

# An Economic Theory of Reuse

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## **Abstract**

The three “Rs” - reduce, reuse and recycle - are important concepts for a sustainable society. For the past four decades, economists have investigated recycling. However, only few studies have so far been made at economics of reuse. In this paper, we develop a model of reuse based on durable goods theory. Consumers vary in their valuations for used goods. We show that an amount of waste become the smallest when there exist a second-hand market. When many consumers begin to reuse, welfare of consumers who do not buy used goods will be improved.