

Discussion of

# Market-Wide Moral Hazard and Price Walking in Automobile Insurance

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# Equilibrium in Car Insurance Market

- ▶ New data, matched insurer-insuree
- ▶ Population of contracts (ex ante) and claims (ex post)
- ▶ 50+ companies; 4,000,000+ contracts; 2013-2017
- ▶ Can credibly study equilibrium in car insurance market
  - a. Very large representative sample approaching population
  - b. Mandatory insurance contract (one endogeneity removed)

# Main Objective

- ▶ Examine how policy price varies with driving record; expect penalty  $\uparrow \Rightarrow$  accidents  $\downarrow$ ; elasticity parameter crucial for policy
- ▶ To do so, need to disentangle two mechanisms
  - a. Moral hazard: risky behavior of insuree ex post
    - If insurance premium unaffected by accidents, drivers likely less attentive
    - Hence, premium declines with clean record (experience rating)
  - b. Adverse selection: writing contracts to riskier types ex ante
    - With imperfect competition, different insurers attract (/cater to) different market segments
- ▶ Both moral hazard and adverse selection likely relevant in equilibrium

# Rich Data to Address Big Challenges

## ► Challenges:

1. Sorting + heterogeneous penalty (and cost) structures
2. Premium-tenure profiles likely relevant
3. Competitors pricing  $\Rightarrow$  outside option

## ► Rich data allows to address challenges:

- i. Essentially observe population + mandatory insurance
- ii. Focus on switchers while accounting for all time-invariant heterogeneity of insurers, insurees, and locations
- iii. Can estimate rich array of tenure effects

# Intuition

- ▶ Use rich price variation across/within insurers and locations
- ▶ Account for tenure effects and rich time-invariant heterogeneity across insurers (cost structures) and insurees (innate riskiness)
- ▶ Effect identified by insurees' switching across insurers/provinces (13% of policyholders switch companies)
- ▶ Prior literature: data on one insurer only

# Main Findings: Market-Wide Moral Hazard

- ▶ **Price walking:** insurance premium **increases** over time within insurer-insuree pair; the more so for dirty driving records and for medium size (re. small) insurers
    - ▶ New insurees get sizable initial premium discount and lower penalties upon signing
    - ▶ Opposite direction to experience rating effect
  - ▶ Switching probability  $\uparrow$  with realized accidents/penalties
- ⇒ Effectiveness of penalties neutralized by price walking

- ▶ **Market-wide moral hazard:**
  1. Safe drivers subsidize risky ones
  2. Insurers compete for lemons

# Assessment

- ▶ Fascinating new data
- ▶ Striking findings
- ▶ Winning combination of novel findings and fleshed-out economic mechanisms
- ▶ Clear picture of equilibrium in car insurance market
- ▶ Strongly recommend you read this paper

# Main Question

- ▶ Experience ratings vs. price walking
  - Experience rating and price walking go in opposite directions
  - Paper estimates net effect  $\Rightarrow$  price walking dominates
  - However, experience ratings also likely relevant  $\Rightarrow$  price walking estimate is a lower bound
- ▶ Can quantify separately experience rating effects?



# Suggestion

- ▶ Consider counterfactual world with no price walking. What is experience rating effect?
- ▶ Can gauge this by exploiting variation in accidents and claims across provinces/insurers
- ▶ Estimate baseline tenure effect in a (local) market with no accidents and no switches (e.g., only one insurer); how does it compare with equilibrium estimate?
- ▶ Purpose: separately quantify opposite-sign effects

# Conclusions

- ▶ Fascinating paper; major contribution to our understanding of equilibrium effects in auto insurance market
- ▶ Main suggestion: break down exposition to emphasize specific challenges one by one; and for each challenge, outline how the data addressed it
- ▶ Separate quantification of experience rating and price walking effects crucial for policy