

(OPEC) provides a good illustration of the problem that cartels face. Because it is an international agreement between sovereign nations, OPEC does not face legal obstacles to its efforts to coordinate production and raise prices. In the 1970s, OPEC played an important role in raising oil prices from \$3.39 a barrel in 1972 to \$31.77 a barrel in 1981. Tempted by the high price of oil, many of its members began to increase production, and in 1986 oil prices dropped below \$10 a barrel. In April 2020, in response to share reductions in demand for oil due to the COVID-19 crisis, OPEC initiated a record reduction in oil output. In part due to this significant reduction in the supply of oil, prices increased sharply over the subsequent months.

As these considerations suggest, oligopoly outcomes depend critically on the circumstances of each market. We can nonetheless conclude that the outcome will lie somewhere between the polar cases of monopoly and perfect competition. As a rule then, oligopoly results in some reduction in social welfare, but we cannot easily say how large this reduction will be.

Monopolistic Competition

Perhaps the most common form of **imperfect competition** is **monopolistic competition**. As its name suggests, monopolistically competitive markets combine aspects of the perfectly competitive and monopoly models. Specifically, these are markets in which firms produce similar but differentiated products. An example of such a market is book publishing. Each particular title is unique and distinctive, but there are thousands of titles for you to choose from when you are looking for a book. Other examples include restaurants, clothing, and many local service industries.

Because the product of each firm is differentiated—meaning that you can tell the difference between its product and those of other firms—the firm faces a downward-sloping demand curve. As a result, each firm chooses its output in the same way a monopoly firm does, by finding the point at which its marginal revenue equals its marginal cost. Because the firm's demand curve slopes downward, marginal revenue is less than price, so at this point the market price is greater than the marginal cost of production.

We have seen that at the profit-maximizing quantity, a monopolist will earn positive economic profits. In a monopolistically competitive market, however, if firms are earning positive profits this will lead to the entry

of new firms supplying similar goods or services. As the range of choices available to consumers expands, existing firms will see their demand curves shift to the left, causing profits to fall.

Because there are no barriers to entry in a monopolistically competitive market, entry will continue until profits have been reduced to zero. If at some point profits fall below zero, there will be exit from the industry, which will continue until the zero economic profit equilibrium is restored.

A full analysis of the welfare properties of monopolistically competitive markets requires more sophisticated mathematical analysis. But there are several points to note about such markets. First, because price exceeds marginal cost, there is some social inefficiency: there are consumers who value the product at more than the cost of increasing production. The failure to complete these transactions is a failure to fully exploit mutually beneficial exchanges. This failure occurs because of the firm's monopoly incentive to restrain production. Second, the diversification of products that results from the efforts of firms to create a distinctive identity for their product creates benefits for consumers by increasing the range of choices available to them.

CREATIVE DESTRUCTION: THE PROFIT MOTIVE AND THE SOURCES OF ECONOMIC CHANGE

When we considered the entry and exit of producers in a competitive market in the previous section, we came to the somewhat surprising conclusion that even though producers in a perfectly competitive market would earn zero profits, they would be satisfied with this result. In part this is a consequence of our definition of economic profits, which factors in the opportunity cost of all of the resources employed, including the business owner's time.

Economic profits, then, are an additional payment above and beyond the compensation that can be earned in the next best alternative activity. We should not be surprised, then, that self-interested economic agents should seek to identify or create opportunities to earn economic profits. One important way that they can do this is by escaping the constraints of competitive markets. When producers can create barriers to entry, they can create situations of imperfect competition in