Types of Cost

A2 Economics

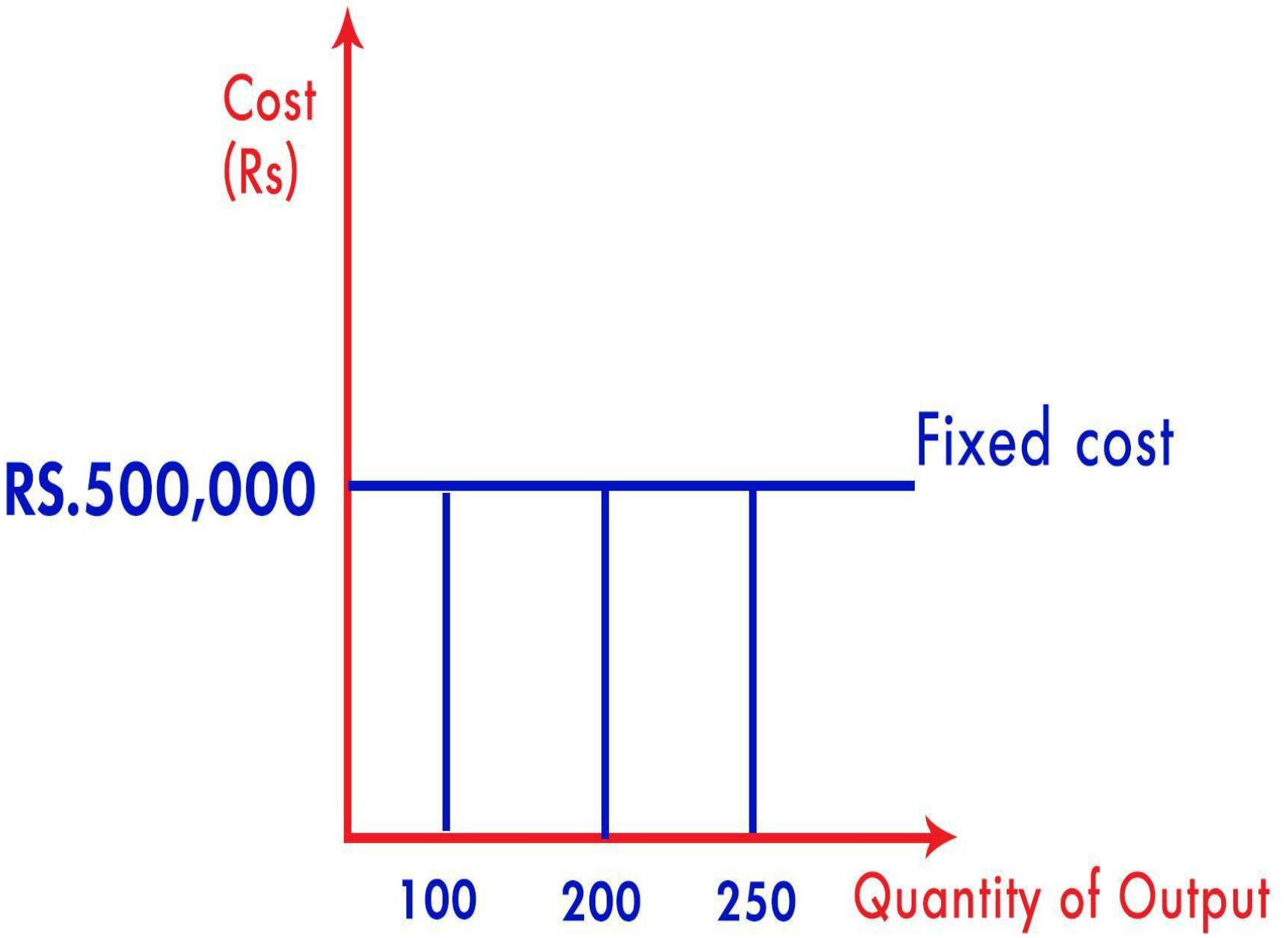
What is Cost?

- All expenses made by businesses to produce their products.

Fixed Cost

- Fixed Cost: is any cost component that does not change with the level of output produced. Eg salaries, rent, office electricity.

Fixed Cost

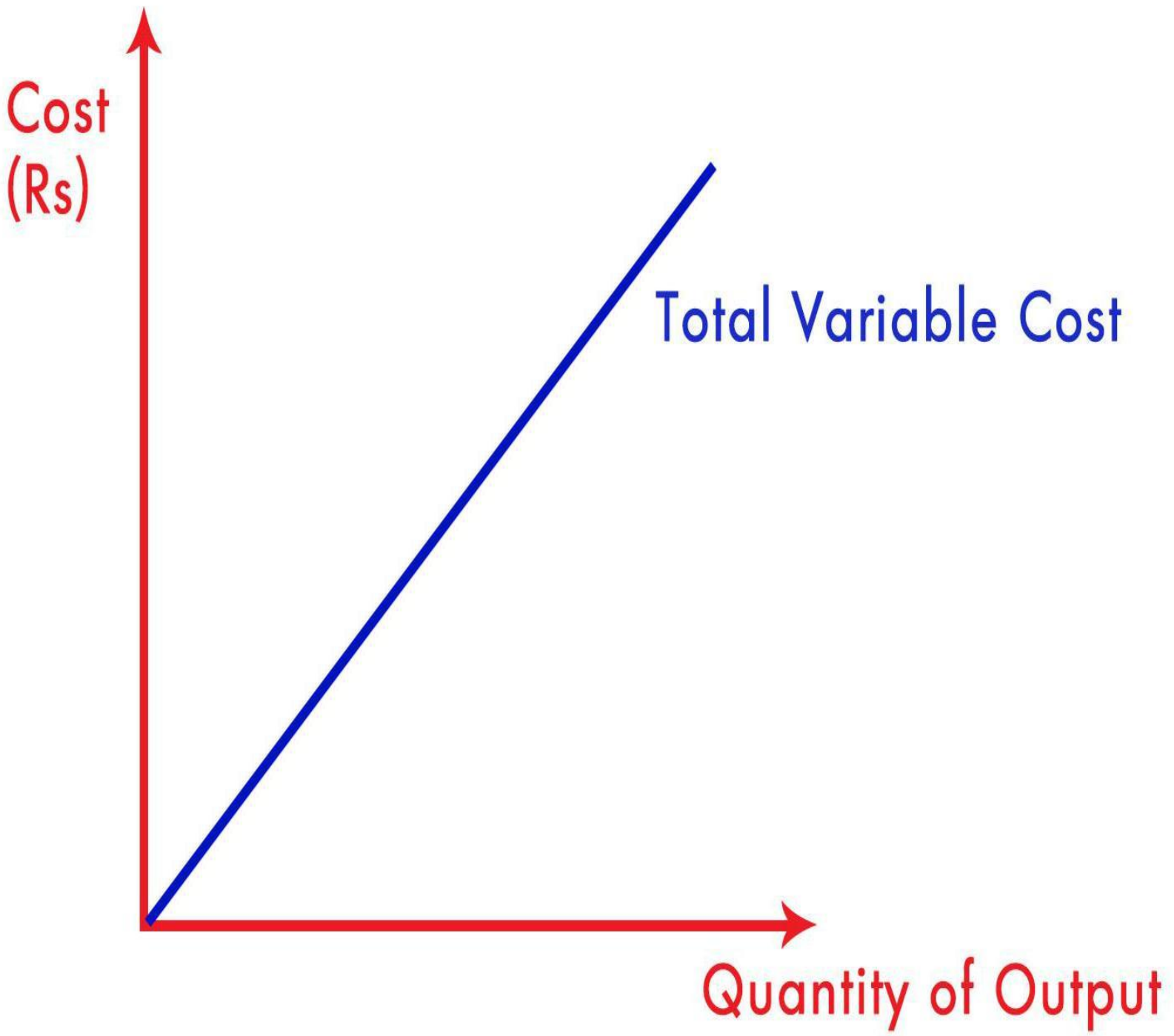


As can be seen from the graph on the left, regardless of the output produced by the firm the fixed cost has stayed constant at Rs 500,000.

Variable Cost

- Variable Cost: any cost component that increases with the level of output produced. E.g raw material for production businesses, labor directly involved in manufacturing of the product etc.

Variable Cost



As can be seen from the graph on the left, total variable cost is directly proportional to the quantity of output produced.

Marginal Cost

- **Marginal Cost:** is the additional cost of producing one more unit of good.

Marginal Cost = Change in Total Cost / Change in Output

Output	Total Cost
100	10,000
120	10,500

Marginal Cost

Marginal Cost = Change in Total Cost / Change in Output

= 10,500 – 10,000 / 120 – 100

= 500/2

= Rs 25 / unit

Shape of Marginal Cost

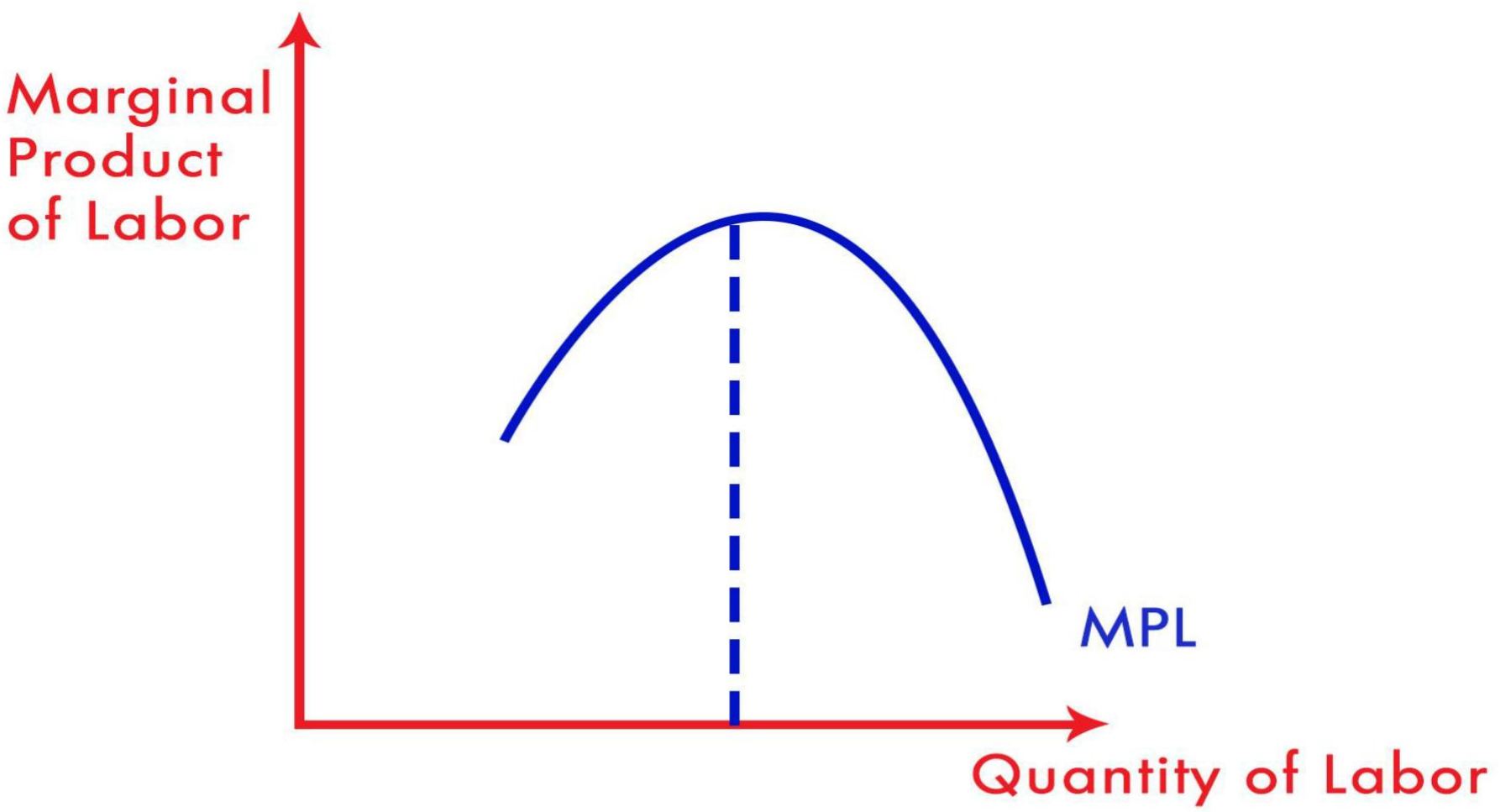
- Shape of MC is J curved because of diminishing marginal product of labor (MPL).

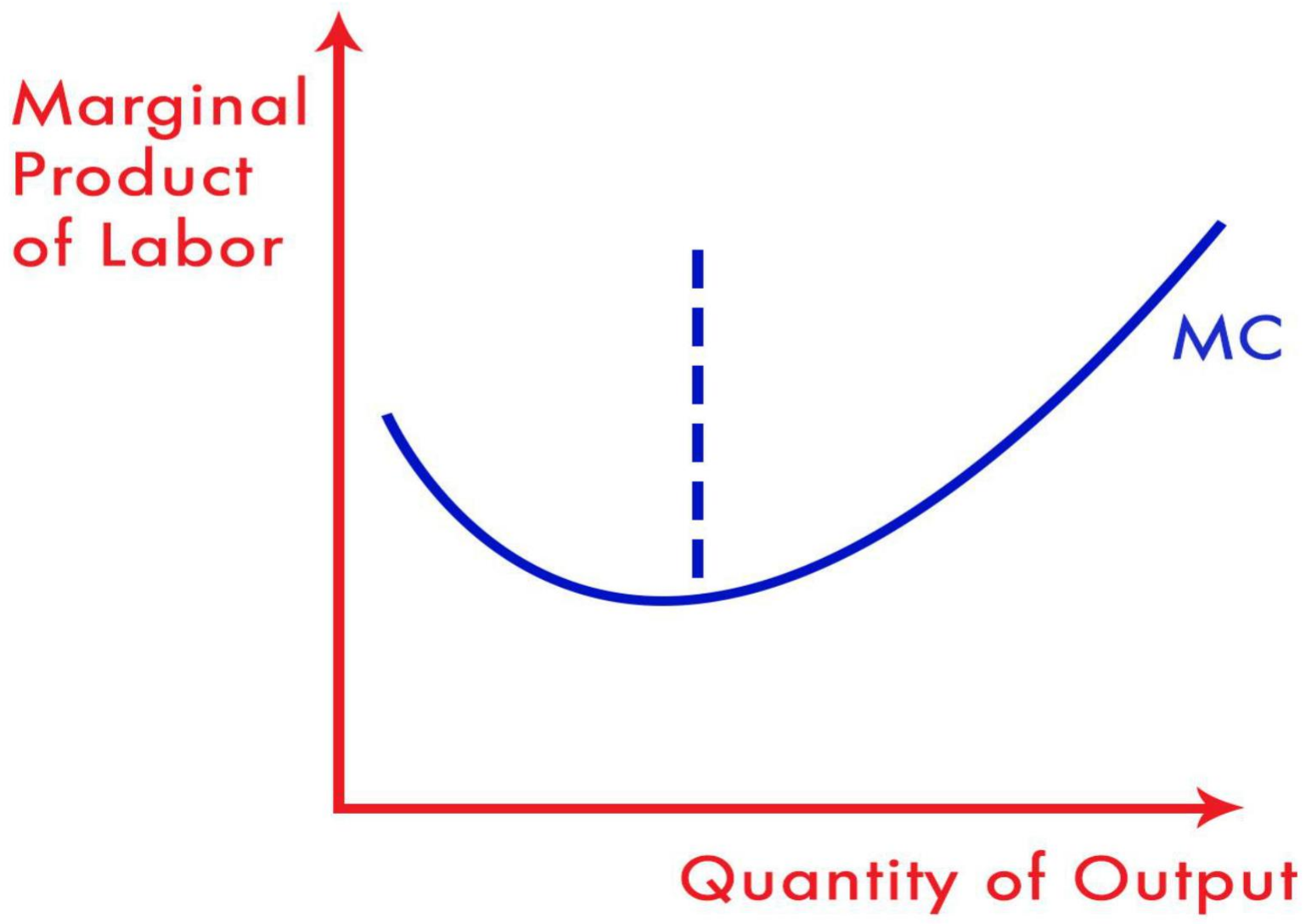
- Marginal Product of Labor (MPL) refers to the additional output produced by each additional labor.

Shape of Marginal Cost

- Diminishing MPL refers to the idea that each successive (additional) unit of labor will produce lower quantities of output. Since each additional unit of labor is producing smaller quantities so each additional unit of output costs more. Hence Marginal Cost Curve is inverse shape of Marginal Product of Labor Curve.

Relationship between MPL & MC





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Relationship between MPL & MC

- As can be seen from the graphs in the previous slide, when Marginal Product of Labor is increasing – upward sloping part – the Marginal Cost is downward sloping

- Similarly, when the MPL starts to slop down which is known as diminishing marginal product of labor the MC starts to slope upwards.

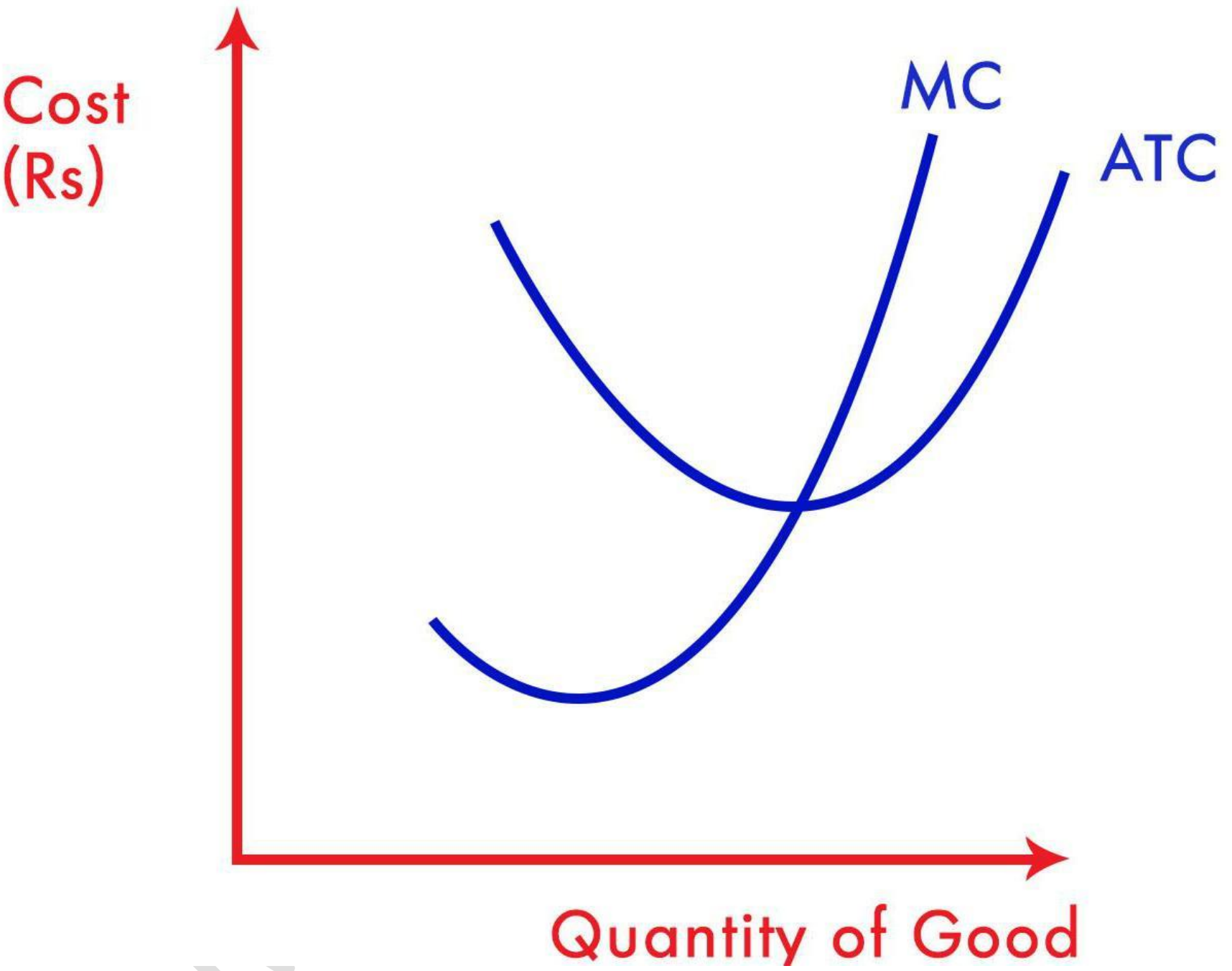
Average Total Cost

- Average Total Cost (ATC) is the cost of producing a typical unit of good.
- Average Total Cost = Total Cost / Output
- The shape of ATC Curve is U shaped

Relationship between MC and ATC

- Marginal Cost always passes from the lowest point of the ATC.
- Mathematically as long as Marginal Cost is lower than Average Total Cost the Average Cost will fall and when Marginal Cost is higher than Average Cost, the Average Cost will rise .

Relationship between MC and ATC



As can be seen from the graph on the left, as long as MC is lower than ATC the ATC is falling and when MC is higher than ATC the ATC starts to rise up.

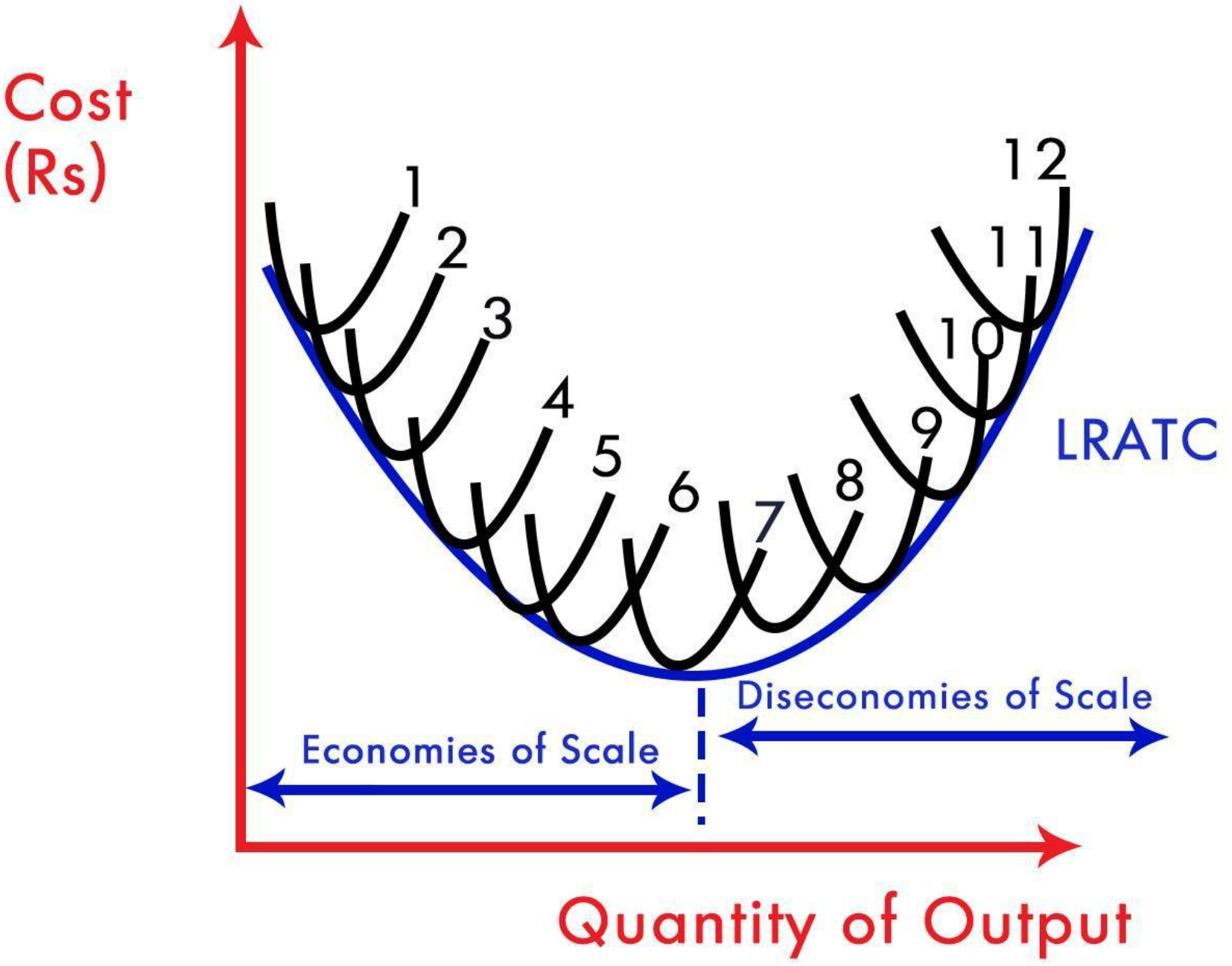
Relationship between Short Run and Long Run Average Total Cost

- Difference between Short Run and Long Run – Short run is the time period during which at least one factor of production is fixed. Long Run is the time period after short run in which all of the business factors of production are variable.

Relationship between Short Run and Long Run Average Total Cost

- Long Run Average Total Cost (LRATC) is made of all possible Short Run Average Total Cost Curves (SRATC).

Relationship between Short Run and Long Run Average Total Cost



As can be seen from the graph, SRATC are tangent to LRATC.

1, 2, 3 are different numbers assigned to different Short Runs of the business.

Relationship between Short Run and Long Run Average Total Cost

- Till the part where LRATC is downward sloping it is known as Economies of Scale and for the part where it starts to rise up it is known as Diseconomies of Scale.

Factors Causing Economies of Scale

1. **Purchasing Economies of Scale:** when any business scale of operation increases it buys larger quantities of raw material for which the supplier is expected to give them more discounts reducing the average total cost.
2. **Technical Economies of Scale:** is when a business buys machinery to assist in its operations. For this the cost will definitely increase for the business but the investment is expected to increase the output even more.

Factors Causing Economies of Scale

- **Financial Economies of Scale:** larger businesses are expected to raise a loan at lower interest rate than smaller businesses because they have lower risk and secondly bank will make more profit on a larger amount of loan compared to smaller amount of loan.

Factors Causing Economies of Scale

- **Managerial Economies Of Scale:** larger businesses can afford to hire experts which help business generate high sales and so helps to reduce the company average total cost.
- **Risk Bearing Economies of Scale:** larger business produce multiple brands / products which might be using the same machinery and production process making the company receive cost advantages.

Factors causing Diseconomies of Scale

1. **Miscommunication between larger organizations:** it will be more difficult to coordinate between different departments and offices located across the globe. Due to slower decision making given the difficulty it is faced in coordinating with different offices across the globe it can result in inefficiency.

Factors causing Diseconomies of Scale

2. **Demotivation of employees:**

   is likely to happen when they are part of a larger organization which comprises of a lot of employees and this can negatively affect the workers' motivation.