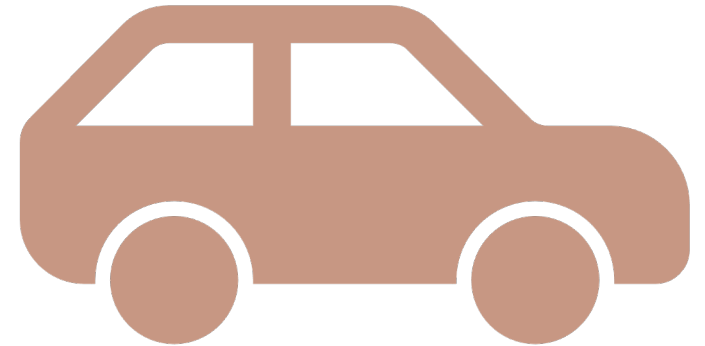


What is the relationship between investor sentiment towards automobile manufacturers involved in fatal accidents with non-deployed airbags and the company's cost of capital in the following year?

Aidan McGaugh

# *Basic Motivation*

- Question Answered: how incidents of fatal accidents involving non-deployed airbags affect investor sentiment towards automobile manufacturers, and how this sentiment translates into changes in the companies' cost of capital in the subsequent year.
- Why should we care?
- Why is the answer not obvious?
- What are the economic mechanism at play that are driving this question?

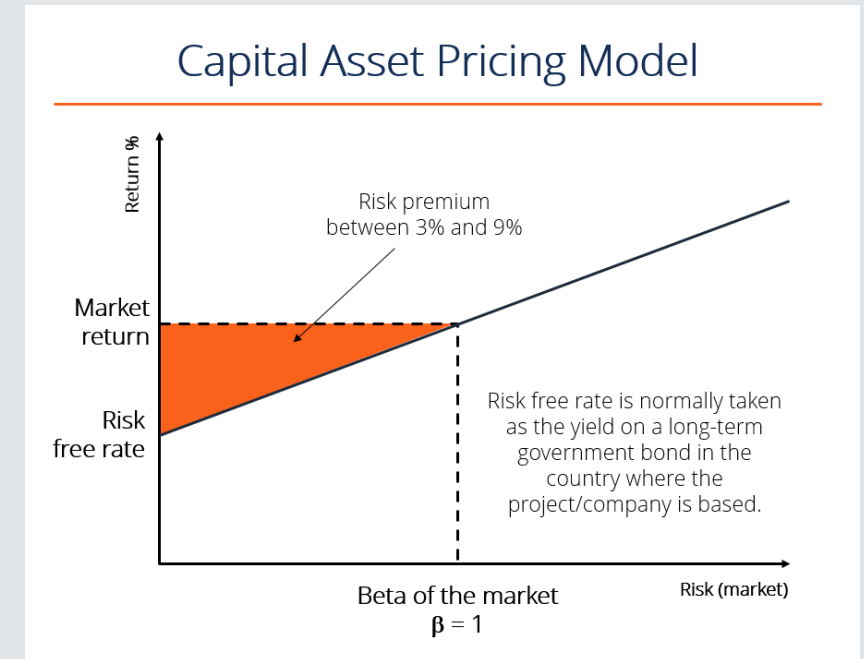


# *Related Literature*

- **"The Impact of Product Recalls on Future Product Reliability and Future Accidents: Evidence from the Automobile Industry"** by Kartik Kalaighanam, Tarun Kushwaha, Meike Eilert (2013)
- **"Crisis Management Strategies and the Long-Term Effects of Product Recalls on Firm Value"** by Yan Liu, Venkatesh Shankar, Wonjoo Yun (2017)
- **"The Liability of Good Reputation: A Study of Product Recalls in the U.S. Automobile Industry"** by Mooweon Rhee, Pamela R. Haunschild (2006)
- **"Corporate governance and market valuation of capital and R&D investments"** by Kee H. Chung, Peter Wright, Ben Kedia (2003)

# Data

- National Highway Traffic Safety Administration's Fatality Analysis Reporting System
- Data on a company's cost of capital
  1. Cost of Debt
  2. Cost of Equity
  3. Weighted Average Cost of Capital (WACC)



# Methodology

- Difference-in-Difference Equation for

$$\text{CostOfCapital}_{it} = \beta_0 + \beta_1 \cdot \text{PostAccident}_{it} + \beta_2 \cdot \text{TreatmentGroup}_i + \beta_3 \cdot \text{Post} \\ \text{Accident}_{it} \times \text{TreatmentGroup}_i + X_{it}'\beta_4 + \alpha_i + \gamma_t + \epsilon_{it}$$

- Fixed Effects Panel Data Analysis



# *Potential Results*

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1. **Significant Increase in Cost of Capital**
2. **No Significant Change in Cost of Capital**
3. **Decrease in Cost of Capital**
4. **Heterogeneous Effects**

