## **Chapter 12: The Demand for Resources**

The circular flow model illustrates the flow of resources and products in the market economy, and up to this point, we have spent a great deal of time discussing the operation of the product market, where firms sell products to households. But what about the resource market? How do firms obtain the resources necessary to produce those products? Chapter 12 begins a four-chapter study of the markets for land, labor, capital, and entrepreneurial resources, with this chapter focusing specifically on the labor market. Principles from this chapter help to explain wage determination and markets for other productive resources.

The demand for resources is a derived demand, meaning the demand for resources depends on demand for the product produced by those resources. If the demand for cars falls, the demand for autoworkers falls, as well. Ultimately, the demand for workers rests on the productivity of workers, the value of the products they produce, and the costs of substitute and complementary resources.

Marginal product measures the additional output produced by one more worker, while the marginal revenue product measures the change in total revenue resulting from hiring one more worker. The marginal resource cost is the increase in the firm's total cost associated with hiring one more worker. To maximize profit, the firm hires workers until the marginal resource cost equals the marginal revenue product; the firm hires workers as long as the revenue brought in by that worker is greater than or equal to the firm's cost to employ that worker. This rule is true for every kind of resource, whether or not the resource market is competitive.

The least-cost rule calls for firms to make a decision between hiring labor or capital to produce a certain amount of output, such that the marginal product per dollar spent for each of the resources is equal. But producing at least cost does not necessarily maximize profit. To maximize profit, the firm must hire each resource using the MRC=MRP rule.

Material from Chapter 12 consistently appears in a few multiple-choice questions and frequently appears as part of a free-response question on the AP Microeconomics Exam. It is critically important to be able to calculate marginal product and marginal revenue product, to identify the profit-maximizing number of workers to hire, and to correctly identify and use the least-cost and profit-maximization rules.