Summary

1 The functional and size distributions of income refer, respectively, to the shares of total national income going to each of the major factors of production, and to various groups of individuals. One focuses on the source of income, the other on its size.

2 The income of a factor of production depends on the price paid per unit of the factor, and the quantity of the factor used.

3 The firm's decisions on how much to produce and how to produce it imply demands for factors of production, which are said to be *derived* from the demand for goods that they help to produce.

4 A profit-maximizing firm equates a factor's marginal cost to its marginal revenue product, which is its marginal physical product multiplied by the marginal revenue associated with the sale of another unit of output. When the firm is a price-taker in input markets, the marginal cost of the factor is its price per unit. When the firm sells its output in a competitive market, the marginal revenue product is the factor's marginal physical product multiplied by the market price of the output.

5 A price-taking firm's demand for a factor is negatively sloped because the law of diminishing returns implies that the marginal physical product of a factor declines.

6 The industry's demand for a factor will be more elastic: (*a*) the faster that the marginal physical product of the factor declines as more of the factor is used, (*b*) the easier it is to substitute one factor for another, (*c*) the larger is the proportion of total variable costs accounted for by the cost of the factor in question, and (*d*) the more elastic is the demand for the good that the factor helps to make.

7 The total supply of each factor is fixed at any moment but varies over time. The supply of labour depends on the size of the population, the participation rate, and hours worked. A rise in the wage rate has a substitution effect, which tends to induce more work, and an income effect, which tends to induce less work (more leisure consumed).

8 The supply of a factor to a particular use is more elastic than its supply to the whole economy because one user can bid units away from other users. The elasticity of supply to a particular use depends on factor mobility, which tends to be greater the longer the time allowed for a reaction to take place.

9 Disequilibrium factor price differentials induce factor movements that eventually remove the differentials. Equilibrium differentials persist indefinitely.

10 According to the theory of equal net advantage, owners of factors will choose the use that produces the greatest net monetary and non-monetary advantage. In so doing, they will cause disequilibrium factor-price differentials to be eliminated.

11 Whenever the supply curve is positively sloped, part of the total pay going to a factor is needed to prevent it from transferring to another use, and the rest is rent. The proportion of each depends on the mobility of the factor.

Topics for review

- Functional distribution and size distribution of income
- Derived demand
- Marginal physical product
- Marginal revenue product
- Factor mobility
- Disequilibrium and equilibrium differentials
- Equal net advantage
- Economic rent