# LECTURE 5.2 PREEMPTION

How can you deter entrants and capture value by filling in the product space?

Idea: increase number of varieties to leave no room for potential entrants in "product space".



Example: ready-to-eat breakfast cereals:

- Consumers differ in preferences for some characteristic (sweetness): uniformly distributed from 0 (Weetbix) to 100 (Chocolate-Frosted Sugar Bombs).
- Monopolist decides on number of varieties and product positioning. Entrant then makes similar decision.
- Each consumer buys 1 unit of the nearest variety (up to distance 30).
- Price is fixed at p=1.
- Cost of new variety equivalent to a market share of 15.



What is the monopolist's optimal strategy if there is no potential rival?

- One variety leads to profit 60 15 = 45
- Two varieties lead to profit 100 2 × 15 = 70.
- Three varieties lead to profit  $100 3 \times 15 = 55$ .
- Four varieties lead to profit 100 4 × 15 = 40.
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The monopoly strategy is not immune to entry:

- Suppose we offer only two varieties (e.g. at 30 and at 70).
- By entering at 50, entrant captures all consumers between 40 and 60.
- Therefore entrant's market share is 20, but cost is only 15.
- After entry, the incumbents profits drop to 80 30 = 50.
- A new entrant could also enter at 29 or 71 and capture other customers, completely erasing their profit.



### Consider a "preemption" strategy:

- Incumbent offers four varieties: at 15, 40, 60 and 85
- Now there is no room for profitable entry!
- Incumbent's profits are now 100 60 = 40 (better than zero, but still less than "pure" monopoly with no potential entry).

Preemption can occur with fewer products than would be sold in a competitive equilibrium with zero profit.

The intuition is that by preempting you 'tie up' the available product space in such a way that after entry, the entrant is worse off than they would be in a competitive outcome, i.e. earning zero economic profits.

Conclusion: product proliferation can deter entry.

Example: CVS/Walgreens at every corner.

Staples followed a very similar strategy:

Staples was trying to build a critical mass of stores in the North- east to shut out competitors... By building these networks [of stores] in the big markets like New York and Boston, we have kept competitors out for a very, very long time.

Staples founder Thomas Stemberg