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Effects of Rising Oil Prices on Tourism Studied



A study involving an ICREA researcher at the UAB recommends designing strategies that minimize the economic impact on the Spanish tourism sector of a potential rise in oil prices. This paper has analyzed the possible effects of peak oil in this sector. According to these calculations, the most affected sectors would be various transport sectors and travel agencies.

Peak oil identifies the moment when global oil production reaches its maximum level, after which production is expected to decline with the resulting increase in prices due to the inability of supply to meet demand. Registered records in the oil price in 2008 and 2012 (147 and 128 dollars per barrel, respectively) are signs of having reached this peak, according to some experts. However, other more optimistic experts claim that this will not occur until after 2020.

Jeroen van den Bergh, ICREA researcher and professor at the Institute of Environmental Science and Technology (ICTA) and professor at VU University Amsterdam, and Ivana Logar, based at the Swiss Federal Institute of Aquatic Science and Technology of Switzerland, have

studied for the first time the economic impact of this phenomenon on the Spanish tourism sector. They have applied the input-output (I/O) model in combination with data from the Tourism Satellite Account of Spain of the National Institute of Statistics dating from 2005.

The study, published in the journal *Energy*, has focused on the potential increase in oil prices and does not include other factors that may affect tourism demand, such as political instability in countries that are direct competitors of Spain. The analysis cannot predict which markets would experience more or less change in demands.

Starting from a baseline oil price of \$55 per barrel in 2005, this study considers three oil price scenarios of \$115, \$150 and \$200 a barrel, and the price changes associated with other energy sources (gas and coal). It analyses the effects of an increase in prices of these energy sources individually and in combination with the increased cost of primary factors (labor and capital) due to the inflationary effects on prices of tourism providers.

Results show that the sectors associated with tourism activities experimenting the most significant falls in production ("output") would be: air transport (between 8% and 20.8%), maritime transport (between 5% and 13.2%), land transport (1.7% and 5.3%) and railway transport (1.5% and 6.8%). Travel agencies' services would be reduced between 1.3% and 5.5%, sports, culture and leisure between 0.8 and 6.6%, foodservice between 0.8 and 5.8%, and hotel industry between 0.5 and 4.4%. The range of percentages corresponds to the minimum and maximum extreme scenario of oil price increases and inflationary effects. Depending on the scenario adopted, the gross domestic product would fall by 0.08% and 0.38% and between 20,000 and 100,000 jobs would be lost in the Spanish economy as a whole.

To calculate the impact, researchers have set the price elasticity of demand in the tourism sector to -0.50 %, a figure which is considered conservative. This value indicates the percentage by which international tourism demand would reduce for every 1% increase in prices.

This study also notes that policy makers would have to start considering adaptation strategies for this new economic scenario and continue to carry out studies that could further refine our estimates. Researchers from other countries, such as Scotland and New Zealand, have already developed interesting proposals, such as investing in alternative and renewable energies, introducing taxes on air travel, improving public transport and rail or develop specific policies for eco-tourism, which is expected to rise significantly over the next years.

Researchers believe that all countries in which tourism plays an important role in the economy will be affected by the phenomenon of peak oil, but the degree of damage could vary greatly. In Spain almost 78% of foreign tourists arrive by plane, mostly in low cost airlines, which are most vulnerable to rising fuel prices, while in Croatia this percentage is only 10%. Still, this study's results may be valid for many countries similar to Spain, which rely on tourism and are oil importers.

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References

Logar, I., van den Bergh, J.C.J.M. (2013). The impact of peak oil on tourism in Spain: an input-output analysis of price, demand and economy-wide effects, *Energy*, 54: 155-166.

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