Microeconomic Theory — ECON 323 503
Chapter 12: Pricing ~~and Advertising~~

Vikram Manjunath

Texas A&M University

November 11, 2014

Outline

1. Price discrimination: A monopoly can increase its profits by charging different consumers different prices.

Price discrimination

Previous chapter: monopoly had to set a uniform price.

Price discrimination

Previous chapter: monopoly had to set a uniform price.

Often, there are different prices: sales, slightly differentiated products, coupons, and so on.

Price discrimination

Previous chapter: monopoly had to set a uniform price.

Often, there are different prices: sales, slightly differentiated products, coupons, and so on.

Why do we see these different prices?

Price discrimination

Previous chapter: monopoly had to set a uniform price.

Often, there are different prices: sales, slightly differentiated products, coupons, and so on.

Why do we see these different prices?

More often than not: price discrimination.

Perfect price discrimination

Simplified environment:

Perfect price discrimination

Simplified environment:

Each consumer consumes at most one unit.

Perfect price discrimination

Simplified environment:

Each consumer consumes at most one unit.

Monopolist knows exactly what each person's willingness to pay is.

Perfect price discrimination

Simplified environment:

Each consumer consumes at most one unit.

Monopolist knows exactly what each person's willingness to pay is.

Since he can charge each person a different price, selling one additional unit doesn't reduce the price of the units he's already selling.

Perfect price discrimination

Simplified environment:

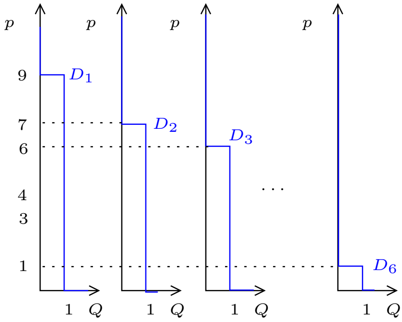
Each consumer consumes at most one unit.

Monopolist knows exactly what each person's willingness to pay is.

Since he can charge each person a different price, selling one additional unit doesn't reduce the price of the units he's already selling.

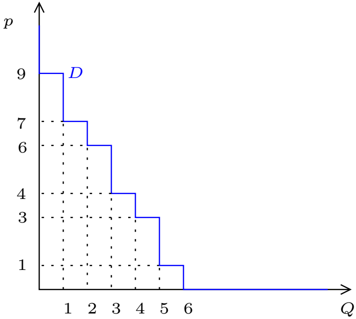
So $MR(Q) = p(Q)$!

Perfect price discrimination



Each person's demand curve tells us his willingness to pay for a unit of the good.

Perfect price discrimination



Adding them up horizontally gives us the market demand curve.

Perfect price discrimination

Suppose constant marginal cost of \$4.00

Perfect price discrimination

Suppose constant marginal cost of \$4.00

How many units should the monopolist sell?

Perfect price discrimination

Suppose constant marginal cost of \$4.00

How many units should the monopolist sell?

How much should he charge each consumer?

Perfect price discrimination

Suppose constant marginal cost of \$4.00

How many units should the monopolist sell?

How much should he charge each consumer?

No point selling to anyone who values it less \$4.00: they won't pay the cost of producing it.

Perfect price discrimination

Suppose constant marginal cost of \$4.00

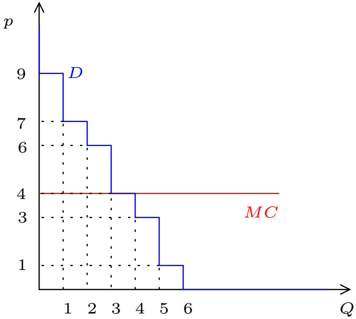
How many units should the monopolist sell?

How much should he charge each consumer?

No point selling to anyone who values it less \$4.00: they won't pay the cost of producing it.

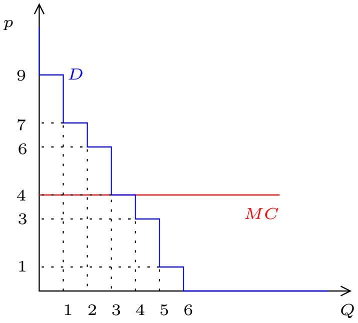
Sell to anyone who values it at \$4.00 or more and charge them their willingness to pay.

Perfect price discrimination



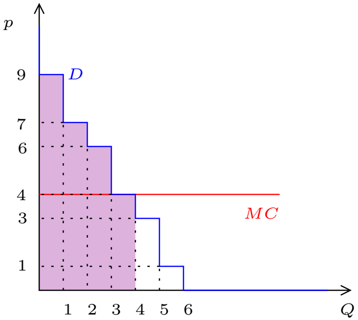
Sell one unit each to consumers 1, 2, 3, and 4.

Perfect price discrimination



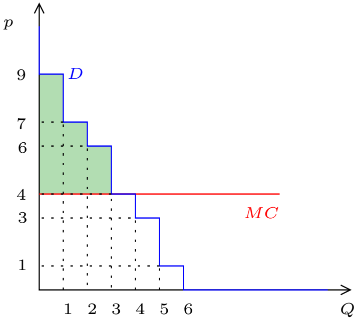
Charge each their willingness to pay.

Perfect price discrimination



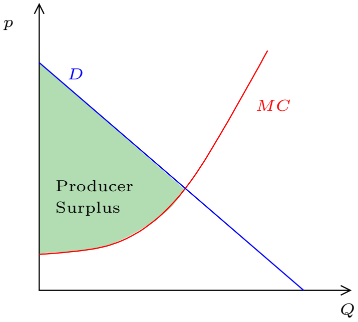
Revenue is the shaded area.

Perfect price discrimination



PS is this shaded area (or profit if no fixed cost)

Smooth demand curves



The intuition here follows through even for “smooth” demand curves.

Welfare

By discriminating, the monopoly gets <u>all</u> of the surplus.

Welfare

By discriminating, the monopoly gets <u>all</u> of the surplus.

Social welfare $W = PS + CS$ is what it would be in a competitive market: it's efficient.

Welfare

By discriminating, the monopoly gets all of the surplus.

Social welfare $W = PS + CS$ is what it would be in a competitive market: it's efficient.

But the consumer is hurt.

Welfare

By discriminating, the monopoly gets <u>all</u> of the surplus.

Social welfare $W = PS + CS$ is what it would be in a competitive market: it's efficient.

But the consumer is hurt.

An example of this: net neutrality prevents internet providers (who are typically monopolists) from discriminating.