Japan, quite apart from the over-riding geopolitical, economic, strategic and military issues.

Taiwan has also entered the debate for supply of Siberian oil. The early entry of this third would-be consumer further complicates the issue.

In the longer term, India, Malaysia, Thailand, North and South Korea, the US and Australia may also compete for Siberian oil.
In the West, Europe continues to purchase crude oil from alternatively sourced Russian oilfields.

Within the next five to ten years, there may not be enough Russian oil available to satisfy all intended consumers worldwide.

Other Sources of Energy for China

No mention has been made in this paper of China's oil fields and its domestic oil production. This is an area for future study.

Optimistically, in May 2007, the main headline in Chinese newspapers was the China Petroleum and Gas Corporation's discovery of oilfields with estimated reserves of up to one billion tonnes in the Tanhai area of the Bo Hai (Gulf of Chihli).[69] The Chinese Prime Minister, Wen Jiabao, was alleged to have been: "too excited to sleep".

The paper has not given treatment to allied products such as liquefied petroleum gas (LPG), and liquefied natural gas (LNG). It is intended to discuss these allied products in a separate research paper. However, mention is made below of a significant LNG development in Australia.

PetroChina has agreed to a second 20-year deal to take 2.25 million tonnes a year of Exxon Mobil's share of Gorgon LNG in the North West Shelf development in Western Australia. This one contract nominally underwrites the whole cost of what is planned to be a 40-year project. The Gorgon project promises to be Australia's biggest resources project, pumping AUD$40 billion into the Australian economy over the next 20 to 30 years. Overall, the Gorgon project – which now has commitments of AUD$200 billion in sales out of a projected AUD$300 billion from the entire project – has promised flow-on effects of AUD$33 billion to the construction, manufacturing and services sector, and 6,000 jobs over the next four to five years.[100]

China continues to seek additional oil and gas supplies elsewhere from around the world. The total pool of available oil and LPG is shrinking fast as the number of competitors for oil supply increase.

Foreign Company Acquisitions

In a new development, PetroChina, a subsidiary of CNPC, plans to buy up smaller foreign energy companies struggling amid the global financial turmoil. In October 2008, Chairman Jiang Jiemin indicated PetroChina intended to pursue this acquisition policy. It is an opportune time for PetroChina to go on a shopping spree for energy assets around the world.

Tantamount to this, PetroChina's proposed takeover of refiner Singapore Petroleum might mark the start of a spending spree to secure overseas assets after shareholders approved a US$15B bond issue to fund expansion.[88]

PetroChina was established on 5 November 1999 as part of the restructuring of CNPC.

CNPC and its subsidiaries (the "Group") are the largest oil and gas producer and seller occupying a leading position in the oil and gas industry in China. The Group is one of the largest revenue producers in China and is one of the largest oil syndicates in the world. The American Depositary Shares (the "ADSs"), H shares and A shares of the Group are listed on the New York Stock Exchange Inc., The Stock Exchange of Hong Kong Limited ("HKSE" or "Hong Kong Stock Exchange") and Shanghai Stock Exchange on April 6, 2000, April 7, 2000 and November 5, 2007 respectively.

As discussed earlier in the biggest (to date) Chinese corporate energy takeover, PetroKazakhstan Inc., incorporated in Canada, is now a principal subsidiary with registered capital of US$1.965B. Refer to PetroChina Interim Report 2008, dated 30 June, at www.petrochina.com.cn

PetroChina is likely to quickly gobble up unsuspecting oil companies around the world. Target acquisitions are yet to be fully defined. The Group, largely through its forward scout PetroChina, aims to boost its international operations, increase its international trading and improve the standard of its operations so as to meet the international standards. It is possible the Group will soon be listed on the London Stock Exchange.

PetroChina overtook Exxon as the world's biggest company by market value in May 2009.

Second quarter net income for the Beijing based company rose by 26 per cent to 31.5 billion Yuan in 2009.

According to Ong Eng Tong, a Singapore-based consultant with oil trader Mabanaft (Head Office in Hamburg), "China has agreed to give Russia, Kazakhstan, Brazil, and Venezuela US$49 billion in loans in 2009 in exchange for oil supplies".

In a period of only eight months, from January to August 2009, Chinese energy companies including PetroChina have spent at least another US$13 billion on overseas assets.

Jiping Zhou, Vice President of CNPC and President of PetroChina recently stated: "Abroad CNPC has seventy-five projects in twenty-nine countries, using integrated enhanced oil recovery in Peru, advanced reservoir profiling and rapid drilling in Venezuela, and sophisticated reservoir transformation and well completion in Kazakhstan."[87] This blanket approach to securing oil/gas supply "country-by-country" around the world will soon press down more heavily, as new PetroChina target acquisitions materialize. The blanket will smoother and dampen down world oil supply and prevent the West from obtaining its rightful share of the liquid/gas hydrocarbons. The Chinese oil strategy will invoke hidrosis and anxiety amongst all other competitive oil consumers, especially Europe, India, Japan, South Korea, and the US.

Apart from PetroChina, the Chinese domestic media has reported that Sinopec is in talks to buy the 20 percent stake held by Spanish construction company Sacyr Vallehermoso in oil and gas firm Repsol YPF. The company is also looking to acquire Russia-focused firm Urals Energy.[74]

Chinese bid for Australian Rio Tinto

While not relevant to the oil industry, Chinese aluminium giant Chinalco is intending to acquire an AUD$30B investment in Rio Tinto based in Australia. This represents an investment stake of up to 18 percent of the Rio Group along with shares in a swathe of the miner's copper, aluminium, bauxite, and iron ore assets. The controversial agreement has put Rio in a weak position.

In the face of mounting criticism from Rio shareholders, Chinalco Vice-President Youqing Lu distanced himself from an article by economist Liu Jipeng in Beijing's *Security Times* arguing that Chinalco's alliance with Rio would enable Beijing to "contain and control" the pricing power exercised by Western miners.[38]

It will not be long before China acquires similar investments in oil and natural gas companies. Western governments should take note of this trend and intervene where necessary. The US Congress successfully thwarted the CNOOC bid for US based Unocal. China would dearly like to contain and control the price of oil. OPEC will vigorously oppose any attempts by the PRC to control the spot price for oil.

As a matter of principle, wherever practical, notwithstanding the shortage of investment capital, and the global economic climate, Australia must endeavour not to sell precious energy assets to China; or indeed to any other overseas energy-thirsty countries vigorously competing for diminishing and soon-to-be-scarce energy resources. Australia's energy assets: oil and LPG, natural gas, coal, iron ore, bauxite, uranium, copper, cobalt, titanium, and other industrial minerals must remain firmly Australian owned.

Australia is a net importer of crude oil and refined products, but a net exporter of LPG, mainly in the form of butane. Australia does not have enough refining capacity to be completely self-sufficient in all oil products. The ratio of domestic production to gross sales in Australia for gasoline and turbine fuel is 92 and 91 percent respectively. Australia is less self sufficient in the heavier products such as diesel, fuel oil, kerosene, and lubricants[73]. Some Australian produced crude oil is "tankered" to Singapore and to Indonesian refineries for return to Australia at the "TAPIS" price (Singapore "Spot" price for a barrel of oil). Australia has enough strategic reserve of refined oil to last for up to eighteen months.

Example must be taken from the defeat of the US$18.5B offer made by CNOOC for Unocal. A smaller country like Australia cannot afford future percentage acquisitions or takeovers by foreign entities or by "front" companies backed by overseas governments.

In the last resort, the Foreign Investment Review Board (FIRB) ensures a modicum of protection by examining proposals by foreign interests for investment in Australia against the background of the Government's foreign investment policy.[42] The FIRB advances recommendations to the Government on any such proposals. The growing role of senior public servants in implementing Australia's national energy policy is akin to "resource nationalism". This new term is best described as the management of energy flows in accordance with vital state interests. The concept of resource nationalism is used overseas in a number of wider contexts. For example, it has been applied to "efforts by leaders of (energy) deficit states to protect their national interests in a world of intense competition over the available pool of supply.[43]" Other manifestations in usage of the terminology pertain.

As hitherto mentioned, China has already succeeded in securing massive investments in energy resources, particularly those relating to oil and gas supply, elsewhere around the world.

Chinese Future Target Company Acquisitions

Currently, the CNPC has only one percent of the world's proven oil reserves. As at January 2006, the author has calculated that 71.8 percent of the world's proven oil reserves are held by the following companies[44] (listed in descending order of the percentage held): Saudi Aramco, National Iranian Oil Company (NIOC), Iraq National Oil Company (INOC), Kuwait Petroleum Company, Abu Dhabi National Oil Company (ADNOC), PDVSA, National Oil Corporation of Libya (NOCL), and Nigerian National Petroleum Corporation (NNPC).

The PRC will see these companies and their reserves as their number one target for acquisitions and takeovers in future decades. Substantial inroads, in regard to Chinese investments, have already been made into NIOC, PDVSA, NOCL, and NNPC.

According to a three-year plan for the PRC's oil and gas industry formulated by the National Energy Administration, China is debating whether to initiate a fund to support firms in their pursuit of foreign mergers and acquisitions. This plan was submitted at the National Work Conference on Energy held in Beijing in February 2009. Fang Shangpu, deputy director of the State Administration of Foreign Exchange said at the time: "More measures would be introduced to support Chinese firms seeking to expand overseas."[74]

The PRC's oil and gas companies could soon benefit from the Chinese government's plan to make better use of its vast foreign exchange reserves (forex). These reserves are discussed later in this paper. Chinese companies will be able to benefit from low interest loans and in some cases from direct capital injections. Policy researchers in the PRC have long suggested that China should diversify the use of its US$2.13 trillion forex reserves, other than simply investing in dollar-denominated assets such as US Treasury Bills.

Furthermore, Chinese analysts have said an oil and gas development fund will not only provide greater energy security, but will aid China's sustainable economic development, as it becomes increasingly dependent on external resources. Veteran analyst Han Xiaoping stated in February 2009 that: "... the time is now ripe for China to convert some of its capital reserves into resource reserves, as global oil prices have fallen 70 percent since last year, to about US$40 a barrel. We shouldn't miss this opportunity to use our foreign exchange reserves to build up our oil stocks."[75]

Whilst China's investment strategies in foreign enterprises are becoming more transparent, Western analysts are to be forewarned that the PRC may not be revealing the true extent of all of these investments. This is an area for future research in this paper. (The research should also be coupled with an analysis of foreign-based military expenditure in oil producing countries and those countries close to the SLOC's to China.)

It is to be noted that the senior executives of the PRC's three largest oil companies, PetroChina (viz, the "forward scout"), Sinopec and CNOOC have all expressed their desire to expand their overseas operations through mergers and acquisitions. Jiang Jiemin, chairman of PetroChina, stated recently: "The low share prices of some global resource companies provide us with some fresh opportunities."[75]

As the global financial meltdown bites deeper, the West will become relatively capital-starved. The cash rich PRC will seize the opportunity to take over new foreign energy resources. The momentum with which China is rapidly expanding its own resource capability is virtually unstoppable and it will gain surprising acceleration in the 21st Century.

China's State Information Centre has forecast that: "China will depend on imports for 55 percent of its oil consumption in 2010, with the figure rising to more than 65 percent by 2020."