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Is informal risk-sharing less effective for the poor? Risk externalities and moral hazard in mutual insurance

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Abstract

Poor farm-households are less keen to adopt high risk/high return technologies than rich households. Yet, the poor are more vulnerable to income shocks. We develop a model of endogenous risk-taking to explain these facts. In autarky, poor households adopt less risky production plans and obtain lower expected returns, but face higher relative risk than the rich. The introduction of risk-sharing generates negative risk externalities between agents. At the first best, the social planner imposes a homogeneous level of risk-taking in the group. At the second best, risk-taking is not enforceable and increases with insurance, generating moral hazard. Interestingly, the poor's risk-taking behavior is more sensitive to insurance. The social planner thus mitigates risk-taking by applying a lower insurance coverage in poor groups. The introduction of risk-sharing therefore reinforces the gap between rich and poor in terms of expected income and absolute risk, while the effect on relative risk is ambiguous.

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