

The crude oil price surge – it's all about China, say the experts

- The upward trend of crude oil prices is hard to control. Nevertheless, Western economies appear to be more robust to their effects than in previous decades.
- The key economic challenges for the Spanish and international energy sector were discussed at the 2012 edition of the annual international workshop organized by the research center Economics for Energy at the Areces Foundation in Madrid (Spain).
- Postdoc researchers on energy economics from the Alcoa Foundation initiative on advancing sustainability research participated in the workshop.

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The main determinant of oil prices is the increasing demand in Asian countries. So far, neither speculation nor supply shocks nor the so-called peak-oil, appear to have been responsible for price increases. Therefore, issues on which many Western governments claim to act such as an increase in production and a regulation for speculation will not have noticeable effects on prices. However, economic recovery may indeed raise prices, thereby creating an important dilemma to policymakers. Nevertheless, regarding the possible effects of oil prices on the economy, oil shocks are not as important as the underlying cause. For example, if a rise in Chinese demand is the main reason of the surge, this might be beneficial through its effects on exports. Therefore, it looks clearer than the oil price seems to be a consequence of economic development and not an obstacle for it, say Pedro Linares and Xavier Labandeira, directors of Economics for Energy, after the discussion of this issue in the workshop organized by this research center in the Areces Foundation of Madrid.

Energy efficiency and the impact of climate change on energy consumption were also discussed at the workshop. For instance, studies carried out in California show that a rise in temperature can lead to large increases in energy demand, mainly in buildings. Moreover, the rebound effect, i.e. the increase in consumption after an efficiency improvement, can be very large. Therefore, measures to encourage energy savings in buildings seem to be essential, especially in the commercial sector. One of these is the energy certification of buildings. Recent studies attribute a larger role than expected to certificates, and it has also been shown that certificates may increase the value of buildings up to 13% in the U.S.

Regarding energy security, the German strategy was presented, a model to monitor energy developments from a security point of view. This model could be applied to other countries, including Spain, one of the most dependent on foreign energy sources. Different indicators are quantified in this strategy to evaluate the interest of different energy policies. Related to this issue, the impact of oil prices on the economy and the importance of improving oil price forecasts with suitable models were also analyzed. The results of a model that provides reasonable forecasts were presented. The model predicts a price path much correlated with the demand of the larger consumers in Asia.

In the following session the discussion was about energy innovation. First, updated figures for clean energy investment were presented. The data show that investment in clean energy is growing around the world, where China and Germany are the main recipients of these investments. Few sectors are able to keep this level of growth and, indeed, nowadays investment in clean energy equals investment in fossil fuels. This implies that clean energy can no longer be considered as a niche. In the future, a continued growth in the implementation of these technologies is expected, which will contribute to lower their costs, especially in the cases of wind and solar photovoltaic. But, apart from the implied learning-by-doing, it is also essential to continue investing in R&D to allow these technologies to attain reasonable

costs in the future. In this sense, R&D investment figures were presented and discussed. One of the conclusions was that Spain is far behind many European countries regarding spending on energy research. In any case, it was emphasized the importance of not focusing all attention on the evolution of spending, but rather on its effectiveness in terms of innovation and lower costs.

The topic of the next session was the analysis of environmental and energy policies. First the proposal of a reform for the British energy market was discussed. The reform attempts to induce significantly more renewable and nuclear electricity production, with plans that include a regulatory reconfiguration away from the current market system towards one that would provide investors with more long-term security concerning their activities. Some experts expressed their doubts about the possibilities of achieving those aims through the recent British reform proposal. Afterwards, a critical review of the current European transport policies was offered, highlighting that the European policy should also consider relevant non-environmental issues like congestion and tax revenues. Accordingly, the current taxation of diesel fuels was criticized for not taking into account correctly the emission levels of these vehicles, which in turn induces excessive emissions.

The second day of the seminar was devoted to the analysis of the 2050 energy roadmap of the European Commission. First, several future outlooks of emissions and key economic values were presented, followed by a comparison of alternative strategies to reduce emissions by 80% in 2050. Renewable energy sources and energy efficiency play a key role in all emission reduction strategies, which are based on calculations of the PRIMES model. Electricity in transport and heating is another important factor. All this demands major changes in the European energy markets to incentive the necessary investments and induce the response of demand. It also requires regulation to be strong, reliable and stable (loud, long, and legal). If these requirements were not met, the roadmap would be in danger of becoming just another voluntary toothless agreement.

About the seminar

The presentations and other contents of the seminar can be found at:
<http://www.eforenergy.org/activities/actividad.php?id=35>

About Economics for Energy

Economics for Energy is a private research center participated by Comillas Pontifical University, Vigo University, the Spanish Ministry of Economics and Financial Administration, Barrié Foundation, Areces Foundation, Novacaixagalicia, Banco Santander, Gas Natural Fenosa, Acciona, Alcoa, and Iberdrola. Economics for Energy is directed by Xavier Labandeira, professor of economics at Vigo University, and Pedro Linares, associate professor and associate dean of the ICAI school of engineering at Comillas Pontifical University (Madrid).

Economics for Energy is focused in the economic analysis of energy issues. Its mission is to create knowledge in the field of energy economics, and to transfer this knowledge effectively to society to inform, provide guidance and advise public and private decision makers. The research topics of Economics for Energy are: the analysis of energy demand; technological innovation in the energy sector; the design and evaluation of energy and environmental policies; the assessment of energy security, and long-term energy and regulatory prospective.