Moral Hazard & Insurance Outline & Study Questions

Here is a summary of the key points from *Moral Hazard and Insurance*, along with Study Questions and Answers:

Summary

This teaching note analyzes incentives for risk management with and without insurance.

- Assumes two states: loss and no loss
- Consumer is risk neutral and wants to maximize expected wealth
- Consumer chooses safety level s at cost c(s)
- Higher s leads to higher cost c'(s) > 0
- Probability of loss p(s) decreases as s increases p'(s) < 0
- Without insurance:
  - Optimal s (s*) where marginal cost = marginal benefit
  - Marginal cost is c'(s*)
  - Marginal benefit is -p'(s*)L
- With risk-insensitive insurance:
  - Insurer covers proportion α of loss for premium αP
  - Presence of insurance reduces incentive to invest in safety
  - Optimal s* is lower than without insurance
  - Marginal benefit of safety is scaled down by (1-α)
- With risk-sensitive insurance:
  - Premium P is a function of s, P(s)
  - Insurer charges higher premiums for lower s
  - Provides incentive to invest optimally in safety even with insurance

Study Question	Answer
How does the presence of risk-insensitive insurance impact the consumer's incentive to invest in safety?	The presence of risk-insensitive insurance reduces the consumer's incentive to invest in safety.

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Why does risk-insensitive insurance reduce the incentive to invest in safety?	Risk-insensitive insurance reduces the marginal benefit of investing in safety since the consumer is not fully bearing the risk. This leads to underinvestment in safety relative to the social optimum.
How can insurers provide proper incentives for safety investment?	Insurers can charge risk-sensitive premiums, where premiums are a function of the level of safety investment. This aligns the consumer's incentives with the social optimum.
What is moral hazard?	Moral hazard is the phenomenon where insurance reduces incentives to mitigate risk, resulting in inefficiently low levels of loss prevention.
How does the document recommend addressing moral hazard?	The document recommends insurers use risk-sensitive contracts where premiums are linked to policyholders' investments in safety/loss prevention.