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Transcript

CHINA IN THE WORLD PODCAST

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Guest: **Johannes Urpelainen**

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Wang: You're listening Carnegie–Tsinghua's China in the World podcast, a series of conversations with Chinese and international experts on China's foreign policy, international role, and relations with the world, brought to you from the Carnegie–Tsinghua Center for Global Policy, located in Beijing. I am Wang Tao, a resident scholar at the center, and I will be your host.

I am thrilled to be joined today by professor Johannes Urpelainen of Columbia University to talk about the global energy market, making effective energy policy, and the subsidization of renewable and clean energy in developing countries, including China. Thank you so much for joining us, Johannes.

Urpelainen: Thank you.

Wang: Shortly, you will be speaking at an event on the historical and political implications of the drop in oil prices, but for some of our listeners not lucky enough to attend this event, could you please share some of your insights here? What are the political and historical implications of the global drop in oil prices that we are witnessing?

Urpelainen: So, the basic background behind the drop in oil prices has been a long period of about 10 years, or more, of very high oil prices in the international market, which has largely reflected the growing demand in countries like China and, before the year 2009, the rapid growth of the world economy. But, in recent years, in the United States in particular, and in Canada [as well], there has been this new resource, this shale oil, which has dramatically increased availability of supplies. And, during high oil prices those investments made a lot of sense, but the investments have been so large that there is actually an oversupply of oil in the market. And, once those investments were made and the oil started to flow into the markets, there was a rapid reaction because there simply wasn't enough demand for the oil.

So, my view here is that the oil price decrease has been largely driven by simple supply and demand mechanics, as opposed to, let's say, some oil war between Saudi Arabia and the United States and Russia. I don't think there really has been any deliberate policy behind it. But, what I see as important for policy is that, first of all, it creates an opportunity for countries to improve their energy policy. So, it's much easier to remove environmentally harmful oil subsidies, for example, when oil prices are low, because people are not so sensitive to small price increases. So, countries like India, Malaysia, have made decisions to reduce their fuel subsidies because of the decrease in oil prices.

The other significant issue, of course, is that the drop in oil prices has reduced the need for investment in oil in, for example, offshore in Africa, the tar sands, or shale oil, in Canada. And, now, those investments are in trouble. So, now there is a question, are we going back to more conventional oil use, largely driven by production in the Middle East, which would, of course, have some pretty significant implications for the future of energy policy globally, because it would again increase the significance of Saudi Arabia and other Middle Eastern producers in the long run?

Wang: Thank you. What can this trend tell us about the global energy markets today? Do you see this situation being balanced out in the near future and oil prices beginning to rise again, as you just described? Maybe the lack of investment in oil will actually push the price back up, or do you think this trend of cheap oil will continue for some time, because the demand, for example from

China, may be weakened and may not actually come back to the level of growth as we have witnessed in the last decade?

Urpelainen: My view is that predicting oil prices is very difficult. If I could actually know what they would be in the future, I would go to the bank, ask for a very large loan, and buy some futures, and become very wealthy. So, to be honest, in the at least in the short run or medium run, five to 10 years, I don't know. I think in the long run it's almost certain they will continue to fluctuate, precisely because when the prices go down investments react very strongly—demand continues, prices go up, people stop investing, they invest too much, prices go down. So, there's going to be this fluctuation up and down, up and down, over time.

And, I think in the very long run oil prices will have to increase, because in the very long run we don't have a good replacement for oil yet. So, in many other sectors, for example electricity, we now have alternatives to coal. We have natural gas, we have renewable energy, we have energy efficiency. But, in the case of transportation, which is where we really need oil, we don't currently have good alternatives. And, until those alternatives are developed, until that time, oil prices are going to be sensitive to demand and as resources will, at some point, start to reduce, even though it has not happened yet, prices will have to increase until we really develop a viable alternative to the [internal] combustion engine that we use for our cars.

Wang: So, your view is that there will be a fluctuating trend, but ultimately, oil prices will continue upward?

Urpelainen: Yes. It's not clear whether it will go up in the next five years—nobody knows. But, I think in the next 20 or 30 years it will have to go up at some point.

Wang: Let's change the topic and look at the energy policies in some specific countries.

In your recent paper, you discussed that immediately after the oil crisis in the 1970s, renewable energy development was promoted by the then-government of the United States in the first few years [after the crisis] before the topic became quite politicized, causing a significant drop in the R&D of renewables in the 1980s. Could you please elaborate a little bit more on why this happened and how we could learn from this past experience facing the recent oil price drop?

Urpelainen: The reason why the United States initially started making big investments in renewable energy was simply that the government and all the specialists, got very worried about their energy situation in long run. There was a real concern in 1973 that oil supplies might run out. So, in the 1970s, renewable energy was seen as an alternative to oil. It was a very simple decision, and that's why President Jimmy Carter's administration in particular made large investments in renewable energy R&D.

The drop in that R&D largely reflects President Reagan's coming into power in 1981. President Reagan was a right-wing politician and a very strong conservative who believed that the federal government must be small. So, he thought that the federal government should not spend money in renewables. His view was that if it is profitable, the free markets will supply it, and if not, there is no point in supporting it because after all, it is not profitable. And, I think the United States has made a bit of a comeback in renewable energy in the past five to 10 years, but not because of the federal government, but because the state governments in places like Texas and

California have seen value in renewable energy development, so they have created policies that support renewables.

I think for the current situation it's interesting because oil is actually not an important fuel for the electricity sector anymore. So, renewables don't really suffer, in my view, from the oil price drop too much. In fact, I think those two will be largely independent developments. Oil prices go up and down, but renewables will continue to grow because their main competition is in coal and natural gas. Natural gas is, to some extent, related to oil, but natural gas markets are regional as opposed to global, so they don't react very strongly to oil prices today. They used to, but today the reaction is weaker. So, my view is that the oil price will actually be much more significant in the transportation sector and for fuel subsidies, as opposed to renewable energy.

Wang: Thank you. In China, we can already see this kind of trend. I agree with you very much that renewables aren't actually competing head-on with oil prices. But, gas prices in China have also started to fall because of oil prices. Anyway, gas power generation is still very marginal and only responds to the peak load so we may see somewhat of an impact on transportation as you just described, although we hope we can learn to be smarter this time.

You have also written quite extensively about India, in terms of the ability of its government to deliver energy and electricity to its population, the role that Indian communities and scientists have played in the climate change debate, and the great solutions it has offered to alleviate the power shortages across the country. Now that you are in China, you know that both countries face sizable pollution and environmental challenges. Could you briefly contrast the two countries' energy markets, climate issues, and the challenges in their policies, and how their leadership is working to overcome these issues?

Urpelainen: The main difference between China and India is that China is already a much wealthier and more industrialized country than India. So, in China the challenge is that China already has a lot of power generation capacity and now the question is how do you manage its growth in a sustainable fashion over time? How do you make sure that the Chinese industry and consumers will have access to reliable electricity while making sure that the air pollution problem can be solved over time? Because currently, here in Beijing and other big cities the air quality is quite bad, and that is a real concern for the government.

In India, the problem is that India does not have the same kind of generation capacity. In India, there are still more than 300 million people who do not have electricity at home. India has many more power shortages than China has. So, in India the government is really facing this more fundamental challenge of how do they get electricity in the first place? And, partly that is because their electricity policies are not very good. They subsidize electricity very heavily. In many Indian states, it is a federation; they give free electricity to farmers, which means there is no point in producing electricity because you cannot make any money selling it. And, as a result, India is facing the same challenge that China was facing in the early 1990s, which is how to build a power sector that works. India is trying to do things, they have made some reforms, they have made investments, they're using renewable energy, they're using all kinds of resources to do this, but I think they are about two decades behind China in this development.

Wang: You write a lot about the role of subsidies in developing smart energy policies. In China, subsidies play a vital role in the early development of renewable energy technologies, but as the

size of wind and solar power generations increase, complaints from both finance ministries and consumers are growing. What are your thoughts on this, and is there any room for improvement?

Urpelainen: In my view, it is actually a good thing that there is now some debate and discussion. China has achieved a very fast growth rate for renewable energy through these subsidies and supportive policies. But, if they really want to scale it up—going from 10 percent to 20 and 30 percent of capacity—they need to pay more attention to cost and technical quality. The complaints about how China could improve its renewable energy generation and technology production at a lower cost, I think, are ultimately good for the Chinese renewable energy sector. Because, if they keep putting so much money into it without worrying about the quality and cost-effectiveness, at some point there's going to be a serious backlash, both among industry and among government officials.

So, in my view, there is a good opportunity here for China to try to improve its policy and reduce the role of subsidies. And, in fact, if you look at, for example, China's manufacturing in the solar sector, you're already seeing reduced subsidies. Of course, it is partly because of the anti-dumping complaints by the United States and by the European Union, but nonetheless these attacks on China, even though they may seem aggressive and unfortunate in the short run, they may in the long run actually leave China in a better position than where it is today.

Wang: So, in short, you have a very strong belief in China's renewable energy industries, and that they will be able to compete with fossil fuels [for] generation in the very near future. And, you think that it is actually good to let them face market competition and reduce their subsidies in the long term.

Urpelainen: Yes, I agree. Of course, you need a little bit of subsidy and support to take into account the fact that they're clean, that they protect the environment, they have all these social benefits. But, I think China needs to reduce that level of subsidy and create more competition because that will force the producers to become more efficient and improve their management and technology.

Wang: Thank you very much, Johannes. That's all for today, it was a pleasure to have you here and I look forward to more in-depth discussions on these issues later this afternoon. To our listeners interested in any of the topics discussed today, you can check out our website, www.carnegietsinghua.org, for a summary of this afternoon's event, and to sign up for our newsletters and other mailings, and to read our analyses and commentaries on energy and climate issues.