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CHINA ANALYSIS

CHINA'S MISSING ENERGY DEBATE

ABOUT

The Chinese have long been obsessed with strategic culture, power balances and geopolitical shifts. Academic institutions, think tanks, journals and web-based debate are growing in number and quality and give China's foreign policy breadth and depth.

China Analysis, which is published in both French and English, introduces European audiences to these debates inside China's expert and think-tank world and helps the European policy community understand how China's leadership thinks about domestic and foreign policy issues. While freedom of expression and information remain restricted in China's media, these published sources and debates provide an important way of understanding emerging trends within China.

Each issue of China Analysis focuses on a specific theme and draws mainly on Chinese mainland sources. However, it also monitors content in Chinese-language publications from Hong Kong and Taiwan, which occasionally include news and analysis that is not published in the mainland and reflects the diversity of Chinese thinking.

The French version of China Analysis can be accessed online at www.centreasia.eu.

Introduction
by François Godement

On the surface, China has it all. It has made an extraordinary push in all directions to diversify energy resources, with energy deals by huge state firms topping the list of overseas investments and loans. There is a major state commitment to raise energy efficiency above the very low base it inherited from the Socialist era. China's plan includes a seven-sector list of top priorities for alternative energies that includes electric vehicles, solar and wind power. China may have led a group of emerging economies that don't wish to see their fast growth restrained by environmental imperatives at the Copenhagen Climate Conference. But it has also understood that environmental protection and clean energy are a new and expanding global market.

China sees alternative energy as a new export niche. It now makes 45 percent of the world's wind turbines and is the leader in solar panels sales in Europe. The dispute with Japan and other industrial competitors over rare earth quotas is a by-product of this strategy to win a decisive edge. In these industries of the future, no one has much of a track record, so China does not need to worry about "catching up from behind". Instead, it can hope to leapfrog ahead, fulfilling its ambition to rise up the technology ladder. But most impressive of all is China's plan for new nuclear plants – the world's largest at 30 to 120 new units, drawing every worldwide provider in competition to supply technologies in order to clinch sales, and spearheading another industry with global reach.

However, Chinese energy policies are often murky, laden with the influence of specific interest groups. They are often the best example one could find of a lack of control or even coordination by the central government. Coal production rises inexorably, in spite of repeated attempts to limit its use. China's oil majors and their financiers seem to act on their own, carving a business empire outside China and often preceding government initiative. Global oil prices have long been disregarded in fixing retail prices for Chinese consumers: in effect, for several years prices at the pump were lower than world production prices. The same situation for electricity also represents a subsidy to producers and consumers – and goes a long way to explain how China could develop the world's largest steel industry, which is ridden with overcapacity and consumes more power than China's entire housing sector. As this issue goes out, coal thermal plants are in fact implementing a planned slowdown, since their costs are now higher than the price for the electricity they sell. Finally, safety is a huge concern, from coal mines (there were 7500 deaths in 2010) to the nuclear programme (many existing or planned nuclear plants are in earthquake-prone zones).

The essays in this issue of China Analysis throw light on some key questions, but it is also clear that Chinese analysts write with their hand tied on sensitive issues. The Fukushima disaster has sent eastern China into a state of anxiety over the possible downwind consequences. The Chinese generally credit Japan with more advanced safeguards, which has added to the shock. In the weeks after Fukushima, simultaneously to the announcement of a nationwide suspension of new plant construction, the press came out with hasty descriptions of measures designed to cope with emergencies. A major rethink of the nuclear sector seems far away, although some interrogations are coming to the fore. He Zuoxiu, a maverick nuclear scientist from the Academy of Sciences, has come up not only with questions about the safety of the industry, but also with a more strategic interrogation: where will all the needed uranium come from? Along with South Korea, Russia and France, China seems loath to redirect its energy policies away from the nuclear industry.

Oil pricing, at home and abroad, is also a sensitive topic. Yet a detailed analysis on price formation comes out with a fairly agnostic and balanced diagnosis – one which many analysts elsewhere would recognise. First, the advent of oil-based financial derivatives has pushed up prices – perhaps by as much as 20-30 percent. But even though the speculation takes place on the American market, our sources recognise that it is fuelled by Asian capital: the American economy itself suffers from the high price of oil. Finally, the oligopoly position of China's oil majors on the domestic market is a hindrance – we are left in no doubt that privatisation of profits and collectivisation of losses is occurring.

Coming on the heels of the Hu-Obama summit, our sources sang the praises of US-China cooperation in energy efficiency and alternative energy. Based on firm to firm industry agreements with state financing, the model starkly contrasts with the EU-China mode of pilot projects, European subsidies and lack of commercial cooperation. Chinese sources do not mention American concerns about so-called "indigenous innovation" and disrespect of intellectual property rights, which mirror rising European fears.

Finally, Chinese views do not necessarily advocate exclusive ties between China and energy-producing countries, viewed as deserving members of the developing or emerging economy club. Instead, an often-heard remark is that China should also pursue its common interests with energy-importing countries. Our sources go further by noting that currying for favours with energy-producing countries creates unhelpful competition among importing countries. China's major Western partners – the United States and Europe – are cited here along with Japan and South Korea, which are also members of the International Energy Agency, the club of energy importers. But to these neighbours, our sources also add India – not a member of the IEA and a country with which China competes for energy resources in third countries. The reasoning is transparent: evidently, Chinese writers expect most of the coming rise in energy consumption to come from the large emerging economies – among whom only India and China are dependent on imports.

Overall, Europe is largely invisible in the discussion about energy, even though it has probably been China's first technology and fund provider in the energy sector. These sources also demonstrate an interest-based pragmatic approach with the United States, a degree of surprise on safety issues in the nuclear sector, a keen and detailed sense of factors behind the price of oil, and perhaps a nagging sense that some of these gigantic investment and loans going to energy-producing countries may not have been such a good idea after all.

Perhaps we should push no further. After all, Europe does not have an energy policy – and the nuclear conundrum now looks set to produce the largest gap between member states in the past 50 years. Meanwhile the energy retooling of the Obama administration has floundered on hard times and environmentally-costly digging for shale gas now looks as the only way out.

1. Re-examining nuclear power after Fukushima

by Marie-Hélène Schwoob

Sources:

Wang Jiabo, "Thoughts on the Fukushima crisis", *Guangming Ribao*, 26 March 2011

Deng Li, "Modernisation of emergency response measures: an inspection of the national nuclear system", *21 Shiji Jingji Baodao* (21st Century Business Herald), 25 March 2011

Zhao Yongxin, Jiang Jianke, and Zhang Yujie, "Three questions for China's nuclear programme", *Renmin Ribao*, 11 April 2011

Before the accident at Fukushima, Chinese authors saw nuclear power as an essential part of China's energy strategy for the future. China plans that, by 2020, non-carbon energy will make up 15 percent of the country's energy production. Nuclear energy is key to fulfilling this ambition: China has 13 nuclear power stations in operation, 30 stations under construction, and a further 90 in development. The 2005-2020 programme for developing nuclear energy (核电中长期发展规划, *hedian zhongchangqi fazhan guihua*) was launched by the NDRC in 2007, and set production capacity for the country at 40 million GW by 2020. Based on projects currently under way, China will exceed this target – before the publication of the twelfth Five-Year Plan, the National People's Congress considered increasing the target to 80 million GW by 2020. But following the Fukushima meltdown, China has been forced to consider a reappraisal of its programme and objectives for the nuclear energy sector.

Immediately after the Japanese disaster, the Chinese government suspended the review process for examining and approving new nuclear projects. Wang Jiabo says the entire international community had to halt nuclear programmes and reassess nuclear security in the aftermath of the Japanese accident. But putting a moratorium on nuclear development, Wang thinks, was particularly brave of China, because the Chinese government was in the middle of implementing urgently-needed emission reduction measures.

After Fukushima, the government took advice from experts and carried out inspections of the nuclear installations in China's provinces. The data collected has been used to start assessing the systems put in place to ensure the safety of China's nuclear power stations. The writers quote experts and assessors who say Chinese nuclear power is very safe. Zhao Yongxin, Jiang Jianke, and Zhang Yujie say that China uses advanced nuclear technologies that measure up well to international norms. China learned the lessons of Chernobyl and installed rigorous monitoring systems that meet IAEA standards. And Deng Li says that after the Japanese accident, procedures for monitoring radioactivity levels and for power plant self-assessment have been tightened up.

The writers describe the measures taken by China's government, local governments, and nuclear power plants for dealing with nuclear emergencies. The State Council has set up a committee to coordinate emergency procedures in the case of a nuclear accident, made up of 20 units from the different ministries and administrations that have responsibility for related areas. These units are responsible for implementing crisis management procedures, training staff, and conducting exercises to prepare for emergency situations. In the provinces, local governments have set up emergency intervention bodies and rescue teams, with the capacity to measure levels of radioactivity, provide protection against radiation, set up decontamination processes, and offer medical treatment. At nuclear plants, regulations have been drawn up detailing procedures in the event of an incident, and emergency response teams have been trained.

In Zhejiang province, says Deng Li, military authorities, local experts, and government officials each have their own emergency plans, and the province has reserves of iodine and decontamination vehicles to help deal with any nuclear accident. But Zhejiang's Deputy-Director of the Office of Environmental Protection Zhan Chen says emergency procedures still need to be improved. Zhan says the province lacks technical experts and that its crisis management teams need to be better trained. And there needs to be better coordination between different provinces and between systems for meteorological, seismic, and oceanographic forecasting and surveillance.

Despite the security concerns raised by the Fukushima incident, Zhao Yongxin, Jiang Jianke, and Zhang Yujie think abandoning nuclear energy is not an option for China. Climate change and diminishing global energy resources make nuclear energy the only viable driver for China's economic development. Nuclear power is affordable, efficient, and reliable. Compared with other renewable energy options such as wind or solar power, nuclear energy can provide a stable source of power on a large scale, which, given the size of the country, gives it an enormous advantage over other energy sources. Nuclear power stations also outpace other sources in terms of emissions, important if China is to meet the environmental objectives of the twelfth Five-Year Plan. China intends by 2015 to reduce carbon dioxide emissions by 17 percent and sulphur dioxide by 8 percent, and to increase non-fossil fuel use from 8.3 percent of energy production in 2010 to 11.4 percent by 2015. Without nuclear energy, these goals would be unreachable.

So, the state remains supportive of nuclear power development. And local governments in the provinces are also enthusiastic about nuclear energy – according

to Deng Li, perhaps excessively so. Local authorities are showing a real willingness to take the lead in the Chinese nuclear programme (核电站的选址 "打破头", *hedianzhan de xuanzhi dapotou*). The provinces have been instructed to reduce energy consumption, and nuclear power stations have helped achieve this in areas like Chongqing. Developing nuclear energy not only ensures energy supply, but also provides revenue streams, creates jobs and raises GDP. For local firms, nuclear programmes represent several billion yuan worth of investment, and generate more stable income than other renewable energies. So, Chinese provinces are extremely interested in setting up large-scale nuclear programmes.

Some new nuclear power projects are located near sources of drinkable water, which could pose health and environmental risks for the areas concerned. Li Ganjie, the director of the Department of Nuclear Security quoted by the *Guangming Ribao*, says some enterprises and local governments have been far too eager to set up nuclear projects. He says that "the objectives outlined are over-ambitious, and actions have been undertaken too quickly and unrealistically, with insufficient knowledge, thereby constituting a risk not only for security, but also for the economy." Li thinks the Chinese nuclear programme's greatest obstacle is the lack of skilled workers in the field of nuclear technology. The speed and scale of development of China's nuclear projects means technically competent personnel are spread too thin, which could slow down work on current and future projects. And the lack of technical expertise could have serious consequences in the case of a nuclear accident – as could the fact that responsibility for crisis management is shared among multiple, poorly-coordinated entities.

The Chinese nuclear programme's greatest obstacle is the lack of skilled workers in the field of nuclear technology.

However, in spite of the risks, the writers agree that China has no choice but to continue developing nuclear energy. Zhao Yongxin, Jiang Jianke, and Zhang Yujie conclude: "On nuclear development, China can't stop eating in case it chokes" (在发展核电问题上,不应因噎废食, *zai fazhan hedian wenti shang, buying yinyefeishi*).

2. The "financialisation" of the oil price

by Gong Cheng

Sources:

Yu Sihe[1], "The absence of an entitlement to speak out on the price of oil is a pseudo strategic question", *Jingji Guancha Bao*, 13 May 2011

Liu Yantang, "China counts for less than 1% in the setting of the world oil price", *Liao Wang*, 1 May 2011

Zheng Hui, "The financial strategy of oil in a new international economic context", *Zhongguo jingji shibao*, 22 April 2011

Huang Ye, "Fighting for the right to set the oil price: Does China have any room for manoeuvre?", *Guoji Jinrong Bao*, 29 March 2011

In the wake of the Arab Spring and the subsequent upheaval in the Middle East, oil prices have returned to their 2008 highs of over $100 a barrel. Energy sector experts think high oil prices are here to stay. As China National Offshore Oil Corporation CEO Fu Chengyu says, "China must prepare itself to confront an extended period of paying premium prices for oil".[2]

What China should do to ensure its energy security depends on the reasons behind volatility in the price of energy resources. Is volatility determined by a market equilibrium between supply and demand, or is it driven by trading in oil futures? If supply and demand is the key, China should take steps to secure its oil supplies, which come mostly from socially and politically unstable areas in Africa and the Middle East. But if energy resource prices are actually determined by financial speculation, it would be in China's strategic interest to increase its leverage in setting these prices. This could bring China into confrontation with developed economies, especially the United States, which has up until now been the main mover in this area.

Several articles contend that "market supply and demand are the fundamental determinants in the price of oil". Oil prices should increase whenever the market foresees a shortage in supply, based on events that affect production in the oil exporting countries, such as the conflict in Libya. However, other OPEC countries can agree to increase production to limit the effect of this kind of conflict, or to use their reserves to stabilise world supply. As well as destabilising events, growing demand for energy resources should have an upward effect on price. The economic recovery in developed economies and the sustained growth of emerging markets, along with factors like the expectation of a cold winter, all contribute to a strong demand for oil. But greater demand for oil has not led to a consistent

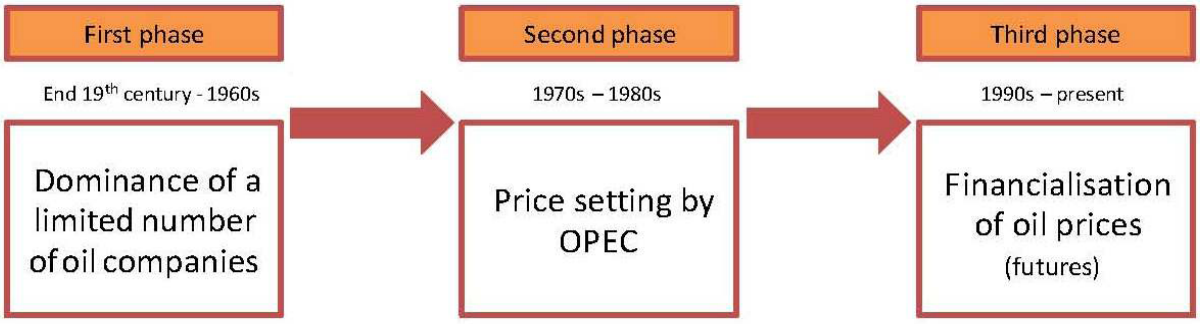
1 Yu Sihe is a energy market analyst, columnist for several economic newspapers, among them the *Jingji guangcha bao.*

2 Zhong Shi, "Where do the soaring oil prices lead the Chinese economy?", *Zhongguo Qingnian Bao*, 25 March 2011.

increase in price; instead, oil prices have fluctuated between highs and lows.

According to Zheng Hui and other energy sector analysts, supply and demand does not satisfactorily explain the volatility in the market price of oil.[3] Oil "is not a scarce resource" and is increasingly "politicised" (政治化, *zhengzhi hua*) and "financialised" (金融化, *jinrong hua*), Zheng tells *Zhongguo Jingji Shibao*. Over the past two decades, commodity markets and financial markets have become strongly interconnected. The market for oil futures has grown rapidly as a way of neutralising exchange rate fluctuations against the dollar, the currency in which oil prices are calculated. Since they have the greatest financial resources and the most expertise in the derivatives market, the major investment banks have become the main players in oil futures, giving them an increasing amount of power to determine the market price of oil. Modern finance can also amplify the effect on the prices of raw materials of external shocks like natural disasters, social unrest, and massive capital flows. Zheng Hui says only 30 percent of the total transactions on the oil futures market occur out of any real need – the rest is speculation. She concludes that investment in futures has increased the market price of oil by 20 percent to 30 percent.

So, the capacity to set energy resource prices has become the subject of considerable debate in Chinese newspapers. *Guoji Jinrong Bao* says the world has entered an era in which "finance is king", and that modern finance controls raw material prices (see graph below).



Source: Graph constructed by the author based on Huang Ye's article in Guoji Jinrong Bao

What should China do to obtain more leverage in the global oil price setting process? What challenges need to be overcome and what strategies should China adopt? Some Chinese commentators think the US is the greatest obstacle to China's gaining influence. Others think that even the US has little say in price setting. Others still think China's lack of the "power to speak" (话语权, *huayuquan*[4]) on energy prices is the fault of the country's internal structural deficiencies.

According to the newspaper *Liao Wang*, the American government can influence oil prices because the leading world energy futures market is located in New York and oil price is indexed in dollars. Influence can be exerted through signalling effects like political announcements, by increasing liquidity through an expansionist monetary policy, or by adjusting oil reserves.[5] China lacks the infrastructure to allow it to manipulate prices in this way. But given the size of the Asian energy market, establishing a futures market could enable China and other Asian countries to have a much greater say on fossil fuel prices. The creation of the Shanghai Futures Exchange is a first step towards this greater influence – and very probably, towards confrontation with the US over energy price setting.

Other analysts think that the US is not taking systematic advantage of its leading position in the energy market. According to *Guoji Jinrong Bao*, even though higher oil prices may be in the interests of American oil companies, the US cannot afford serious volatility in oil prices, since the American economy is based on massive energy consumption. And because of the role of the dollar as an international currency, the US government has become the "lender of last resort" for virtually all transactions in fossil fuels.

The creation of the Shanghai Futures Exchange is a first step towards a greater influence, and very probably, towards confrontation with the US over energy price setting.

The global economy needs high dollar liquidity in order to buy crude oil, since its price is set in dollars. So, the higher the world oil price, the stronger the demand for dollar liquidity. The more the US issues currency to satisfy this demand for liquidity, the more the dollar will depreciate and the higher the price of oil, calculated in dollars, will rise. This means that the US is bearing some of the costs linked to the "financialisation" of the oil price. If the speculative

3 Zheng Hui is a researcher at the Chinese Academy of Governance (国立行政院, *Guojia Xingzheng Xueyuan*).

4 For a discussion of this concept, see Martina Bassan, "La quête chinoise d'un pouvoir du discours" [China's Quest for a Greater Say], *China Analysis*, No. 32, January-February 2011.

5 The US has large oil reserves that could cover up to 100 days of consumption.

bubble in the energy supply market were to burst, the US would have to pay the adjustment costs. Song Liang says in *Guoji Jinrong Bao* that in financial speculation on oil, "the United States is playing the role of fund manager, whereas the Asian countries are playing the role of creditors and investors". The Asian countries, including China, have participated in the development of a speculative bubble in oil prices.

According to the article in *Jingji Guancha Bao*, it is China's internal structural deficiencies that prevent it from participating more actively in the global energy market. The first problem is the lack of transparency of information. In the US, data on oil stocks is open and accessible. For example, the price of WTI light oil is indexed based on weekly oil stocks in the US, published every Wednesday by the EIA (Energy Information Administration).[6] But in China, data on oil stocks is a commercial secret and is not published. Yu Sihe says there are not enough market makers in the Chinese energy sector, since the three public oil companies control upstream and downstream production industries. And China's currency is not yet convertible, so it cannot be used either as a medium of exchange or as a unit of account for international transactions. If China is to have greater influence in setting oil prices in the international market, it will need to make its international energy markets more flexible and more structured, and to recruit a large number of qualified professionals to operate on these markets.

In the short term, Chinese newspapers agree that the right to set prices should not be the top priority in China's energy policy. Securing sources of oil supply, increasing reserves, and improving efficiency in the use of fossil fuels are more realistic, easier to achieve objectives. Energy security is a central plank of the twelfth Five-Year Plan. While setting oil prices would be a valuable capability, it is not essential to China's development – the country's main priorities for energy use over the next five years must be adjusting the structure of energy consumption by increasing the use of clean energy sources, and reducing emissions by promoting a "low carbon" lifestyle (低碳, *di tan*).

6 West Texas Intermediate (WTI), is a crude oil used to calculate the price of crude oil on the New York Mercantile Exchange.

3. US-China cooperation on renewable energy

by Michal Meidan

Sources:

Fan Sili, "China-US energy cooperation opens the way to the internationalisation of the green economy", *Zhongguo Jingji Shibao*, 25 January 2011, p. 2.

Du Lijun[7], "An analysis of the trends in energy relations between China and the United States based on international relations theory: from competition towards cooperation", *Zhongguo duiwai maoyi* (China's Foreign Trade), No. 24, 2010, pp. 210-212.

Yan Xinhua, "Technology exports reverse the 'master-pupil' roles in China-US energy relations", *Zhongguo Dianlibao* (China Electric Power News), 27 January 2011, p. 7.

Jiang Xufeng, Liu Linuo, Zheng Xiaoyi, Ren Haijun, "Positive China-US cooperation in clean technologies", *Zhongguo Jianshebao* (China Construction News), 14 February 2011, p. 8.

Kong Bo[8], Zheng Xiaomeng, "Clear gains in the relations between China and the United States for clean energy, but challenges remain", *Zhongguo Shihuabao* (China Petrochemical News), 11 February 2011, p. 5.

China set ambitious goals for reducing greenhouse gas emissions in the twelfth Five-Year Plan (2011-2015), and the country knows it needs to reduce its dependence on imported oil. The development of renewable energies and technologies for more efficient energy consumption seems to be the perfect answer to the country's energy concerns. Not only can renewable energies enable a reduction in emissions, but they can also encourage the development of Chinese industry, including the "seven emerging strategic sectors" that the country is promoting under the Five-Year Plan.[9] Relying on renewable energy can also help China lessen the geopolitical tensions caused by its search for raw materials.

Chinese commentators think that working together on renewable energy and energy efficiency technologies could give the United States and China a unique opportunity to cooperate without geopolitical tensions. Dialogues on energy collaboration could act as a platform for regular

7 Du Lijun is a professor at the institute of public affairs and international relations of Fudan University, Shanghai.

8 Kong BO is a research director in the program "energy, resources and environment" of the John Hopkins University

9 These seven sectors are almost all linked to energy savings and new technologies. They include energy efficiency and environment protection; new technologies; information technologies; biotechnology; high-tech material (aeronautical and aerospace, and satellites); new clean energies, including intelligent electric grids; new materials; and hybrid and electrical vehicles or those with a fuel cell installed. "China to nurture seven new strategic industries in 2011-15", *Xinhuanet*, 28 October 2010, http://news.xinhuanet.com/english2010/china/2010-10/27/c_13578293.htm.

US-China exchanges, bringing together a large number of stakeholders from government, business (both private and state-run) and civil society. This could help diversify, intensify, and improve relations between Beijing and Washington.

The writers point to the signing of a raft of energy and environmental agreements at the Hu-Obama summit in January 2011 as evidence of the potential of renewable energy cooperation to smooth bilateral relations. Against the background of tense relations in 2010, the summit allowed the two countries to dissipate pent-up tensions over the Chinese currency, the investment climate in China, and the new Chinese stance on its Asian neighbourhood.

The agreements signed had a total value of $45 billion, half of which concerned clean technologies and the development of renewable energies. These agreements brought together the leading industrial players in both countries. The major Chinese producer of carbon, Shenhua, and General Electric are to work together on the commercialisation of technologies for coal gasification in China. American Electric Power Co. and Huaneng have agreed to cooperate on the commercialisation of carbon capture and storage technologies. American Electric Power Co. and State Grid, the largest Chinese electricity provider, will coordinate on the development of smart grids. China Power Investment Corporation and Alcoa are working together on wind energy, as well as a possible collaboration to make Chinese aluminium smelting plants more efficient and less polluting.[10]

But energy cooperation is not as neutral an arena as Chinese commentators hope. In fact, the development of renewable energy highlights some of the major tensions between the US and China: the potential of Chinese industry to catch up with US industry, the sources of Chinese competitiveness, and the changing investment climates on both sides of the Pacific.[11] In the US, these issues are talked about often, but in these articles, they are mentioned only in passing, in spite of their relevance for the future of this promising collaboration.

The Chinese analysts do discuss the obstacles for American enterprises doing business in China such as weak intellectual property protection and high tax burdens. They also refer to the American fear that investing in clean technologies in China could hinder the creation of American "green" jobs, which is why the creation of 235,000 jobs under the agreements was emphasised in releases after the summit. They also note the protectionism facing Chinese companies who want to invest in the US.[12] But the writers deal with these problems only briefly, instead stressing the remarkable progress China has made in its capacity for industrial innovation. They say the January agreements prove that the US and China are equal and mutually dependent partners in energy collaboration. American Electric Power intends to commercialise Huaneng technologies for carbon capture in the US, and Duke Energy and Xinao will be working together to develop smart grids. China's technological achievements make American companies want to establish partnerships to create products for both the Chinese and American markets – even if the chance of getting a foothold in the Chinese market is also part of the attraction of cooperation.

These articles reflect a change of tone stemming from China's new confidence in its economic development and geopolitical position. China has the ambition and the capacity to become an economic, technological, and industrial power comparable to the US. The articles expose the tension between China's need to cooperate with the US and its desire to assert itself as a competitor, and the contradictions of the policy that China has to adopt in consequence.

Access to the Chinese market now comes at a higher price and involves new risks.

Many American companies have based their strategies for the Chinese market on the idea that they can transfer technologies in return for access to market share. But China's new industrial confidence and Beijing's willingness to favour "home-grown innovation" is a game-changer for investors. Access to the Chinese market now comes at a higher price and involves new risks, such as the loss of intellectual property and the possibility that proprietary technologies will be adapted by Chinese partners or competitors, which could enable Chinese companies to offer similar, more competitively priced products in external markets. As a result, Washington and its lobbies are wary, especially since Beijing continues to ask its foreign partners for open access to their markets and to technologies that remain more advanced than anything China can come up with – a reminder that China is still a developing country. The US, just like China, needs to guarantee its energy security and attain its environmental objectives. In spite of its apparent advantages for both sides, cooperation on renewable energy could very easily turn out to be a source of political tension.

10 "Factbox: Business deals announced around Hu's U.S. visit", *Reuters,* 18 January 2011, http://www.reuters.com/article/2011/01/18/usa-china-deals-idUSN1813095920110118.

11 Suzanne Goldenberg, "US energy secretary warns of 'Sputnik moment' in green technology race", *The Guardian,* 29 November 2009, http://www.guardian.co.uk/world/2010/nov/29/us-green-technology-energy-investment; "Who's Winning the Clean Energy Race: Growth, Competition and Opportunity in the World's Largest Economies", *The Pew Charitable Trust,* 2010, http://www.pewtrusts.org/uploadedFiles/wwwpewtrustsorg/Reports/Global_warming/G-20%20Report.pdf.

12 Daniel H. Rosen, Thilo Hanemann, "An American Open Door: Maximizing the Benefits of Chinese Foreign Direct Investment", *Asia Society,* May 2011, http://www.rhgroup.net/files/RosenHanemann_AnAmericanOpenDoor_2011.pdf.

4. China, international energy organisations, and regional cooperation

by Marie-Hélène Schwoob

Sources:

Xu Ying, "An overview of China's participation in international energy organisations and future prospects", *Xiandai Guoji Guanxi* (Contemporary International Relations), No. 12, 2010, pp. 47-57[13]

Cui Shoujun, "China's options among the models for international energy cooperation", *Xiandai Guoji Guanxi* (Contemporary International Relations), No. 11, 2010, pp. 33-38[14]

Huang Lin, "The situation of China's oil security and an analysis of foreign policy strategies", *Dangdai Jingji* (Contemporary Economics), December 2010, pp. 8-10[15]

As the global energy situation worsens, Chinese analysts are working on developing strategies to ensure the country's energy security in the coming years. China has some serious differences of opinion with international energy organisations over global governance: it perceives these organisations as being dominated by the West, which it thinks is critical and suspicious of China. Instead, China seems to favour securing its energy supply by strengthening regional structures and alliances.

Cui Shoujun thinks China's energy worries are serious. China's rapid development has highlighted the inconsistencies of its internal energy structure. The country's own resources are insufficient to meet China's increasing demand for energy. This means the country has no alternative but to adopt an outward-looking strategy ("go towards the outside", 走出去, *zouchuqu*). But China does not have the United States' military power, so it cannot afford to implement a "monopolistic" strategy (垄断性, *longduanxing*). Instead, it needs to base energy security on "peaceful development" (和平发展, *heping fazhan*). This is the reason why, over the past 20 years, China has tried to secure its energy supply by promoting the growth of Chinese energy firms inside exporting countries.

This strategy of "vertical bilateral cooperation" (双边纵向合作, *shuangbian zongxiang hezuo*), relying on cooperation with exporting countries, carries with it the risk of intensifying competition between importing countries. In light of the growing energy needs of emerging markets and the political instability of the main exporting countries, Huang Lin thinks China should try to encourage cooperation between importing countries. These countries share common interests, so they should join forces to respond to problems that undermine the stability of the world energy market. They could, for instance, cooperate to fight terrorism and piracy that threatens to disrupt energy transport networks. But there are several diplomatic obstacles to Chinese cooperation with Western importing countries and the international organisations "dominated by the West".

The writers think international energy organisations have criticised China unfairly. Xu Ying says the "theory of China's energy responsibility" (中国能源责任论, *zhongguo nengyuan zeren lun*) puts the country among the world's leading energy consumers, without taking into account per capita consumption of energy – under this measure, China's energy consumption would be greatly reduced in proportion to other countries. Attributing this level of responsibility to China implies a desire to bring significant pressure to bear on the country. So Xu thinks the government should be very cautious about signing China up as a member of international energy organisations like the International Energy Agency (IEA). China must consider the intentions of the IEA's member states, and it should think about the reasons why its representatives want China to become a member. Further, the West's excessive distrust damages the "strictly commercial" activities (纯粹是商业行为, *chuncui shi shangye xingwei*) of China's oil companies. Western countries think these activities are an "encroachment" on their own energy interests. This too puts pressure on the Chinese government, giving China another reason to keep its distance from international energy organisations.

Cooperation with the "Western Oil Club" (西方国家的石油俱乐部, *xifang guojia de shiyou julebu*) could have advantages, according to Cui Shoujun. It could alleviate Western suspicion, which would make things easier for Chinese interests in the exporting countries. But China disagrees with the West's approach to international governance, so cooperation with international organisations is complicated. The writers would like to see better relations with the IEA, the "heavyweight" of international energy organisations, but Xu Ying thinks formal membership is impossible right now. China distrusts the motives behind the Western countries' diplomatic agenda, and believes that America controls international energy regulation. Because of its internal economic development needs and the pressures of international public opinion, China should limit itself to finding ways of cooperating with the IEA as a non-member.

It might be easier to develop structures for regional cooperation. Over the past couple of decades, China has set up several regional energy cooperation initiatives, reflecting its foreign policy of stabilising the periphery and "gaining a foothold" in the Asia-Pacific region ("稳定周边, 立足亚太", wending zhoubian, lizu yatai). To diversify its sources of supply and build cooperation,

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China is working on constructing energy corridors with its neighbouring countries. In the north-west, Central Asia is already supplying China with gas; in the south-west, Myanmar aims to send gas to China by 2015; and in the north-east, oil and gas pipelines to Russia are under construction. Huang Lin thinks working together to secure sea routes for oil transportation, for example the Straits of Malacca, could help establish cooperation with Japan. China is also counting on Japanese investment for the east-west energy corridor. And China and Japan have a shared interest in ensuring the security of north and central Asia. To ensure the safety of oil shipments, China should also maintain good relations with the countries of South Asia, "setting aside differences" (搁置争议, *gezhi zhengyi*) and taking part "in a positive manner" in gas and oil exploitation in the South China Sea.

It is likely to be more difficult to create structures for cooperation with China's old antagonist, India. Along with their historical political differences, the two countries have energy needs that put them into competition for resources. The "dispute between the dragon and the elephant" (龙象之争, *longxiang zhizheng*) has been attracting international attention for some time. The West thinks China and India could cooperate on technology and information exchange. Xu Ying thinks energy cooperation between India and China is impossible, but he says that the two countries' competition for energy supply is not all that different to competitive relations between other importing countries in the rest of the world. He welcomes the fact that discussions have begun on territorial disputes. Xu says these discussions could lead to future cooperation on energy, and in particular, on renewable resources. This could ease border tensions and help China and India to recast their relationship as one of competition based on peaceful trade.

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