

# Cost Function

The cost function describes the relationship between output produced and the minimum possible cost for that output. Technology and input prices are usually assumed to be constant and given. They are parameters. Any change in either technology or input prices would alter the cost function.

The cost function is closely related to the production function. The minimum cost at which a good or service can be produced is tied to the maximum output that can be produced for a combination of inputs.

A simple cost function looks as follows:

$$y = a + bx$$

*y = cost of x number of items*

*a = fixed costs*

*b = variable cost per unit of x*

*x = measure of activity*

This equation says the total costs will be equal to fixed costs plus variable costs multiplied by some measure of activity.

Estimating a cost function is not easy to do; therefore doing so should be reserved for only the most promising companies. However, estimating a cost function is very beneficial and it can be estimated for any company producing a good or service.