

How does product durability influence eco-design incentives and efficiency of waste management?

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Maarten Dubois

Policy Research Centre for Sustainable Materials, KU Leuven, Kasteelpark Arenberg 44, 3001 Leuven, Belgium

Abstract

The increasing implementation of Extended Producer Responsibility (EPR) as a policy instrument for waste management of durable goods raises questions about the approach towards time. In most EPR schemes, producer responsibility is limited to waste management of historic products. Although such a myopic approach solves current waste problems, it only makes producers indirectly responsible for the durable products they bring to the market today. A simple stylised model assesses how this myopic approach influences eco-design incentives and efficiency of waste management. Incentives for eco-design are shown to be weak due to three effects: freeriding from producers, high private discount rates and externalities of waste management. Low levels of eco-design do not only induce loss of welfare but also reduce producer profits. Self-regulation by producers or other policy instruments should complement EPR to stimulate eco-design. The paper shows that results from earlier contributions to the EPR literature cannot be generalised to durable goods.

Keywords

Waste, policy, Extended Producer Responsibility, durable goods, eco-design