

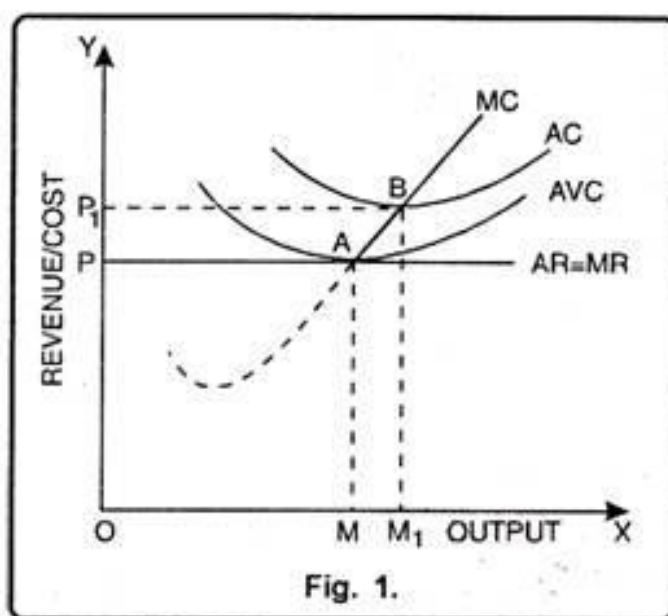
Short Run Supply Curve of a Firm and Industry in the Perfectly Competitive Market

The supply curve indicates the relationship between price and quantity supplied. In other words, the supply curve shows the quantities that a seller is willing to sell at different prices. According to Dorfman, "Supply curve is that curve which indicates various quantities supplied by the firm at different prices". The concept of the supply curve applies only under the conditions of perfect competition.

Short Run Supply Curve of a Firm

Short-run is a period in which supply can be changed by changing only the variable factors, fixed factors remaining the same. That way, if the firm shuts down, it must bear fixed costs. That is why in the short run, the firm will supply commodity till the price is either greater or equal to the average variable cost. Thus, a firm will continue supplying the commodity till marginal cost is equal to the price or average revenue. Under perfect competition, average revenue is equal to marginal revenue, so the firm will produce up to that point where marginal revenue and marginal cost are equal.

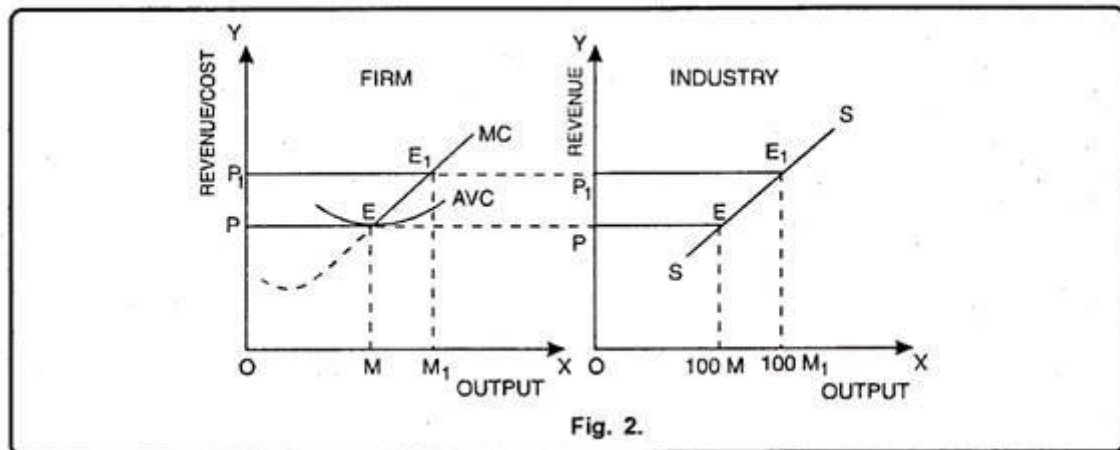
The short-run supply curve of a perfectly competitive firm is that portion of the marginal cost curve which is above average variable cost curve. According to C.E. Ferguson, "The short-run supply curve of a firm in perfect competition is precisely its marginal cost curve for all rates of output equal to or greater than the rate of output associated with minimum average variable cost."



Observing the figure-1 it is cleared that there is no supply if the price is below OP . At price less than OP , the firm will not be covering its average variable cost. At OP price, OM is the supply. In this case, firms' marginal revenue and marginal cost cut each other at A , OM is equilibrium output. If the price goes up to OP_1 , the firm will produce OM_1 output. This firm's short-run supply curve starts from A upwards i.e., thick line AB .

Short Run Supply Curve of the Industry

An industry is a combination of firms producing homogeneous goods. By considering such fact, the supply curve of an industry is a lateral summation of all firms. This can be made clear with the help of Fig. 2.



Here, we have assumed that different firms in the industry are producing identical products. Each firm at OP price is producing OM output. It is because all firms have identical costs. At OP price, the supply of industry is $100 \times M = 100M$.

Similarly, at OP_1 price, all the firms of the industry are producing $100 \times M_1 = 100M_1$ quantity of output. These quantities will be called the supply or output of the industry. SS is the supply curve of the industry. Point E shows that at OP price firm's supply is OM and an industry's total supply is $100 \times M = 100M$. At OP_1 price, the firm's supply is OM_1 , and the industry's supply is $100M$. We get the industry's supply curve by joining points E and E_1 .

Thus, under perfect competition, the lateral summation of that part of short-run marginal cost curves of the firms which lie above the average variable cost constitutes the supply curve of the industry. According to Stonier and Hague, the "short-run supply curve of a competitive industry will always slope upwards since the short-run marginal cost curve of the industrial firms always slope upward."