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Interview: Jan Horst Keppler, Professor of Economics, University Paris-Dauphine

Question: The price of fossil fuel has played an important role on the carbon market during the winter of 2005/06. Do you think the evolution of energy prices for electricity production will still have an impact on the carbon prices during Phase 2?

J.H. Keppler: First of all I don't think that there has been such a significant link between gas and coal prices on one side and carbon prices on the other. There can be a common trend between high energy prices and high carbon credit prices, but there is no direct connection between them. The spread between the price of gas and the price of coal is never wide enough to induce a substitution from gas to coal. Still, there seems to be some evidence for coal-to-coal substitution, like the increased use of coal with a higher calorific value and higher conversion efficiency, which emits less carbon per unit of electricity. Nevertheless, this doesn't mean that energy and carbon prices could not develop a link in EU-ETS Phase 2. The second period is much longer (five years for Phase 2 versus three years for Phase 1). People also have more experience with carbon markets. This will lead to higher investments compared to Phase 1, which was a testing phase.



Question: Are there enough investments in electricity capacity from renewable energy to have an impact on the price of carbon credits?

J.H. Keppler: Not only has the European Commission decided at the Brussels European Council in March 2007 a 20% cut of greenhouse gas emissions by 2020 from 1990 level but it has also endorsed a binding target with a 20% share of renewable energies in overall EU energy consumption by 2020. According

to me, the EU will not meet this second target. Although the production of electricity from renewable energy is increasing, the objective of the European Commission is not realistic! The investments towards electricity production from renewable energy outside Europe are much more interesting in this respect and will have a bigger impact on the price of carbon credits by generating CERs than the ones inside Europe.

Question: What is your analysis concerning the two flexibility mechanisms from the Kyoto protocol (CDM and JI)? Did it enable to invest significantly in renewable energy technologies in developing countries?

J.H. Keppler: These two mechanisms have shown very satisfying results. Still it is important to supervise them in a strict manner. The CDM Executive Board and the JI Supervisory Committee are aware of that and are working on it. The verification process needs to be improved but it is going the right way. The Clean Development Mechanism (CDM) and Joint Implementation (JI) mechanisms are the best means to involve the developing countries if we want things to improve regarding climate change. However, we must be careful that these mechanisms do not flood the European market (EU-ETS) with massive inflows of CERs and ERUs that might again undermine the credibility of the EU ETS.



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Question: What are the principal issues to be discussed during the upcoming post-Kyoto negotiations in Bali in December 2007?

J.H. Keppler: One priority is to find a scheme allowing developing countries to be involved in an economically equitable and politically sustainable way in the carbon market. That brings us to the definition of how to define the methodology and the baseline scenario. To establish baselines, the CO₂ emission issue (per capita or historically) should be addressed at a national level. Negotiations should not be considered project by project but rather country by country. Finally, technical inspections need to continue in a manner that is globally harmonized in order to maintain the credibility of the market.



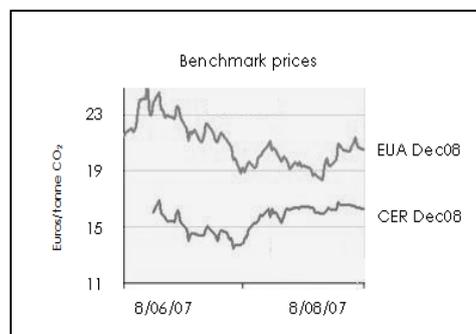
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Carbon prices high before Phase 2

Carbon prices are staying high before the starting of EU-ETS Phase 2

While earlier forecast predicted a Phase 2 carbon price of 13€ to 24€, the price is now expected to range between 24€ and 33€. At the beginning of September 2007, credits (EUA December 2008) were around 21€.

The reason for such a trend is due to the demand from power utilities forward hedging their carbon, and a tighter supply of carbon credits for Clean Development Mechanism (CDM) and Joint Implementation (JI) projects. In the same time, the European Commission has cut by a sharp 7% the carbon credits cap between Phase 1 and Phase 2. While utilities are buying carbon to meet their compliance needs, there is no selling from installations that may have excess credits because they are uncertain of their position.



Another driver of the market in the short term is the lack of sufficient Certified Emission Reductions (CERs) and Emission Reduction Units (ERUs), with too many buyers and few sellers. It is foreseen that CDM projects will generate around 1.9 milliard of tons of CO₂ equivalent until 2012.

Phase 2... and after?

While the horizon for Phase 2 is clarifying (with still some uncertainty about the scope of its extension to new gases and new sectors such as aviation and shipping), the post 2012 period remains dull. By the end of 2007, the European Commission will start a review to set out national allocation plans for Phase 3. It will also look at technical issues such as harmonization across EU countries on how carbon allocations are decided, how new entrants in the ETS are treated and how emissions data issues are handled.

Regarding CDM/JI projects, the issue of climate change after 2012 is conditioned by the efforts the developed countries will agree upon to limit their greenhouse gas emissions, but also by the developing countries, principally in Asia, and in the first place China.

Asia is already producing 1/3 of the worldwide volume of greenhouse gas emissions. Since 2000, China's emissions are growing faster than GDP. As from 2008, China will become the first GHG emitter in the world. In the same time, with 49% of CERs planned to be generated by 2012, it is leading the CDM market.

In order to get an efficient post-Kyoto regime, developing countries will need guidance to make the right energetic and technological decisions to reduce

their emissions. This will be on the agenda of the next Conference of the Parties (COP13) in Bali in early December 2007.

The debate on the best way to tackle climate change however remains largely polarized between the European Union, which has itself already committed to a binding 30% emissions reduction goal by 2020 and wants Kyoto's successor to set clear, binding targets, and the United States, which prefer a voluntary, technology-driven approach.

CDM projects opportunities: Focus on Bolivia



Activities related to land-use change and forestry are responsible for 82.8 % of CO₂ emissions in Bolivia, and 97.7% of Bolivia's CO₂ abatement potential is in this sector, equivalent to 903 million tons of CO₂.

Apart the forestry sector, Bolivia can also offer a variety of mitigation options in the energy sector (for residential, commercial, industrial, and transportation sectors).

Even considering that gas fired plants and hydropower produce a major part of electricity in Bolivia, opportunities for GHG emissions reductions also exist in the power generation sector. The same is true in the power distribution sector. In rural areas, the population is rarely connected to the grid and electricity is usually produced by diesel power generators, which can be replaced by small hydropower plants, since there is an interesting hydroelectric potential not yet developed in the country, as well as in wind and solar energy.

Finally, switching from diesel and gasoline to compressed natural gas is another possibility in the Bolivian transport sector.

In terms of real emissions in the baseline scenario, Bolivia should emit a total of 842 million tons of CO₂ between 2001 and 2012, or an annual average net emission of 70 millions of tons of CO₂ during the same period. 22.27% of the total emissions will come from the energy sector and 77.73% will come from changes in land use.

Regarding the institutional aspects, Bolivia signed the Kyoto Protocol on July 9, 1998 and ratified it on November 30, 1999. The Government designated the Vice-ministry for Natural Resources and the Environment as the Designated National Authority (DNA) for the CDM. Moreover, by Administrative Resolution n°20/02, the National Clean Development Office (NCDO) was created as the operative instance of the DNA, in coordination with the National Program on Climate Change. NCDO started its operations in September 2002, to act as an agency for the technical evaluation and promotion of the CDM projects in the market for carbon emissions reductions, in relation with the



Kyoto Protocol. Bolivia has currently in portfolio 12 projects in the energy sector (hydraulic, biogas, cogeneration, biomass), 2 projects on methane capture and flaring and 7 projects in the field of afforestation/reforestation.



On June 16, 2007, the first Bolivian renewable energy project, the Rio Taquesi hydroelectric power project, has been registered by the UNFCCC as a CDM project.

Bolivia's Designated National Authority

CDM Office
Ministry of Planning of Development
Mercado Street 1328, Mariscal Bolivian Building
Mezzanine, La Paz
Bolivia

Links

National Clean Development Office
<http://www.odl.gov.bo>

National Programme on Climate Change
<http://www.pncc.gov.bo>

Publications

Borde A., Joumni H., 2007. « Le recours au marché dans les politiques de lutte contre le changement climatique ». Revue internationale et stratégique n°67, automne 2007. Institut de relations internationales et stratégiques (IRIS), Dalloz, Paris.



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