

Energy Efficiency Standard and Labeling Mechanism and Consumer Surplus: Case of Air Conditioner Market in China

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Abstract

This paper estimates how the consumer respond and evaluates the energy efficiency standard and labeling in China. To quantify evaluation by consumers, we estimated demand function and computing consumer surplus by product types based on the demand parameters. We found following points: First, introduction of the standard and labeling apparently recovered willingness to payment to the benefit of products since 2008. Prior to 2008, acute competition deteriorated price and benefit correlation. Secondly we found that evaluation of energy efficiency label by consumer does not monotonically correlated with the number of grades. Though, the highest efficiency label (Label 1) is evaluated higher than label 2 and 3 but, lower than the least energy efficient label (Label 4). This is against the design of the policy intervention.

Keywords Demand estimates, competitive advantage, cost advantage, benefit advantage, energy efficiency standard and labeling

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