

**The Incentive Effect of Deregulation on Automobile Insurance Contracts and  
Risk of Accident: Theory and Evidence in Taiwan.**

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## **Abstract**

The standard approach of moral hazard assumes that the probability of accident depends on the level of care. Due to the asymmetric information, the level of care is unobservable. Moral hazard exists when the insured has no incentive to provide effort of care after purchasing a specific insurance contract. Empirically, the existence of moral hazard can be test by looking at the behavior change of the insured. However, the answer is not straightforward when the cross sectional data are used. As described in Chiappori and Salanié (2000), the increasing in loss ratio after purchasing automobile insurance contract may due to the unobserved heterogeneity (adverse selection) of the insured as well as the incentive structure provided by insurance (moral hazard). Therefore, the problem of distinguishing the positive occurrence dependence generated by unobserved heterogeneity from the negative dependence induced by the incentive scheme is critical.

To solve the above problem, Chiappori (2000) proposes that either the dynamic data or a natural experiment is needed to allow the driving pattern under different time horizon can be identified while keeping the unobserved heterogeneity remain constant.

The change of regulation in Taiwan's automobile insurance since 1996 provides a good environment to conduct natural experiment to examine the incentive effect of different contracts with various deductible choices. A new rating system of automobile insurance in Taiwan is launched on July 1, 1996, introducing compulsory deductible, which is increased with the number of claims. During the past several years, the compulsory regime is gradually released to allow the insured to choose higher deductibles in return with lower premium or to select zero deductible by paying higher premium. Based on the full data set obtained from the Insurance Institute of ROC, the change of preferences of the insured to choose insurance contracts are interesting and deserves further investigation.