



**Policy Roundtable:  
The Changing Geopolitics of Oil in  
Asia and the United States  
Indianapolis, Indiana  
May 18, 2005**

**Welcome**

*Jay Hein, President  
Sagamore Institute for Policy Research*

SIPR's Policy Roundtables seek to inform civic, community, business, and government leaders about innovative programs and important issues—in Indiana, across the country, and around the world. Today's Roundtable considers an issue that affects us at each of these levels: energy security. One of the most important responsibilities the United States assumed following World War II was ensuring the stable flow of relatively inexpensive oil to the industrialized and industrializing countries of the world. A glance at a list of the top petroleum exporting countries shows that most of them are poor, have despotic governments, and experience frequent bouts of political instability and ideological extremism. As we have been reminded repeatedly in the last 30 years, their problems often become America's problems. The stunning economic rise of China and India—and their consequent energy demands—have made the problem much worse for the US. Our distinguished panel will shed some light on this important challenge.

**Introduction**

*John Clark, Senior Fellow  
Sagamore Institute for Policy Research*

Today's discussion is, in part, a result of the three people on this panel. Let me say a few words about the different panelists, and then we will get started with their presentations. Mr. Cha has been with us since SIPR's birth. He is a Visiting Fellow from the South Korean Ministry of Commerce Industry and Energy. It was under his leadership that we took on this issue of energy security. He will explain why Korea ought to worry much more than it does about energy security.

Immediately to my left is Richard Lotspeich. Rick has done more interesting work in economics than any other economist I know. He has written about organized crime in Russia and transnational organized crime around the world. He has also written very interesting things about property rights and Chinese environmental policy. His current project looks at the economics of global conflicts. Rick is going to be talking about Russian-Chinese economic relations, including their energy relationship.

To my right is the most seasoned and, no offense, the best known member of the panel, Robert Ebel. Here is something that might indicate how influential Mr. Ebel is. I did a Lexis

search on Robert Ebel and came up with 1,600 hits of different newspapers and magazines that have quoted him. Bob is at the center of thinking in Washington, DC, both about American energy policy and the way US energy policy fits in the rest of the world. Yesterday, for example, Bob hosted the Saudi Minister of Petroleum at the Center for Strategic and International Studies. We are honored to have Bob on this impressive panel.

The first question that we will hopefully answer by the end of the day is "What is energy security?" The answer is a combination of both energy policy and national security policy. Those two come together in ways that 65 years ago, simply did not impact the United States. It was not only because the United States was energy independent – we had enough petroleum for ourselves – but it was because the United States did not really need to think about energy security. Of course, we need to think about it now. The second question we should think about has to do with the US role in the world. We are in some ways a global petroleum cop. The United States has, rightly or wrongly, taken on the responsibility to make sure that affordable and plentiful oil and other forms of fuel flow to all of our trading partners. Those trading partners include everybody in the world, meaning, even if we were 100% energy independent, we would still care an awful lot about global oil. That is an aspect of our national security that we need to think about. The third question has to do with Asia. What is all this going to mean with the rise of China? What is this going to do to the global petroleum supply, the energy situation, and the relation that the US has with the world of needing to be the global petroleum cop?

**Feature Presentation**

*Robert Ebel  
Chairman, Energy Program  
Center for Strategic and International Studies*

The title of my presentation today is *The Changing Geopolitics of Oil*. There are a great number of examples where politics and oil come together. For example, let me quote from a book I recently read: "It will be sad to see how the magnet of oil draws great armies to the Caucasus; it will be fascinating to examine how the oil companies mobilize their forces of diplomacy to fight their battles across green tables and behind the scenes...it should be enlightening to study how far the foreign policies of nations in the matter of recognition, of credits, etc., are influenced by that universal lubricant and irritant—oil." The author is Louis Fischer; the title of the book is *Oil Imperialism*. The date of publication—1926. These words,

written some 78 years ago, by chance or foresight come close to capturing the sense of what is taking place today in that remote part of the world.

The multinational oil companies have returned to Baku in search of oil to meet the requirements of tomorrow. Battles are being fought over green tables and behind the scenes. Foreign policies have been adjusted so as to ensure that national interests, in part conducted through the oil companies, at all times are being served. So, the geopolitics of oil as an issue is not new. Rather, it just impacts on our everyday life in a much broader, much more evident way than ever.

In today's context, national security and energy security are so closely intertwined that it is inconceivable we would consider them as separate issues.

First, what do we mean by national security? I would suggest that the best answer, at least in my judgment, was provided a number of years ago by the eminent American diplomat, George Kennan, who offered perhaps the least complicated definition: "(national security means) the continued ability of this country to pursue its internal life without serious interference."

What then is meant by energy security? For the American consumer and, I suspect, consumers in Europe and everywhere, the answer is simple. The consumer has only two concerns: price and availability. If the price is acceptable and he can purchase as much gasoline or fuel oil as he would like, then, what is the problem, he might ask. Certainly, the consumer cares little if at all as to where the oil he consumes might come from. Those are issues deferred to the wisdom of governments.

But importing governments hold a view that differs from consumers. Policies adopted by importing governments stress security of supply through diversity of supply, diversity among the kinds of fuels we consume, and as well as how the oil and gas are delivered to our markets.

The energy commissioner of the European Union has indicated that he will place security of energy supply at the center of his efforts. He has noted that higher energy prices and the growing appetite for oil and gas from emerging economies present a substantially changed situation compared with five years ago. The EU approach in the past has been to work to manage the risks associated with import dependency. Will that approach in turn be forced to change, and in what way?

Oil exporting governments today seek security of markets. Why should we invest in expansion of our oil producing capacity, they ask, if we are uncertain as to whether there will be a market for the surplus oil we might produce? Adherence to this philosophy can only ensure a continued tight market and price volatility. Does diversity of supply provide the assurances we seek? Not at all, because diversity of supply does not protect us from price volatility. Under today's circumstances, we are just as vulnerable, if not more so, to its effects.

We need to remind ourselves from time to time that neither the United States nor Europe stand in isolation from the world oil market. We are vulnerable, as are all oil exporting and importing countries, to any event, anywhere, anytime, that impacts on supply or demand. When the price of oil goes up, it goes up everywhere. All consumers are hit, the poorer, importing developing countries the hardest. When prices

decline, exporters everywhere are hit, again the developing exporting countries the hardest.

#### *An inevitable, growing dependency*

The developed countries of the world are becoming more dependent on oil and natural gas supplied by the developing countries of the world. We are captive to their national interests; we are captive to their ability and sometimes to their willingness to supply the energy we require to feed our growing economies. As an aside, I would note that developing countries also account for much of the growth in oil and energy consumption.

The question arises then, what could we do, what should we do, so as to be able to place our oil—and natural gas future—in our own hands?

#### *2004: A Year of Surprises*

The year 2004 was a year of surprises for the world oil sector. Surprises that came in the form of sharply underestimated oil demand growth in China, and unexpected robust demand in the United States. At the same time, a number of other events, real or anticipated, played out in a way that equally pressured oil supply. The market of course reacts to real events that impact directly and immediately on supply and demand. And the market equally reacts to perceptions of an event that might take place, an event that would affect either supply or demand. It does not matter. Just what supply-related factors were in play in 2004?

- Political uncertainties in Venezuela,
- Civil war and strikes in Nigeria,
- The unfulfilled promise of Iraq,
- Problems in Russia, and
- Terrorist acts in Saudi Arabia.

Then, along came a hurricane in the Gulf of Mexico, taking as much oil off the market as all supply-related factors combined. Yet, not all these factors led to reduced supply. For example, oil exports from Russia and Saudi Arabia continued to increase, despite concerns that the Yukos affair might translate into reduced supplies, or that a loss of Saudi oil, for whatever the reason, would be impossible to offset by expanded production elsewhere. Indeed, it was our judgment that world oil production had been sufficient to meet world oil demand, but only barely. Rather, it was the fear—the "fear factor" we all talked about—that something might happen to disturb the tenuous balance between oil supply and demand that helped move prices above and beyond what the market fundamentals would seem to indicate.

Additionally, those factors just referenced had to be weighed against:

- The disappearance of spare producing capacity worldwide,
- Infrastructure limitations, and the need to protect that infrastructure against terrorist acts,
- Minimal working inventories, and
- Market influences attributable to speculators.

Now, what do all these factors, all these influences have in common? Simply that they were, and remain, largely outside our control and, with only minor exception, steps that might be taken to resolve them are essentially outside our control as well.

Maintaining working inventories is costly, and companies have adopted the “just-in-time” approach to satisfying consumer demand. This approach is acceptable if nothing intrudes to disrupt supplies or to spike demand. But a pipeline break, a refinery fire, a cold wave—are the kinds of incidents that upset the just-in-time approach and lead to short-term supply shortages.

The loss of spare producing capacity has been particularly damaging. Spare producing capacity can be called upon to meet unexpected growth in demand or to cover supply interruptions, manmade or otherwise. Today, most of the worldwide spare producing capacity is in the hands of Saudi Arabia, and even here that measure has fallen to not much more than 1.5 million b/d. To put that volume in proper perspective, last year the world consumed about 84 million barrels of oil every day.

I know of no nation, other than Saudi Arabia, that sets out to deliberately develop spare producing capacity. For most exporters, spare producing capacity is a frozen asset, not providing a return on investment.

But Saudi Arabia does not invest to develop spare producing capacity out of the goodness of its heart. No, its spare producing capacity is there to further the country’s national interests, to support its political and financial goals.

#### *Tradeoffs*

Every energy decision you and I make as individual consumers, every energy-related decision taken by our governments, has a tradeoff, sometimes knowingly, sometimes not. These tradeoffs carry their own costs and risks. The public needs to understand that there is no energy option, and that includes renewable forms of energy, that can be described as risk or cost-free.

Do we ever stop to consider whether these costs and risks justify actions taken? Let me give you an example of what I have in mind. Some 20% of the electricity generated in the United States comes from nuclear electric power plants. But, about 50% of the fuel burned in these plants comes from Russia. Why would we want to put ourselves in such a vulnerable position? Is there a tradeoff that justifies this dependency? There is: The fuel comes from the conversion of Russian nuclear warheads. To date, more than 7,000 nuclear warheads have been eliminated. Is this tradeoff in our national interest? I believe it is.

#### *What NIMBYism Does To Us*

Successful NIMBYism may impose a feel-good mantle on those who come together to block the construction of an energy-related project. But we are now confronted with the real impact of NIMBYism: a shortage of essential energy infrastructure, with that shortage in its own way propping up high prices. Is this tradeoff acceptable? Is it in our national interests?

If for environmental reasons we cannot drill in geologically attractive but unexplored areas, what is the tradeoff? Confronted with rising demand, we turn to imports. We find ourselves increasingly reliant on the ability and willingness of others to meet our rising demand.

Population and prosperity are among the key drivers of oil demand. World population increases annually, more automobiles show up on the roads annually. In the US alone

there are some 240 million motor vehicles on the road, supported by 170,000 retail service stations. Miles driven, for business and pleasure, reflect the state of our economy, the state of our mind. In turn we consume 9 million barrels of gasoline every day. In other words, 1 out of 9 barrels of oil consumed worldwide feeds our automobile motors.

As we pass these 170,000 service stations, what do we see? The latest price in tall, bold numbers, and that does have a strong psychological impact on the consumer. I know of no other essential commodity where the daily price is posted so visibly, and at so many sites. There is no escape. So, the United States has an energy problem, and how we go about solving this problem is just as important to you as it is to me.

#### *What is This “New Game”?*

As the year 2004 unfolded we noted the appearance of a new “oil game,” centered on access to oil supplies. Access drives private and national oil company investment programs alike. Both prowl the world in search of deals that offer the opportunity to replace volumes presently marketed and to provide volumes to meet anticipated future requirements.

But can private companies compete under circumstances where the playing field is not level? National oil companies, such as those of China and India, can and do strike deals with host governments that often involve political commitments, sometimes hidden, sometimes not, and that adds a worrisome element.

Why the particular emphasis today on access? OPEC, owners of the bulk of world oil reserves, may well move cautiously in the years ahead, developing new producing capacity only in line with their own contentious view of future market requirements, thus likely creating conditions for an oil supply-demand balance that continually supports a high oil price structure.

#### *An Analogy*

There is an analogy we might make, comparing the relationship between Canada and the United States, and the relationship between Russia and Europe. Canada is the leading foreign supplier of oil to the US market, having provided one-sixth of oil imports last year, as well as one-sixth of the natural gas the US consumed. But, production of conventional crude oil in Canada is declining. The oil future of Canada rests with development of its oil sands. But development requires considerable volumes of natural gas, and this demand reduces exportable surpluses.

As the US contemplates the prospect of reduced oil and gas supplies from Canada, what to do? The present approach centers on seeking imports from other suppliers, with natural gas to be imported in the form of LNG. In other words, solve the problem by expanding import reliance.

#### *Europe and Russia*

European reliance on Russian oil and gas is well-known. But those who watch Russia closely are noting that the relative growth in oil production has been declining rather sharply since last September.

Additionally, natural gas production appears to have stagnated. Much of the country’s gas future rests on importing Central Asian gas to buy time during which new gas fields can be brought into play. Can current growth rates in Russian oil

production and exports be sustained? Will the current efforts of President Putin to return much of the oil sector to state control have a dampening effect on production and export levels?

Where is the future of Russian oil and gas to be found? In East Siberia and offshore, that is, offshore Sakhalin Island and offshore in the Barents Sea, plus the inhospitable Yamal Peninsula. What will it take to develop these prospective regions? Far more investment dollars, far more offshore experience, and far more managerial know-how than that currently available to Russia.

Yet, recent government actions would imply that the welcome mat been removed and taken inside. Suppose the needed foreign investment is not forthcoming? What then? Production and exports plateau, then decline. European government officials begin looking around for someone to blame, when they finally realize that their high dependence on Russian oil and gas proves to be faulty energy policy.

The hoped-for merger between Gazprom and Rosneft, now stalled, must be distracting to Gazprom leadership. Might this distraction impact on the North European Pipeline, scheduled to become operational in 2010? Timely availability is essential if Germany and other importing countries are to have access to new gas supplies needed to cover growing demand.

Shtokman natural gas stands behind that pipeline but Gazprom and Moscow envisage Shtokman as the key to providing LNG for North American markets, particularly the United States. But time is of the essence, if a position in that market is to be secured.

Western observers who follow Gazprom closely are very much concerned about its high—and growing—debt and its continually rising costs of operations. It is not an efficient, transparent company by any measure.

More realistic plans call for Gazprom producing 560 bcm by 2010 and around 580 bcm by 2020, not much gain over the 544 bcm produced in 2004. Most of the scheduled new gas will go to offsetting declines at mature fields, with not much left over to add to supply.

Although Russia has not forgotten its European markets, Moscow has turned around and is looking eastward, at the growing markets of China and Southeast Asia. These markets seek diversity of supply and as well diversity in how the oil and gas is delivered, and Russia is responding as best it can. Will this diversion affect Russia's more traditional markets? At the same time, what stands between Russia and Europe? Ukraine. Will Ukraine always enjoy good political relationships with Russia so that oil and gas flows crossing its borders en route to customers in Europe will not be disturbed?

Russia has not, with only minor exception, played politics with the oil and gas it has to sell. But, having spent my professional career in Washington, I learned some time ago never to say "never."

The world around us is changing, and these changes hold long-term political and economic implications for every one. Let me begin with Russia. There is trouble on the home front. Russia is growing older and shrinking.

The life expectancy for a Russian man is low, probably 15 years less than his counterpart in the US. The population is shrinking, as deaths exceed births. This low birth rate, alcoholism, smoking and violence come together to present Russia with a demographic crisis. President Putin has recognized what all this means for his country, and has said that Russia must put out the welcome mat for what he calls "economic" migrants from former republics, or its shrinking population will drag down the economy.

A somewhat unusual press conference was held at CIA headquarters in January 2005. The press conference was called to bring attention to a recently released unclassified report entitled *Mapping the Global Future*, prepared by the National Intelligence Council. The Council, a group of senior analysts, reports directly to the head of CIA.

Holding a press conference at CIA is a somewhat unusual event, but perhaps no more unusual than certain of the findings contained in the report.

- The world of 2020 is likely to be one in which Asia is the main engine of the global economy, where China and India are major powers.
- The likely emergence of China and India, as well as others, as new major global players, similar to the advent of a powerful United States in the early 20<sup>th</sup> century, will transform the geopolitical landscape, with impacts potentially as dramatic as those in the previous two centuries.
- By 2020, the gross domestic product of China, that is, the total value of goods and services, will be greater than that of any Western country except the United States. That of India will have overtaken or about to overtake European economies.
- Led by China and India, Asia looks set to displace Western countries as the focus of international economic dynamism—provided Asia's rapid economic growth continues.

Yet it should be emphasized that Asia's rapid economic growth is not necessarily a given. For example, the problems, defined in the following that confront China today are not going to be easily resolved.

- First of course is its growing dependence on imported oil, soon to be followed by a growing dependence on imported natural gas.
- The movement of Chinese from rural to urban areas has been defined as perhaps the largest mass migration in history.
- China faces a growing water shortage.
- China's population is aging, and that gives rise to the question: will China grow old before it grows rich?
- Can China feed itself?

China consumes 10 times more water per capita than developed economies. It is the scale of labor migration in China that is unequalled. In recent years, Chinese cities have absorbed at least 114 million rural workers, and they are expected to see an influx of another 250 to 300 million in the next few decades.

The problem is this: a large rural population versus limited farmland.

China faces a period of rapid aging that will outpace the aging of most of the world's population. Between 2010 and 2040, the proportion of people aged 65 and older will increase from 7 %

to 25 %. This dramatic demographic shift gives rise to a number of questions, including how to provide and sustain a sufficient retirement income and a minimum level of health care for the elderly, who will number more than 332 million in 2050.

Not only must China confront all the problems associated with aging—aging in China has been described as faster than any other country in history—but its population growth will steadily decline as well, then turn negative. As a result, China's population in 2050 will have fallen below the 2025 level. This demographic shift, which began in 2004, can be traced to twenty years of family planning—the “one-child” admonition. As a result, the number of people entering the labor force is going to decline for the next 15 years.

China's population decline in turn will allow the population of India to overtake that of China before 2020, according to the UN report. As a result India will come under greater pressure during the coming years to line up energy supplies in amounts sufficient to support the needs of 1.4 billion people in 2025, and about 1.6 billion in 2050.

#### *Concluding Remarks and Questions*

The events of the past year have once again focused attention on the critical role that energy plays in the global economy. Given this role, the question then arises as to whether or not energy supply and demand should be managed differently than in the past, as part of a larger effort to return to the consumer acceptable control over his energy future. A healthy economy, supportive of a life style that many have come not only to enjoy, but to expect, should reflect an energy supply that at once is available, affordable, secure, and environmentally benign. Are these criteria beyond reach, or are they just beyond reach of current energy policy?

Our world of energy is changing, and moving in a direction that further complicates the tasks that lie ahead. If we do not respond appropriately to these challenges, we risk being confronted by a future that is increasingly uncertain and defined by factors beyond our control or influence, a future that rests in the hands of others.

What will it take to wrest that control away? It will take nothing more than the political will of consumers and their governments to accept actions and programs that have meaning on both the supply and demand sides of the equation. Actions and programs which to be successful may well mean a change in our lifestyle. Where is this political will, where has it gone, and how might we get it back?

#### **Panel Presentations**

*Dong Hyung Cha, Visiting Fellow  
Sagamore Institute for Policy Research*

When I started my career as a Korean government official in 1989, energy policy was not a focus. Today, Korea consumes more oil and less natural gas than countries such as the US, Japan, and Europe. The Korean government promotes the use of natural gas. Korea currently imports liquid natural gas from Indonesia. It is now planning to import gas through pipelines from North Korea, China, and Russia. These three countries are making blueprints to construct the pipeline from Russia to China and Korea. The Korean government is trying to reduce its oil dependence from Middle Eastern countries. However, it

is not easy considering that the Middle East has two thirds of all oil reserves...

Korea should be more concerned about its energy security. Korea's energy consumption has increased very rapidly—about 6% annually—since economic development took off in the 1960s. Even though Korea is about the size of Indiana geographically, its energy consumption ranks among the highest in the world. Korea does not have energy resources, such as oil and natural gas. It imports 97% of the energy and 100% of the oil it consumes. Korea's economy is truly dependent on these imported energies. Some 80% of Korea's oil is imported from Middle Eastern countries. This is very similar to Japan's 80%, but is much higher than that of the USA's 20% or China's 40%.

In addition, Korea's energy efficiency is very low. The heavy industries that are important to Korea's economy such as the petrochemical and the cement industries consume large amounts of energy, so Korea has to import more energy to make products and export in the world. Thus, the Korean economy is more vulnerable to the increased oil price than other countries. The Korean economy experienced a true oil shock in the 1970s. Since then, Korea's government has mobilized all types of efforts with energy sources. After the first oil shock in 1970, nuclear power was introduced. After the second oil shock in 1978, natural gas was introduced. But, in the 1990s, as the oil price remained far below \$20 per barrel, the importance of energy policy was downgraded in relation to other public interests.

Now, as things have changed, energy security has reemerged as part of the national policy agenda. The Korean government is very worried about that. The recent increase in oil prices might reflect future risks of a shortage in the Middle East. The increasing oil prices might also cause severe competition to secure oil among major consuming countries.

North Eastern Asia needs more oil inputs for further economic development. I think that North Eastern Asia's energy security has two implications. One is that North Eastern Asia consumes the most oil from Middle Eastern countries, overall at 70%, and will consume more in the future. The so-called nexus between Asia and the Middle East will dip. The impact of this nexus on the traditional relation between Middle Eastern and Western countries will become an issue on the very long-term price. The other implication of North Eastern Asia's energy security is that the major consuming countries, such as China and Japan, are competing head to head for securing oil and natural gas.

*Richard Lotspeich  
Associate Professor of Economics, Indiana State University*

The central focus of my presentation is not energy security, but a broad look at the economic relationship between China and Russia, which includes energy trade. Although my presentation is not focused specifically on energy security issues, I do think there are some important connections with US energy security. Consider two main aspects.

One is the overall market for energy. Oil is an essential commodity. It is not so much a question whether the US will have access to oil or not, but at what price? China is becoming a major player as an importer, and Russia has become a major player as an exporter. There has been a great deal of energy trade between China and Russia and this is poised to expand

significantly. The trading relations between these countries will have important influence on the world market.

The second area where I think there is intersection between Russia and China, and energy security is the marine transport routes. China currently depends heavily on oil from the Middle East. They are exploring in Sudan and Iran, and oil from those sources will be shipped on the marine routes through the Indian and Pacific oceans. This relationship hinges on a transport route that is protected by a US naval presence. China is a free rider on a public good provided by US Navy.

We don't have enough time to talk much about history, but some key points about the evolution of Russian-Chinese international relations can help to understand the current situation. The first contact between China and Russia occurred in the late 17<sup>th</sup> century. The treaty of Beijing in 1860 established, roughly speaking, the current border between Russia and China. Interestingly, in the beginning of the 20<sup>th</sup> century, Russia occupied the area of China in the northeast known as Manchuria, an area reoccupied by the Soviets during World War II. The Soviet Union was supportive of the Chinese Communists, and by 1959, 48% of Chinese trade was with the Soviet Union. You are probably aware of the subsequent conflict between the two countries, which led to breaking relations in 1960. All Soviet economic and technical assistance was abruptly withdrawn, leaving China to pursue industrialization alone. Bilateral trade ceased entirely as the border was closed. Although minor military skirmishes occurred, leaderships in both countries managed to prevent major action, and subsequently more cooperative relations evolved. An important turning point in the relationship was Gorbachev's visit to Beijing in 1989. This led to a number of changes that put the relationship on a new footing. Demilitarization of the border and general lessening of tensions opened up the possibility for trade. New conditions allowed for a more full-fledged economic relationship to evolve, including foreign direct investment.

In recent decades both of these countries have opened up to the world economically. They are exporting and importing more, both absolutely and as a portion of GDP. It is not really strange to see such a pattern in an era of globalization. Yet my figures suggest that the extent of integration of China and Russia has increased a little bit more rapidly than the integration of Russia with the world.

China and Russia have a relatively long border of 4,300 miles. The United States has long borders with our main trading partners, Canada and Mexico, which is one of the reasons why we have so much trade with these countries. However, China and Russia are not major trading partners. Russia's main population and economic space is far to the west. Moscow is 4,000 miles from the Pacific Ocean. Although a rail line exists, transport is severely limited between the main economic centers of Russia and China. Another feature of the border is

the difference in population density on each side. Population density on the Chinese side is much higher, which suggests a potential for labor flow from China into Russia. There is currently some labor flow, but it is mostly potential now and hindered by institutional obstacles. It is questionable whether much will become of this potential.

The main transport routes for energy out of Russia are pointed toward Europe. This is how the Soviet Union developed, and Russia inherited this legacy infrastructure that does not currently permit significant amounts of energy exports from Russia into China or the Pacific basin. Russians transport oil by rail, but to get significant export they really need to develop pipelines, a process that is underway. It will take a few years before this infrastructure is in place.

What do statistics show regarding bilateral trade between China and Russia? Over years covered by my data set (1985 to 2002), trade flows in both directions have grown, but the more significant growth has been in Russian exports to China. (Russia is one of the few countries with a significant trade surplus with China.) The overall volume of trade increased by 436%. As a destination for China's exports, Russia is not all that important compared to other countries, such as the US and Japan. On the other hand, if we look at the sources of Chinese imports, Russia ranks at number five. So, there is significance here in the trade relationship.

More to the point of today's discussion is the commodity composition of this bilateral trade. Exports from China to Russia are primarily consumer goods, and there is little potential for much increase until the economic fortunes of Russia's Far East improve significantly. Exports from Russia to China are dominated by intermediate industrial products—metals, chemicals, lumber and fuels. The share of energy has increased significantly over the past few years and oil and natural gas are poised to become the dominant commodities in the overall economic relationship between China and Russia.

As of the present, the volume of bilateral Foreign Direct Investment is not large by international standards, and this aspect of economic interaction between China and Russia is at an early stage. The data are sketchy, yet we can make a couple of interesting observations. If we look at all of Russia's inward FDI, 29% originates in China, and of all Russia's outward FDI, 20% goes to China. These are significant fractions. If we look at all of China's inward FDI, the part coming from Russia is only 1.2%, a small amount. Yet if we look at all of China's outward FDI, 25% is going to Russia. So, it is not a large flow of FDI, but in relative terms the bilateral FDI connection between Russia and China is important.

In conclusion, the economic relationship between these countries is significant and will continue to grow into the future, especially export of energy from Russia to China.