



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

CHINA AND LONG-RANGE ASIA ENERGY SECURITY: AN ANALYSIS  
OF THE POLITICAL, ECONOMIC AND TECHNOLOGICAL FACTORS  
SHAPING ASIAN ENERGY MARKETS

*MAIN STUDY*

PREPARED IN CONJUNCTION WITH AN ENERGY STUDY SPONSORED BY THE CENTER FOR INTERNATIONAL  
POLITICAL ECONOMY AND THE JAMES A. BAKER III INSTITUTE FOR PUBLIC POLICY  
RICE UNIVERSITY – APRIL 1999

## Summary

China has achieved remarkable economic progress over the past ten years, leading to speculation that it may rival the U.S. as a superpower in the 21<sup>st</sup> century. But, China is a society in flux. The country's political, legal, and economic institutions have all undergone major shifts over the past twenty-five years and are likely to see further transformation. In particular, its government faces extraordinary challenges and excruciating choices in promoting the sustainable growth that is important to bolster its long-term legitimacy.

China's energy sector is one of the key areas where dramatic change can be expected in the coming years. Cheap, readily available energy sources will be critical to China's economic expansion, just as such resources played a major role in the industrial revolution and rapid economic development in the West. China's economic expansion is being accompanied by a strong increase in demand for oil. Chinese oil demand has risen from 2.1 million b/d in 1990 to 3.95 million b/d currently. It is projected to grow to between 5 million b/d and 6.9 million b/d by 2010. China's domestic oil output is likely to remain around 3.1 million b/d given the high costs for developing and transporting the oil resources of Western China. Therefore, China can be expected to become a major oil importer in the coming decade after nearly four decades of complete self-sufficiency. This change has important implications for Asian energy security and oil geopolitics.

There has been speculation that China's rising oil use would be a major factor driving international oil prices to new higher levels in the coming decade. China's contribution to world oil demand trends could be significant. But, analysis of scenarios for international oil market supply and demand for 2010 do not bear out the thesis that China's rising demand will necessarily force oil prices to new, significantly higher levels in the coming decade. Under scenarios falling within the spectrum of consensus of most analysts' projections for non-OPEC production of between 49 million b/d to 54 million b/d, rising Chinese oil demand could either produce a market with a slight oversupply that could be relatively easily managed by OPEC or a larger surplus similar to that which drove prices

down substantially in 1998. Only in the case of stagnant non-OPEC production would rising Chinese oil demand likely create a significant shortage on international oil markets.

As China's oil import levels rise to levels above 2 million b/d, it will be increasingly difficult for China to meet its crude oil import requirements without concluding large, long-term contracts for the supply of oil. Over the past year or so, China has indicated intentions to deepen its oil trading relationships with Iraq or Iran, leading to fears that Beijing will form oil-for arms, military-client relationships with these nations. This would mean that a conflict between either of Iraq or Iran and a U.S. ally in the Persian Gulf could draw China into conflict with Western powers.

Ironically, however, China's oil sector may not be able to benefit directly from access to very large volumes of oil from Iraq and Iran. Aged and unsophisticated oil refining equipment throughout most of China means that Chinese oil firms are limited in the quality of oil they can process. China cannot refine large amounts of most of the lower quality supplies that are produced in Persian Gulf countries such as Iraq, Iran, Saudi Arabia and Kuwait. Currently, China can only process some 240,000 b/d of such crude oil. By 2005, China is likely to be able to process little more than 1.35 million b/d of this lower quality Persian Gulf oil, though it will be able to import other high quality supplies from Abu Dhabi, Yemen and Oman, according to Asia Pacific Energy Consultants. This commercial constraint will reduce at least the economic incentive for China to pursue client-state oil for arms alliances with any of the major Middle East producers unless large-scale investments --not yet planned-- can be made in its domestic refining sector.

China's rising import requirements will mean that it will become increasingly dependent on the same energy sources and sea borne lines of transport as the U.S., Japan and other industrialized countries. This could tie its strategic interests more closely with Western interests in the Middle East. While it is true that China will increasingly compete for similar energy supplies with Japan, South Korea and India, the possibility that this will lead to increased tensions and conflict is not a foregone conclusion. The possibility that

the world will remain surplus of oil for the foreseeable future reduces the need for a confrontational posture towards supplies.

Analysts of Asian energy security should make no mistake that China has concrete strategic interests in Asia's sea-lanes, as well as a major commitment to its own military strength. But in light of the limitations on China's own force projection capabilities, these interests are best served, at least for many years to come, through cooperation and strategic partnership. It is precisely the U.S. guarantee of equal access for all of Asia's sea-lanes that allows China to fulfill its strategic energy requirements through free riding rather than military adventurism. A U.S. military asset drawdown in the Pacific which might open space for security competition –for example, between China and Japan— to fill the vacuum would be far more dangerous to Asian stability than the potential for a Chinese challenge to the status quo.

### **Policy Recommendations**

\* The U.S. should elaborate a coherent policy framework on matters of energy security within the Asia-Pacific and assist with the formation of regional institutions that encourage cooperation among Asian nations to counter tendencies toward rivalry and competitive military buildups. Such cooperation can enhance Pacific security and the peaceful resolution of territorial issues. The U.S. should take an active role in engaging China in this process. China's reliance on equal access for all to Asia's sea-lanes can serve as a starting point for cooperation and strategic partnership.

\*Analysts of Asian energy security and policy-makers should make no mistake that China has concrete strategic interests in Asia's sea-lanes. U.S. guarantees of equal access for all of Asia's sea-lanes allows China to fulfill its strategic energy requirements through free-riding rather than military adventurism. China's limited force projection capabilities give the U.S. the luxury to take a wait and see approach to containment strategies. Analysts and policy-makers advocating the aggressive containment of China need to recognize that perhaps the best strategy for curbing the acceleration of Chinese power

projection is to allow China a continued free-ride off an enhanced U.S. role in the region. To seek to attenuate Chinese progress through intimidation or isolation could only have the reverse effect. Ironically-- at least as regards strategic energy trade through Asian sea lanes --to engage China is, in effect, to contain the urgency of its push for a blue-water naval presence and enhanced power projection capabilities.

\*The U.S. should avoid at all costs a U.S. drawdown in the Pacific which might open space for security competition --for example, between China and Japan-- to fill the vacuum. Such a vacuum would be far more dangerous to Asian stability than the potential for a Chinese challenge to the status quo.

\*U.S. political and military leaders should communicate clearly to their Chinese counterparts about areas of emerging mutual interests, particularly with regards to energy security issues in the Persian Gulf. Discussions of weapons proliferation should be broached in the context of converging oil geopolitical interests.

\*China should make development of natural gas resources a key priority of its national energy policy. The U.S. should encourage and assist China in enhancing its natural gas industry as a means to diversify away from heavy reliance on coal. The U.S. Department of Energy should be supported strongly in its efforts to provide information and assistance about natural gas market regulation, operation and development. Western government support and trade credits should be provided to energy companies that invest in major natural gas infrastructure projects in China.

\*The huge scale of growing greenhouse gas emissions from developing countries such as China, India, Brazil and Indonesia casts doubts on the effectiveness of the Kyoto accords to reduce greenhouse gas emissions if these countries aren't included. Cleaner, more efficient emerging technologies in the automotive and power sectors could eventually help fill the gap that the Kyoto agreement leaves behind in reducing overall levels of global emissions from key developing nations. Emerging technologies in the field of transportation and power generation could play a critical role in reducing CO2 emissions

in emerging economies where major infrastructure investments remain to be made. While relatively inexpensive energy prices may seem to obviate the need for government-support of emerging energy technologies such as cost-effective fuel cell generators or hybrid vehicle automobiles, environmental considerations may justify public support for research on innovative technology.

\*In sum, as part of an approach which will enhance the policy objective of assuring global energy supply and security into the 21<sup>st</sup> century, U.S. policy-making towards China should be coordinated at the highest level and under Presidential direction. Negotiations on wide-ranging issues such as energy, trade, energy, environment, weapons proliferation, security, geopolitics, Asian regional issues, and academic and research exchanges should be intensified and guided by a broader, more consistent and comprehensive set of goals and guidelines developed and communicated effectively through inter-agency working groups. In this fashion, the U.S. could develop as clear and consistent dealings as possible with China's leadership at many levels of its government and private business.

## **Introduction**

Chinese oil demand has risen from 2.1 million b/d in 1990 to 3.95 million b/d currently. In the last few years, China has slowly become a net importer of crude oil. But at 500-700,000 b/d from 1997 to 1998, these imports have yet to be a major factor in Beijing's international calculus. However, as China's economy continues to expand, China's oil consumption is expected to grow while its domestic crude oil production is likely to remain flat or even decline slightly. As a result, Chinese imports of crude oil and petroleum products are expected to increase steadily. China will also come under increasing pressure to develop its natural gas industry more fully.

Depending on its pace of economic growth, China's oil use is projected to climb by between 1.7 million b/d and 3.2 million b/d to between 5 million b/d and 7 million b/d by 2010 (Soligo, Medlock 1999). This will represent roughly 17-23% of total Asian oil

demand and 5-7% of total world demand, making China's influence on and vulnerability to oil markets significant. By comparison, US oil use will represent around 20% of world demand and Japan 6% in 2010. China's domestic oil output is likely to remain around 3.1 million b/d given the high costs for developing and transporting the oil resources of Western China. Flat Chinese oil production will leave a gap of 2 to 4 million b/d that will have to be covered by imports in the coming years.

The implications of China's shift to a world energy importer are significant. Over the next ten to twenty years, China will have to participate in international energy trade on a substantial and sustained basis, form energy supply and transportation alliances, and make security and environmental choices about fulfilling its future burgeoning energy needs. These alliances, trade and policy options will be constrained by the unwieldy organization of China's oil and gas industry and the aged and inefficient infrastructure that exists in China today.

There are those who argue that China's rising dependence on foreign oil supplies will cause geopolitical instability in Asia and drive regional arms races. But Chinese central government's decreasing influence on the domestic energy sector – as well as its military limitations-- raises doubts about whether this is an inevitable outcome of China's rising energy needs. In formulating its future foreign policy in light of changes in its energy supply balance, China's leadership will have to take a hard look at the possible outcomes from competition and conflict over energy resources and compare them to the potential benefits of cooperation on energy matters.

### **China's Rising Energy Demand**

China's economy experienced double-digit growth in the first half of the 1990s and over 8 to 9 per cent per annum since 1996. Total primary energy use has risen from 665 million tons of oil equivalent (mtoe) in 1990 to 935 million mtoe in 1996. China is dependent on coal for about 73 percent of its energy use and oil about 19 percent. Natural

gas only covers about 2% of China's current energy needs while nuclear and hydroelectric supplies are also limited.

Total primary energy consumption in China could grow from 916 million tons of oil equivalent (mtoe) in 1995 to between 1,405 mtoe to 1,774 mtoe by the year 2010 and 1,762 mtoe to 2,691 mtoe by 2020 (Soligo, Medlock 1999).

As economies develop, they inevitably undergo certain structural changes. These changes are characterized by increasing industrial activity as well as shifts in the structure of consumption towards energy consuming durable goods such as automobiles and residential appliances. These shifts have a direct effect on total demand for energy and its composition.

While the bulk of total Chinese energy demand will continue to come from industrial activities for the foreseeable future, the transportation sector is beginning to represent an increasing share of total energy use. In fact, at a per capita GDP growth rate of 5%, energy demand in the transportation sector is projected to triple by 2015, fueling a sharp increase in oil and petroleum product use. This means that transportation energy demand can be expected to grow 50% faster than demand for energy in the remaining sectors of the economy.

### **Transportation Sector Issues**

Broad study of patterns of development for a wide range of industrial and developing nations around the globe suggests that there exist a small range of per capita income levels at which per capita motor vehicle stocks begin to rise rapidly. This range is on the visible horizon for China. Motor vehicle stocks could grow as high as 30 vehicles per thousand individuals by 2015 at a per capita GDP growth of 5% per annum. With a projected population of about 1.4 billion for China by 2015, this amounts to a total stock of automobiles of about 42 million, an increase of about 37.5 million from the 1995 levels. Given the dependence of this part of the transportation sector on petroleum



products, this rapid expansion in automobile use in China will have a huge impact on petroleum demand within the country (Medlock, Soligo 1999).

Oil is likely to remain the predominant energy source globally for the transportation sector well into the 21<sup>st</sup> century. While alternative engine systems might play a limited role in dampening demand for diesel and gasoline fuel in industrialized countries during the next decade or so, they are unlikely to represent a major share of the market until 2020 or later. Environmental or commercial considerations will likely motivate development of alternative automobile engine systems regardless of low oil prices. Many of the major car manufacturers have committed significant financial resources to research and development of alternative vehicles to traditional internal combustion engine vehicles (ICEV). The next generation of automobiles will almost certainly include new efficient, direct-injection gasoline engines that emit lower pollutants while consuming 20% less fuel. (Baker Study #10, 1999).

It is unlikely that China will be able to cope with rising dependence on oil resources in the coming years by leapfrogging to alternative technologies for the transportation sector. Environmental policies that forced industry to create cleaner engine systems for use the transportation industry in the U.S., Europe or Japan could eventually lead to commercial breakthroughs that could be applied to reduce pollution in developing countries such as China and India, some economists argue. Still even if a technological breakthrough or government policies could stimulate strong consumer demand, it would take many years before electric, fuel cell or hybrid vehicles would have significant impact on energy markets. Some pilot programs are being conducted to develop non-hydrocarbon-based energy technologies in certain industries including transportation sectors in China. (Baker Study #10).

### **Rising Energy Use in Other Sectors and Its Environmental Consequences**

While growth in Chinese energy use in the transportation sector will likely be highest, demand for energy in both the residential and commercial sectors, as well as the

industrial sector, may nearly double by 2015. Rationalization of energy use and increased energy efficiency may come with market reforms, denting growth rates as related to GDP gains but the expansion in the Chinese economy is still likely to bring major increases. Energy use in the industrial and other sector could expand from 545 mtoe in 1995 to between 902 mtoe and 1291 mtoe by 2015. Residential and commercial energy consumption could see increases to between 241 mtoe and 282 mtoe, up from 137 mtoe. In terms of oil, residential and commercial oil use could climb from 128,000 b/d to between 225,000 b/d and 264,000 b/d by 2015. Oil use in the industrial sector could rise from just over two million b/d to between 3.4 million b/d to 4.9 million b/d, depending on economic growth rates (see table ken)

To the extent that the industrial, residential and commercial sectors are coal intensive, this will have considerable ramifications for the environment (coal emits 34% more carbon per British Thermal Unit (BTU) than oil and 81% more carbon than natural gas). For example, by 1992, China was already emitting 55% of the U.S. level of carbon emissions from industrial processes. China's per capita CO<sub>2</sub> emissions could rise from 2.44 metric tons to 3.77 metric tons by 2010. Forecasts for the increase in per capita emissions in China, India, Indonesia and Brazil imply that these four countries could produce as much as 2.0 billion tons of carbon annually in 2010. (Warby, Hartley, Medlock 1999).

Current international agreements on global warming will be substantially flawed unless they include major developing economies such as China, India, Indonesia and Brazil. Controls on the developed nations alone may be ineffective in reducing the accumulation of carbon dioxide in the atmosphere. The growing emissions from developing countries could dwarf proposed reductions for the industrialized world.

The costs of Beijing trying to limit this rise in emissions in line with the Kyoto agreements are prohibitive. In the year 2020, Chinese attempts to limit emissions in line with available production technology would result in GDP levels 27 percent lower than if emissions are not constrained. The cumulative loss of GDP for the period 1999 to 2020

by evaluating carbon dioxide emission would be about 24 trillion. This is more than twice China's expected GDP level in 2020. (Sickles, Jeon)

Given the other pressing social, economic and health challenges facing China, its leaders are unlikely to make control of greenhouse gases a major priority. In order for the developing countries like China to take effective action on global warming, they will have to be compensated until the net cost is acceptable. Given the relative unimportance of global greenhouse gas emissions when compared to China's other more urgent pollution problems, as well as health, education and economic challenges, an acceptable cost to Beijing to participate in global warming accords is likely to be close to zero. Thus, the cost of any sacrifice that is demanded of developing countries is likely to fall on taxpayers of those countries whose politicians view the problem as a high priority. Since massive transfers in the billions or trillions of dollars would be required, this is not a practical solution to pursue. (Warby, Hartley, Medlock, 1999)

Proposals such as those currently offered to Chinese negotiators that U.S. firms be permitted to pursue "clean" projects in China and then bring "pollution credits" back home to the U.S. will be similarly difficult to realize. China would be unlikely to agree that greenhouse gas emissions reduction activities inside its own country would give the right to another more developed country to be excused from reducing its emissions. Rather, emerging technologies in the field of transportation and power generation could play a positive role in reducing emissions in emerging economies where major infrastructure investments remain to be made. Cleaner, more efficient emerging technologies in the automotive and power sectors could eventually help fill the gap that the Kyoto agreement leaves in reducing emissions from key developing nations.

At the margin, China may try to lessen environmental consequences of rising coal use by switching to other resources where possible. While progress has been made in recent years in the development of alternatives to fossil fuels for power generation, these alternatives are unlikely to have significant impact on energy markets until after 2020.

Fusion research has proceeded for decades but so far no commercially-viable process has been fully proven. However, in the coming decades, fuel cell generation could become a viable option for development of new power markets in emerging economies such as China that lack existing traditional infrastructure. (Baker Study #10)

### **China's Natural Gas Sector**

Natural gas remains another viable alternative to expanding coal and oil use in China. Natural gas could rise from 2 percent of China's current energy consumption to 8 percent by 2010 and 10 percent by the year 2020 if the Chinese government quickly gives priority to the natural gas sector.

China has significant potential resources of natural gas. There are 54 large and medium gas fields found over the past few years mainly in the Ordos, Sichuan, the Tarim, the Juggar, the Qaidam areas as well as in the western South China Sea. Exploration and production (E&P) activities from 1991 through 1998 resulted in newly added proven reserves totaling 853 billion cubic meters (bcm). Authorities believe additions of 100 billion cubic meters per annum could be sustainable for the foreseeable future (Xu, 1999)

Natural gas demand in China has been restricted in the past. While liquefied petroleum gas (LPG) has been widely used in 600 cities, natural gas use has lagged and primarily been used in only about 50 cities near the Sichuan gas fields, starting in 1989. Considering China's current environmental situation and future economic goals, China's natural gas use should be enhanced. High economic growth forecasted above will translate into at least 100 bcm of additional natural gas demand in 2010 and 150 bcm in 2020. But this level of natural gas use faces several obstacles including a possible internal supply deficit, massive infrastructure requirements and lack of expertise and institutional frameworks for commercialization of domestic natural gas markets. (Xu, 1999)

China projects it can produce gas from around 255 fields including 9 large fields (reserves over 30 bcm), 45 medium fields (reserves between 30-10 bcm) and 209 small

fields (below 5 bcm). Among them, 47 large and medium fields constitute 80 percent of the country's total gas output.

#### **Gas Output Forecast bcm**

	Onshore	Offshore	Total	Peak output
2000	15.1-20.3	8.5-10	23.6-30.3	30
2010	40.6-47.5	22-26	62.6-73.5	70
2020	71.9-93.5	28.5-33.5	100-127	123

Source: xu, *China 99: Petroleum Upstream Statistical Review, 1997*.

In addition, a non-conventional source, Coal-bed Methane (CBM) resource is estimated 25 trillion cubic meters. There are several pilot CBM areas with 300 bcm reserves and 50-100 bcm production. Further development can be expected in the next decade.

The gap between demand and indigenous supply is projected to grow from 21-24 bcm in the year 2000 to 46-73 bcm in 2010 and to 60-111 bcm by 2020. The potential gaps between Chinese natural gas supplies and its demand by the year 2000 is roughly equal to the size of annual LNG exports (23 bcm) from Australia, UAE, Qatar, Libya and U.S. in 1997 or 20 percent exports by pipeline from Russian Federation. The level is also close to LNG imports of Belgium, France, Italy, Spain and Turkey and larger than LNG imports of both South Korea and Taiwan. China's potential gas import requirements by 2010 could reach or even surpass current LNG imports of Japan.

The Chinese gas market is at a nascent stage. Current Chinese natural gas production is 22 bcm. About 8 bcm is used in chemical industries (mainly for fertilizer manufacturing). Gas-fired generation technology, gas fuel and residential and commercial usage are at their early stage representing only 6 bcm and 2 bcm but present promising future. Guangdong and Sichuan provinces are promising marketplaces where growth of both residential and commercial usage and gas-fired generation are the faster than those of any other places. China's southern provinces alone are expected to see demand for gas-generated power reach 11-18 bcm by 2005 and 20 to 35 bcm by 2010 (xu, 1999).

**The provinces with higher residential use and gas-fired generation**

	1994	2000		2010		2020	
	(1)	(1)	(2)	(1)	(2)	(1)	(2)
Guangdong	6.5	12.3	3.4	30.3		60.4	
				53.1		83.8	
Sichuan	5.7	10.7	5.5	22.8		44.2	
				24.5		42.9	
Shangdong	2.3	14.7	2.8	38.2		69.9	
				8.6		40.5	
Jiangsu	2.8	11.3	0.0	23.5		43.5	
				9.2		41.6	
Shanghai	5.8	12	4.0	18.7		25.5	
				10.5		23.2	

*Note: (1) Residential and commercial usage; (2) Gas-fired generation*

*Source: SPC,*

Domestic natural gas reserves and production can be increased with intensive exploration and development activities in these strategic areas in the next decades, should China opt to acceleration of natural gas development and rationalize energy consumption toward this cleaner fuel. Current Chinese government plans call for natural gas production by the year 2000 of little more than 25 bcm or 30 bcm. More ambitious gas development would require a more wide-ranging policy that would promote gas-fired generation as well as residential and commercial consumption and initiate gas replacement for oil or coal.

Infrastructure to transport a much higher level of natural gas inside China does not exist. China has no national natural gas pipeline grid, leaving the domestic market highly segmented. Chinese gas pipelines totaled 9,112 kilometers (km) in length with transporting capacity close to 10.5 billion cubic meters of natural gas in 1996. The Shaan-Jing gas line (from Shaan-Gan-Ning to Beijing) completed in 1997 is the largest pipeline in the country. It is an 868-km long pipeline with a diameter of 660 mm and maximum annual gas transport capacity of 2 billion cubic meters. About 50-bcm of natural gas imports have been planned to 2010 from neighboring countries, both by pipelines and Liquefied Natural Gas (LNG) tankers. However, costly international pipeline links and coastal LNG receiving facilities must be put in place to make such imports viable.

Were China to aim for natural gas to meet about 8 percent out of China's primary energy demand mix in 2010 and 10% in the period of 2015-2020, coal use could fall to about 67 percent of China's energy mix, down from 73 percent and oil demand held down to 13 percent. This would represent 100 bcm of natural gas production and 60 bcm of natural gas imports by 2020 (xu, 1999).

A prioritization of China's natural gas segment could help enhance China's energy security by diversifying available supplies to meet China rising energy requirements. It will also improve the living standard and air quality in most major cities. Reasonably, gas policy should be viewed as an imperative to securing Chinese sustainable development. Unfortunately, the gas policy remains only partially implemented and conceptualized. More research and analysis is needed on matters of pricing, taxation and foreign participation. So far, lower gas price and a non-competitive gas pricing system are problematic. Western experience will be helpful in developing new systems. Promoted by foreign investment and self-operation, offshore gas production has grown almost six-fold since the opening to foreign investors in 1985 and reached 3 bcm in 1998. (xu, 1999)

China sees itself as both an emerging market and as a land bridge for regional gas shipments. China's gas import strategy is two-pronged: (1) inland markets can be linked with domestic and international natural gas supplies by pipelines from east Siberia and Central Asia; (2) southeastern coastal regional demand can meet growing energy needs by switching to LNG shipment by sea-lanes, mainly from Southeast Asia and the Middle East. China may view its gas import strategy as a means to secure and maximize various regional linkages.

### **China's Oil Sector**

Chinese oil demand has risen from 2.1 million b/d in 1990 to 3.95 million b/d currently. In the last few years, China has slowly become a net importer of crude oil. But at 500-

700,000 b/d in from 1997 to 1998, these imports have yet to be a major factor in Beijing's international calculus.

Depending on its pace of economic growth, China's oil use is projected to climb by between 1.7 million b/d and 3.2 million b/d to between 5 million b/d and 7 million b/d by 2010 (See table CGID, estimates from Soligo, Medlock 1999). This will represent roughly 17-23% of total Asian oil demand and 5-7% of total world demand, making China's influence on and vulnerability to oil markets important. By comparison, US oil use will represent around 20% of world demand and Japan 6% in 2010. (See table Ken for a sectoral breakdown of China's oil use)

Forecasts discussed above for growth in Chinese oil demand indicate that China's oil use will rise from around 4 percent to 5 percent of world oil use in 1997 to about 5 percent to 6 percent by 2010. There has been speculation that China's rising oil use would be a major factor driving international oil prices to new higher levels in the coming decade. China's contribution to world oil demand trends could be significant. But, analysis of scenarios for international oil market supply and demand for 2010 do not bear out the thesis that China's rising demand will necessarily force oil prices to new, significantly higher levels in the coming decade.

Under scenarios falling within the spectrum of consensus of most analysts' projections for non-OPEC production of between 49 million b/d to 54 million b/d, rising Chinese oil demand could either produce a market with a slight oversupply that could be relatively easily managed by OPEC or a larger surplus similar to that which drove prices down substantially in 1998. Only in the case of stagnant growth in non-OPEC production would rising Chinese oil demand likely create a significant shortage on international oil markets. (Jaffe, Soligo 1999) See Scenario tables 2-3

While Chinese oil use can be expected to rise substantially, China's domestic oil output is likely to remain around 3.1 million b/d given the high costs for developing and



transporting oil from Western China. Flat Chinese oil production will leave a gap of 2 to 4 million b/d that will have to be covered by imports in the coming years.

In an effort to diversify from the troubled domestic oil sector, state-concern China National Petroleum Corp. (CNPC) has responded to China's expected boom in oil demand by making huge investments in foreign oil fields in Kazakhstan, Peru, Venezuela, and Sudan. It has announced plans to invest in Iraq's oil industry after United Nations sanctions against Baghdad are lifted. China has also promoted projects to transport Caspian oil and gas by pipeline to China directly or through Iran to the Persian Gulf and to form an exploration venture in Iran in return for a higher allocation of crude oil. To the extent that China deepens its oil and military relationships with Iraq or Iran, a conflict between either of those countries and a U.S. ally in the Persian Gulf could draw China into confrontation with Western powers.

China could obviate the need to bring large shipments of oil from the Middle East and Africa by opting to construct pipelines from Kazakhstan and Western China. Given the current and prospective low oil prices, however, it may not make economic sense for China to develop its Tarim Basin and other Western oil reserves. Moreover, China's oil sector has not yet fully transitioned to a market-based system, complicating investment decisions.

Despite several attempts at price reform, China has still not fully decontrolled its domestic crude oil prices. These prices are set by the central government under a market-related monthly price linked to the price of foreign crude in the Singapore market. The use of market averages means that domestic prices can vary significantly from world crude oil prices in periods when world prices make large price swings. Transportation and port costs are not handled in a systematic, transparent fashion either, thwarting free market signals. As a result, short run distortions and inefficiencies are still prevalent, clouding investment decision-making.

In a reformed free-market, were Persian Gulf oil prices to average \$9 a barrel as they have recently, it would be more economical for China to shut-in some high cost domestic oil production that is currently shipped by railcar and replace it with foreign imports.

High production and pipeline transport costs for oil shipments from neighboring Kazakhstan mean that economic, commercial factors alone can't justify major pipeline projects across China unless international oil prices top \$14-15 a barrel (in current dollars) for a prolonged period. (Jaffe, Soligo, 1999)

### **The Geopolitical Consequences of China's Rising Energy Needs**

Over the past few decades, China has had the luxury of choosing a neutral role towards events in oil geopolitics. Oil prices inside China were fixed by the state central planners and had no relation to world price levels. Internal supplies fairly evenly matched domestic requirements. Its economy was sheltered from the volatile international oil scene and therefore, its leaders could be indifferent to conflicts in the Middle East or elsewhere. Oil disruptions neither hurt nor helped China substantially.

By contrast, the U.S. economy, as a major consumer and importer of oil, was vulnerable to sudden swings in international oil prices, dictating foreign policies that would promote stability in international oil markets. The U.S. navy defended Persian Gulf supplies while U.S. policy-makers worked to remove political and economic barriers to oil development outside the volatile region. The Soviet Union was a major oil exporter and its economy benefited directly from rising oil prices. Its interests in oil markets were diametrically opposed to those of the U.S. Soviet oil interests so diverged from America's that policy theorists in the 1980s suggested the U.S. would benefit from events that could drive oil prices lower to hurt the Soviet treasury.

The implications of China's shift to a world energy importer are significant. Over the next ten to twenty years, China will have to participate in international energy trade on a substantial and sustained basis, to form alliances for energy supply and transportation,

and to make security and environmental choices about fulfilling its future burgeoning energy needs. These alliances, trade and policy options will be constrained by the unwieldy organization of China's oil and gas industry and the aged and inefficient infrastructure that exists in China today.

As China's oil import levels rise to levels above 2 million b/d, it will be increasingly difficult for China to meet its crude oil import requirements without concluding large, long-term contracts for the supply of oil. Over the past year or so, China has indicated intentions to deepen its oil trading relationships with Iraq or Iran, leading to fears that Beijing will form oil-for arms, military-client relationships with these nations. This would mean that a conflict between either of Iraq or Iran and a U.S. ally in the Persian Gulf could draw China into conflict with Western powers.

Ironically, however, Chinese politicians and energy planners may not be thinking and analyzing in unison. One explanation might be the legacy of the historical split in operations between exploration activities by CNPC, refining activities by SINOPEC and supply and trading activities by SINOCEM. China's oil sector may not be able to benefit directly from access to very large volumes of oil from Iraq and Iran. As mentioned above, aged and unsophisticated oil refining equipment throughout most of China means that Chinese oil firms are limited in the quality of oil they can process. China cannot refine large amounts of most of the lower quality supplies that are produced in Persian Gulf countries such as Iraq, Iran, Saudi Arabia and Kuwait. By 2005, China is only likely to be able to process little more than 1.35 million b/d of this lower quality Persian Gulf oil, though it will be able to import other high quality supplies from Abu Dhabi, Yemen and Oman, according to Asia Pacific Energy Consultants. This commercial constraint will reduce at least the economic incentive for China to pursue client-state oil for arms alliances with any of the major Middle East producers unless large-scale investments --not yet planned-- can be made in its domestic refining sector. (See charts 5-6, Jaffe, Soligo, 1999)

<b>China Refinery Capacity by Crude Tolerance (MBD; Rounded)</b>				
<b>Crude Type</b>	<b>1998</b>	<b>2000</b>	<b>2002</b>	<b>2005</b>
<b>Sweet: &lt; 0.9%S (1)</b>	4,350	4,050	4,050	3,700
<b>Medium Sweet: 0.9-1.15%S</b>	160	300	550	750
<b>Sour: 2%S or Higher</b>	240	600	700	1,350
<b>Total</b>	<b>4,750</b>	<b>4,950</b>	<b>5,300</b>	<b>5,800</b>
<b>Note:</b> Chinese central government announced in early 1999 that up to 500 MBD of 'illegal' refining, basically simple distillation would be closed down by 2000. We have included in our 1998 numbers approximately 300 MBD in base refining capacity that is run mainly by provincial and municipal state oil companies and have deleted that from our base capacity for the year 2000. All of this capacity ran on domestically produced waxy sweet crudes.				

Source: Asia Pacific Energy Consulting

China's rising oil import requirements and the physical constraints of its refining sector may mean China will become increasingly dependent on the same energy sources as the U.S., Japan, and other industrialized economies. This could tie its strategic interests more closely with Western interests in the Middle East. A rising reliance on Persian Gulf oil and gas imports imply that China will suffer the same negative consequences as the U.S., Japan and Europe if military equipment it or others pass to regimes such as those in Iraq or Iran is used to interdict the free flow of oil from the Middle East or elsewhere. Continued political instability in Afghanistan or Central Asia will have similarly dire consequences for China's chances of tapping Caspian energy supplies.

However, it remains to be seen if China's energy interests will be enough to alter China's military's perceptions of its own more general strategic interests, particularly on the issue of weapons non-proliferation. China may continue to perceive a benefit in diverting U.S. strategic engagement away from Asia. China's leaders may view larger strategic interests in Asia –beyond the energy sector-- as better served by diverting U.S. diplomatic attention and military assets away from the Asian theatre to places like the Middle East. This latter interpretation of Chinese interests will depend greatly on Beijing's perceptions of U.S. intentions –both in the short and long term-- and their potential risk to China.

To some extent, China's economy could be shielded from the negative consequences of a temporary cut-off in oil supplies as a result of a major disruption by its heavy use of coal in vital industries. But it would still have to implement uncomfortable –and potentially destabilizing-- major consumer sacrifices.

The Chinese leadership's freedom of movement on asking for major consumer sacrifices is likely to diminish over time as China's middle classes gain a rising role in the economy. As media outlets expand inside China, awareness is growing regarding disparities within Chinese society and between PRC citizens and people living in Hong Kong, Taiwan, the United States, and other rich societies. The proliferation of television and other media forms is already ushering in vast social change and rapidly rising expectations of a more consumerist society.

Nearly 100% of homes in urban China and two-thirds of homes in the countryside own television sets. Advertising is targeted at middle class Chinese who might desire lavish vacations, air-conditioned homes, and private cars—all of which drive up the demand for energy almost exponentially.

The Chinese central government has fought back against this bombardment of foreign images by delivering competing messages of socialist values, but ultimately, Beijing faces a near impossible challenge to monitor and control the symbols being circulated at the local level throughout China. The net result could easily be a society increasingly unwilling to forego consumer goods and unlikely to conserve energy. This fact will make the imposition of curbs on energy use more costly politically and give the Chinese leadership pause to take adventurous military actions that could result in a cut-off in energy imports. (Seminar Paper, 1999)

Still, some analysts worry that China's dependence on the same energy supplies as its neighbors and Western industrial nations will prompt heightened competition in the energy arena and drive Asian regional arms races. Notes Kent Calder in his book "Asia's

Deadly Triangle: How Arms, Energy and Growth Threaten to Destabilize Asia-Pacific” “Expansionist, confrontationist strategies, not to mention the acquisition of nuclear weapons, offer some attractive prospects of gain to regional powers, such as preferential access to energy resources and sea lanes in the South China Sea. The costs of armament and preparation for war, conversely, become less onerous as East Asia grows increasingly affluent. This combination of wealth and bellicosity is a recipe for disaster.” But such predictions have already missed the mark on several counts and are likely to continue to do so.

Analysis reveals that there could be a strong correlation between China’s economic growth and its inclination for conflict with other countries. The probability that China would initiate more than one militarized dispute becomes significant when the Chinese economy grows at a rate faster than 6%. But should the country’s economic progress slow—a plausible scenario given the large difficulties accompanying economic reform and the drain on the country’s banking system caused by China’s inefficient state-owned enterprises—the likelihood of an aggressive China drops, implying Beijing might be more inclined in this case to live with status quo geopolitics. Moreover, analysis similarly reveals that formal diplomatic recognition by the U.S. to the People’s Republic of China in 1979 was accompanied by a significant decline in the number of conflicts initiated by China, implying that diplomatic efforts could reduce China’s propensity to use military force. (Morgan, Palmer, 1999)

But while it is true that China will increasingly compete for similar energy supplies with Japan, South Korea and India, this trend does not *a priori* lead to increased tensions and conflict. For one thing, as the above forecasts show, the possibility that the world will remain surplus of oil for the foreseeable future reduces the need for a confrontational posture towards supplies. And, Asia’s recent financial woes have reduced not only the rate of rising energy use but also the budgets for increased military spending. However, the possibility of a major supply disruption will continue to exist and with it, the risk that rivalry could emerge during a time of crisis.

Another reason China's rising energy requirements might not disrupt balance of power politics in Asia is that China does not yet have the military muscle to challenge successfully the U.S. and its regional allies in the Asian seas. China lacks the military capability and the basing facilities to close Asian sea-lanes for any extended period of time –should the U.S. Navy intervene to reopen them. Given its limited military budgets and current capabilities, China's military is 40 to 50 years away from the type of comprehensive, across-the-board technological modernization of its naval and air forces that could challenge American power in the sea lanes.

Blue water capabilities are clearly on the Chinese agenda, but force investment patterns suggest that this process will take decades to complete. Chinese modernization has focused on both surface and sub-surface capabilities. Chinese plans to add destroyers and frigates, mainly supplied by France, to their naval forces should augment China's now limited naval capabilities. This acquisition program is supplemented with programs to improve sea-replenishment capabilities, including oilers, stores ships, and helicopters capable of air-based replenishment. (Feigenbaum, 1999)

Chinese airforce modernization is also taking place, but it has not been accompanied by a major change in indigenous production capabilities that were slighted in China's strategic planning in the 1960s. At that time, the airforce became caught up in the divisive politics of the Cultural Revolution, including an alleged coup d'etat that convinced Chinese leaders that they needed to be wary of a modern air force. Most significantly, China purchased 24 Su-27 fighters and two training aircraft from Russia; these entered the Chinese air force in 1995.

Analyst believe that these fighters are China's only tactical aircraft capable of conducting air operations in the South China Sea. But such operations would also require strategic basing that could be easily monitored. This basing is not currently available to China. The Spratly Islands themselves are simply too small to serve as a stepping stone to challenge the U.S. dominated maritime system and allied commercial and military fleets that currently exist in Asia. To achieve this level of power projection, the Su-27 fighters

would have to be placed either on Hainan Island off China's southern coast or on an air base in the Paracel Islands, north of the Spratlys. This will first require a major base enlargement effort in the Paracel Islands, as well as extensive training for Chinese pilots in open water, all-weather, and night operations. Chinese pilots are believed to be poorly trained in all of these skills. (Feigenbaum, 1999)

In short, China currently possesses mostly "asymmetric" capabilities -- narrow strengths that can conceivably be targeted against specific American and allied weaknesses. This certainly does not include the ability to operate far from coastal waters, to open or close sea-lanes, to conduct air or naval operations in the open ocean, or to challenge U.S. naval dominance. (Feigenbaum, 1999)

However, Chinese capabilities do include Chinese missile capabilities in short-to-medium range ballistic and cruise missile systems. Although Chinese missiles continue to have guidance and accuracy problems, there is little doubt that at least some Chinese missiles could do considerable damage to military and commercial shipping, including energy tankers, operating in Asian sea lanes. Still, even this capability would not be sufficient to defend its own incoming shipments of oil and other goods from retaliation in response to its own aggressive acts, nor could China prevent U.S. aircraft from rapidly eliminating its missile capability in the event of a larger conflict.

Analysts and policy-makers of Asian energy security should make no mistake that China has concrete strategic interests in Asia's sea-lanes, as well as a major commitment to its own military strength. But in light of the limitations on China's own force projection capabilities, these interests are perhaps best served, at least for many years to come, through cooperation and strategic partnership. (Feigenbaum, 1999) Unlike the U.S., China does not have the military capabilities to achieve energy security once it becomes dependent on foreign supplies. China lacks air and naval power projection necessary to control international sea lanes or reopen vital waterways such as the Strait of Hormuz in the Persian Gulf. China cannot stage a military intervention in a distant locale such as the Persian Gulf.



The U.S. guarantee of equal access for all of Asia's sea-lanes that allows China to fulfill its strategic energy requirements through free-riding, as opposed to military adventurism. Ironically, this new situation for China will coincide with a greater U.S. reliance on energy supplies from its own Western hemisphere, potentially raising burden-sharing issues with Asian nations about the expense of the U.S. military role in the Persian Gulf. But the U.S. should avoid at all costs an American drawdown in the Pacific that might open space for security competition—for example, between China and Japan—to fill the vacuum. Such a vacuum seems far more dangerous to Asian stability than the potential for a Chinese challenge to the status quo. (Feigenbaum, 1999). See Charts 6-9

It remains to be seen whether China's leadership can publicly acknowledge and accept the reality of the benefits it might incur from the U.S. naval presence in East Asia and the Middle East. For now, the regime still criticizes Japan for its reliance on "third parties" and calls for the U.S. to remove its military from Asia on the grounds that the Cold War threat has been resolved.

Just as China cannot attain energy security through purely military efforts, neither China's leadership nor its oil and gas industry institutions are likely to be strong diplomatic or commercial substitutes for military means in defending access to international energy supplies. Central government budget deficits, the capital shortage faced by most industries in China including the energy industry, and the very high social, political and economic costs of implementing a full-scale reorganization of the state energy sector will limit the funds that Chinese oil conglomerates will have to invest in oil and gas fields at home and abroad. This will make it difficult for Beijing to achieve energy security through state-run commercial activities, and so far, Chinese central planners and oil conglomerates have opposed a wide-scale opening to foreign investors on national development and security grounds.

China's oil and gas companies are expected to be constrained by financial pressures and the need to raise profitability, limiting the scale of geopolitically-driven foreign oil field

investments they can take on behalf of the central government. As the central government's ability to offer tangible economic benefits and commercial privileges to the energy sector companies weakens, the commitment of those companies to China's national foreign policy agenda is likely to weaken as well. Increasingly, China's oil and gas giants such as China National Petroleum Corp. (CNPC) and SINOPEC are seeing the state's influence erode in guaranteeing markets, domestic prices and capital for infrastructure investments. Provincial, municipal and local actors are encroaching on CNPC and SINOPEC's turf and causing energy pricing and marketing competition through import channels and locally privatized oil sector businesses. Ongoing liberalization and restructuring in the energy sector –driven by the manager level but possibly resisted by central authorities-- is likely to accelerate this process.

China's current plans for its oil sector include the reassertion of CNPC and SINOPEC over ownership authority over the means of production and distribution as well as enhancement of monitoring capacity. But the institutional framework for such restructuring goes against the weight of recent Chinese history. CNPC's and SINOPEC's goal of central operational control puts them on a collision course with the most powerful stakeholders in China's informal privatization program –the local governments and the enterprise employees. The diminished ability of the central government's capacity to monitor – and to a certain extent influence-- the gradual privatization of Chinese companies by their employees means that Beijing may be of little help to CNPC and SINOPEC in their efforts to assert control of assets spread all over China (Lewis, 1999).

Both Chinese oil giants may find it difficult to implement the more politically painful aspects of restructuring –oil field and refining facilities shutdowns and extensive employee lay-offs. These shutdowns and lay-offs are vital to the state oil conglomerates' efforts to become profitable commercial entities. CNPC alone employs 1.6 million workers. By comparison, Exxon employs approximately 80, 000 people worldwide. While it may make commercial sense for CNPC or SINOPEC to shut down certain fields or facilities and import cheaper product from abroad, such shutdowns are likely to face strong opposition from both employees and local governments.

In many ways, because CNPC and SINOPEC are like little societies that provide everything employees need from housing to education to medical care and the like, such efforts are analogous to the economic devastation caused by military base closings in the United States. Closures will mean that local governments must not only cope with the loss of revenue from the shutdown businesses, but they must also develop ways to integrate the laid off employees into their developing pension and unemployment programs. In addition, they similarly must find a way to “nationalize” the social welfare units of the oil businesses: schools and medical clinics. Local governments have a strong incentive to make sure that they get a piece of the profits from any privatization of CNPC or SINOPEC businesses, if only to control the costs of integrating the laid-off employees into the local social welfare system. These interests of local governments will likely slow the state oil conglomerates efforts to shed less productive units. (Lewis, 1999)

The costs of “buying off” local governments and employees will curb the amount of profits left over for the Chinese oil conglomerates to invest abroad to enhance its strategic power as an international competitor to large oil companies from other countries. And, the central government’s capital shortage, coupled with the troubled condition of China’s banking sector, probably leaves little room for the kind of major state-sponsored financial support to the oil sector that would be necessary to implement a dominant international role for the Chinese state oil firms.

The central government’s decreasing support for and influence over the domestic energy sector – as well as its military limitations-- raises serious doubts about concerns that China’s rising dependence on foreign oil supplies will cause geopolitical instability in Asia and drive regional arms races. In formulating its future foreign policy in light of changes in its energy supply balance, China’s leadership will have to take a hard look at the possible outcomes from competition and conflict over energy resources and compare them to the potential benefits of cooperation on energy matters.

Analysts of Asian energy security and policy-makers should make no mistake that China has concrete strategic interests in Asia's sea-lanes. U.S. guarantees of equal access for all of Asia's sea-lanes allow China to fulfill its strategic energy requirements through free-riding rather than military adventurism. China's limited force projection capabilities give the U.S. the luxury to take a wait and see approach to containment strategies.

Analysts and policy-makers advocating the aggressive containment of China need to recognize that perhaps the best strategy for curbing the acceleration of Chinese power projection is to allow China a continued free-ride off an enhanced U.S. role in the region. To seek to attenuate Chinese progress through intimidation or isolation could only have the reverse effect. Ironically-- at least as regards strategic energy trade through Asian sea lanes--to engage China is, in effect, to contain the urgency of its push for a blue-water naval presence and enhanced power projection capabilities. Implicit U.S. strategic guarantees to maintain open access to Asian routes for energy trade could give real meaning for Beijing to a U.S. China "strategic partnership." (Feigenbaum, 1999)

### **China and Its Neighbors: An Energy Bridge?**

China sees itself as both an emerging gas market and as a land bridge for regional gas distribution. A natural gas-oriented energy strategy could provide an incentive to China to give serious consideration on how to improve relations with neighboring countries. But, in order for joint energy linkages and large scale, cross border energy projects to succeed, distrust surrounding China's long term geopolitical goals will have to be overcome.

Already, China has pursued border resolution with Vietnam through diplomatic initiatives that could lead to joint exploitation of oil and gas resources in border areas in the Beibu Gulf. However, China's position on Taiwan is constant, and border disputes in the South China Sea remain an area of strain. China's stance on its outstanding territorial claims has been rhetorically rigid and, in practice, frequently inflexible. The only notable major case of territorial compromise in China's post-1949 diplomatic record –recognition

of Outer Mongolian independence in 1950 –involved much larger strategic trade-offs related to the Sino-Soviet alliance relationship. Virtually all empirical and historical evidence suggests that three rationales that have no economic or resource basis have underlain China’s post-1949 use of force –sovereignty claims over major territories, border disputes and strategic considerations connected to the East Asian balance of power. (Feigenbaum, 1999)

Thus, at a minimum, the rigid Chinese attitude toward territorial matters creates special problems for Asian energy security since sea-borne lines of oil and gas supply overlap a variety of outstanding Chinese sovereignty claims. In particular, regardless of whether the Spratly Islands hold vast or little energy potential or constitute a strategic consideration of regional balance of power issues, the area clearly represents a territorial concern to Beijing. (Feigenbaum, 1999)

China has also sought Japanese and South Korean financial support in constructing transportation infrastructure for natural gas shipments from Russia and Central Asia to China, Japan and South Korea. Cooperation on the latter would, however, require a resolution of tensions in the Korean peninsula. Past actions of the North Korean government, the presence of large military units on the North-South border, a ballistic missile capability, the potential development of a nuclear threat from North Korea, and the dire economic situation in the North are all reasons for worry with regard to the Korean peninsula. Energy issues represent only a minor factor in the equation.

As China has shifted to a non-revolutionary stance in international relations, seeking to establish a “socialist market economy” and pursuing peaceful regional cooperation, new, more positive public attitudes toward China have emerged in some quarters—though dark suspicions remain in others. Evidence of the former trend can be seen in changing patterns of diplomatic recognition, shifts in public rhetoric and rising trade and investment figures.

Moreover, the Asian economic crisis has tended to enhance China's status in the region and undermined the prestige of the U.S., capitalism and U.S.-led institutions. China has been praised for its discipline and leadership in avoiding currency devaluations that could have the potential to send Asia back into a tailspin. Further, many frustrated Asian politicians have blamed the current dire economic situation in Asia on foreign economic elements and globalization rather than on poor financial intermediation and weak supervision of local commercial banks, cronyism and imprudent government credit guarantees to doubtful investment projects. The International Monetary Fund came under particular attack under dubious claims that it acted solely as a surrogate of Western, and particularly, American political and economic interests. This perception has led to comments by Asian observers that China could take advantage of this growing antagonism against what is perceived as American dominance to strengthen its ties to neighboring states at the U.S. expense. (See Von der Mehden paper, 1999)

But attempts by China to show itself as a more adequate future leader by rallying together Asian states dissatisfied with the IMF and international pressure on human rights may not prove terribly successful. While China can curry favor in the region by painting Japan as being "too close to the U.S.", both the incredible size of the U.S. market for Asian goods and Japan's economic power dwarf what China has to offer.

Indeed, privately, rather than rally around China's call to anti-globalization and Asian nationalism, the intellectual elites of Southeast Asia continue to voice suspicions of long-term Chinese intentions as demonstrated by aggressive actions in the Spratley Islands and strategic flirtation with Burma. Such attitudes find their roots not in anti-Communist sentiment but in long-standing historic suspicions of Chinese imperial intentions. Sino-Japanese relations, for example, are influenced by a long, bitter history of war and more recently, regional and international economic competition. Japanese elites remain deeply suspicious of China's long term intentions and worry about Chinese initiatives to disrupt free navigation in Asian sea lanes.

But it is the final status of Taiwan that looms largest as a dangerously volatile issue between China, neighboring Asian nations and the U.S. The importance of this issue to China, which maintains that Taiwan is an integral part of its country, cannot be underestimated as Beijing has threatened to respond to any declaration of independence on the part of Taiwan with military action. While the U.S. adheres to the “One China Policy” and has explicitly acknowledged Taiwan’s territorial relationship as a part of the People’s Republic of China, the implementation of that status remains a delicate matter between the U.S. and China –one that, if mishandled, could lead to direct military conflict (Von der Mehden, 1999). This issue overrides all issues related to energy for both China and the U.S.

### **The Special Case of U.S. Relations With China**

During the Cold War years, the U.S.-China relationship was handled at the highest political level. There existed a fundamental consistency in American foreign policy toward China. The periods of enmity and entente, dramatically different as they were, were driven in large part by U.S. efforts to counter Soviet expansion and the spread of Communism. When we perceived Beijing as Moscow’s surrogate or partner, U.S. policy toward China took on a confrontation tone. When Beijing and Moscow experienced a falling out in the early 1960s, the U.S. seized the moment to make a common cause with Beijing against Moscow. (Barnes, 1999).

The 1990s have witnessed a review of the Sino-American relationship in both Beijing and Washington if only because that relationship was previously based in large part on the strategic fact –the immediate Soviet threat to both countries—that has passed irretrievably into history. Current U.S. policy towards China reduces to a medley of component parts such as security, human rights, export promotion, weapons proliferation, trade disputes and Asian regional conflicts. The policy stems in large measure from the fact that increasingly special interests and civil society are providing a richer texture to China’s relations with the U.S. In the longer run, these underlying layers will have a deep influence on the development of U.S.-Chinese relations.

U.S. public opinion of China is influenced by the fact that China remains an authoritarian state. Many foreign policy experts –particularly on the political right—hold a “realist” view that China’s huge population, growing economic power and imperial tradition will inevitably bring it into conflict with U.S. interests, first in the Far East, and then globally. China’s sensitivity to matters of territorial integrity, no matter how understandable from a historical perspective, represent a constant source of tension. But those political analysts that call on the U.S. to act quickly to “contain” China, for example, by enforcing trade restrictions or forging new strategic alliances to counter Chinese territorial claims, also exaggerate its current and future strength and possible threat to U.S. vital interests (Barnes, 1999).

China may strive to upgrade naval, missile and other military capabilities but as mentioned above, it is far from dedicating the resources to become a plausible military rival to the U.S. within the next 30 to 50 years. In this important manner, it differs sharply from the Soviet Union of the 1940s and 1950s.

In the late 1940s, the Soviet Union, by dint of its immense human and financial resources, its impressive land force and its contiguous border to Europe, represented a direct and immediate threat to the U.S. and its allies. China today possesses no such parity even from challenging U.S. supremacy in East Asia.

A second key difference between the Soviet Union and China today is the evidence of expansionist intent. The Soviet Union of the 1940s was an imperial power that through force of arms had created a series of subject states on its borders. Moscow treated any challenge to its authority –whether in East Germany in 1953, Hungary in 1956 or Czechoslovakia in 1968 –with a prompt and ruthless military response. While Beijing has a number of territorial disputes with its neighbors including those concerning the Spratly Islands in the South China Sea, China, by contrast, possesses no comparable empire and holds few alliances.



A third important difference between the Soviet Union of the 1950s and China of today is the lack of institutional rivalry that serves as a wedge between Chinese and American cooperation. The Soviet Union challenged the U.S. and its allies ideologically, militarily and territorially. It also created a series of institutions such as such as the Warsaw Pact or COMECON that attempted to create an alternative international architecture to the one forged by the U.S. in such bodies as North Atlantic Treaty Organization (NATO), the International Monetary Fund and the World Bank. China has succeeded in no such significant attempt. The non-aligned movement has fallen by the way side in recent years, and its efforts to rally Asian nations against Western institutions has been mainly rhetorical. Indeed, in recent years, China has been seeking membership in international bodies where the U.S. wields considerable power, such as the World Trade Organization. It is already a member of APEC and the International Monetary Fund.

Finally, China poses no ideological threat to the U.S. The Soviet Union embodied a coherent and for many countries attractive alternative to consumer capitalism and liberal democracy. Communist parties found widespread support not only in the Third World but even in Western Europe. But China's nominal communist system no longer serves as an item for "export," and its current path of economic reform puts it more closely on course with the international status quo than with revolutionary zest. Chinese society is acquiring characteristics such as a taste for consumer goods and an inclination toward individual self-absorption that have long been hallmarks of American culture. Indeed, to the extent that there is an ideological component to Sino-American relations, it may be the level to which American ideology represents a threat to Beijing. Unlike the Soviet Union, China is likely to compete with the U.S. within an international system largely created and dominated by the U.S. and U.S.-led institutions. (Barnes, 1999)

China in 1999 is, therefore, far from being the threat represented by the Soviet Union of the late 1940s. To embark immediately on a containment policy against China risks a sharp and negative response from Beijing. But as the above difference to the Soviet Union imply, it is not an immediate security imperative. That means that the U.S. can embark in a systematic manner on a policy of constructive engagement with China. It can

take a wait and see approach to containment policy with regards to China without fear of creating an immediate danger –a luxury that was not available to U.S. leaders in the 1940s where the Soviet Union was concerned.

The U.S. presently has a window of opportunity to pursue cooperative energy policies that help China feel more secure about its energy security, thereby reducing the stimulus to conflict. Initiatives that assist China in developing cleaner energy sources can also enhance Western environmental goals.

However, U.S. policy-makers must stay mindful in pursuing energy initiatives that areas of major strategic conflict remain, including especially dangerous territorial issues in the Asia Pacific. Attention to China's intentions in Asia is important and require the necessary military preparedness and strategic alliances to counter any threats. But, on balance, at the current time, U.S. military strength and global influence mean that the U.S. might gain more than it will lose by keeping open a dialogue with China and waiting to see if China's continued integration into the world economic system moves its internal dynamics in directions congruent with liberal values and consistent with U.S. interests.