

How to solve a moral hazard problem?

The contract involves a menu of pairs (x,t) where x is an observable outcome and t a payment if that outcome occurs. The outcome depends on an unobservable action a by the agent.

To design the mechanism, the Principal maximizes her expected payoff subject to moral hazard constraints (the equivalent of an incentive compatibility constraint) and individual rationality constraints (and maybe others).

The moral hazard constraint (MH) reflects the fact that the agent chooses a to maximize his own utility. IR means that the agent prefers to accept the contract rather than not.

Step 1: determine the transfers that satisfy the constraints and are in the best interest of the Principal.

Step 2: Plug back the transfers in the objective function.

Step 3: Maximize the objective function to determine the optimal action. Check for possible remaining constraints.

References: Regulation, employer-employee, problem set 3