Consumer Protection and Antitrust in Complex Markets

Matthew Grennan, PhD

Emory University & NBER

Disclosures

- Senior Consultant, Compass Lexecon

- Expert testimony related to innovation, marketing, and antitrust

- Research using claims data from UnitedHealth

- Editor, Journal of Political Economy - Microeconomics

A "Simple" Market

Drug Manufacturer
p

Consumer
$q(p)$

Market Complexities: Internalities

Drug Manufacturer
p

Biased Consumer
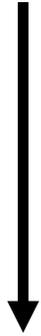$q^b(p)$

Drug Manufacturer
p

Informed Consumer
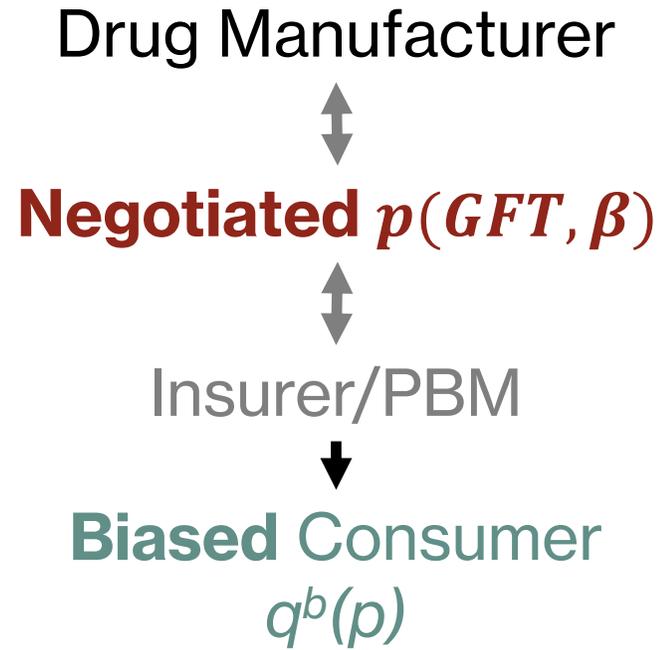$q*(p)$

Market Complexities: Internalities
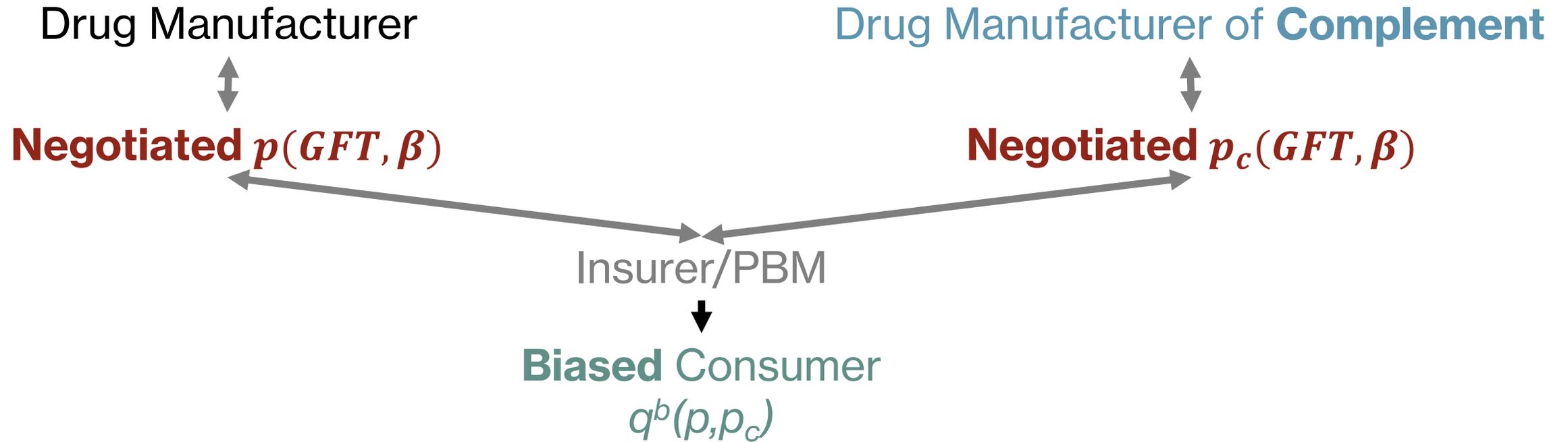
Drug Manufacturer
p

Biased Consumer
$q^b(p)$

Market Complexities: Internalities, Bargaining

Drug Manufacturer

$\updownarrow$

Negotiated $p(GFT, \beta)$

$\updownarrow$

Insurer/PBM

$\downarrow$

Biased Consumer
$q^b(p)$

Market Complexities: Internalities, Bargaining, Complements

Drug Manufacturer

Drug Manufacturer of **Complement**

Negotiated $p(GFT, \beta)$

Negotiated $p_c(GFT, \beta)$

Insurer/PBM

Biased Consumer
$q^b(p, p_c)$

Market Complexities: Internalities, Bargaining, Complements

Drug Manufacturer

Drug Manufacturer of **Complement**

Negotiated $p(GFT, \beta)$

Negotiated $p_c(GFT, \beta)$

Insurer/PBM

Biased Consumer
$q^b(p, p_c)$
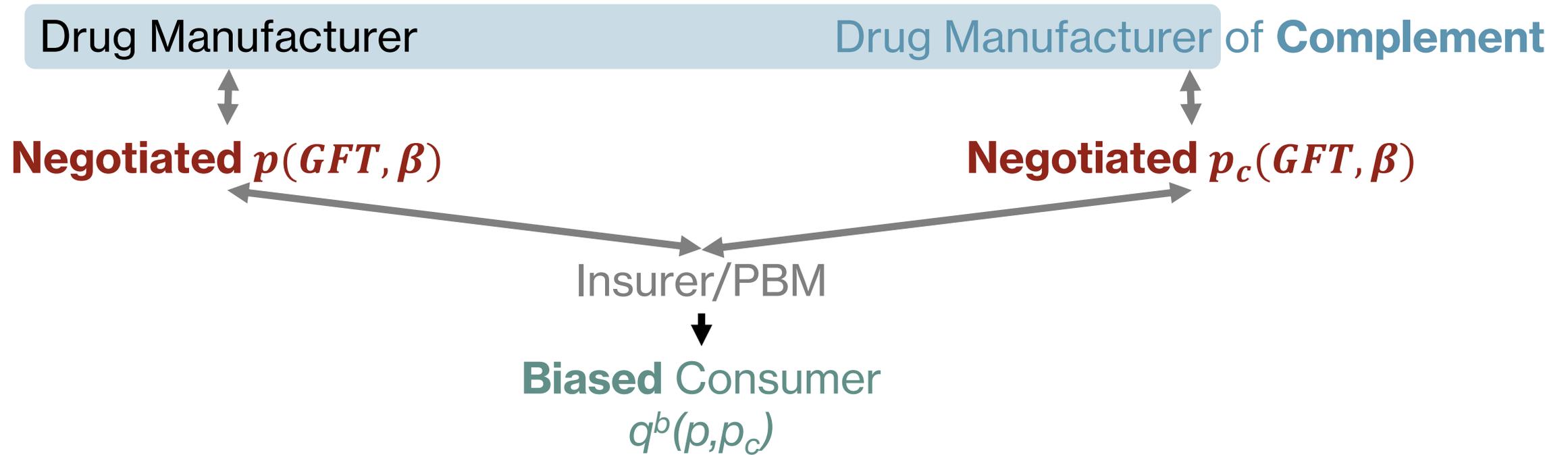
Internalities in Consumer Decisions

Negotiated Prices in B2B Bargaining

Increasing Firm Scope and Mergers of Complements

Internalities in Consumer Decisions

- Lack of information, biases, and marketing may drive (or repair) a wedge between individual decisions and *individual* welfare in many markets

- $u_{ij} = \theta_j - \alpha_i p_j + \epsilon_{ij} + \epsilon_{ij}^{de}$, where ϵ_{ij}^{de} affects decisions, but not welfare (directly)
  [Mullainathan Schwartzstein Congdon 2012]

- Often accompanies firm and public policies related to information/marketing (e.g. consumer protection, labeling, etc.)
  - Need to measure effect of information/marketing
  - Need to measure gap between decision utility and welfare relevant utility

Need to Measure: **Effect of "Marketing" + Baseline "Truth"**

- Effect of "marketing/information" on $\theta_j + \epsilon_{ij}$?
  - Field experiment [Evdokimova 2025; Brown Guido Grasley 2025; Alcott Castillo Gentzkow Musolff Salz 2026]
  - Natural experiment [Shapiro 2018; Starc Sinkinson 2019; Grennan Myers Swanson Chatterji 2025]

- Baseline "truth" -> gap between decisions and welfare, ϵ_{ij}^{de}?
  - Unbiased expert [Allcott & Taubinsksy 2015; Bronnenberg Dube Gentzkow Shapiro 2015; Handel Kolstad 2015]
  - Clinical evidence on value of treatment [Grennan Myers Swanson Chatterji 2025]
  - Elicit consumer perceptions [Evdokimova 2025 ; Brown Guido Grasley 2025]

- *What is the future role for field experiments in litigation and regulation?*

Internalities in Consumer Decisions

Negotiated Prices in B2B Bargaining

Increasing Firm Scope and Mergers of Complements

Negotiated Prices in B2B Bargaining

- Negotiated prices the rule rather than exception in B2B markets

- "Nash-in-Nash" workhorse model: $\max\limits_{p_{hj}} \left[GFT_{hj}^{J} \right]^{\phi_j^B(h)} \left[GFT_{hj}^{H} \right]^{\phi_h^B(j)} \quad \forall hj \in \mathcal{G}$
  which (for monopsonist buyer h) implies optimal price

$$p_{hj} = mc_{hj} + \frac{\phi_j^B(h)}{\phi_j^B(h) + \phi_h^B(j)} \left[\left(1 + \frac{\partial q_{hj}}{\partial p_{hj}} \frac{p_{hj} - mc_{hj}}{q_{hj}} \right) \frac{GFT_{hj}^{H}}{q_{hj}} + \frac{GFT_{hj}^{J}}{q_{hj}} \right]$$

[Town Vistnes 2001; Capps Dranove Satterthwaite 2003; Ho 2009; Draganska Klapper Villas-Boas 2010; Crawford Yurukoglu 2012; Grennan 2013, 2024; Gowrisankaran Nevo Town 2015, Collard-Wexler Gowrisankaran Lee 2019]

- Negotiated price determined by: (1) Gains from Trade; (2) Lerner condition; (3) Bargaining
  Ability parameters $\beta = \frac{\phi_j}{\phi_j + \phi_h}$

Successes and the Frontier in Modeling Bargaining

- Now widely accepted in litigation involving hospital-insurer price negotiations

- Research frontier continues to push on several important fronts:
  - Network formation, costs and strategy
    [Lee Fong 2018; Ho Lee 2019, 2026; Ghili 2022; Liebman 2022; Grennan Kim Swanson 2026]

  - Downstream market power, *interacting with* monopsony power in the focal market
    [Ho Lee 2017; Demirer Rubens 2025; Setzler 2025]

  - Bargaining ability parameters $\beta = \frac{\phi_j}{\phi_j + \phi_h}$

    - Important firm-specific determinants of prices [Grennan 2013, 2014; Lewis Pflum 2015], correlated with human and organizational skill, information, incentives [Hankins Liu Sosorya 2025; Grennan Swanson 2020]
    - *Are they a source of "market power"? "Merger-specific"?*
      [Demirer Rubens 2025; Arnold Gupta Liu Olssen 2026; Grennan Scott Morton 2026]

Internalities in Consumer Decisions

Negotiated Prices in B2B Bargaining

Increasing Firm Scope and Mergers of Complements

Increasing Firm Scope and Mergers of Complements

- Firms are growing through related, but non-horizontal expansion
  - average firm's scope in related industries increased 71% from 1989 to 2017 [Hoberg Phillips 2025]

- Antitrust interest in "vertical" mergers of complements
  - All else equal, downward pricing pressure (e.g. eliminating double marginalization)
    [Chipty 2001; Crawford Lee Whinston Yurukoglu 2018]
  - And potential economies of scale/scope [Hortacsu Syverson 2007]
  - But also create potential incentive and ability to foreclose or raise rivals' costs
    [Lee 2013; Koch Wendling Wilson 2017, 2021; Cooper et al 2025]
  - And multi-product firms may raise prices on other products in their portfolios [Luco Marshall 2020, 2021]

Co-owning Complements and **Investment Dynamics**

- What about investment dynamics?
  - Co-owning complements can increase investment incentives (and eliminate hold-up) [Williamson 1975; Teece 1980, 1986]
  - But market power may also increase or decrease investment incentives

- Greater firm related scope associated with greater R&D expenditure [Hoberg Phillips 2025]

- Substantial under-investment in combination cancer therapies [Dix Lensman 2025]

- *How does this balance out in other contexts? When there is more potential for foreclosure?*

Interactions Between Market Complexities

- Potential consumer biases, bargaining power, and ownership of complementary assets can interact in meaningful ways

- *Ex 1: **Buyer Power and Firm Scope***
  - Buyer power interacts with firm incentives to vertically integrate
  - Market power from vertical integration can affect buyer power for other inputs

- *Ex 2: **Firm Scope, Innovation, and Consumer Biases***
  - Firm scope can impact innovation incentives
  - Innovative new products create a need for (informative) marketing
  - Coordinating marketing may be easier under co-ownership

Thank You!
matthew.grennan@emory.edu