

The Curse of Low-valued Recycling

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Abstract

This paper discusses how to deal with low-valued recyclable residual wastes whose reprocessing itself does not pay financially. While such a recycling activity can potentially improve the social welfare if the environmental costs associated with its disposal are sufficiently significant, governmental policies to promote recycling may be taken advantage of and lead to even more harmful consequences, such as illegal dumping. By constructing a model that includes both disposal and recycling activities and, furthermore, by explicitly considering the government's monitoring cost in preventing firms from disposing of collected wastes illicitly, we identify the second-best deposit-refund (D-R) policy for a low-valued recyclable. Our results indicate, however, that in implementing such a policy a policy-maker has to face critical informational issues, which is in stark contrast to the D-R policy for a non-low-valued recyclable.

Keywords: deposit-refund; illegal waste disposal; monitoring; recycling

JEL Codes: H21; Q21; Q28

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