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THE EFFECTS OF POLLUTION ON THE ENVIRONMENTAL KUZNETS CURVE

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In recent years, increased economic development, globalization, and liberalization of international trade have been linked by economists and environmental scholars as possible causes for specific trends in pollution. One of the most studied and controversial hypotheses surrounding this topic is the Environmental Kuznets Curve Hypothesis (EKC), which states that a country's pollution concentrations rise with development and industrialization up to a certain point, after which it falls again as the country uses its increased affluence to reduce pollution concentrations again. If true, plotting pollution concentrations against income per capita will yield an inverted U—the EKC. Another controversy is the manner in which the more affluent countries reduce their pollution concentrations. Two possibilities are likely: One is that the more developed countries adopt cleaner technologies to produce their goods. The other less hopeful possibility is that developed countries simply specialize more and more in the production of products of cleaner industries, while the less affluent or developing countries take over production of products from dirtier industries. This suggests that the cleaner environment in developed countries comes at the expense of a dirtier environment in developing countries. This is the essence of the Pollution Haven Hypothesis (PHH).

This paper looks for evidence of an EKC across 36 countries over time. It also looks for evidence as to whether these changes over time are consistent with the PHH. Sulfur Dioxide (SO2) is used as a measure of pollution concentrations for the EKC, while five dirty manufacturing industries are used to measure the level of dirty production in developed and developing countries. Linear regression models and descriptive statistics are utilized in finding and explaining results. Overall, there is very little evidence to suggest that an EKC exists. The signs of the coefficients are correct, which means that the EKC seems to have an inverted U shape. However, the results are not significant, and therefore no conclusions can be made. There is no evidence to support the PHH. This suggests that developing countries may not be increasing their production of products of dirtier industries after all, and therefore are not as likely to be "pollution havens" in the world economy.