Answer on Question #51419, Economics, Microeconomics

Using the concepts of economies and diseconomies of scale, explain the shape of a firm's long-run ATC curve.

Figure 1. Long-run ATC (constant returns to scale)

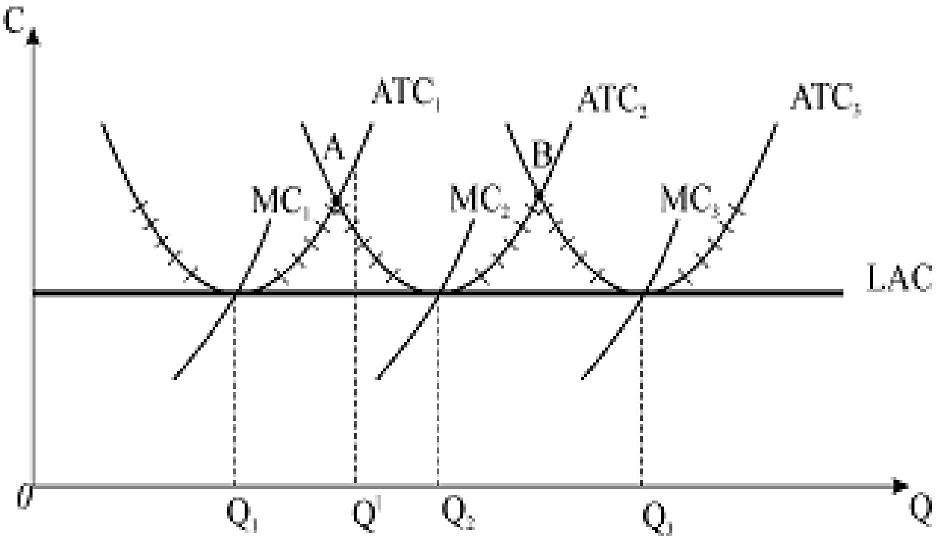

Fig. 1 illustrates the construction of the long-term average cost curve for the case of constant returns to scale. If a company wants to produce a small amount of product, then it is necessary to build a company with production level that meets the minimum average cost, installed at the intersection of curves MC_i and ATC_i.

If the demand for products increases and the company intends to expand production, then it is better to build a medium-sized company, in the presence of constant returns to scale average costs remain the same only for output. Any intermediate between production levels, where curves intersect, and any other level give greater average costs. The same is for the large enterprises.

Figure 2. Long-run ATC (variable returns to scale)

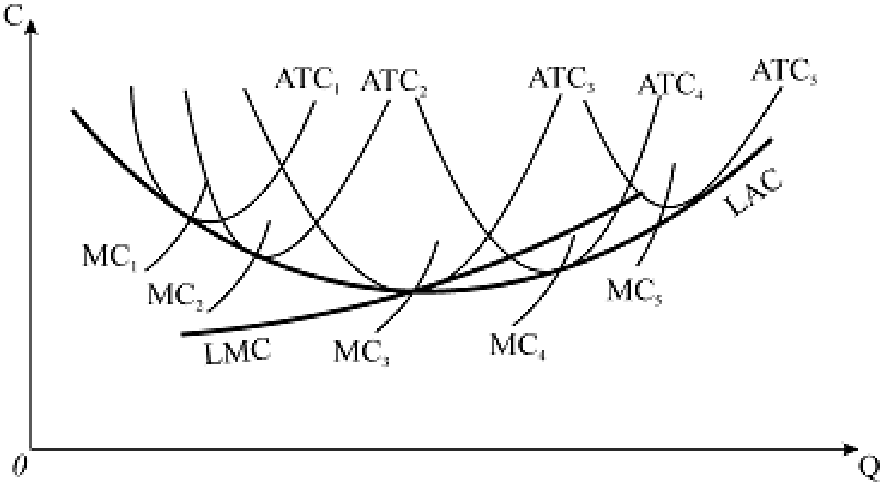

Fig. 2 illustrates the case of increasing returns to scale or economies of scale at a low output, which at higher production levels moves to the descending return to scale.

The curve long-run ATC is a U - shaped configuration. The reason is its variable nature of economies of scale. Each point on the curve shows the marginal cost of the most economical option for businesses of all sizes.

The long-run ATC curve intersects the MC curve at the point of its minimum