

# **Public Income Transfers and the Market for Private Insurance Against Environmental Disasters**

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This paper offers an alternative explanation for observed under-insurance on the part of individuals exposed to risk from adverse events, such as natural or man-made disasters, when public insurance programs and public compensation for such risks exist. Private insurance coverage for loss due to such adverse events, when it exists, often precludes eligibility for public assistance. We analyze how this preemption in eligibility affects private insurance demand. We also provide a sensible explanation for why such public insurance programs arise endogenously, and why eligibility restrictions for public compensation are commonplace. In the presence of such restrictions, the demand for private disaster insurance appears as if individuals purposefully underinsure, and may be interpreted as being irrational from an expected-utility perspective. This incentive to rationally under-insure is distinguished from the incentive of large agents to manipulate public insurance coverage, by strategically committing to underinsurance, because the level of public generosity is determined by the magnitude of the disaster and the aggregate private insurance coverage. An individual small agent cannot affect this aggregate and, therefore, cannot influence the level of public generosity. But because the public concern for disaster victims is expressed ex post and there certainly is less public concern for a disaster victim with private insurance, whose ex post out-of-pocket loss is small, a small agent can affect how much he collects in relief through his own private insurance purchase. Such externalities in private insurance decisions have profound implications for the creation and regulation of public insurance programs.

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