



# Price Discrimination & Competition: Implications for Antitrust

---

Luke Froeb & Dan O'Brien

Nov 18, 2003

Federal Trade Commission

Disclaimer: These views are not necessarily those of  
FTC or any of its Commissioners



# Price Discrimination is a Loaded Phrase in Antitrust

---

Price discrimination implies “bad” things will happen.

Logic:

“Competitive” markets require  $P=MC$ .

Price discrimination implies  $P>MC$

Hence, price discrimination implies that markets are not “competitive.”



# Price Discrimination v. Differential Pricing

---

Price differences do not generally raise antitrust concerns

E.g., movie theaters

Price differences do not necessarily imply price discrimination

E.g., revenue management (cruise lines)



# Antitrust Scholars on Price Discrimination

---

“Persistent discrimination is very good evidence of monopoly because it is inconsistent with a competitive market; it implies that some consumers are paying more than the cost of serving them, a situation that would disappear with competition.” (Posner, *Antitrust Law: An Economic Perspective*)



# Economists on Price Discrimination, I

---

“...systematic discrimination may bolster the monopoly power of already powerful firms and facilitate adherence to collusive price structures.” (Scherer and Ross, *Industrial Market Structure and Economic Performance*)



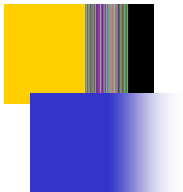
# Most of What You Thought You Knew is Wrong

---

All of these “insights” come from comparing monopoly to perfect competition

What happens when you compare oligopoly with discrimination to oligopoly without discrimination?

None of these insights survive

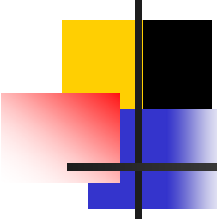




# Why does Price Discrimination Intensify Competition?

---





# Oligopolists would rather NOT Price Discriminate

---

The ability to price discriminate puts them in Prisoners' Dilemma

Individual incentive to discriminate—it always raises profit

But if rivals discriminate, everyone is worse off.



# So what does this mean for antitrust?

---

Cannot appeal to discrimination without careful analysis of consequences.

Example: how does presence of discrimination affect merger analysis?

We dispel four widely circulated Myths about the effects of price discrimination.



# Price Discrimination Under Spatial Competition --- A Simple Example

---

Three supermarkets located around a triangular city connected by three 6-mile roads.

Consumers are distributed uniformly along the roads and each purchase one unit.

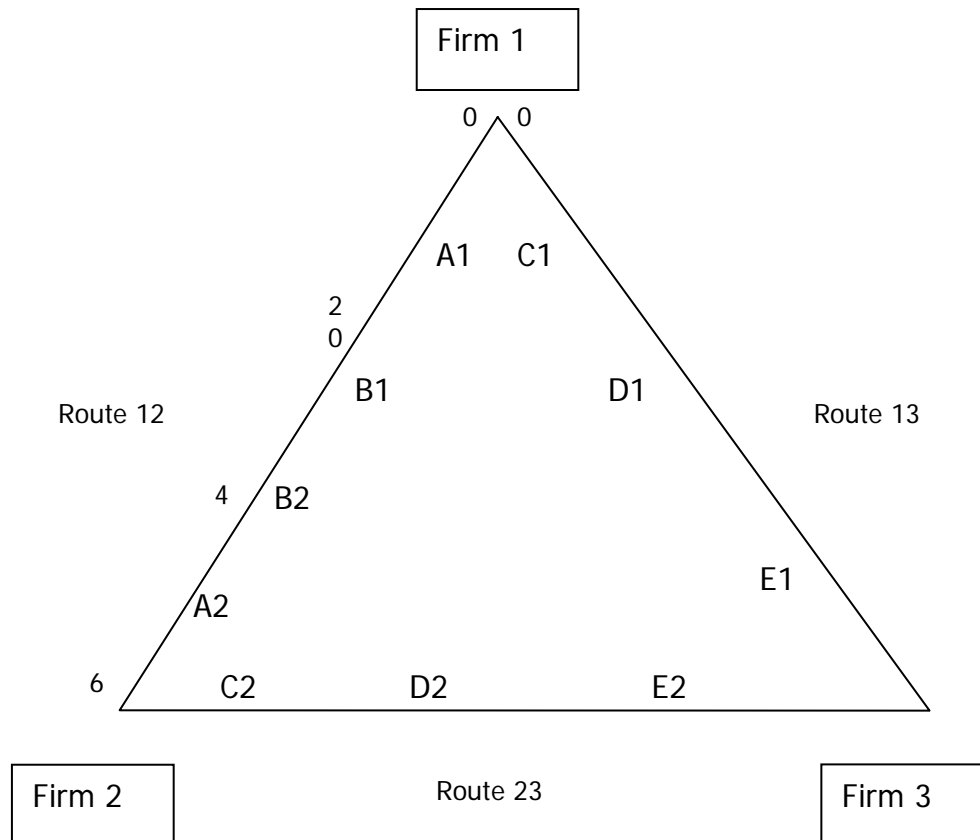
Travel costs  $t = \$1$  per mile.

The marginal cost of the product is  $c = \$2$ .

Consumer valuations are high enough relative to production and travel costs that the most distant consumers will buy to good.

# Uniform Pricing vs. Price Discrimination

Location	Uniform Price*	Price Disc.*
A1	\$9.00	\$7.00
B1	\$10.50	\$5.50





# When Does Price Discrimination Intensify Competition?

---

Customers do NOT agree on which brand is preferred



## 3-to-2 Merger with Uniform Pricing

---

If Firms 1 and 2 merge.

Prices rise via unilateral effects.

Merging firm raises price from \$8 to \$12.

Rival raises price from \$8 to \$10.

Some customers drive further to purchase products from further away

“cross-hauling”

# 3-to-2 Merger with Price Discrimination

Competition on routes 13 and 23 doesn't change.

Thus, two-thirds of the customers are unaffected!

Competition on Route 12 is affected.

No inefficient "cross-hauling"

			Post-merger price*	
			\$9	
			\$10.50	
	C1	\$7	\$7	0%
	D1	\$5.50	\$5.50	0%
	E1	\$6.50	\$6.50	0%
	Average	\$6.50	\$7.50	16%



# Comparing Merger Effects With vs. Without Price Discrimination

Location	% Price Change with Uniform Pricing	% Price Change with Price Discrimination
A1	44%	29%
B1	38%	91%
C1	44%	0%
D1	38%	0%
E1	21%	0%
Average	34%	16%

Conclusion: In this example, on average, price discrimination mitigates merger effects.





## More Realistic Examples

The result mitigates merger effects in the ex does not hold in all environments. implications of price discrimination mergers are more complex.



# Impact of Price Discrimination on Merger Effects

---

Price discrimination causes market area of merging parties and competitors to widen.

## Impact

Mitigates merger effects if it brings non-merging firms into closer competition

Amplifies them, if it brings merging firms into closer competition.



# Myths About Price Discrimination

---

Myth 1: Price discrimination does not arise in intensely competitive markets.

Myth 2: Price discrimination indicates the presence of significant market power.

Myth 3: Price discrimination almost always hurts some consumers

Myth 4: Imperfect Price discrimination is socially inefficient.



# Myths dispelled, Price discrimination:

---


Can and does occur in markets with intense (but not perfect)

competition...Myth 1

Is not a good indicator of significant market power...Myth 2

Can benefit all consumers...Myth 3

May improve efficiency...Myth 4



# Conclusions

---

Does price discrimination make markets more competitive?