In economics, a **cost curve** is a graph of the costs of production as a function of total quantity produced. In a free market economy, productively efficient firms use these curves to find the optimal point of production (minimizing cost), and profit maximizing firms can use them to decide output quantities to achieve those aims. There are various types of cost curves, all related to each other, including total and average cost curves, and marginal ("for each additional unit") cost curves, which are equal to the differential of the total cost curves. Some are applicable to the short run, others to the long run.