

China and the Changing Dynamics of World Oil Market: A Report on the World Economic Forum Annual Meeting, January 25-29, 2006

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As government officials, heads of international agencies, and business executives gather in snow-covered Davos, Switzerland, one of the issues topping their agenda is energy security, particularly ensuring sufficient oil supply to meet increasing energy demands from emerging markets like China and India, and from expanding trade and transportation among countries. In recent years, it has become apparent that there is little spare capacity to increase oil production in the system as a whole. Additional capacity needs to be developed as quickly as possible. It is estimated that \$17 trillion of investment needs to be made in the next 25 years to meet expected rising oil demands. Although this amount annualized over 25 years is about 2% of the world's annual GDP, it is a very significant figure by any measure. Even if there is sufficient money, is there enough willingness to do so?

At current high prices of about \$70 per barrel, oil companies are making handsome profits, but we don't see much plow back investment. Jeroen van der Veer, Chief Executive of Royal Dutch Shell in the Netherlands, said that they had given up forecasting oil prices, because they had been wrong so frequently not only on the magnitude of price changes but also on the direction of price change. Kenneth Rogoff, a professor of economics at Harvard University, said in a different panel that high oil prices are not necessarily a problem for the world economy as a whole. It is manageable to certain extent because the U.S. has not seen high inflations as a result of high oil prices. Relatively cheap imports from China and other emerging markets help keep inflation and short-term interest rates down. The real problem, according to Rogoff, is the oil price volatility.

Since oil field facilities are highly capital intensive and large scale, it takes a long time to develop and to see any returns. The unpredictability of oil prices and the long development cycle make it very possible that by the time a facility is built up, the oil market has turned south. Instead of investing in more facilities, oil producers much prefer producing oil with their existing facilities at higher prices, without taking the risks of expansion. On top of all the business risks, oil companies have to take into account significant geopolitical risks in the gulf region and other oil rich countries. Iraq is producing 1.5-1.6 million barrels a day, 30-40% lower than what it produced in pre-war times. Uncertainties on Iran hang over the oil market. So it is not surprising that oil companies are reluctant to invest in more facilities. Access to oil fields is another issue. National oil companies have over 70% of all oil reserves, while international oil companies have access to less than 30%.

Rarely is there any consensus on any key issue among numerous disparate parties, but some basic facts are clear to everyone. First, the days of easy oil are gone. Although we will not run out of oil any time soon, there are plenty of questions about how to turn oil reserves into actual supplies. The billion-dollar questions are: (1) How to create a secure environment and a transparent regulatory framework to encourage long-term investment in capacity expansion, and (2) How quickly these facilities can be set up and running in an ever-changing international oil market. Companies like Chevron are going into deep water extraction. This process is more capital intensive, takes more energy and time to bring oil to the market, and produces more carbon dioxide, a greenhouse gas worsening global warming.

Second, international interdependence, never so strong, highlights the need for more cooperation between oil consumers and producers. Third, an ideal energy source is cheap, convenient and clean, but nothing is ideal. There are always tradeoffs among these objectives. A country decides its own energy mix based on its own conditions and priorities. That is, ultimately decisions are made by the state. Fourth, greenhouse gases worsen global warming and threaten our living environment, although there is much finger-pointing as to which countries should cut emissions by how much by when. Fifth, developing alternative energy sources and enhancing energy efficiencies are directions of the future.

Given these facts, how secure is the international oil system? And how flexible is this system to handle unexpected shocks? This is the purpose of an exercise in the evening of January 26 at the Conference Center of Davos. It is a session on energy crisis simulations, designed by Daniel Yergin, Chairman of Cambridge Energy Research Associate, moderated by Richard N. Haass, President of Council on Foreign Relations of the U.S.A., and with participation from ten government officials, heads of international agencies, and business executives.

Suppose a year from now, there is a concerted terrorist attack in oil ports in Alaska, Turkey and an unsuccessful attempt in Saudi Arabia. It reduces daily oil supply by 3 to 4 million barrels, about 5% of total world supply (about 84 million barrels a day). It is unknown how many more such attacks would happen. The reduction is expected to last for several months. Stock markets plummet, and interest rates shoot up. Various economies will experience a downturn in growth and even face the possibility of a recession. Against this background, how would each related party react?

It turns out that the international system is quite flexible in making the necessary adjustments so as not to blow the crisis out of proportion. The ten participants in the simulation all gave very sensible answers and warned against overreaction. In fact, Saudi Arabia alone can increase production by about 1.5 million barrels a day immediately to bring up production to 11 million a day. It always keeps about 1-2 million barrels excess capacity as a cushion for any unforeseeable event like this, which they can immediately put on the market. The U.S. has 600 million barrels in strategic reserve for such occasions. If the U.S. draws from this reserve 2 million barrels a day, it can last almost a year. It actually did so for about one month after hurricane Katrina hit in August 2005. Certainly there will be concerted efforts to coordinate on drawing other countries' reserves. The U.S. will not be the only one to do so. Oil importers will immediately take steps to restrain energy use, such as mandatory car pooling, or even strict use of public buses and trains (using bigger trains whenever available), arranging 5 work days of 8 hours into 4 days of 10 hours, and many other ways of saving electricity.

If terrorist attacks are more serious, resulting in a reduction of total oil supply by 10%, the doubling of the price of oil, then more drastic measures would be adopted by importing countries. Coal and other alternative energies will kick in. The International Energy Agency (IEA), normally keeping close relationships with both oil producers and oil importers, would set up international framework immediately to coordinate how to share the pain.

According to Claude Mandil, Executive Director of the Paris-based IEA, there is no need for more international institutions, but rather more empowerment from the heads of states to the existing institutions. Mandil said that his agency works closely with oil/energy ministers of many countries, and has access to and constructive dialogues with many governments. Energy has become such an important issue that it tops the agenda of heads of states, but the difficulty is to get consensus on collective action from them. From his point of view, the practical and doable thing is to share energy efficiency-enhancing technologies and best practices among all countries. China is not a member of IEA. Bringing China in would encounter political obstacles from some existing members. Instead of going that route, the IEA has good channels of communication with

the Chinese government anyway. Membership is only a formality. The important thing is to share clean coal technology and best practices with China.

Being the only speaker from the Middle East in energy-related panels, Abdallah S. Jum'ah, President and CEO of Saudi Aramco, was in the spotlight and attracted many questions. He repeatedly said that there is no shortage of oil for many decades. Saudi Arabia alone can comfortably provide about 10.5 million barrels a day for the next 45 years. It will increase its capacity in April by 300,000 barrels, in 2007 by half a million barrels, in 2008 by another 300,000 barrels. Its target is to put out 12 million barrels a day by 2009. Saudi Arabia normally keeps a cushion capacity of 1 million to 2 million barrels a day, which can be immediately utilized to help calm the market if any unforeseeable event takes place. Saudi Arabia has also built much redundancy in oil facilities in order to keep up production in case of terrorist attacks. Russia increased its oil supply from 7 million barrels a day to 9.2 million barrels in 5 years. Nigeria has committed to expanding its capacity to be able to produce 4 million barrels a day by 2010. He thinks that the bottleneck in the oil supply chain is in refineries. At the current high oil price of about \$70 a barrel, international oil companies are making handsome profits and should invest more in refinery facilities. He called for international collaboration to protect some choke points in oil transportation, such as the Malacca Strait close to Indonesia. Speaking on cooperation with China, he said that they already built refineries in Fujian Province, along with Exxon Mobil; and that they are planning to build another one in Qingdao.

Chinese Vice Premier, Zeng Peiyan, delivered a well-balanced speech at the Congress Center on January 26, centered around the idea of well-rounded development, including energy efficiency improvement, alternative clean energy sources, environmental protection, and technological innovation. Hank McKinnell, Chairman and CEO of Pfizer, Inc., was so impressed with him and his delegation that he shared his optimism about China with another group of business people at a private dinner. He believes that the Chinese government is really serious about protecting intellectual property rights. He knows that if the government makes up its mind on any thing, it will carry it out very quickly. Nonetheless, there is still a fair amount of skepticism about how well China can implement these policies, even though the foreign participants all agree that these policies point in the right direction.

Robert Zoellick, the U.S. Deputy Secretary of State, called on China to be a responsible stakeholder of the international system, taking into account the possible repercussions when taking actions in the international arena. What should China do to be a responsible player of the international community, while meeting its growing need for energy?

In fact, China has done a lot on self-discipline, but it is often underappreciated. What China needs to do are two things. One is to make its decision-making process more transparent. If foreigners feel that the decision-making at the highest-level of government is a black box, they fear the worst and prepare for the worst. Second is clear communications of not only its policy directions, but more importantly, concrete examples and steps taken towards the right directions to convince the international community that it is doing its best to rely on domestic energy sources and to be energy efficient.

Effective communication is another key to convince foreigners. In this respect, Indian speakers do very well. China must be patient--always explain, explain and explain. One never explains too much to make other people understand your perspective. For example, China can lay out some options from which Western countries can choose. China has to accommodate 300 million rural migrants into cities and will inevitably need adequate energy to grow the economy fast enough in order to create sufficient jobs. To meet China's immediate oil requirements, China can either purchase on the international oil market, or buy oil companies like Unocal with many assets in Asia, or buy oil equity in areas that are politically difficult, like Sudan.

If China chooses the first option, would the international community accept higher oil prices as a result of higher demand? If China chooses the second option, would Western countries be willing to sell when prices are right? If China chooses the third option and must play the local game to protect its oil equity in a politically difficult environment, would the West be willing to accept the consequences? China cannot be cooperative if it does not have options. On the other hand, the U.S. imported 30% of its oil consumption in 1974, and now it imports 60%. Even though the U.S. is 50% more energy efficient now than in the 1970s, all of the speakers agree that the U.S. is very wasteful in its energy use in industries like transportation and construction. The U.S. cannot keep its own high level of living standards, backed up by high-energy consumption, while depriving others from catching up.

At the same time, China needs to explain, with much publicity, the concrete steps it has taken to enhance energy efficiency domestically, to protect the environment, and to rely more on alternative energies. On tactics, China should talk to the right people at the right time in the right way, like doing business in any different cultures. For example, Hank McKinnell of Pfizer was most impressed by Vice Premier Zeng Peiyan and his delegation during a private meeting right before Zeng's speech. Time and effort invested in such events will prove worthwhile. Furthermore, China needs to back these up with successful examples on the ground, because foreigners know the Chinese saying, "the sky is high and the emperor is far away." What's on paper is often different from what's on the ground. This is not new anywhere. If China can communicate better, what it does will be much more appreciated by the international community.

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