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.
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

Oil Field

World Market Price

Unbranded Rack Price

Refiners

Branded Rack Price

Wholesalers

Unbranded Stations

Company Operated Stations (Branded)

Lessee Stations (Branded)

Dealer Owned Stations (Branded)

Transfer Price

Dealer Tank Wagon

Retail Customers
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

Wholesale Prices

- Wholesale Cost
- Center Stations
- Corner Stations

Retail Prices Paid

- Center Stations: 150
- Corner Stations: 192
Results: Uniform Wholesale Pricing

Corner Retail Prices

- Uniform: 196
- Zone: 192

Center Retail Prices

- Uniform: 166
- Zone: 150
Why is Zone Pricing not Harmful?
Why is Uniform Pricing Harmful?

Example Session: Center Stations

- Red Wholesale Price
- Red Station Price
- Average Other Station Prices
- Average Other Wholesale Prices
Who Benefits from Uniform Pricing?

**Zone Pricing**
- Refiners: 35%
- Consumers: 56%
- Station Owners: 9%

**Uniform Pricing**
- Refiners: 30%
- Consumers: 44%
- Station Owners: 26%
Results: Company Owned

Corner Retail Prices

- Company Owned: 160
- Zone: 192

Center Retail Prices

- Company Owned: 130
- Zone: 150
Who Benefits from Vertical Integration?

**Zone Pricing**
- Refiners: 35%
- Consumers: 56%
- Station Owners: 9%

**Company Owned**
- Refiners/Station Owners: 26%
- Consumers: 74%
Price Dynamics (Zone Pricing)

Center Stations

Corner Stations

Period

Price

Wholesale Cost
Prices
Costs
“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.