

# Effective Contract Prices

Fiona M. Scott Morton

Yale School of Management and CRA

# Legal choices

- Predation
  - Price-cost test
  - Who is being driven out?
  - When is recoupment?
- “De facto partial exclusive dealing”
  - Not 100% share
  - Market power
- Tying
  - Need product line
  - Market power

# Link tests to competitive effects

- Somehow the contract has to impact competition if it is to be an antitrust violation
- Look at effective price the contract creates
  - Relative to marginal cost
  - Relative to but-for world and recoupment
  - What does contract exclude? Full product line driven by economies of scope
    - Entrant may threaten future market power of incumbent
  - Uncontestable share: How big is it? How does that link to contract?
- Arithmetic may support some theories and not others

# Numerical example

- Trucks come in 5 flavors
- The dominant firm A has made all types for years
  - Prior to entry it charged \$100 per truck
  - Now it charges \$105.27 per truck
- The entrant firm B makes only flavor #5
  - It charges \$95 per truck
  - *Here we are clearly defining the contestable share*
- Suppose a buyer purchases 100 trucks a year
  - The buyer needs 20 of each flavor
- To date Firm B has a 15% market share (75% of flavor 5) with its innovative product #5.

# CRR: loyalty rebate

- The buyer's contract with Firm A says the price is \$105.27 for each truck with a 5% discount on all units if the buyer purchases at least 90% of its needs from A.
  - “its needs” draws in rival Firm B by necessity
- The buyer's contract with Firm B says the price is \$95 per truck.
- The buyer would, in a case of competition on the merits and linear prices, buy 15 trucks from B and 85 from A.
- → What is the effective price for the buyer induced by the contracts with Firms A and B?

# Effective Contract Price – Firm A

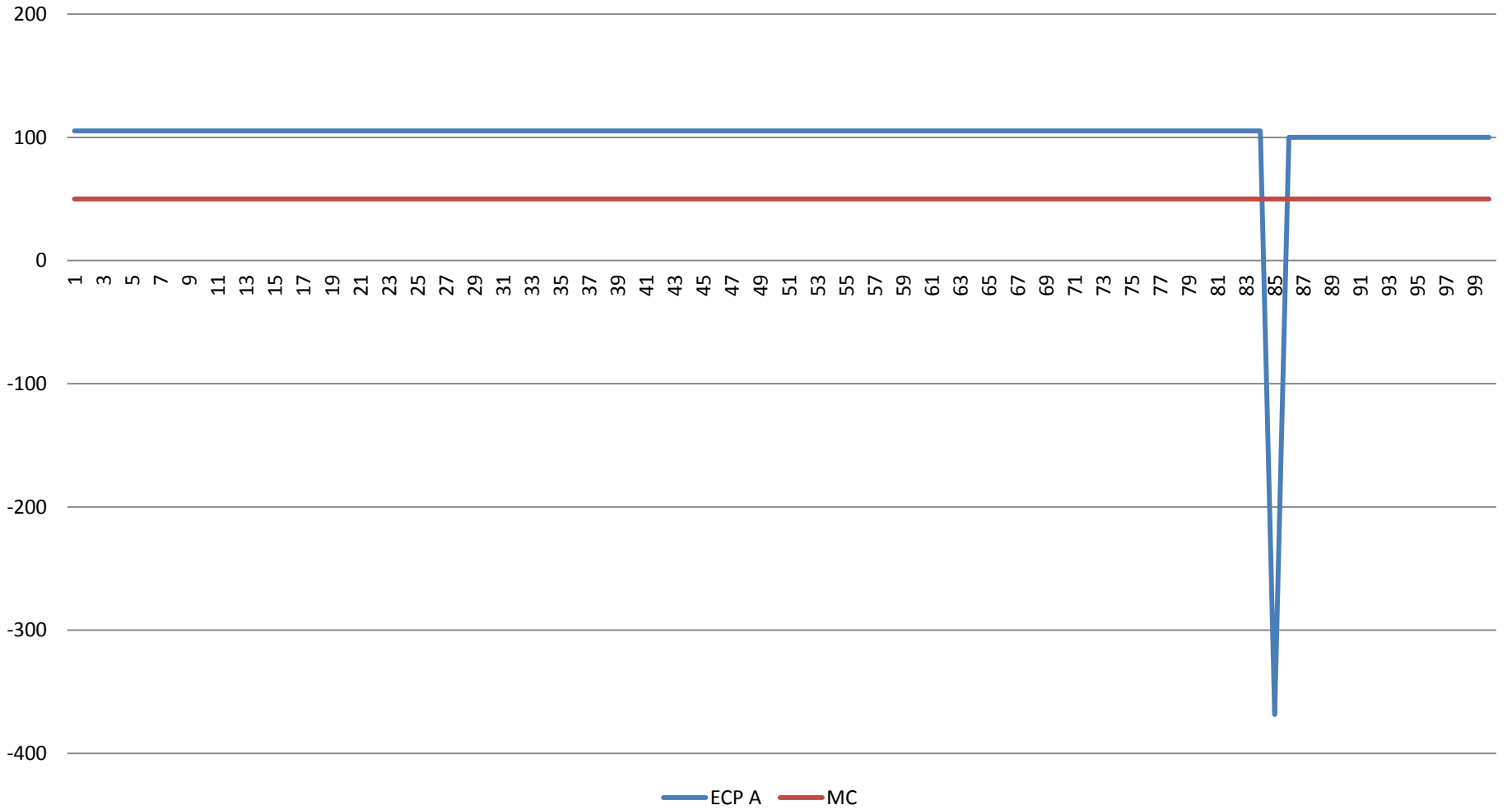
ECP if buyer buys from A:

- Trucks 1-89 cost \$105.27 each
- Truck #90 costs its list price minus the total discount received for crossing the threshold  
$$\$105 - (\$5.26 * 90) = -\$368.44$$
- Trucks 91-100 cost \$100 each (95% of 105.27)

It is easy to see that  $ECP < \text{marginal cost at truck \#90}$ :

$$-368.44 < 50$$

# Effective Contract Price - Firm A



Loyalty rebates change the *shape* of the price schedule

...and not necessarily the average price paid.



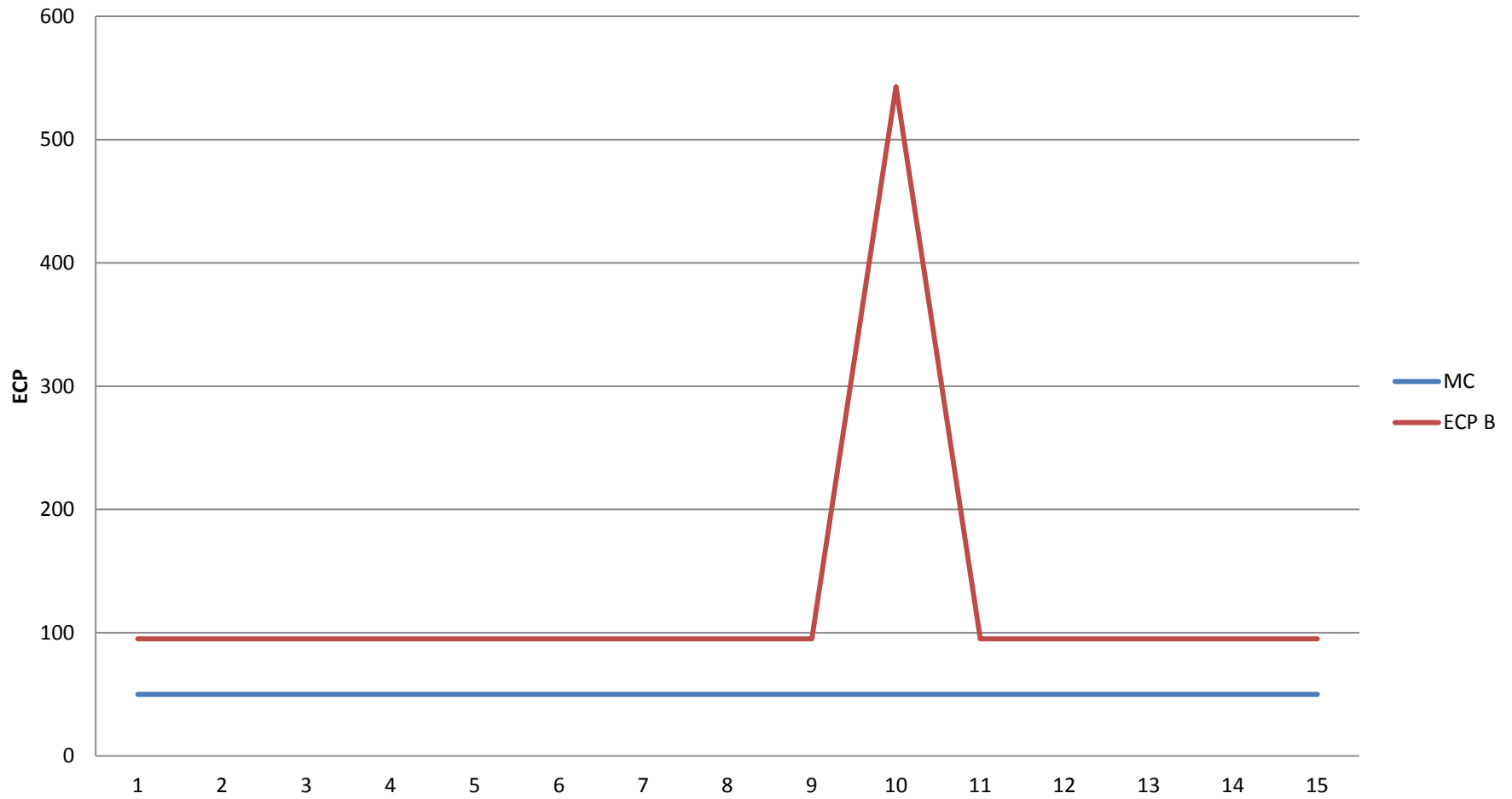
# Effective Contract Price – Firm B

- ECP if buyer buys from B:
- Trucks 1-9 cost \$95 each
- Truck #10 costs its normal price plus the forfeited discount on the 85 A trucks the buyer buys

$$\$95 + (\$5.27 * 85) = \$542.95$$

- Trucks 11-15 cost \$95 each

## Effective Contract Price - Firm B



# What theories can be supported with ECP facts?

- Satisfies a price-cost test?
  - With this set of facts  $ECP < \text{marginal cost}$  at the moment/unit where the two firms compete
- How costly is this strategy for the dominant firm?  
Costless in this case, compare:
  - “ex ante” linear price:  $\$100 * 90 \text{ trucks} = \$9,000$
  - Contract:  $(\$105.27 - \text{discount}) * 90 \text{ trucks} = \$100 * 90 = \$9,000$
  - With entry:  $\$100 * 85 \text{ trucks} = \$8,500$
  - No recoupment required
  - No discount relative to but-for world

- What does contract exclude from the buyer?
  - A few flavor 5 trucks from Firm B
  - Are there economies of scale for B in flavor 5?
  - Are there economies of scope across flavors? Has Firm B announced an interest in entry into flavor 4?
- How big is the tying product / uncontestable share?
  - 80 units of types 1-4 are tool for Firm A
  - \$8000 of uncontestable revenue; entrant @15 trucks has at most \$1425 in revenue

# Other factors

- Measurement error and uncertainty
- Up front payment
  - Behavioral biases
  - Managerial compensation
- Buying patterns over the contract year
  - Demand shocks
  - Corporate structure
- Bidding for the whole contract