

Prediction vs Causation

$t(q/p)$

Need $q^p = a - bp$ Need cause \rightarrow effect

$$\left. \frac{\partial q}{\partial p} \right|_0 = -1$$

Need random assignment of "predictors" independent
Vars + exogenous

- 1) randomize
- 2) Natural Experiment
- 3) Instrumental Variable
 - \hookrightarrow driver of price but not demand
- 4) Diff in Diff
 - \hookrightarrow diff individual datasets then find those differences