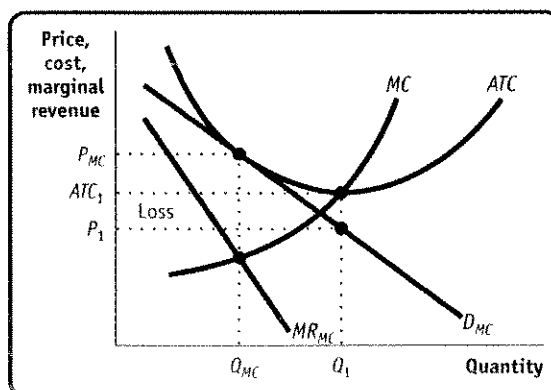


Unit 6.2 (Monopolistic Competition) Chapter 16

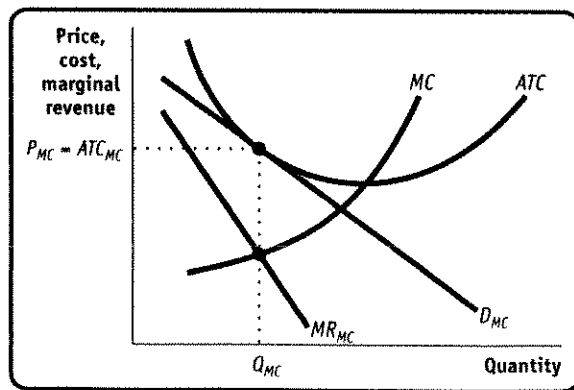
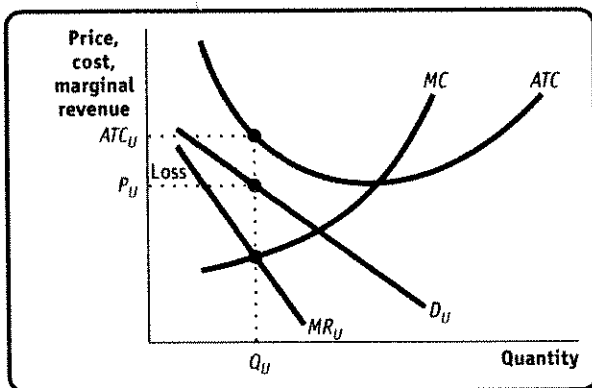
1. The three conditions for monopolistic competition are (1) a large number of producers, (2) differentiated products, and (3) free entry and exit.
 - a. There are many bands that play at weddings, parties, and so on. There are no significant barriers to entry or exit. And products are differentiated by quality (for instance, some bands have better musicians or better electronic equipment) or by style (for instance, different bands play different types of music). All three conditions for monopolistic competition are fulfilled.
 - b. The industry for individual-serving juice boxes is dominated by a few very large firms (for example, Minute Maid, Welch's, and Kool Aid), and there are significant barriers to entry, in part because of the large costs (for example, advertising) involved in gaining any market share of the national market. Products are, however, differentiated—if perhaps only in the minds of consumers. Because of the small number of competitors, the industry is closer to oligopoly.
 - c. There is a large number of dry cleaners, and each produces a product differentiated by location: customers are likely to prefer to use the dry cleaner closest to their home or workplace. Finally, there are no significant barriers to entry. This is a monopolistically competitive market.
 - d. There is a large number of soybean farmers, and there is free entry and exit in this industry. However, soybeans are not differentiated from each other—they are a standardized product. No individual soybean farmer has market power. This industry is therefore a perfectly competitive industry.
3. She should not lower her price. Since the industry is in long-run equilibrium, each restaurant makes zero profit. That is, the restaurant's demand, marginal revenue, marginal cost, and average total cost curves are as shown in the accompanying diagram.



The restaurant owner produces output (the number of tables served), Q_{MC} , at a price of PMC . The price is equal to average total cost, and she therefore makes zero profit. If she were to lower the price to P_1 , she would attract more customers and sell the minimum-cost output Q_1 . That is, there is excess capacity: each restaurant in town could produce more output at a lower average total cost. But lowering the price to P_1 would cause the restaurant owner to incur a loss equal to the shaded rectangle in the diagram, since price is now below average total cost, ATC_1 . In fact, there is no price other than PMC at which the restaurant owner does not make a loss. She should therefore not change the prices on her menu.

4.

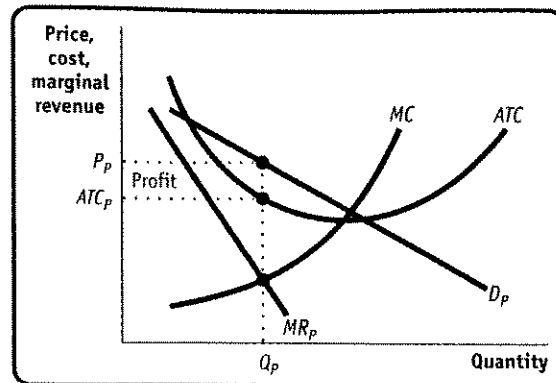
Each gas station will produce the output, and therefore charge the price, that maximizes its profit or minimizes its loss. That is, it will produce quantity Q_U , where marginal cost equals marginal revenue, and therefore charge price P_U . Since the price P_U is lower than average total cost at the quantity Q_U , ATC_U , each gas station makes a loss. That is, the situation for the typical gas station looks like the diagram below.



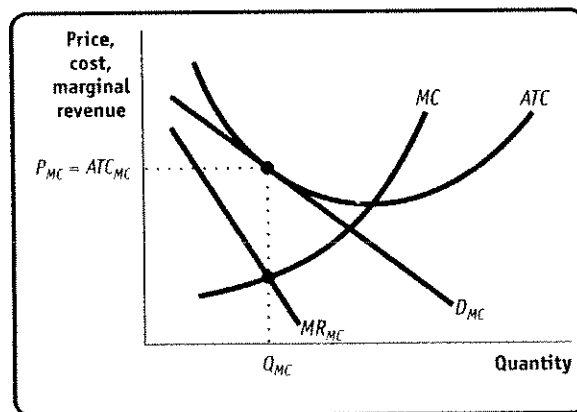
Since gas stations are making losses, in the long run some will exit the industry. This shifts the demand and marginal revenue curves for each of the remaining gas stations rightward. Exit continues until each remaining gas station makes zero profit. This is the long-run equilibrium. The situation for the typical gas station in this equilibrium is illustrated in the accompanying diagram. Demand has increased to the level at which this gas station makes zero profit at a price of PMC and a quantity of Q_{MC} .

5.

Your hairdresser currently makes a profit. His demand, marginal revenue, marginal cost, and average total cost curves are shown in the diagram below.



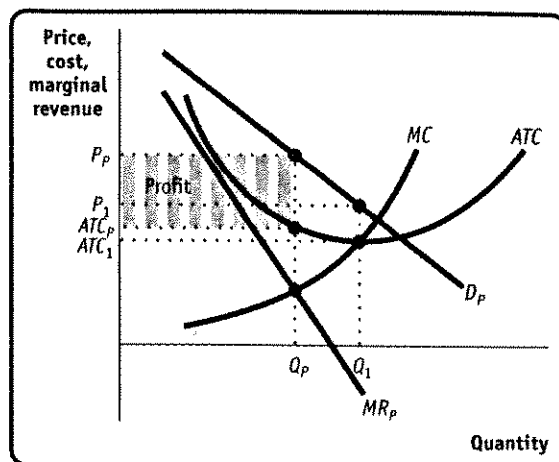
Since this hairdresser (and all other hairdressers) makes a profit equal to the shaded rectangle by producing quantity Q_p at a price P_p , there will be entry into this industry. As more hairdressers open shops in town, demand for the typical existing hairdresser will fall—the demand curve and marginal revenue curve shift leftward. This will continue to the point at which no hairdresser makes positive profit. This eliminates the incentive for further entry into the industry and long-run equilibrium is reached. The situation is illustrated in the diagram below.



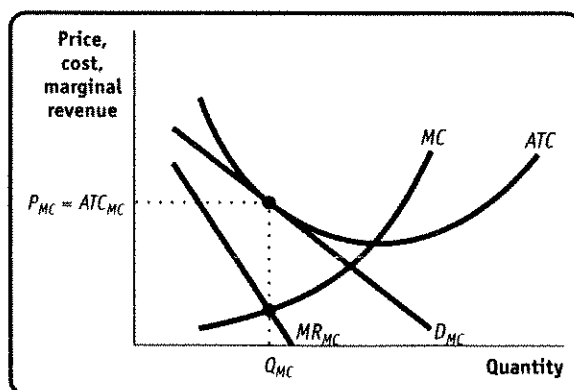
The best the typical hairdresser can do is to produce quantity Q_{mc} at a price of P_{mc} . Since price equals average total cost at this quantity, each hairdresser will make exactly zero profit.

6.

The current situation of Magnificent Blooms is illustrated in the accompanying diagram. It produces quantity Q_1 at the minimum point of its average total cost curve, and it charges price P_1 , thus making profit equal to the shaded rectangular area.



- a. Yes, Magnificent Blooms could increase its profit in the short run by producing less. It would maximize its profit by producing quantity Q_P , the quantity at which marginal revenue equals marginal cost, and selling it at a price P_P and making a profit equal to the striped area.
- b. No. In the long run, Magnificent Blooms will make zero profit. The fact that it is making profits in the short run induces other firms to enter the industry. This shifts its demand curve and marginal revenue curve leftward to the point where it makes zero profit, as shown in the accompanying diagram.



8.

In the short run, a monopolist makes positive profit. Whether a firm in monopolistic competition makes a profit depends on how many firms there are in the industry. If there are “too few” firms in the industry (relative to the long-run equilibrium number of firms), then a typical firm in monopolistic competition will make a profit. But if there are “too many” firms in the industry (relative to the long-run equilibrium number of firms), then a typical firm in monopolistic competition will incur a loss.

In the long run, a monopolist also makes positive profit. But in the long-run equilibrium in a monopolistically competitive industry, all firms make zero profit. This is because in the long run, in a monopolistically competitive industry, enough firms have entered or left the market to shift a typical firm’s demand curve so that it is tangent to the firm’s average total cost curve at the firm’s profit-maximizing quantity. The typical firm makes zero profit.

9.

- a. In monopolistic competition, firms seek to differentiate themselves by, among other things, the type of clothes they sell. And to you, as a customer, there is value in diversity: many consumers value being able to wear clothes that are different from those the people around them wear. If there are fewer firms in this industry, there will also be less variety.
- b. Monopolistically competitive firms also seek to differentiate themselves through the quality of service they offer. There will be stores that take your measurements before making specific recommendations about which clothes to buy. And there will be stores where you help yourself to clothes piled in a heap on a big table. If there are fewer firms in this industry, there will be less diversity in service quality. It will be less likely that each consumer finds a store with just the quality of service he or she prefers.
- c. If there are fewer firms in this industry, each firm will sell a greater quantity and so have lower average total cost of production. As a result, it is likely that prices will also be lower. From this perspective, you might prefer to have fewer firms.

11.

- a. The seller here is the job-seeker, who is selling his or her labor to a potential employer. The potential employer lacks information on how good an employee the job-seeker is—how dependable, diligent, and so on. By being willing to provide excellent references from previous employers, the job-seeker signals that he or she is a good employee. As a result, the potential employer is more willing to hire that person.

- b. The potential buyer lacks information on how good the merchandise is. By being willing to provide a one-year, no-questions-asked warranty, the seller signals to the potential buyer that the merchandise is of high quality. As a result, the potential buyer is more willing to buy the good.
- c. The potential buyer lacks information on how good the used car is. By being willing to provide the repair and maintenance records, the seller signals to the potential buyer that this is a good-quality used car. As a result, the potential buyer is more willing to buy it.