Energy Interdependence

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A Critical Juncture

The rapid pace of growth in China's total energy consumption over the past decade and the seemingly unrestrained rise of oil prices have generated a critical mass of discussion about China's energy security. The principle concern over energy security in China is the perception that the Chinese economy is highly dependent on a stable supply of energy and cannot tolerate the slightest interruption or shortfall. In light of this, it is crucial to note that since China became a net importer of oil in the early 1990s, there has not been a single case of deliberate disruption of its foreign supply.

What about the future prospects of disruption? There will be numerous pitfalls along the way, but managing the growing levels of interdependence between China and the rest of the world provides the best assurance against acts of hostility by either foreign suppliers or third parties. Achieving this depends both on China's own energy policies, as well as the role of international actors in China's search for energy security.

Energy security is not simply the combination of energy and security. This distinction is particularly relevant when international factors come into play.

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Energy security contains three essential goals: the availability of energy needed for stable economic and social development, freedom from interruption of the energy supply, and the affordability of energy prices. As such, thinking about possible instruments for achieving energy security does not have to begin by assessing a nation's military options. Considerations of energy and security, on the other hand, have more to do with geopolitical factors and the national policies of countries affecting the control of energy development and transportation around the world. Distinguishing between these two ideas is more than an academic exercise. Energy security, as defined above, goes more to the heart of realizing a nation's well-being, but it must also take into consideration issues involving energy and security.

Availability

The availability of energy resources is first and foremost conditioned by geological endowment. The second determinant is the scientific and technical means for exploration and production (E&P). A case in point is the oil fields of Daqing (in northeast China). Prior to their discovery in 1959, there was an international consensus that no oil, or at least no commercially significant amount of it, was expected to be found in China.[1] In stark contrast, after the first world oil crisis of 1973, there emerged wild expectations about China becoming a viable alternative to the Middle East as a primary oil supplier for its Asian neighbors. Since the mid-1980s, however, the pendulum has swung once again to a more pessimistic, albeit realistic, estimation of China's oil potential. There is presently a new international consensus: domestic oil production in China is set to stagnate or decline, making it increasingly imperative that China seek supplies abroad to meet its energy needs.

This does not necessarily mean a narrowing of opportunities for international cooperation for China to increase its domestic oil supply. On the contrary, improving homeland supply provides a reason to acquire advanced science and technology to enhance China's oil recovery rate (the amount of oil acquired from the ground against estimates of available reserve). In the past few years, China's oil recovery rate has declined to approximately 27 percent, with a production level of 182 million tons of crude oil in 2005, or roughly 56 percent of the country's total oil consumption.[2] Investment in science and technology – including through international collaboration – can improve

the amount of available supply. Indeed, any increase in China's domestic oil supply will help reduce the pressure in the global oil market.

Commitments to E&P projects by oil companies, both Chinese and international, are extremely time-sensitive because there is pressure from impatient shareholders, who are constantly seeking to divert capital to the most profitable outlets. This law of business demands that the government provide robust financial and legal incentives for E&P projects that are viewed as risky by oil corporations. Chinese oil companies often complain about insufficient government support for high-risk E&P initiatives in China. If such complaints are well founded, then international concern over China's growing appetite for offshore energy should motivate government-business dialogue in order to improve China's domestic oil recovery rates in developed oil fields and the search for new ones.

Likewise, China needs to seek ways, including through international cooperation, to augment its oil refining capacity. Technological bottlenecks in refining place a limit on the amount of heavy oil China can process (currently heavy oil makes up about one-third of total crude imports).[3] Deficits in oil refining technology also mean that Chinese oil refiners cannot produce oil products with the same profit as their international peers, obligating China to import substantial amounts of high-quality oil products. In this regard, the benefits for multi-national investors and companies in China's oil refining sector are similar to other foreign direct investment projects therein: comparatively lower labor costs which can lower production costs. It goes without saying that such investments are conducive to ameliorating the competitive impact China is having on the global oil markets.

The policy of using coal as the primary source of energy supply was developed in large part as a response to the mounting international outcry about a "China threat" to global energy supply.

The Basic Necessity of Coal

Coal is and will continue to be the primary source of energy in China as domestic resources are abundant.[4] Energy specialists generally agree that there is a sufficient endowment of domestic coal to sustain China's present consumption for decades to come. Conversely, the pressure to address the

environmental and social consequences of China's coal mining industry is gathering. One of the most pressing challenges is to reduce the number of coal-mining accidents.[5] Fatalities from coal-mining disasters accounted for an astounding 39 percent of all deaths related to workplace accidents.[6] Beginning in 2003, the government mustered the political will to allow media exposure of such accidents, in part due to the lessons it learned from the mishandling of the severe acute respiratory syndrome (SARS) crisis.[7] But media coverage in and of itself is not sufficient to address the general malaise of the industry and the dangers it holds for social stability.

It is unfortunate that the central government has made mei wei ji chu (coal as the basic source of energy supply) the main pillar of its energy strategy.[8] It should be stressed, however, that this policy was developed in large part as a response to the mounting international outcry about a "China threat" to global energy supply.[9] This national plan is leading to unintended consequences. It is often abused by all levels of government simply because approving a new coal mining project does not entail much of a new demand for investment in technology – cheap labor and migrating rural labor is still abundantly available in China. This abuse also has long-term consequences since officials can opt out of supporting financially risky projects for developing alternative sources of supply, such as renewable energy. Indeed, it is safe to say, that mei wei ji chu counteracts much of the positive impact of China's law designed to promote the development of renewable and alternative energies. It also contradicts the notion of "green GDP", an indicator designed with the purpose of assessing the performance of local government officials in promoting cleaner energies and reducing pollution.

Calculating the Risks

At the same time, the government must also be highly sensitive to the requisites for maintaining stable economic and social development, including the timely and dependable provision of energy. Like in all other countries, Chinese society has a limited tolerance for shortfalls in energy supply. The challenge, then, for China's energy security policy is to factor in risk-taking by the energy industry within the domestic arena. In this regard, dialogue with international actors over energy should include the sharing of technological expertise and management of know-how for Chinese energy corporations to lower such risks in China. This is most definitely not an issue of intellectual property rights and cannot be delayed.

In 2005, the Chinese government belatedly announced a policy goal to achieve a 20 percent reduction in energy consumption per unit (GDP) production by the year 2010 (compared with 2000 levels).[10] Such a move indicates a realization by the central leadership that it must begin putting a brake on the current path of high-speed growth at any cost. However, conservation can be financially costly (and politically costly for sub-national officials if they fail to achieve high growth). Therefore, political resolve – made enforceable through financial, administrative, and legal means – is a key prerequisite. The target may well be missed but it will be far more damaging if the policy momentum towards more efficient energy consumption either fails to emerge or cannot be sustained.

As is true of most countries, streamlining the domestic energy industry with the aim of boosting domestic supply cannot be a replacement strategy for acquiring energy supply from international markets. The fact that 43 percent of China's total oil consumption in 2005 came from imported sources is often cited in the media as proof of the risks China is facing in securing its energy supply.[11] Yet, this sense of insecurity has to be put in context.

China is not the only country that is dependent on offshore sources for energy supply. Energy suppliers (both states and companies) are also dependent on China for sustained demand. The economic law of supply and demand is such that energy suppliers outside China cannot afford to lose China as a customer. Indeed, the phenomenon of China being the "factory for the world" speaks volumes about the associated high costs to international investors and consumers (and the foreign economies they are rooted in) should the Chinese economy suffer from a deliberate disruption of energy supply.

Naturally, there are political and geostrategic factors regarding the global energy markets that lurk around the corner and cannot be ignored. However, for the time being, the powerful business logic that can and should govern the global energy trade should be emphasized. In a strategic business sense, a key instrument for encouraging the global flow of energy to China would be to allow the domestic price levels to rise above international and regional averages. This would provide energy developers and traders the single most powerful incentive not to disrupt supply to China. It would also motivate them to mitigate political interference in business interactions between China and the rest of the world in the realm of energy.

There has not been a single case of deliberate disruption of China's foreign energy supplies.

In short, the availability of supply is central to the conundrum of achieving energy security for China. The solutions to this are multiple. It is particularly vital for China to improve its domestic energy industry, both in terms of rationalizing production and in demand management. When viewing China's importation of energy from foreign sources, more attention must be paid to the mutual dependence between China as consumer and the world's energy suppliers/producers.

Supply Interruptions

Interruption of available energy supply can occur due to a variety of technological, natural, and political causes. Within the domestic context, the Chinese people are quite familiar with supply interruption resulting from technical failures or the policy and technological inadequacies in dealing with natural calamities. Such stoppage is usually limited in geographical scope and in duration, and therefore is often treated as a matter of technological safety.

Disruption of supply is an energy security issue when the movement of foreign energy resources into China becomes problematic. Yet, as stated at the outset of this paper, there has not been a single known major incident of deliberate interruption since the early 1990s, making such issues primarily psychological in nature. Although there is no physical evidence to support these fears, they have a deep impact on thinking about China's future fate in the global energy markets. This fear is exacerbated by the discussion among the major world powers of a "China threat" to their respective energy supplies.

There are a wide range of views in China about how to address the risks of deliberate disruption to its energy supply. Regardless of where one stands on this issue, it is essential to note that China's dependence on maritime energy transportation is a natural state of affairs that must be managed. The Taiwan Straits situation is perhaps by far the single greatest challenge to putting concerns about maritime energy transportation security to rest. In the scenario of war across the Taiwan Straits, there is no guarantee that the United States would not enlist the assistance of its principal ally in northeast Asia (Japan) and other lesser allies (Singapore, the Philippines, and South Korea) to participate in another oil blockade against China. The comprehensive embargo the United States launched after the Korean War serves as a powerful reminder of such a nightmarish scenario.[12] Furthermore, expectations that Hong Kong may help offset the impact of an oil blockage against China, as it did to some extent during the U.S.-led embargo from 1950 to 1971, will likely prove misplaced. Hong Kong may even be included in a future blockade, now that it has become a special administrative region of China.

The Pipeline Option

Oil and gas pipelines from Russia and Central Asian states to China make good strategic sense given the frequent reappearance of a competitive relationship between China on the one side and Japan and the United States on the other. In times of peace (or at least no war), oil pipelined from Russia can be more economically transported to areas of high-consumption regions – by population and industry – along China's eastern coastline. In a similar vein, oil and gas pipelines from central Asia are useful not just for importing oil and gas, but also for cutting the transportation costs of moving oil from the east to the west of China.

During times of war, ships carrying oil and gas would be vulnerable to naval interception, even within the distance between Dalian in the north and Guangzhou in the south. However, pipelines over land would certainly not be immune from aerial attack. Oil transportation routes, whether on land or at sea, would be justifiable military targets simply because a modern military relies on oil to move its armor and personnel to the front line.

An oil pipeline from Burma through southwestern China is another case in point. This is passionately argued for on the strategic grounds that

it would reduce China's vulnerability in relying on the critical geostrategic chokepoint, the Straits of Malacca.[13] However, the formidable geographical and geological challenges to maintaining such a pipeline beg the question of its economic viability. Transporting oil out of the southwestern province of the Yunan-Guizhou plateau for consumption in eastern and southern parts of China would not be a feasible market solution. Consideration of oil pipelines should be constrained within the context of economizing oil transportation inside China, and should not be elevated to a larger national energy security issue.

In war, ships carrying oil and gas would be vulnerable to naval interception and pipelines over land would not be immune from aerial attack.

Indeed, land-based oil pipelines are just a recent extension of the larger debate in China over national strategic vulnerability. Similar questions were raised about the Three Gorges dam and the entire Chinese coast for constructing civilian-use nuclear power plants.[14] While concern about exposure to foreign military attack was not the sole reason for the slow progress in building up China's nuclear power industry, the concern today about China's dependence on non-domestic sources of oil should serve as another reminder against overly strategic thinking regarding options for energy security.

Instead, awareness about China's geographical vulnerability should be turned into a powerful strategic motivation for cooperation with the powers that have the capacity to adversely affect China's oil supply security. More specifically, China must pursue confidence-building measures with the major powers in the Pacific. It is important to note that since the 1970s, China has lived under the same cloud of vulnerability as it does today. Pursuing land-based means of transporting foreign oil and gas to China, for the sake of minimizing the risk of maritime attack or blockade, is not only against economic logic but also risks turning fear and the psychological element of energy insecurity into self-fulfilling prophecy.

The Untapped Potential of Energy Prices

The setting of energy prices goes to the heart of China's energy security. It is a highly complex issue, but of critical importance is the basic tenet that a

system of energy pricing that accurately adapts to and reflects market fundamentals is essential to the pursuit of sustainable development.

Raising energy prices is very unpopular in China, as it is elsewhere, making this no simple task. Though still largely government-controlled, end-user price of oil in China is quickly approaching the average level of the United States. The Chinese media frequently complain about rises in oil and electricity prices by referring to the per capita income gaps between Chinese and the major industrialized countries. Energy suppliers in China are often accused of being profit-hungry, in addition to monopolizing the domestic energy supply chain.

That said, a further increase in oil prices in China is being, and should be, implemented, even if the pace of that adjustment is debatable. Keeping oil prices low to make room for further growth of such 'pillar' industries as automobile manufacturing is not justifiable. Because automobiles are luxury items of consumption, they should not be afforded preferential policies by the government. It is simply impossible for every Chinese to attain levels of private vehicle ownership available to the majority of developed countries. The construction of sufficient parking space alone is a formidable, perhaps impossible, challenge. This is to say nothing of the pressing problems of resource scarcity and environmental degradation. The government should focus on providing affordable and widely accessible means of public transportation – an issue that major cities in China have only recently begun to address.

The Chinese government has opted to impose stricter fuel emission standards for new automobiles sold in the Chinese market against increasing taxes on oil. This does entail additional costs on international automobile manufacturers operating domestically if they choose to remain in the Chinese market.[15] In this way, higher fuel efficiency in cars takes precedence over reducing the number of drivers taking to the road. Nonetheless, it is certainly in China's own interest and the rest of the world to turn China's automobile industry into a leader in producing fuel efficient vehicles.

The reform of energy pricing and its various permutations in China's socio-economic system opens yet another door for meaningful bilateral and multilateral dialogue on mechanisms to enhance China's energy security. Strategic factors do play a role in thinking about supply interruptions, but it is unwise for China to overreact and implement ideas that run against basic economic logic.

Interdependence or Zero-Sum Competition

There has emerged a pattern in official positioning between the Chinese government and concerned international parties regarding China as a factor in the international energy scene. Chinese officials like to remind their international audience that China is heavily reliant on domestic resources to meet its energy needs, while the latter seek to understand what China is doing and plans to do to address global concerns about the disconcerting energy issues.

Despite this seeming disjuncture in perspectives of China's energy security and its affect on global markets, the nature of China's relationship with the rest of the world can best be characterized as one of interdependence. The now common statement, "China needs the world, and the world needs China," is truer today than ever before. Establishing bilateral and multilateral negotiation and cooperation mechanisms help to both routinize constructive interaction as well as recognize the cost of non-cooperation. This is not a guarantee for success but it greatly lowers the possibility of vicious competition and military conflict. Oil diplomacy is simply not a zero-sum game. In the energy industry, all players, including the U.S. government, American and multinational oil companies, the Gulf oil exporters, Europe, Japan and China can benefit from cooperation. The clear-eyed recognition of interdependence as a crucial element in the complicated international political and economic interaction should provide a powerful inspiration when considering China's oil supply security.

It is also important to keep in mind that historically the United States has been a force that has expended significant effort to uphold the economic rules of the market operations worldwide. The United States will not likely shy away from using oil to influence or even intimidate other countries' foreign and domestic policy, but will do so mainly with the one strategic goal in mind: making sure oil, especially Middle Eastern oil, flows to the United States and other major oil consumers around the world at an affordable price. Major oil importers shouldn't be overly threatened by the reality of America's dominant influence over the production and supply of the world oil market because suppliers and consumers of oil do not fundamentally have a confrontational relationship but one where each is deeply dependent on the other.

Interdependence is certainly not devoid of ambiguity.

This is especially true of China, whose overall economic development has resulted in a growing reliance on overseas oil and gas resources. At the same time, China's import of energy resources has reciprocally propelled both the growth of the world's oil and gas industry and global economy as a whole. China's increase of oil imports shouldn't be treated as a problem, but rather as a normal phenomenon and part of its growing interdependency with the rest of the world. The fact is that China has benefited as much from the rest of the world as the latter has from China.

However, such interdependence is certainly not devoid of ambiguity. It has developed in ways that are more complicated than in the past. For instance, many have observed that China is currently going through what Japan experienced in the early 1970s.[16] Japan's rapid industrialization of that time contributed to a 'crowding out' of the global energy market leading to a host of contentious issues that required a globally concerted effort to manage and negotiate smoothly. Crucially different than Japan, however, China is presently still not a 'like-minded' entity in the international structure that governs the world economy. For historical and political reasons, both real and imagined, China is seen as challenging the international order that has dominated the world for decades.

Following the end of the Cold War, the United States has established firm control over the Gulf region militarily through two wars with Iraq. Americans have also directly interfered with China's forays into the regional oil and gas markets in the Gulf.[17] A conflict has arisen over the sales of dual-use technologies and equipment. From the U.S. perspective, China's military cooperation and trade of dual-use items with Iran, Iraq, Syria and Saudi Arabia amounts to a weapons-for-oil strategy. This engenders a zero-sum struggle between China and the United States on these issues.[18] From China's perspective, although it did not openly oppose the United States from using force against Iraq with a veto at the United Nations before the second Iraq war, the challenges China is facing in the Gulf region haven't diminished at all. In order to ensure access to a Middle Eastern supply of oil, China finds itself in the uncomfortable position of having to cater to the political demands of some of its suppliers there.[19] The result is an inevitable clash with the United

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States. For instance, in December 2003, the American Embassy in Beijing pressured CNPC into retracting its bid for the exploration of 16 new oil fields in Iran. Because other countries in the Middle East are more hostile to international investments in the upstream, China found it difficult to comply with U.S. demands.[20] The current "China Threat Theory" popular in the United States has extended to beyond just the Asia-Pacific region and into the Gulf region as well.

Managing Interdependence

To best protect China's oil and economic interests, it must work hard with the Gulf exporters to establish a long-term mutual-dependence of downstream and upstream industries. The core of this relationship is for China to purchase the region's petroleum while vigorously encouraging Gulf exporters to acquire shares of the growing Asian energy market with their own investment in refining. The Gulf region is also becoming more and more important as a destination for investment by China's own energy industry, as it actively seeks business opportunities overseas under the 'go out strategy'. The oil economy is the key to linking the growing trade between the two regions. Additionally, the Gulf region is both a potential market for Chinese commodities and an entry point for export further to the greater Middle Eastern region and East Africa. Despite the resistance from the United States and other countries, a firm platform of common interests will emerge between the energy-oriented Gulf countries pursuing economic diversification and a China that strives to maintain its strong economic growth.

Behind China's mutually dependent relationship with the world's energy suppliers is the hardboiled reality that China is the world's third largest energy consumer and continues to grow at a rapid pace. This is not to condone China's wielding of its energy demand as a political bargaining chip when interacting with the rest of the world. It does mean, however, that improving energy efficiency of the Chinese economy is conducive not only to China's core national interests but is also imperative to the rest of the world – given the generally accepted truth about the limits in global availability of fossil-based energy supply and the dangers of global warming.

On the other hand, China should not avoid, nor should it be expected to avert security issues relevant to the international sea lanes of communication,

which China is intensely reliant on for transporting energy. Realists argue that China should accelerate naval build-up because its military self-defense capability lags far behind China's energy interest and military warfare, especially military warfare on the sea, which is the final means for great powers to solve international trade disputes.[21] Although these arguments may sound persuasive if put in a broader strategic context, there are a number of alternatives for international sea transportation channels. Even with regard to the sea lane chokepoints, the advances in the technologies of oil tankers and long-distance transportation makes it is possible to avoid bottlenecks, such as the Malacca Strait. Moreover, any action that involves naval power to protect oil tankers has to take into full consideration the consensus China must achieve with regional countries. However, opening the shipping lanes at the cost of deterioration in diplomatic, military and strategic relations with China's Southeast Asian neighbors begs the fundamental question whether the price is too high.

China's interests in the Gulf region hold no fundamental contradiction to the economic relationship between China and the United States.

The sea lanes of communication and the world oil markets are international public goods. Participation in their maintenance and stability as well as helping shape the institutions and mechanisms that provide that service is an important part of sustaining China's oil security. As a responsible large nation, China has so far played a constructive role toward these goals. For instance, China has both contributed peacekeepers and provided development aid under the UN framework to further peace and stability in those regions. Also, China has adopted measures to address maritime piracy and anti-terrorism under the multiple consultation mechanism within the Association of Southeast Asian Nations. These are largely regional issues pertinent to sea lane safety that not only serve China's own interests but also contribute to the security of Southeast Asia's sea lanes. Looking forward, China should continue to play an active role in combating piracy particularly when it involves criminal elements in China. Finding future steps to achieve the ways and means for China to fully participate in the policing of the sea lanes with the major powers of the world will be a crucial challenge in the years ahead.

China should build on the expertise and experience it has acquired through

interacting with the rest of the world during the past three decades of reform to enhance its capacity in dealing with the strategic difficulties. Confidence building with the major powers in the Pacific, particularly the United States and Japan, is the desired option to pursue. U.S. interference of Chinese cooperation with Gulf nations in the energy industry will likely endure for a long time. But, investment by Chinese companies under the 'go out' strategy and the simultaneous development of Gulf countries' interests in the Chinese oil industry would be a natural and mutually beneficial economic relationship that provides a strong basis for healthy interdependence. At the same time, China's interests in the Gulf region hold no fundamental contradiction to the economic relationship between China and the United States. Therefore, the essence of China's task ahead is how it can participate in the multinational cooperative mechanisms for international crude oil supply under U.S. dominance.

Notes

[1] Zeng Xianzhang, Zhou Rundong, Sun Zhifang, *General History of China's Petroleum Industry*, Vol. 3, Beijing: China Petrochemical Press, 2003, p. 56.
[2] Chen Qingtai, Feng Fei, Zhou Fengqi, Wang Qingyi, "Rudimentary Concept of Chinese Energy Strategy," *people.com.cn*, Nov. 16, 2003. See: http://www.people.com.cn/GB/jingji/1045/2191153html.
[3] Tian Chunrong, "Analysis of China's Oil Imports and Exports in 2005," *International Petroleum Economics*, Mar. 2006, p. 4.
[4] Wang Huaihai, "Analysis of Chinese Energy Structure and Resource Utilization Efficiency," *China Information*, Apr. 21, 2006.
[5] Wang Haiming, "Coal Mine Disasters in 2005," *Caijing Magazine*, December 2005.
[6] For an overview and updates on China's coal mine safety issues, visit the official website of China's State Administration of Coal Mine Safety. See: http://www.chinasafety.gov.cn/.
[7] Susan Jakes, "Beijing's SARS Attack," *Time*, Apr. 8, 2003.
[8] "Advice to Constitute the 'Eleventh Five-year Plan' by Chinese Central Government," *xinhuanet.com,* Oct. 18, 2005. See: http://news.xinhuanet.com/politics/2005-10/18/content_3640318_1.htm.
[9] The point comes from the author's conversation with a frequent participant in China's national energy strategy discussions in April 2006.
[10] "Communiqué of the Fifth Plenary Session of the Sixteenth Central Committee of the CCP," *Xinhuanet.com*, Oct. 11, 2005. See: http://news.xinhuanet.com/politics/2005-10/11/content_3606215.htm.

[11] Zhu Jianhong, "Thanks to Energy Conservation, China's Degree of Dependence on Importation of Crude Oil Decreased in 2005," *China Daily*, Jan. 14, 2006.
[12] Sun Dongsheng, "Grand Transition for China's Economic Strategy: The outline for the formation of San Xian construction strategy," *Party Literature*, 1995, No.3, p. 42-48.
[13] Wu Ruolei, "Sino- Burma Oil Pipeline Project Revealed: Steer clear of Malacca to enhance security," *World News Journal*, Oct.27, 2005.
[14] Yu Sheng, "China Guard the Three Gorges Dam by a Four-Word Knack: Defending, interception, reinforcement and precaution," and Lin Jian, "China Adopts Three Measures to Safeguard Nuclear Power Plants in Case that Cross-Strait War Breaks Out," *International Herald Leader,* Jun. 17, 2004.
[15] Keith Bradsher, "China Sets its First Fuel-Economy Rules," *New York Times*, Sept. 23, 2004, p. W1.
[16] Zha Daojiong, "China's Energy Security and its International Relations," paper presented to the Third IISS Global Strategic Review, Geneva, Sept. 16-18, 2005, p.7.
[17] Toshi Yoshihara and Richard Sokolsky, "The United States and China in the Persian Gulf: Challenges and opportunities," *The Fletcher Forum of World Affairs*, Winter/Spring 2002, pp. 69-75.
[18] Borzou Daragahi, "China Goes Beyond Oil in Forging Ties to Persian Gulf," *New York Times*, Jan. 13, 2005, p. C8, and Howard French, "China in Africa: All trade, with no political baggage," *New York Times*, Aug. 8, 2004, p. 1
[19] Zha Daojiong, "China's Energy Security and its International Relations," paper presented to the *Third IISS Global Strategic Review*, Geneva, Sept. 16-18, 2005.
[20] Chen Ting, "A Contention Among three: The inside story of U.S. dissuading Sinopec to bid Iran oil field," *21st Century Economics Report*, Feb.2, 2004.
[21] Zhang Wenmu, "China's Energy Security and Policy Choices," *World Economics and Politics*, 2003, No. 5, p. 16.