

Calculating Damages in Section II Cases

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Agenda

- Illustrate how we calculate damages to competitors in Section II cases
 - Damages are lost profits for the firms that are harmed by the monopolization behavior
 - This involves the calculation of “but-for” prices, quantities, and costs
- Two hypothetical cases illustrate methods used
 - Benchmark observations are available: Competitive fringe is foreclosed from the market
 - No benchmark observations are available: A dominant firm introduces a loyalty rebate that has exclusionary effects

Case I

Competitive fringe is foreclosed from the market

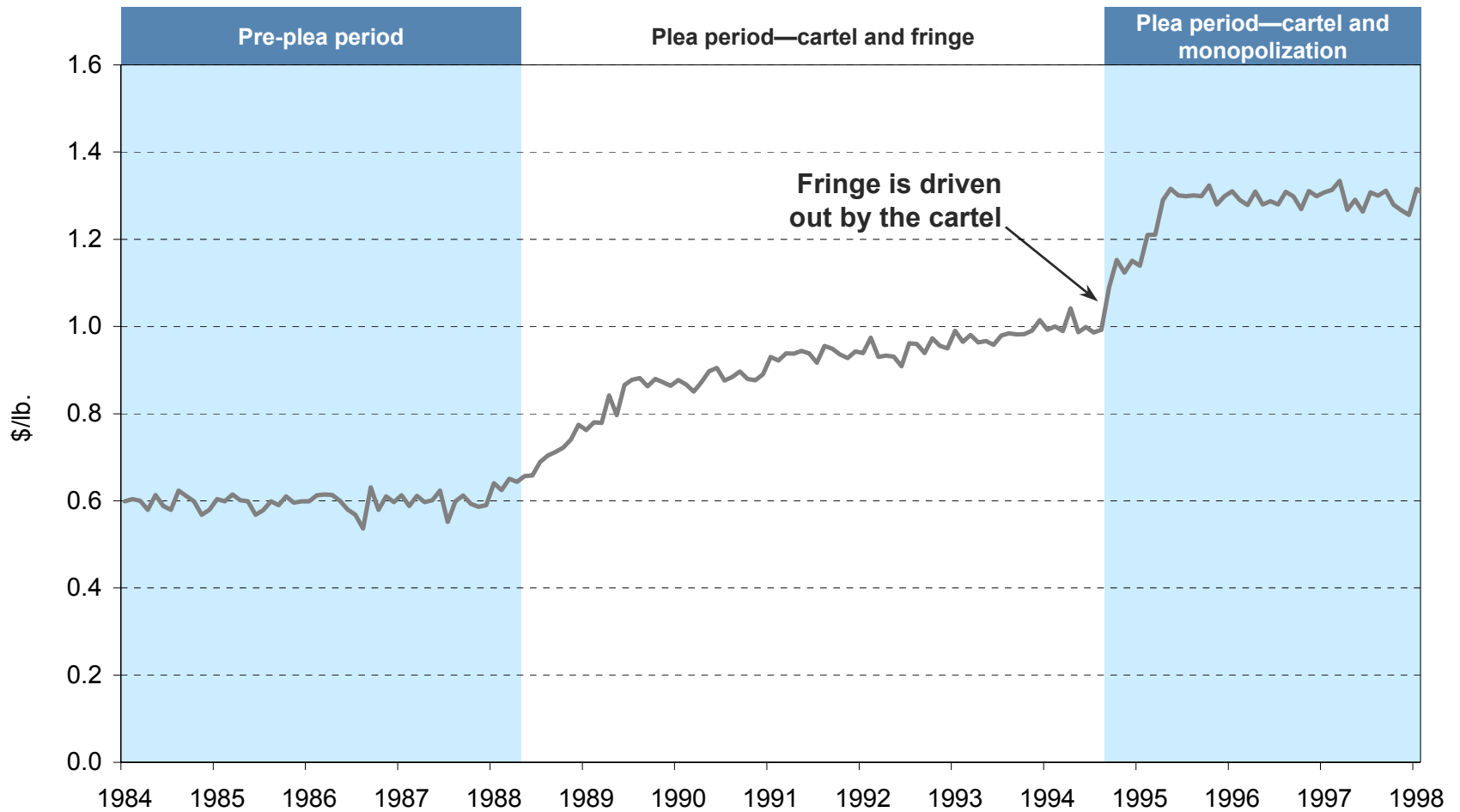
“Illuminating Section 2 Through Cartels” (by Heeb, Kovacic, Marshall, and Marx)

- This recent paper notes that once a cartel successfully suppresses rivalry amongst member firms, the cartel often engages in anti-competitive conduct acting as a single dominant firm. Examples include:
 - Harming non-cartel firms (e.g., citric acid, vitamins, soda ash, copper plumbing tubes, carbon brushes)
 - Deterring potential entrants (e.g., specialty graphite, sorbates)
- Much can be learned about monopolization conduct by studying cartels
 - Rich opportunities for such studies within FTC and/or DoJ
- Building on the insights of this paper, we look at a hypothetical cartel that successfully suppresses inter-firm rivalry and subsequently eliminates all non-cartel fringe firms.
 - How does one measure the incremental impact of the latter conduct?

Product X: Market facts

- Three large firms and a small group of fringe firms compete in the production of Product X
- In March 1988 the three large firms form a cartel and successfully elevate the price of Product X
- The existence of the competitive fringe limits the extent to which the cartel finds that it is profitable to raise prices—price rises from \$0.60 to \$1.00
- The cartel, acting like a single dominant firm, engages in unspecified anticompetitive conduct driving the fringe competitors out of business just prior to August 1994
 - The quantity sold by the fringe goes to zero from August 1994 onward
- In the absence of the fringe, price of the product rises to an average of \$1.30

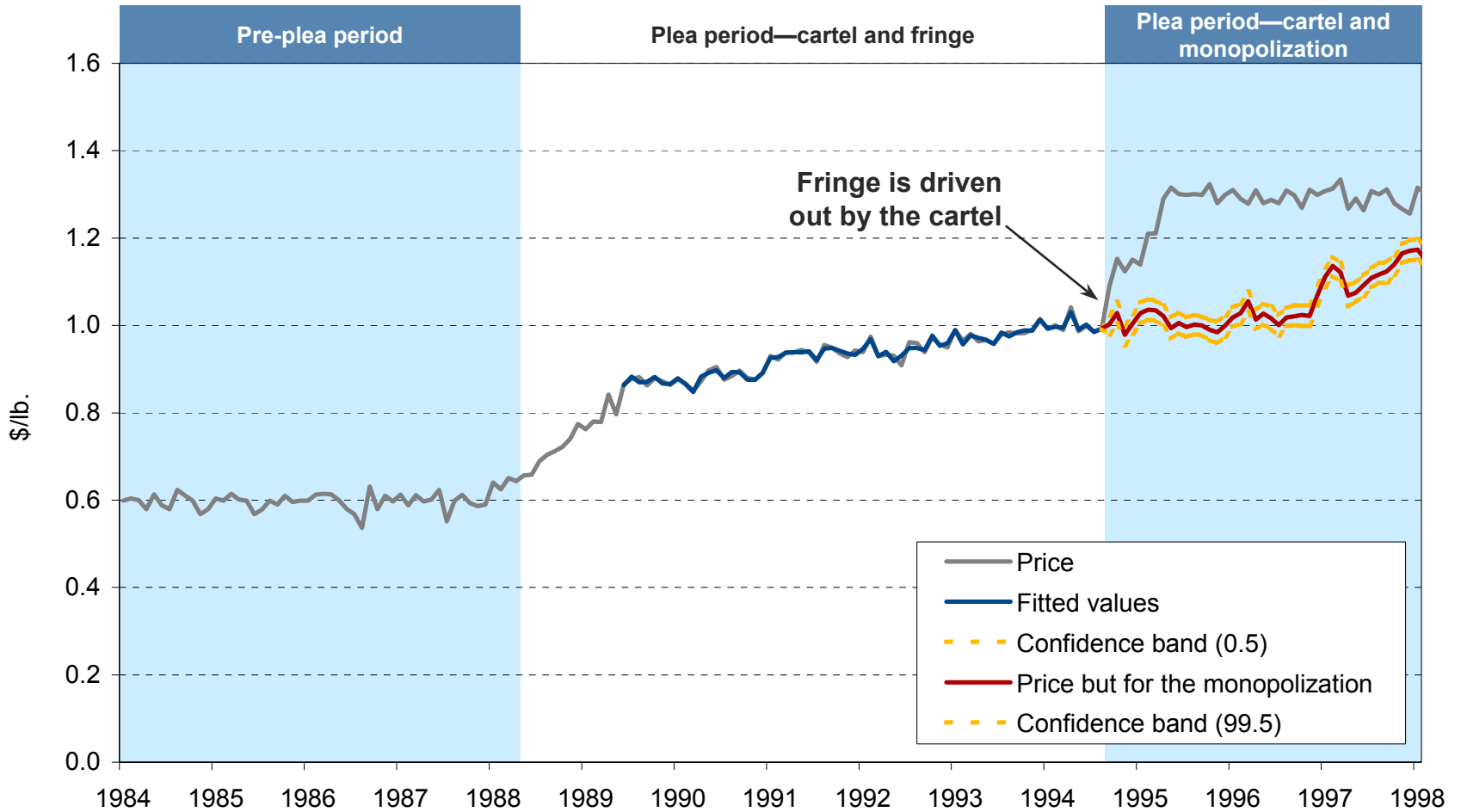
Product X: Prices



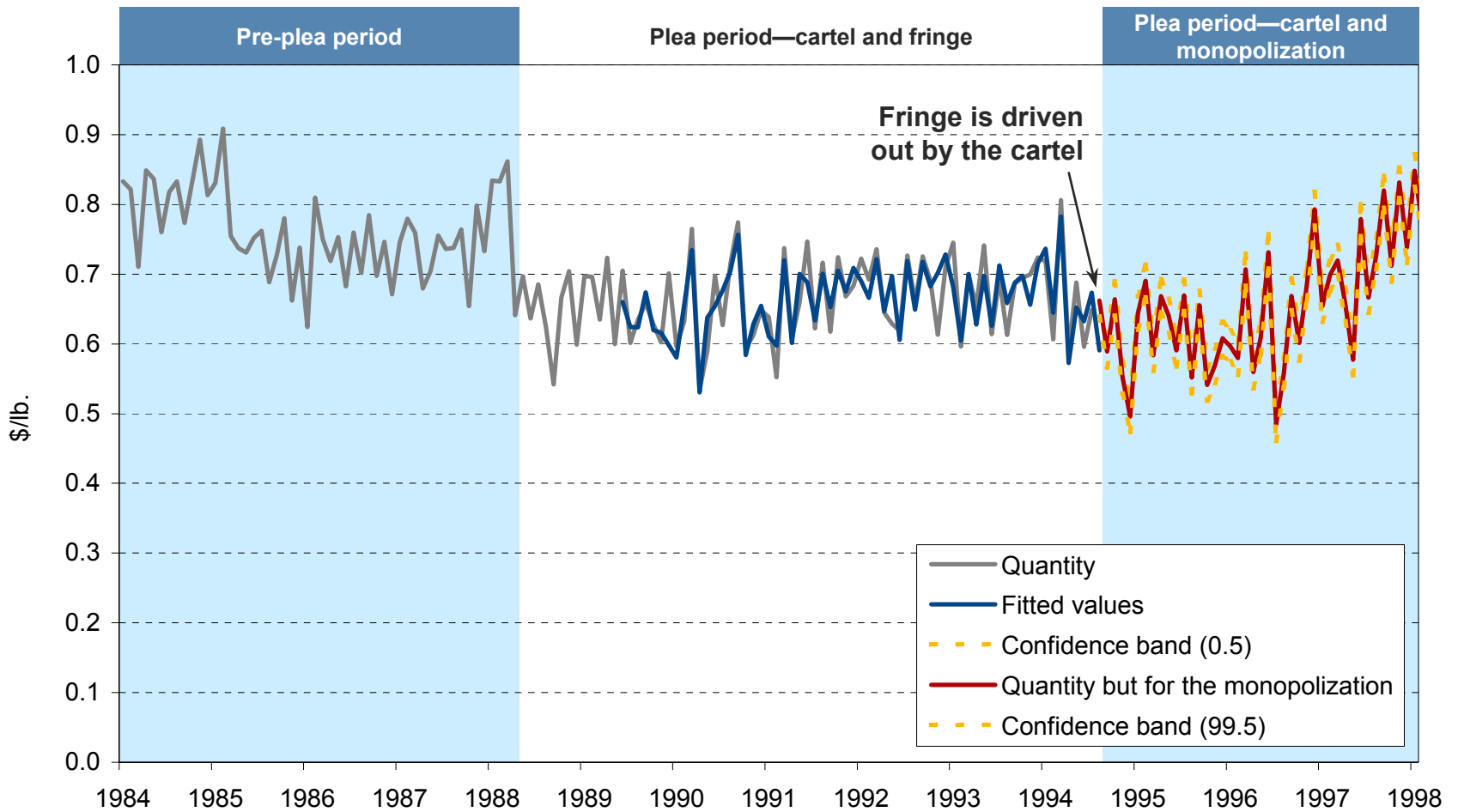
Computing monopolization damages for fringe suppliers of product X

- Gather data necessary for the computation of damages
 - Prices and quantities for Product X
 - Relevant cost and demand factors
- Build a statistical model that best predicts the prices and quantities of Product X
 - Obtain best predictive model for the benchmark period, (i.e., where the cartel operates with the fringe in the market (January 1988 through July 1994))
 - Roll predicted prices and quantities forward from August 1994 to get the prices and quantities that would have obtained if fringe were present in this period

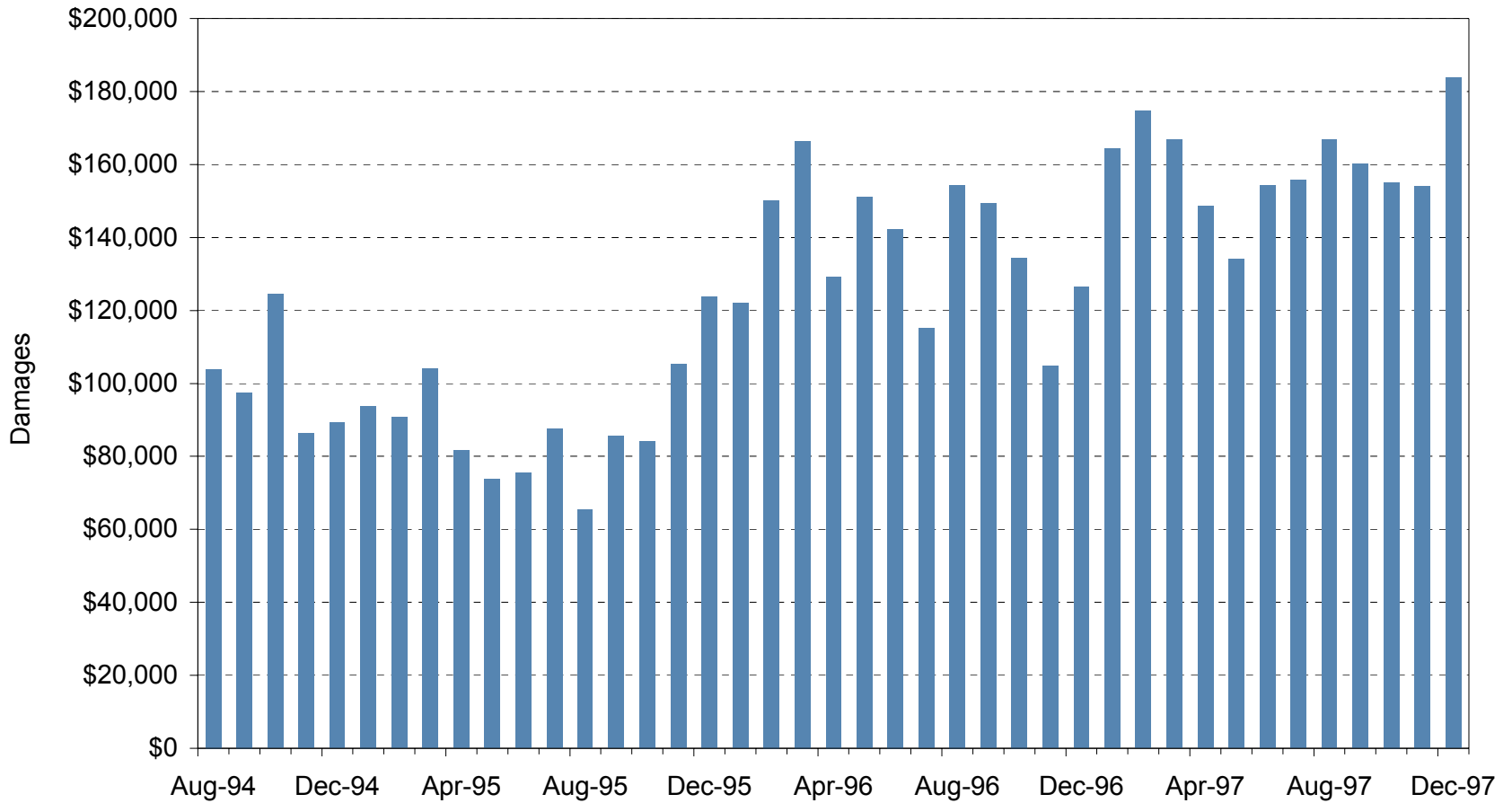
Product X: Prices but for the monopolization



Product X: Actual and but-for units sold by the fringe



Damages to fringe firms



Total damages: \$5,137,000

Case II

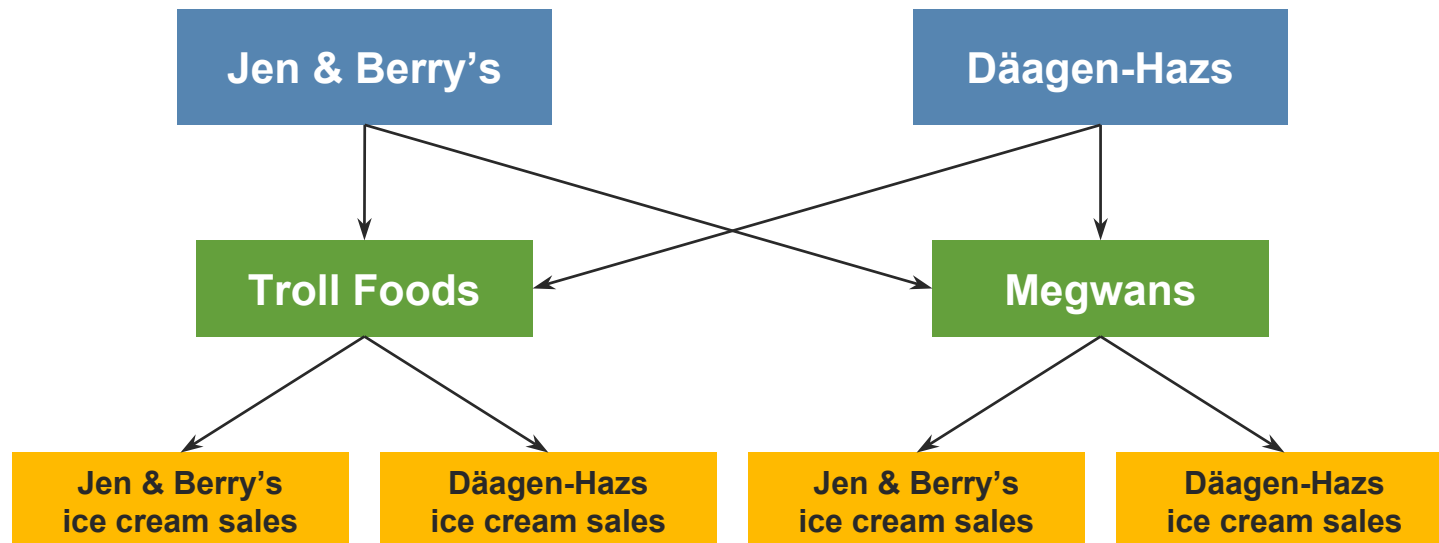
Exclusionary rebates by a single dominant firm

Loyalty rebates in a hypothetical ice cream market

- A loyalty discount is a price reduction by the manufacturer that is contingent on the quantity or share purchased by the customer firm (retailer)
- We estimate damages to the rival manufacturer and to consumers arising from the introduction of loyalty rebates

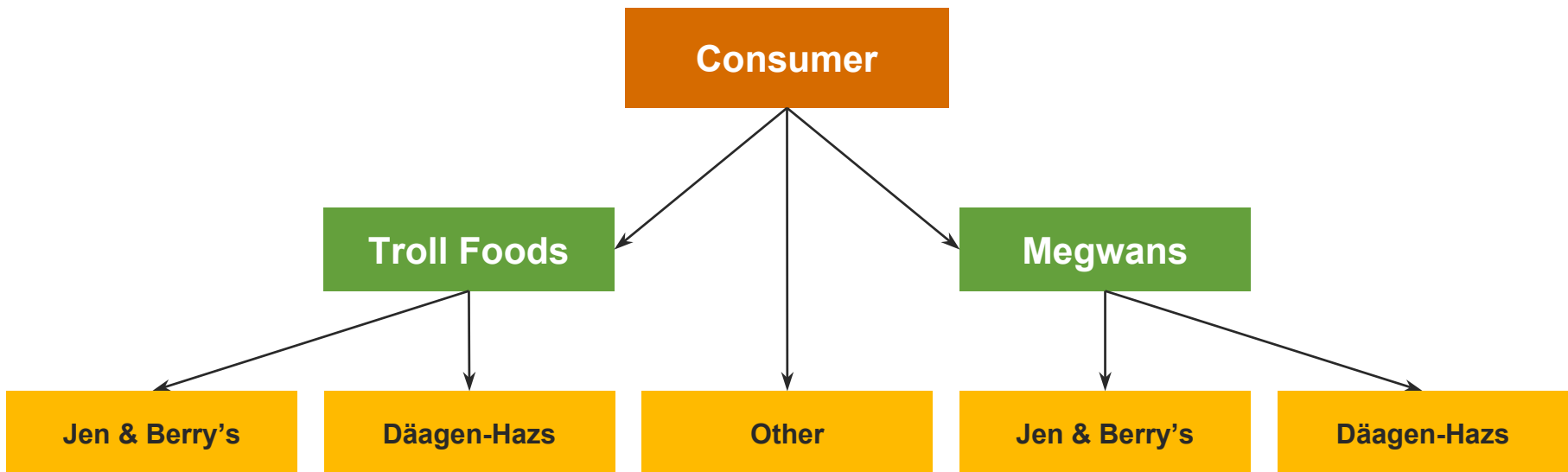
Description of market structure and participants

- Two ice cream producers: Jen & Berry's and Däagen-Hazs
- Two ice cream stores: Troll Foods and Megwans



Consumer demand

- Consumers have preferences over the ice cream brands and stores
 - They substitute between stores and brands, and toward other goods, as prices vary
- Consumers decide
 - Which store to shop at (Troll Foods or Megwans)
 - Then, which ice cream brand to purchase (Jen & Berry's and Däagen-Hazs)



The profit maximization problem for grocery stores

- Troll Foods and Megwans take manufacturer prices for the two ice cream brands as given
- Stores choose retail prices for both ice cream brands to maximize their profits
- Stores take into account the customers' trade-offs between brands when setting retail prices
 - Troll Foods and Megwans know consumers' preferences for each ice cream brand and other goods

The profit maximization problem for ice cream manufacturers

- Jen & Berry's and Däagen-Hazs maximize their profits by choosing manufacturer prices for their products
- Both companies know that a high price for their product will cause consumers to substitute toward the other brand or away from ice cream to other goods
- Jen & Berry's and Däagen-Hazs know consumers' preferences for each ice cream brand and other goods

We build an economic model that combines consumer and producer decisions

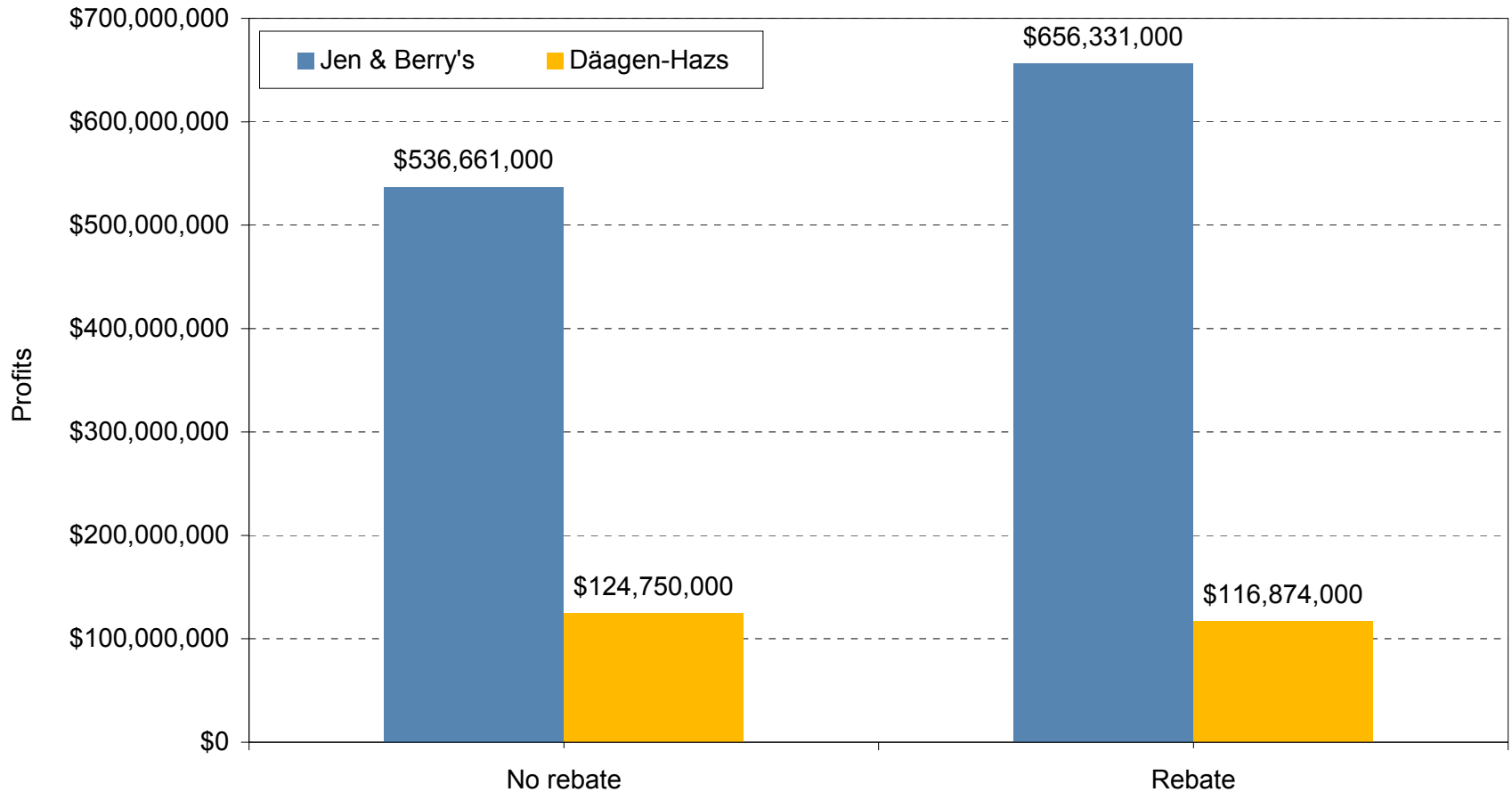
- Market shares, prices, and profits are outcomes of the model combining consumer demand and the profit maximizing decisions of the manufacturers and retailers
- This yields baseline profits and market shares in the ice cream market prior to the introduction of loyalty rebates:

Firm	Profit	Unit share
Jen & Berry's	\$536,661,000	81%
Däagen-Hazs	\$124,750,000	19%

Jen and Berry's introduces a loyalty rebate program

- Jen & Berry's offers a rebate program to both Troll Foods and Megwans
- Jen & Berry's sets a list price
- A grocery store would pay a price discounted from list price if its purchases from Jen & Berry's are above a target percentage of ice cream sales
- A store that does not reach this target level pays the list price for Jen & Berry's ice cream

Profits with and without the loyalty rebate



Däagen-Hazs's damages: \$7,875,000
Decrease in consumer surplus: \$69,665,000

How damages are calculated in this example

- We do not have benchmark period observations to use for estimation
- We use econometric methods to estimate the underlying parameters of the model using the available data with rebates
- The following data are needed to estimate this model and compute damages
 - Retail sales data at the store level
 - Factors that drive the marginal costs of Jen & Berry's and Däagen-Hazs
 - Threshold quantity at which the rebate is activated
- We then use the estimated model to predict the prices, quantities, and market shares in the absence of rebates
- The difference between total revenue or profit with and without the rebates is used to compute damages resulting from the loyalty program

Conclusions

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- A well-functioning cartel can act as a dominant firm
- Agencies can glean insight into monopolization behavior by scrutinizing cartel data
- There exists a range of econometric methods for assessing liability and estimating damages in Section II cases
 - Econometric methods can be useful in assessing liability by examining price or welfare impact
 - In some cases methods used in cartel price-fixing cases are useful
 - The method used depends critically on the availability of benchmark data
 - Even when benchmark data are not available econometric models can yield reliable damage estimates

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Market shares with and without the loyalty rebate

