



Economics at the Pump

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Motivation

- Few industries evoke such strong sentiments by consumers, retailers, wholesalers, and policy makers as gasoline.
- Why?
 - Consumer demand for gasoline is inelastic.
 - We use a lot of gasoline.
 - We see posted prices nearly everywhere we drive.



Motivation

- The practice of zone pricing has been a particularly contentious topic in the public policy debate.
 - Zone pricing is the industry term used to describe the practice of refiners setting different wholesale prices for retail gasoline stations that operate in different geographic areas or zones.
 - Chevron contends, “[We] price our wholesale gasoline to our dealers at prices that will allow them to be competitive in relation to their nearby competition.”
 - Connecticut Attorney General Richard Blumenthal proposed legislation to ban zone pricing claiming that it “only benefits the oil industry, to the detriment of consumers.”



Motivation

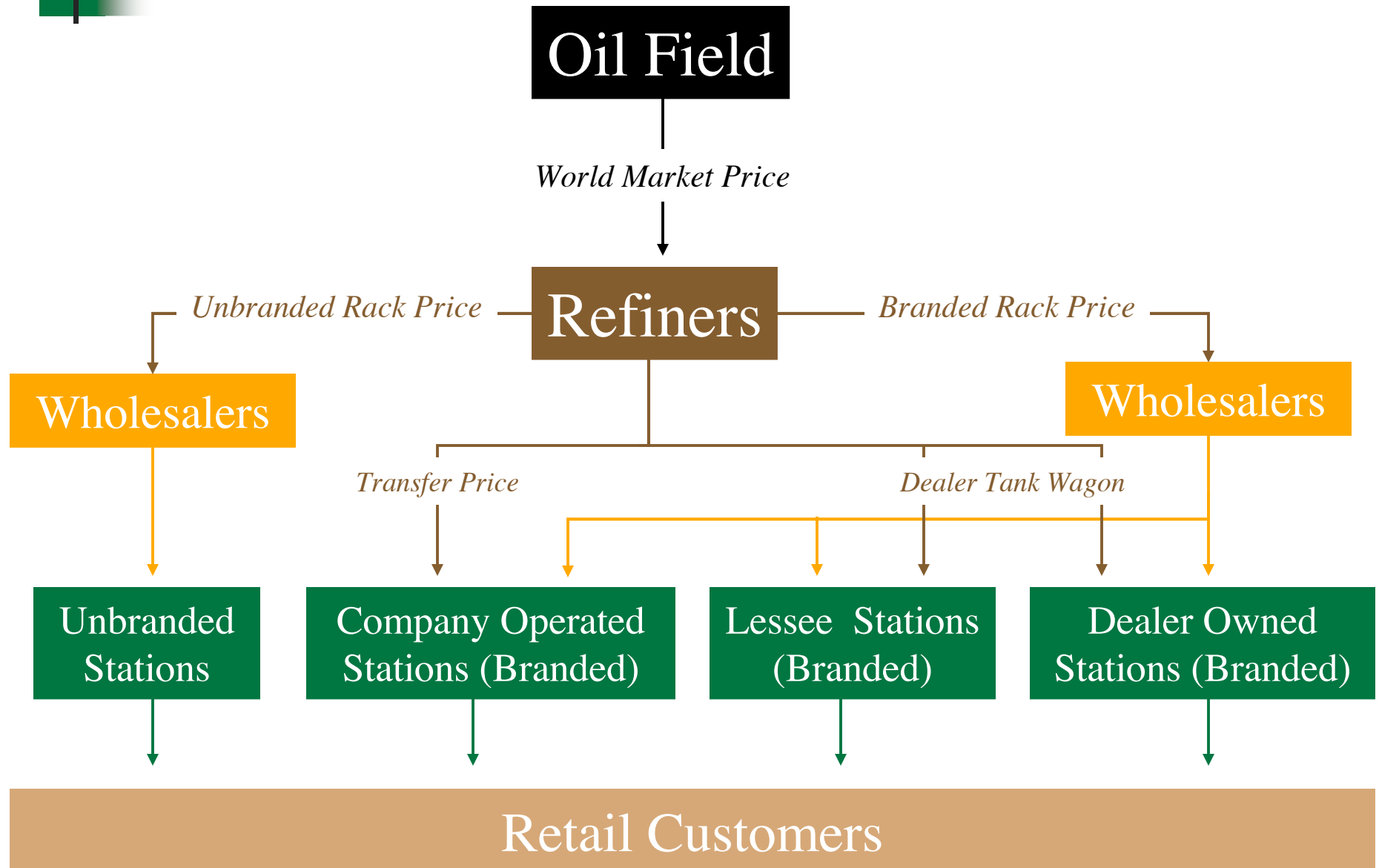
- Another issue is divorcement, the legal restriction that refiners and retailers cannot be vertically integrated.
 - Maryland was the first state to pass such legislation in 1974 with a handful of other states following suit.
 - Bill Lockyer, California Attorney General, in a task force report states that “the key to enhancing competition at the retail level is to eliminate vertical integration by petroleum companies.”
 - However, this runs counter to basic economic theory and evidence from field studies.



Motivation

- Yet another topic that has led to much public debate is a “rockets and feathers” phenomenon in retail prices.
 - This is the perception that retail gasoline prices rise faster than they fall in response to cost shocks.
 - This phenomenon is not unique to gasoline.

Industry Background





Treatments

■ Zone Pricing

- Refiners are free to set any Dealer Tank Wagon (DTW) price for their stations.
- Each retailer observes its location specific wholesale prices but cannot shift inventory between locations.

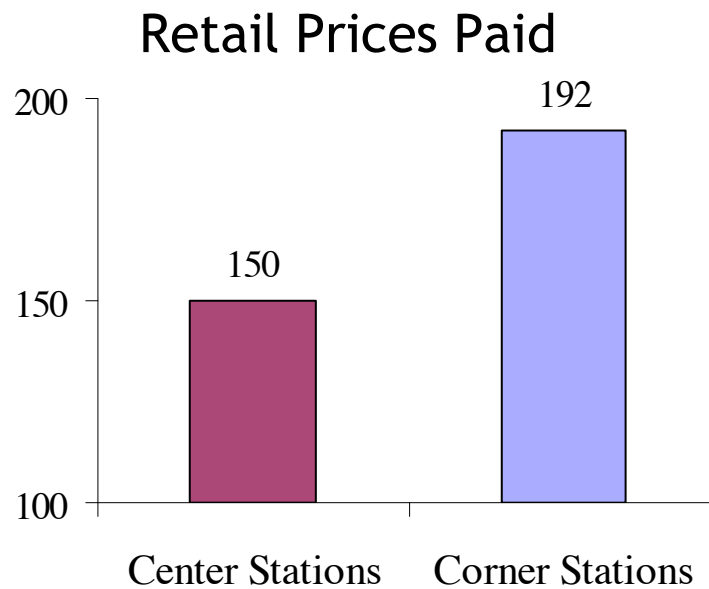
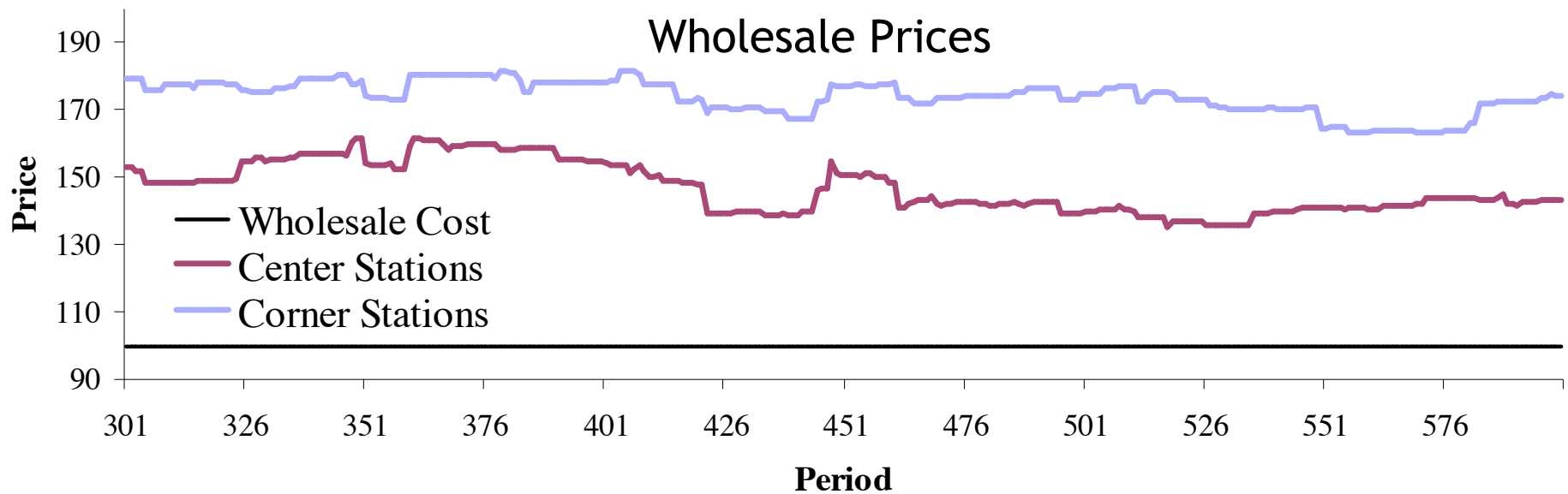
■ Uniform Pricing

- Refiners must set a uniform DTW price for all stations.

■ Company Owned

- Retailers with costs equal to the refiner costs in the above treatments.

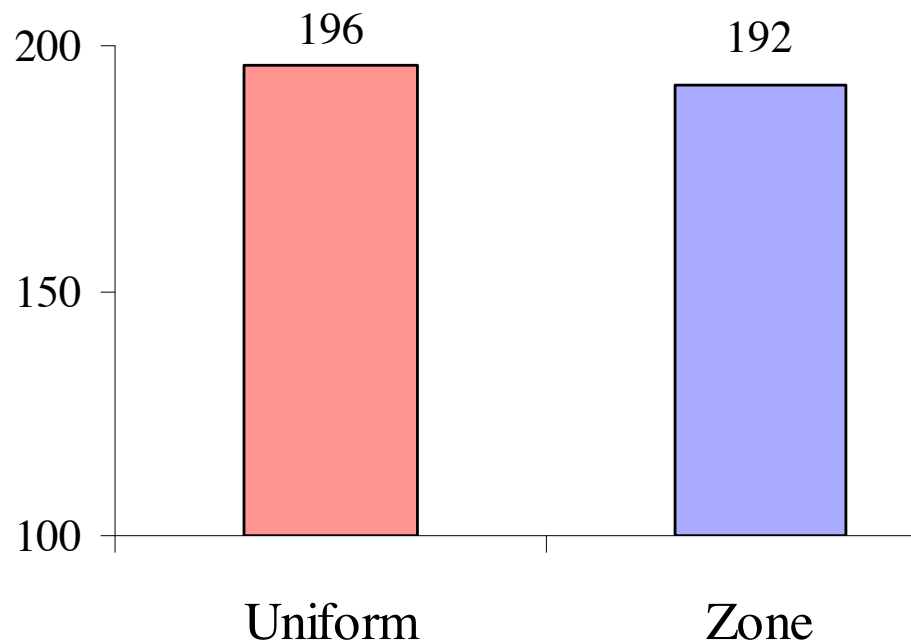
Results: Zone (Wholesale) Pricing



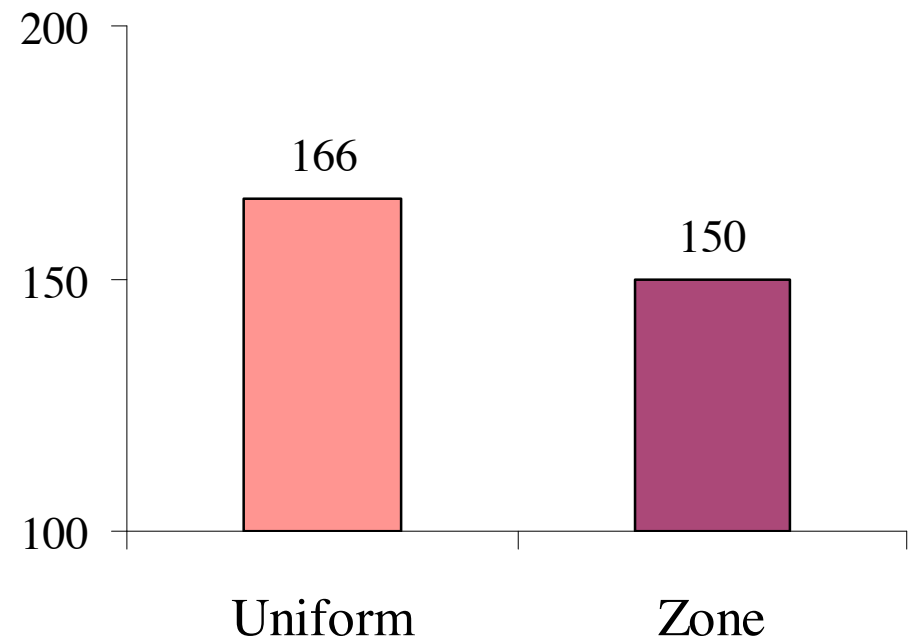


Results: Uniform Wholesale Pricing

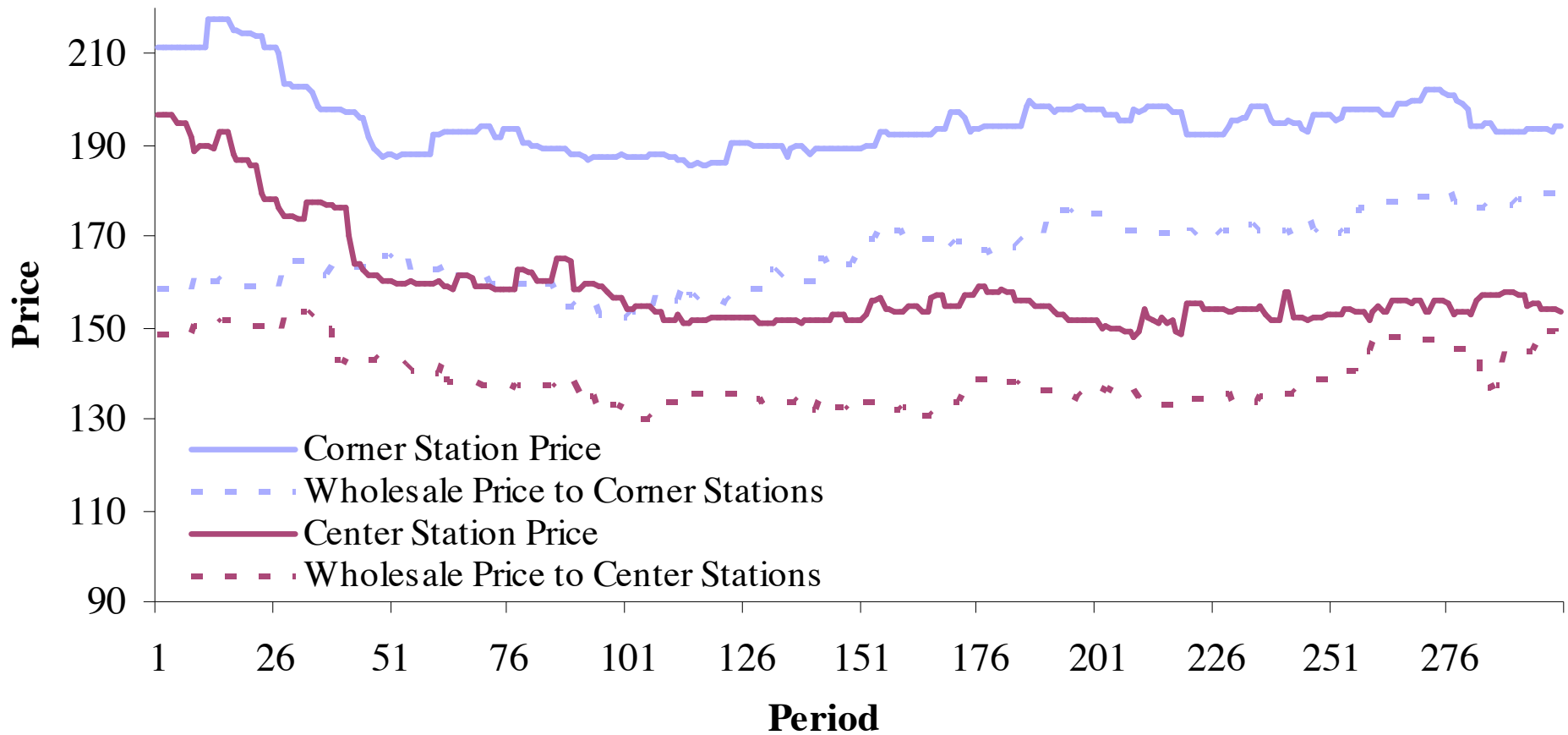
Corner Retail Prices



Center Retail Prices

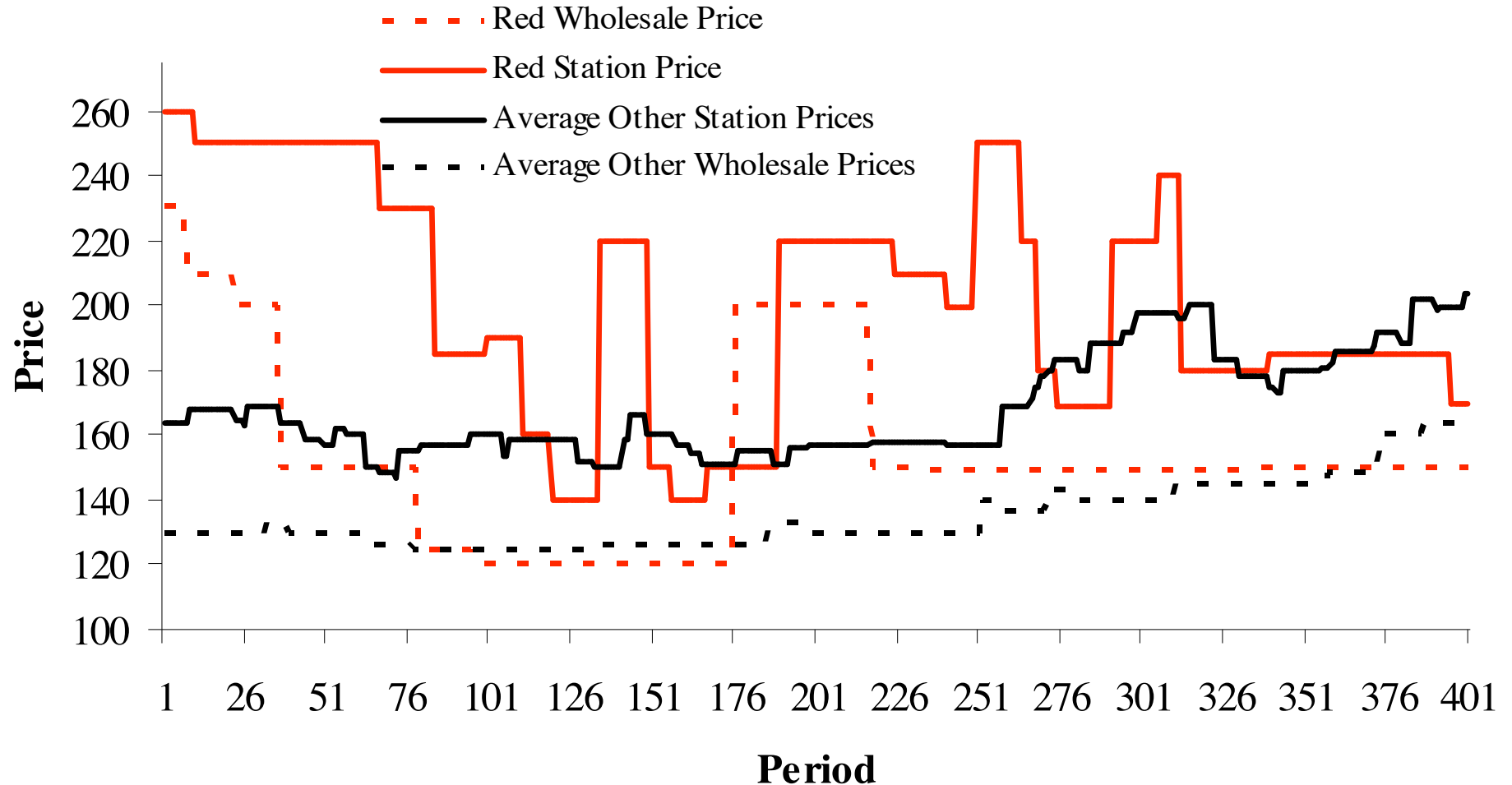


Why is Zone Pricing not Harmful?



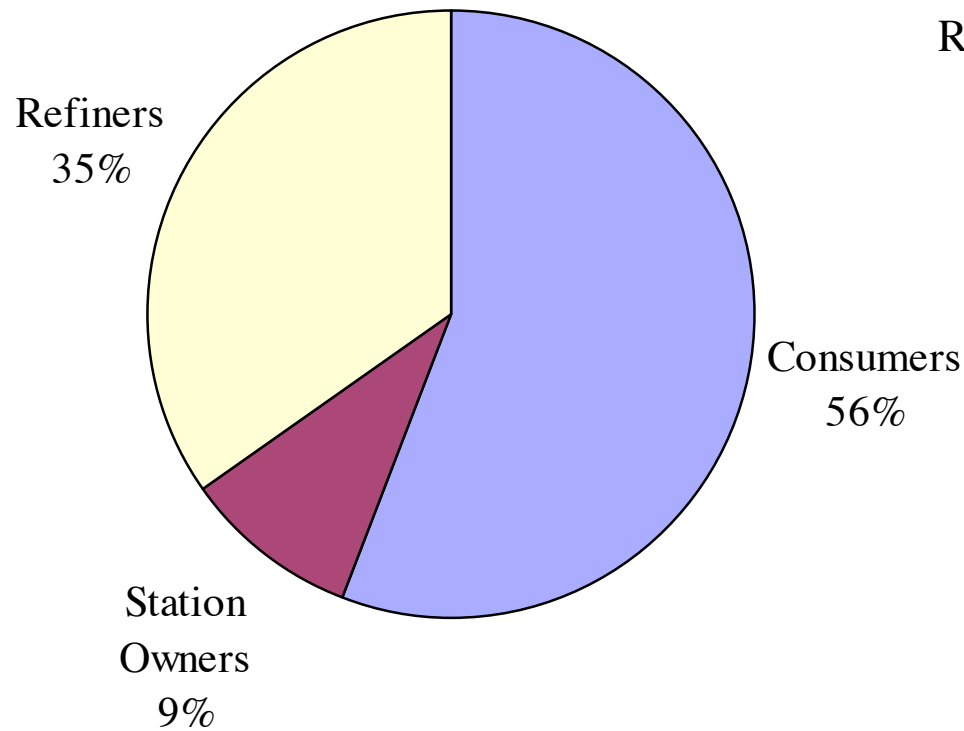
Why is Uniform Pricing Harmful?

Example Session: Center Stations

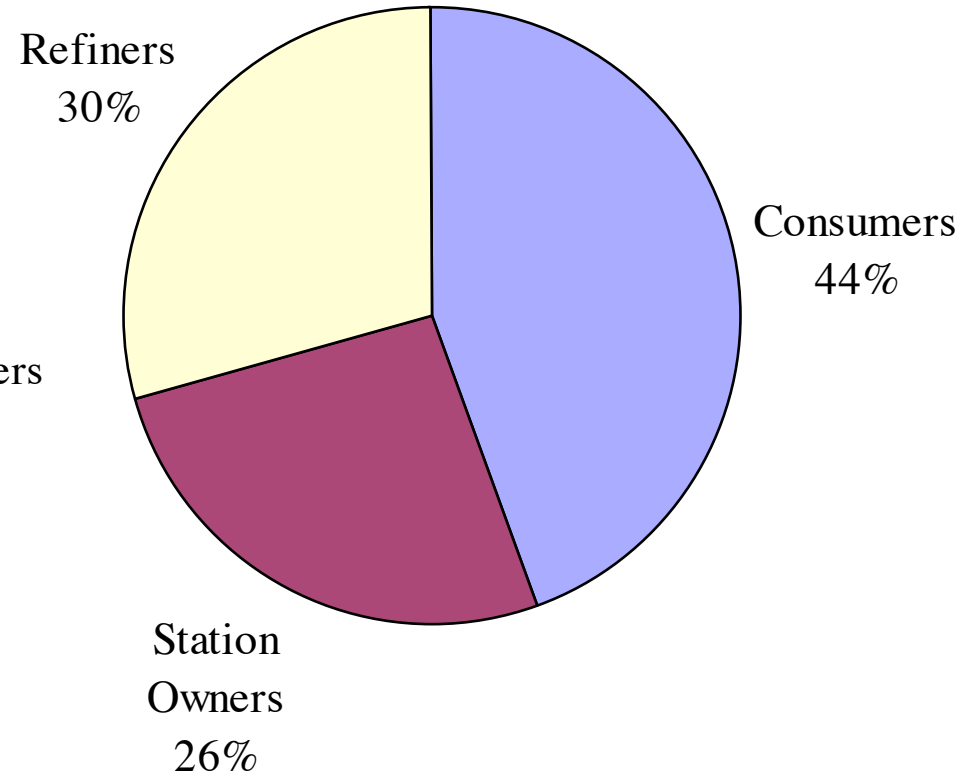


Who Benefits from Uniform Pricing?

Zone Pricing



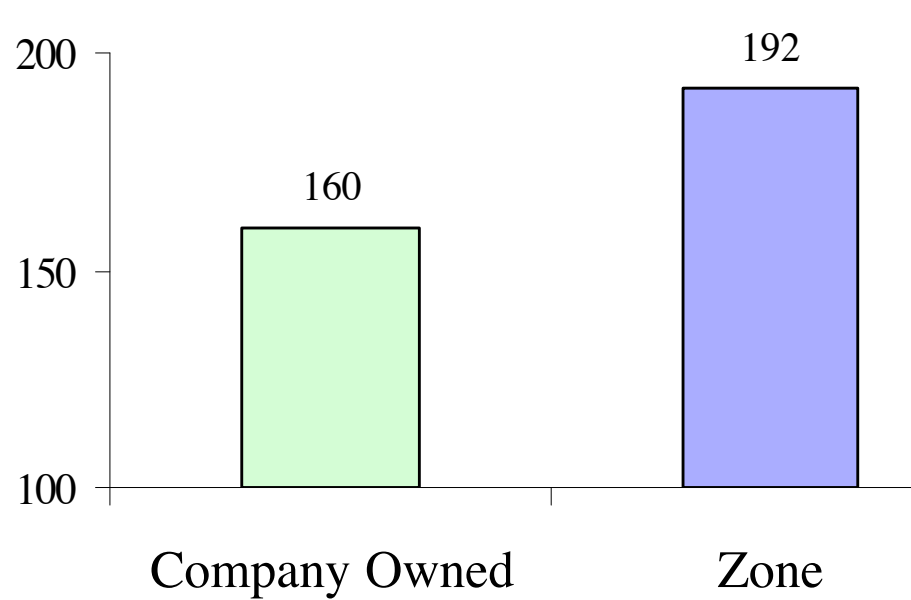
Uniform Pricing



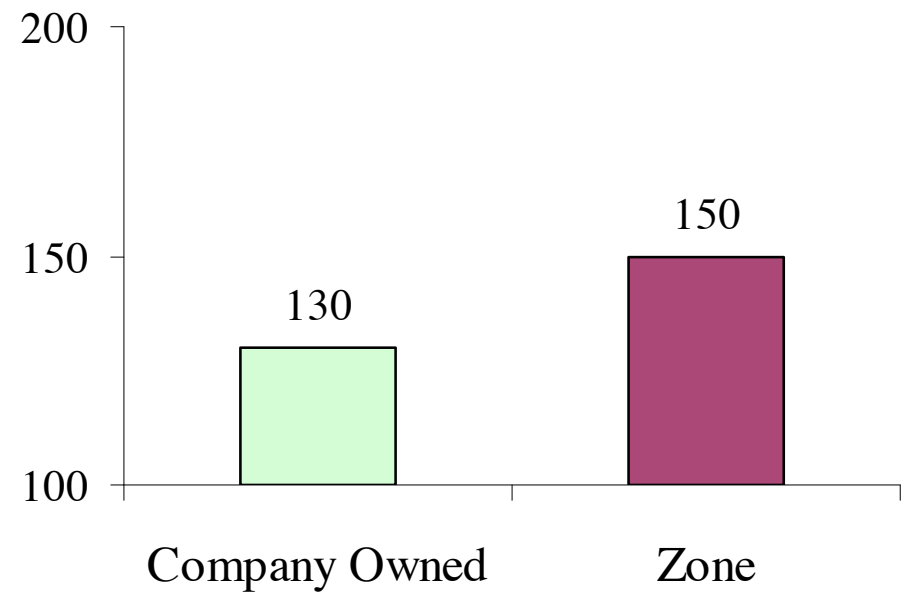


Results: Company Owned

Corner Retail Prices

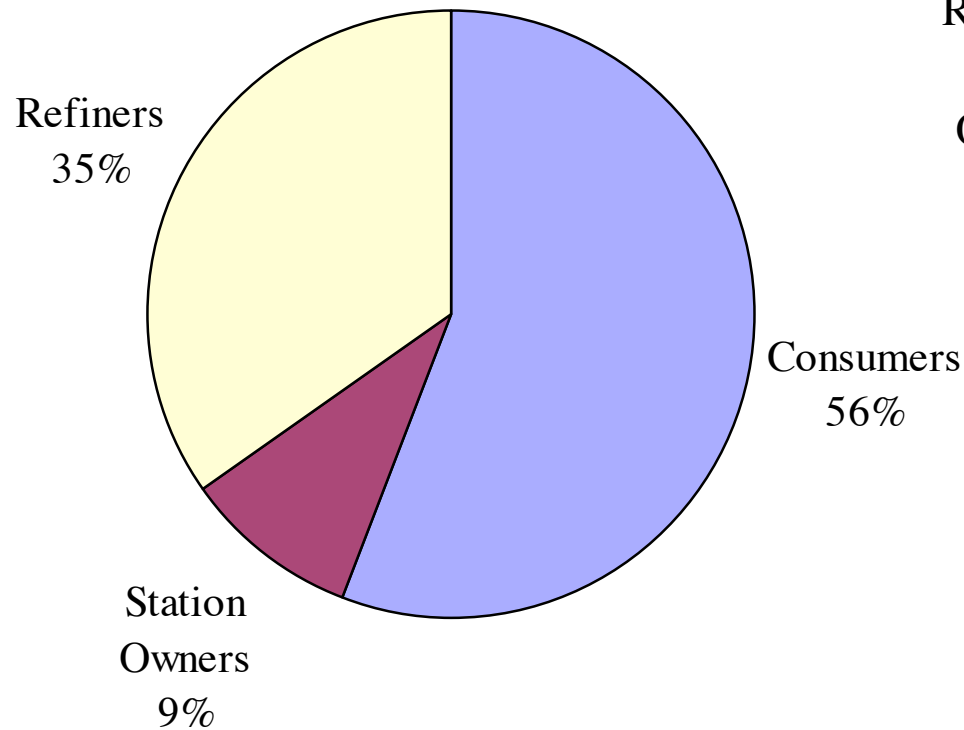


Center Retail Prices

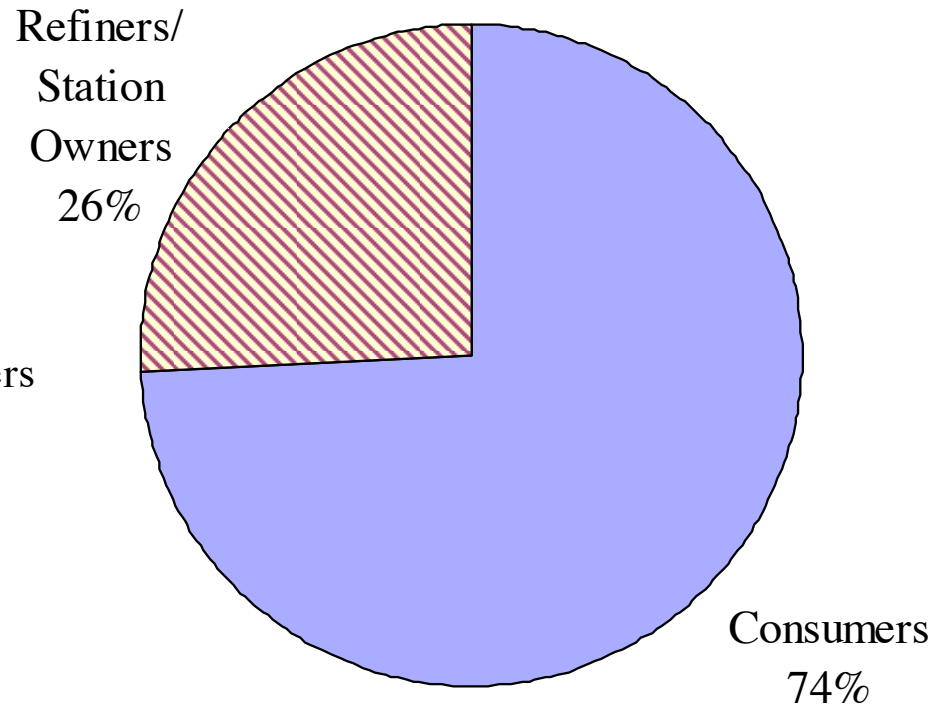


Who Benefits from Vertical Integration?

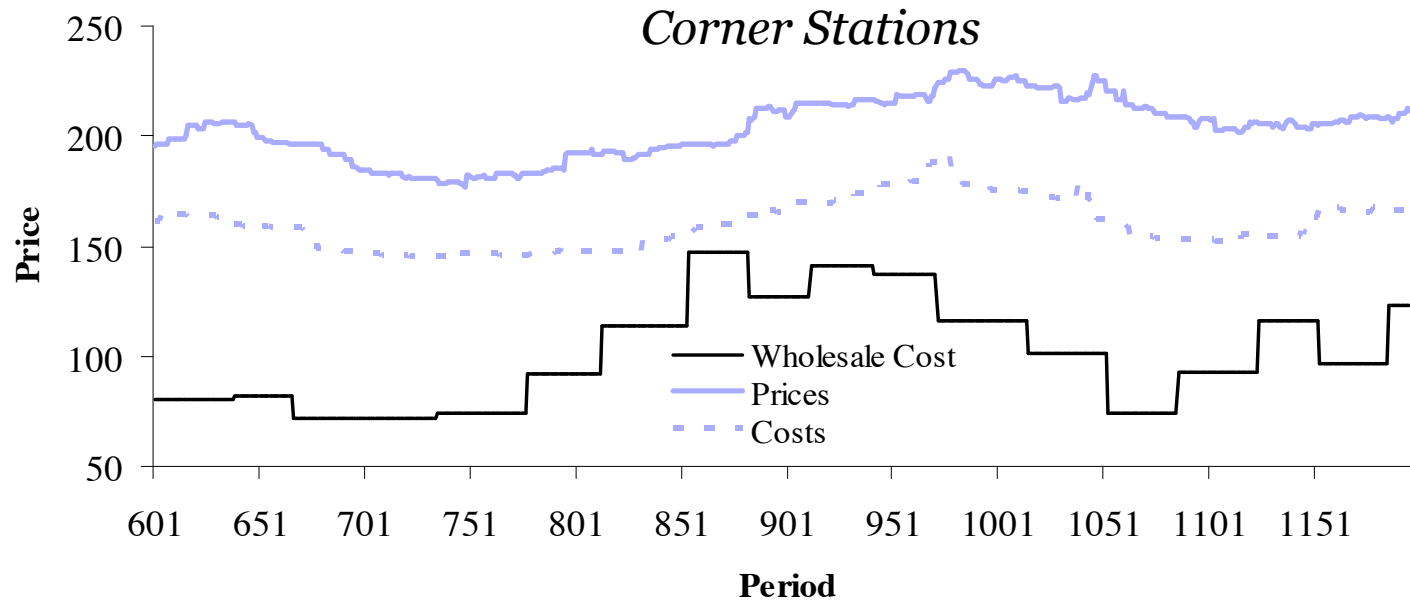
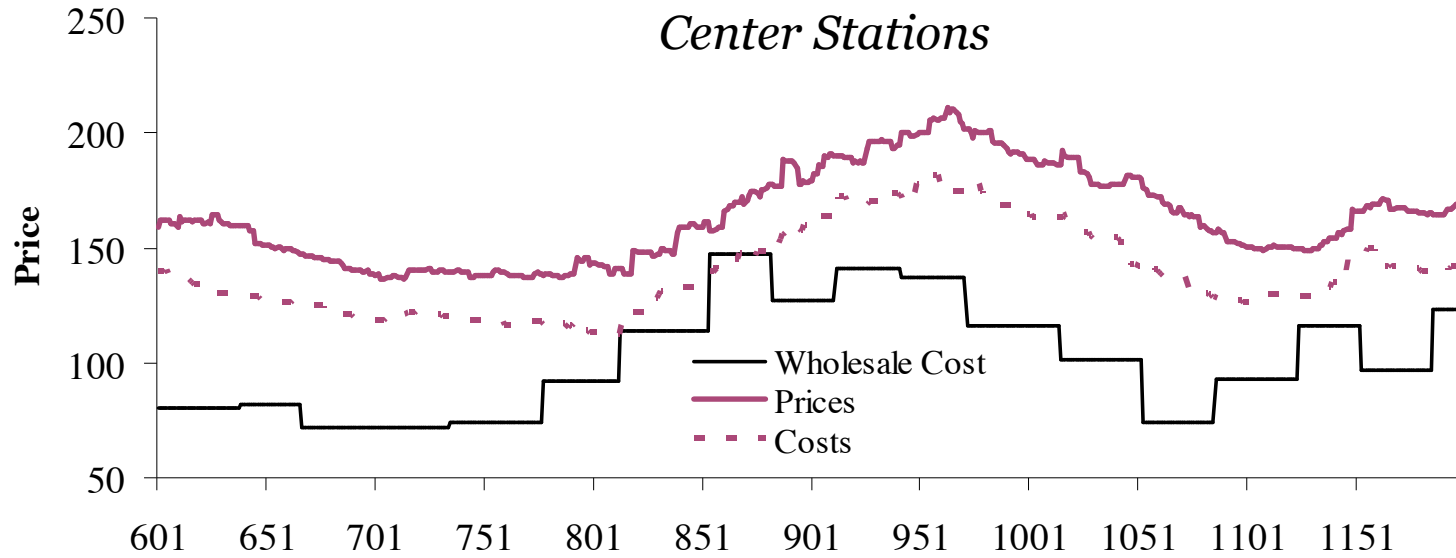
Zone Pricing



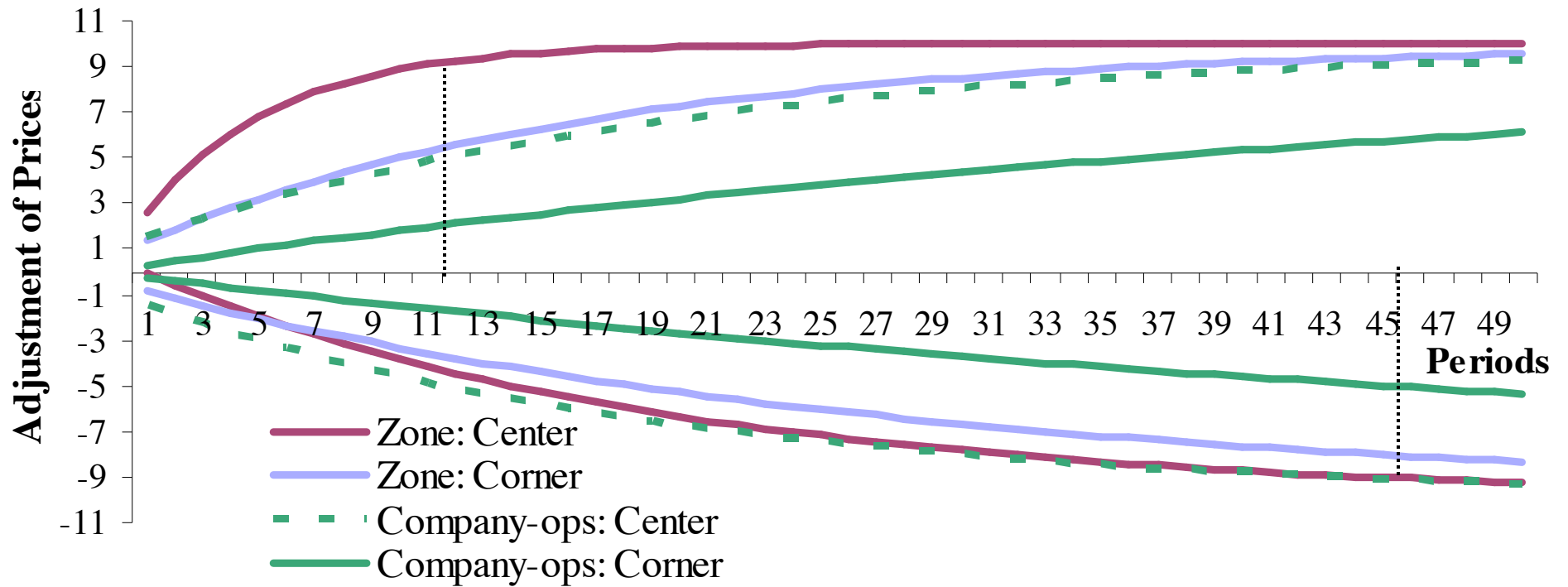
Company Owned



Price Dynamics (Zone Pricing)



“Rockets and Feathers”





Conclusions

- Well-meaning interventions are designed to manipulate market allocations, but they backfire because they cannot account for the complex incentives in an intricate industry.
- Changing the rules changes the behavior of refiners and station owners. This explains why the legislation does not have its intended effect on market outcomes.