

Environmental Goods and Measures for their Promotion: An Analysis

Using a Fair Wage Model

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Abstract

In this paper, we model a two-sector small open economy with emissions and unemployment associated with the fair wage effort hypothesis, and investigate the environmental and employment impact of an emission tax, a subsidy for purchasing environmental goods in the downstream polluting industry, and a subsidy to the upstream eco-industry. We then show that if the eco-industry is skilled labor intensive relative to the polluting final goods industry, while a subsidy for purchasing environmental goods decreases the unemployment rate of unskilled labor, it may increase total emissions. In contrast, the emission tax and the subsidy to eco-industry firms worsen the unemployment rate, though both policies definitely decrease total emissions. Hence, if the emission tax is set equal to the marginal environmental damage, and either a downstream or upstream subsidy is used to mitigate unskilled unemployment, the optimal subsidy to purchase the goods is positive whereas the optimal subsidy to the eco-industry is negative, i.e., a tax on the eco-industry.

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