David Youngberg

Econ 304—Bethany College

**Lecture 18: Monopolistic Competition**

1. An Hayekian complaint
   1. Nobel laureate F.A. Hayek complained about economists’ approach to perfect competition, saying:
      1. “Advertising, undercutting, and improving (‘differentiating’) the goods or services produced are all excluded by definition ‘perfect’ competition means indeed the absence of all competitive activities.” (“The Meaning of Competition”)
   2. In other words, the homogenous products assumption of perfect competition robs us of all competitive activity. In practice, firms actively highlight how different their products are from competitors.
   3. Monopolistic competition addresses this issue by relaxing the homogenous products.
      1. Firms compete by selling similar products but not identical. They are close substitutes, but not near substitutes.
      2. There is still freedom of entry and exit—it is easy for firms to enter and exit with their own brands
2. The Long and the Short of It
   1. Monopolistically competitive firms face a downward-sloping demand curve, just like in a monopoly. We draw this demand curve relatively gentle, since there are many substitutes (thus the demand is elastic).
   2. Monopolistically competitive firms also must deal with entry, just like in perfect competition.

2

4

6

8

10

12

14

2

10

8

6

4

22

20

18

16

14

12

P ($/lb)

Candy (millions of pounds)

**ATC**

**D**

**MC**

**MR**

* 1. In the short run, monopolistically competitive firms act like monopolies.

2

4

6

8

10

12

14

2

10

8

6

4

22

20

18

16

14

12

P ($/lb)

Candy (millions of pounds)

**ATC**

**D**

**MC**

**MR**

* 1. In the long run, we shift the demand curve to reflect entry; the firm makes zero economic profit.
     1. The price falls from about 9.5 to about 8.5.
     2. The firm supplies less: from 7 to 8. Note this doesn’t mean that the market as a whole is smaller—in fact it’s larger since this was the result of entry.
  2. Monopolistic competition also produces deadweight loss: prices are less than marginal cost.
  3. But that doesn’t mean monopolistic competition is undesirable since that deadweight loss comes from product differentiation. We pay a little more (and just a little, since the monopoly power is small) to get product diversity.
  4. It is also likely to be an optimal swap. If people weren’t willing to pay for differences in products, the demand curve would be perfectly elastic. Flu shots are an example.

1. Calculating the shift in demand
   1. We already know how to calculate monopoly profit, but, in the long run, how much will the brand sell if we have to worry about entry?
   2. First, let’s remember the example from last class:
      1. Demand: P = 12 – Q; Total Cost: TC = 6 + Q2
      2. MR = 12 – 2Q; MC = 2Q
      3. 2Q = 12 – 2Q, or QM = 3
      4. PM = 12 – 3 = 9; CostM = (6 + 9)/3 = 15/3 = 5
      5. ∏M = (9 – 5)3 = 12
   3. We know economic profit must be zero and we must alter that based on shifting the demand curve. So we re-write demand as:
      1. Demand: P = 12 – A – Q; MR = 12 – A – 2Q
      2. Then we set Demand equal to ATC, where profit will be zero.
      3. 12 – A – Q = (6 + Q2)/Q
      4. 12Q – AQ – Q2 = 6 + Q2
      5. It’s much easier to isolate A, where A = -6/Q + 12 – 2Q
      6. Now we set MR = MC, using what we found for A.
      7. 12 – (-6/Q + 12 – 2Q) – 2Q = 2Q
      8. 6/Q = 2Q, Q = √3 = 1.73
      9. Or A = -6/√3 + 12 – 2√3 = 5.071
      10. Since we set up A is being subtracted from 12, this makes sense. Our demand curve shifts down 5.071.
   4. Calculating deadweight loss is the same as before. We just have to update our new Demand and MR revenue curves to see the long run DWL.
      1. 6.929 – Q = 2Q, Q\* = 2.31
      2. [6.929(2.31) – 1.5(2.31)2] – [6.929(1.73) – 1.5(1.73)2] =

(16.01 – 8) – (11.99 – 4.49) = 8.01 – 7.5 = 0.51

* + 1. Note DWL was 1.5. Now it is 0.51.