

Various Economic Concepts of Cost

Total Cost

$$TC=FC+VC$$

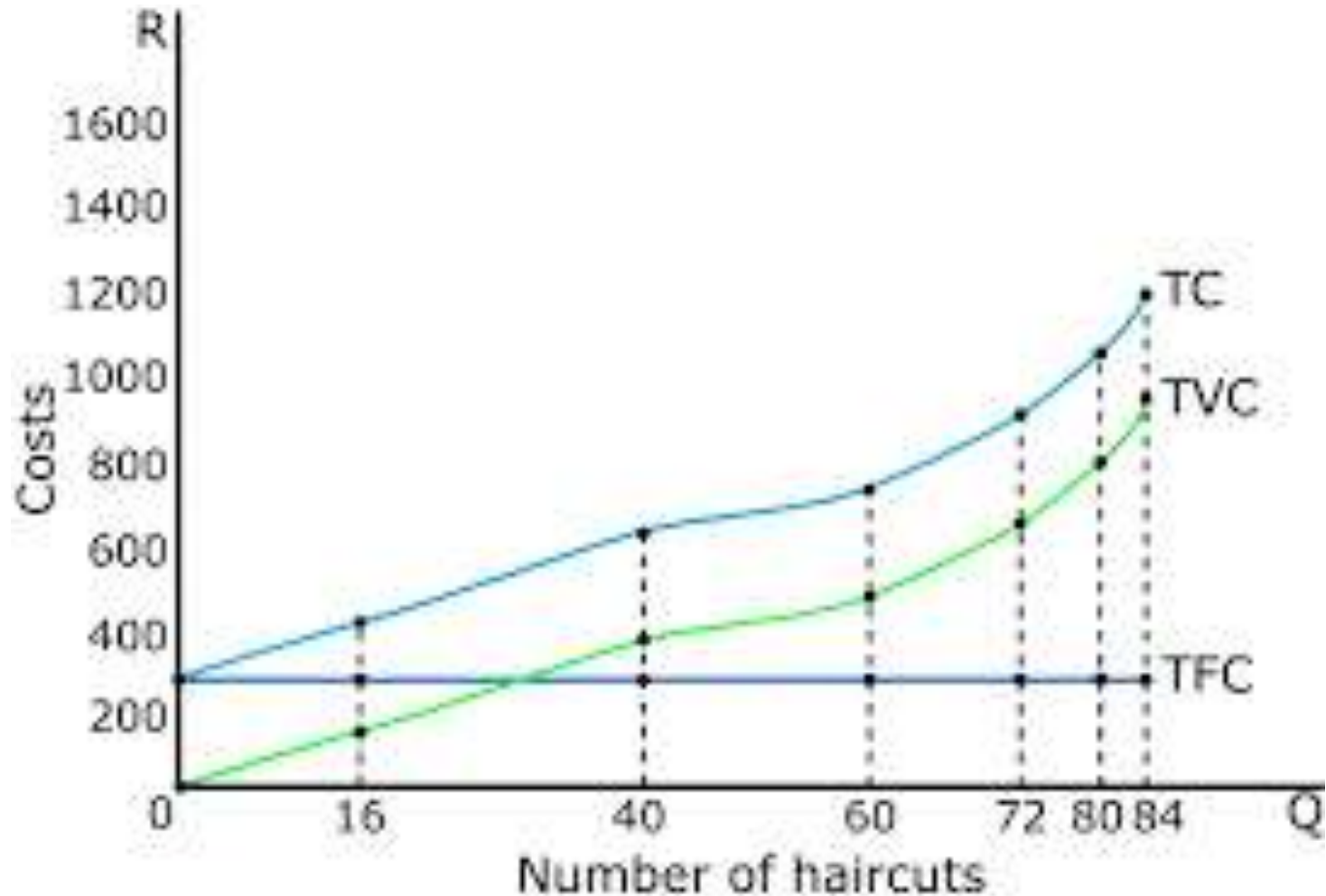
Total cost is the sum of all costs that a company faces to produce a certain level of output.

Fixed costs include costs such as the costs of a building lease and machinery used during the production process. Within reason, fixed costs do not change as if output increases or decreases.

Variable costs include costs such as the cost of labor and raw materials. These costs do change with the level of output.

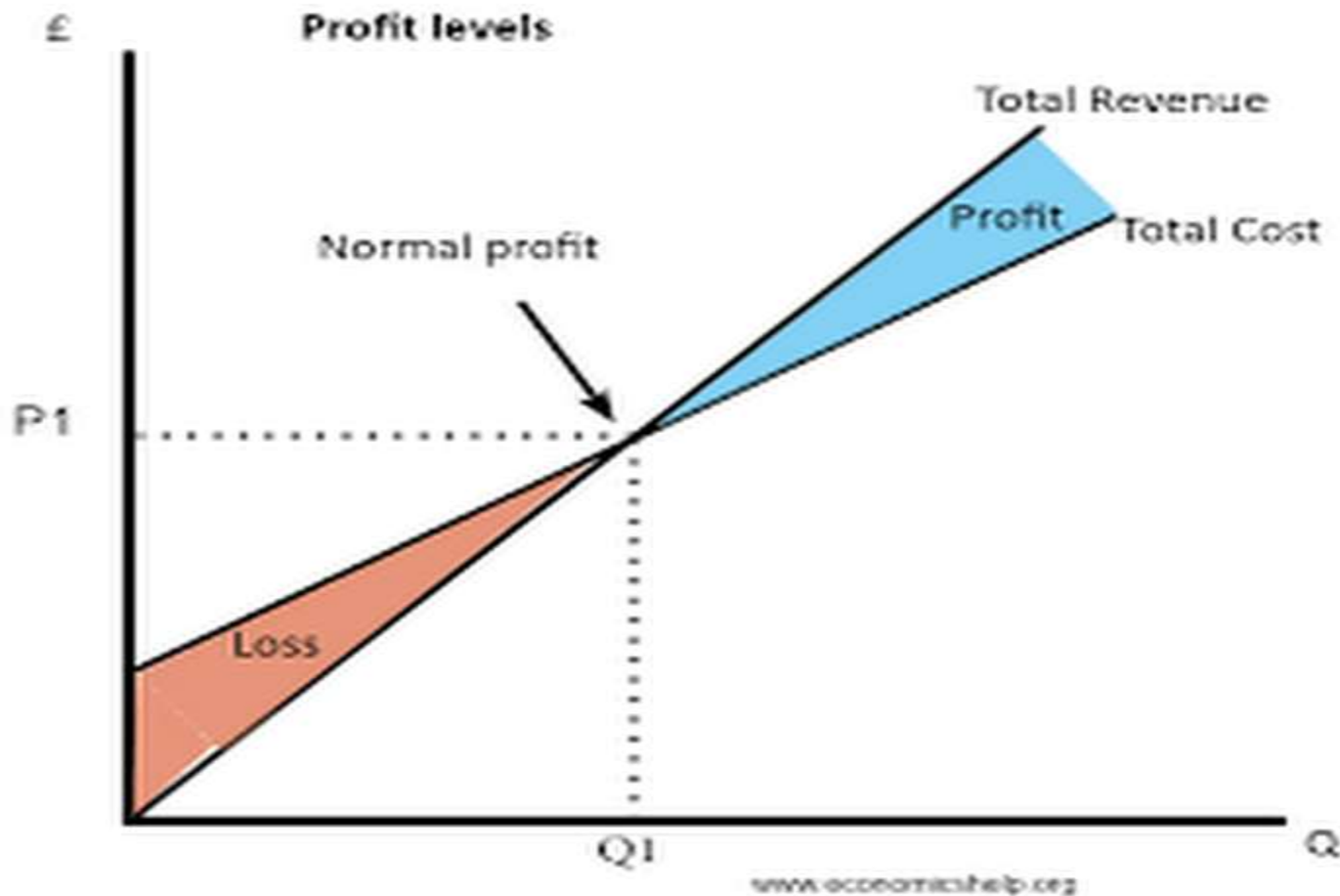
Total Cost Curve

Total cost curves represent the aggregate of all the expenses a company faces when producing a certain quantity of product.



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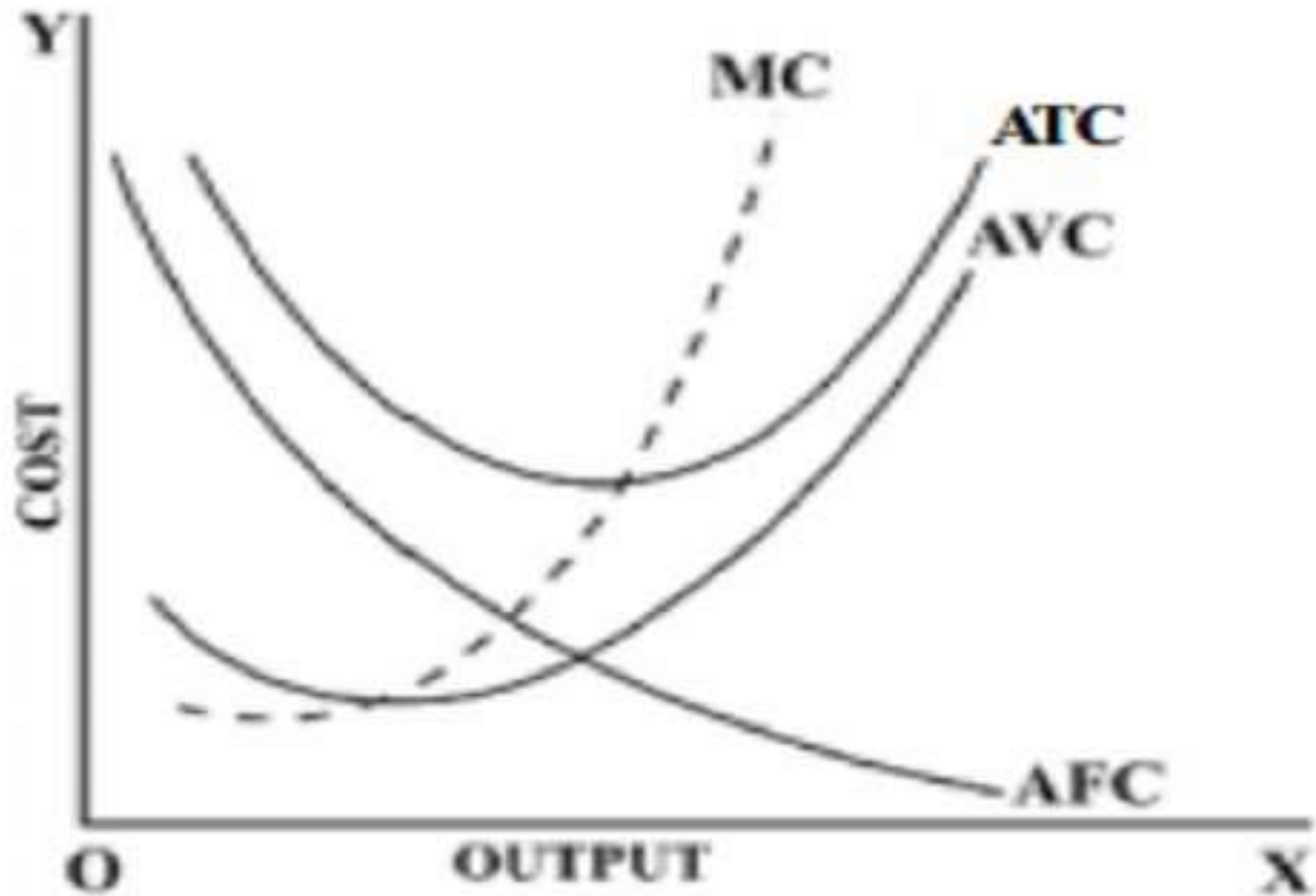
Short Run Cost Curve

Short-run cost curves refer to curves that represent the amount of cost a firm faces during the short run. Short run is characterized by having the amount of one of the factors of production function kept constant. In contrast, the number of other factors may change.

In the short run, the costs that are considered for a company include marginal cost (MC), average total cost (ATC), average fixed cost (AFC), and average variable cost (AVC).

Short Run Cost Curve

Short run average cost curves



FIGURE

Short Run Cost Curve

Table 7.1 : A Firm's Short-run Costs (£)

Rate of Output	Fixed Cost (FC)	Variable Cost (VC)	Total Cost (TC)	Marginal Cost (MC)	Average Fixed Cost (AFC)	Average Variable Cost (AVC)	Average Total Cost (ATC)
0	50	0	50	—	—	—	—
1	•	50	100	50	50	50	100
2	•	78	128	28	25	39	64
3	•	98	148	20	16.7	32.7	49.3
4	•	112	162	14	12.5	28	40.5
5	•	130	180	18	10	26	36
6	•	150	200	20	8.3	25	33.3
7	•	175	225	25	7.1	25	32.1
8	•	204	254	29	6.3	25.5	31.8
9	•	242	292	38	5.6	26.9	32.4
10	•	300	350	58	5	30	35
11	•	385	435	85	4.5	35	39.5

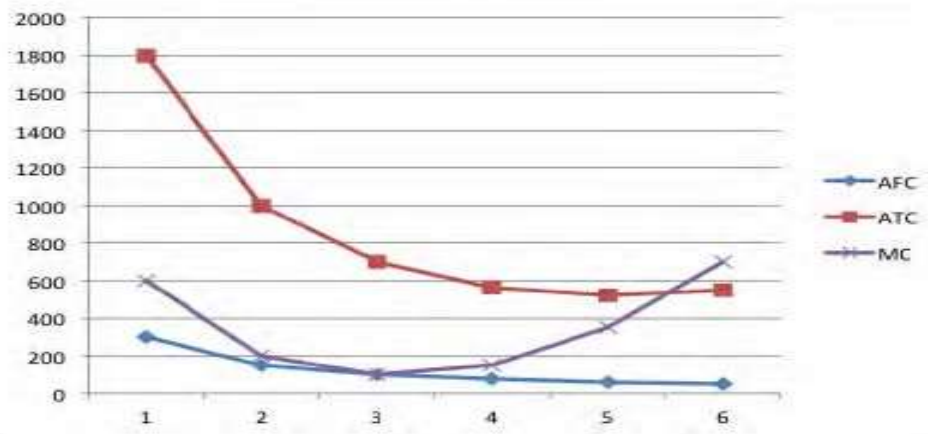
Short Run Cost Curve

Table - Cost Schedule

(Rupees in thousands '000)

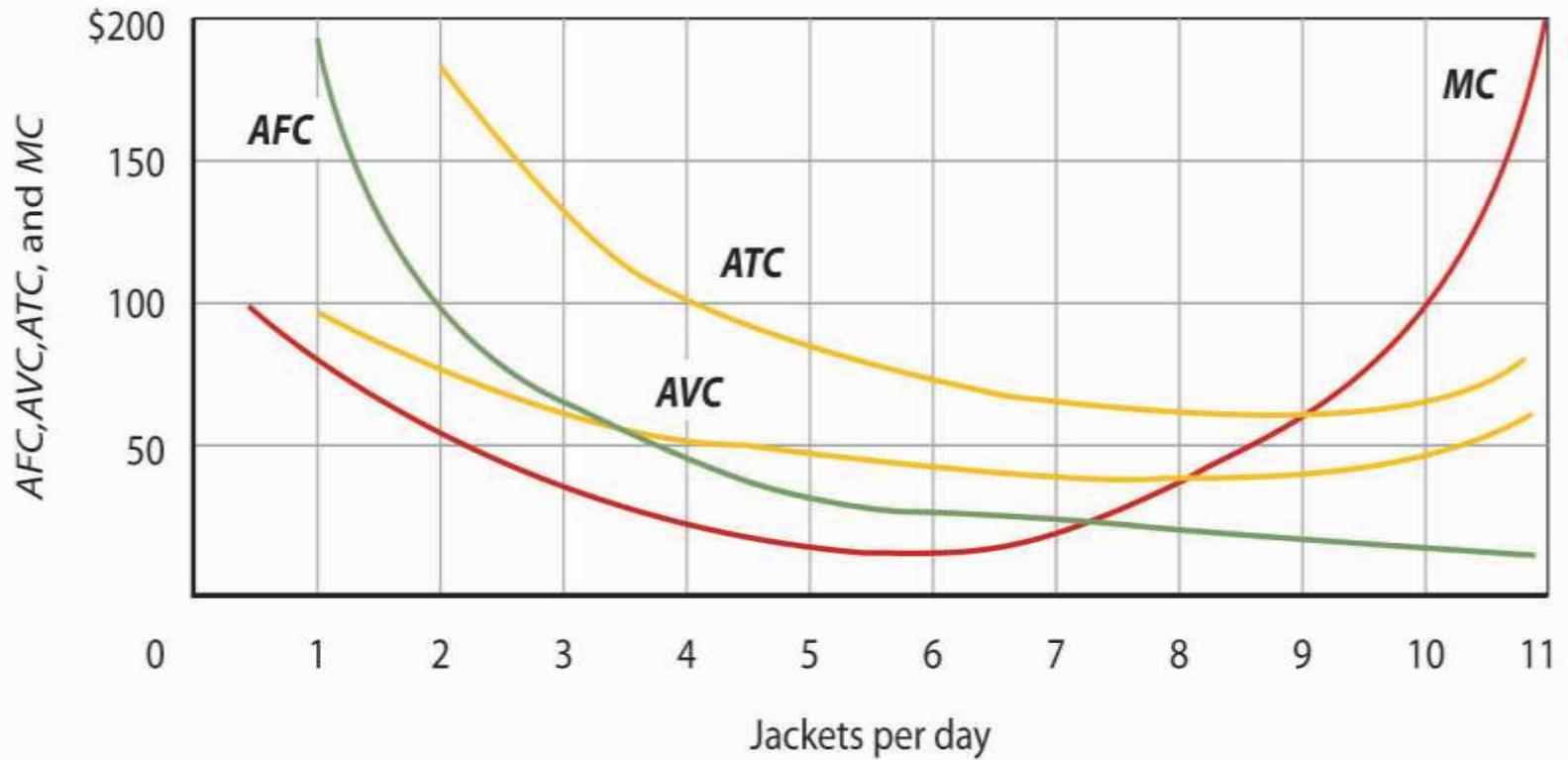
Output	TC	TFC	TVC	AFC	ATC	AVC	MC
0	1200	300	-	-	-	-	-
1	1800	300	1500	300	1800	1500	600
2	2000	300	1700	150	1000	850	200
3	2100	300	1800	100	700	600	100
4	2250	300	1950	75	562.5	487.5	150
5	2600	300	2300	60	520	460	350
6	3300	300	3000	50	550	500	700

Graph - Average Cost Curves



Short Run Cost Curve

Quantity/day	0	1	2	3	4	5	6	7	8	9	10	11
Total cost	\$200	\$300	\$363	\$400	\$433	\$458	\$480	\$500	\$538	\$600	\$700	\$900
AFC		\$200	\$100	\$67	\$50	\$40	\$33	\$29	\$25	\$22	\$20	\$18
AVC		\$100	\$82	\$67	\$58	\$52	\$47	\$43	\$42	\$44	\$50	\$64
ATC		\$300	\$182	\$133	\$108	\$92	\$80	\$71	\$67	\$67	\$70	\$82
MC		\$100	\$63	\$37	\$33	\$25	\$22	\$20	\$38	\$62	\$100	\$200



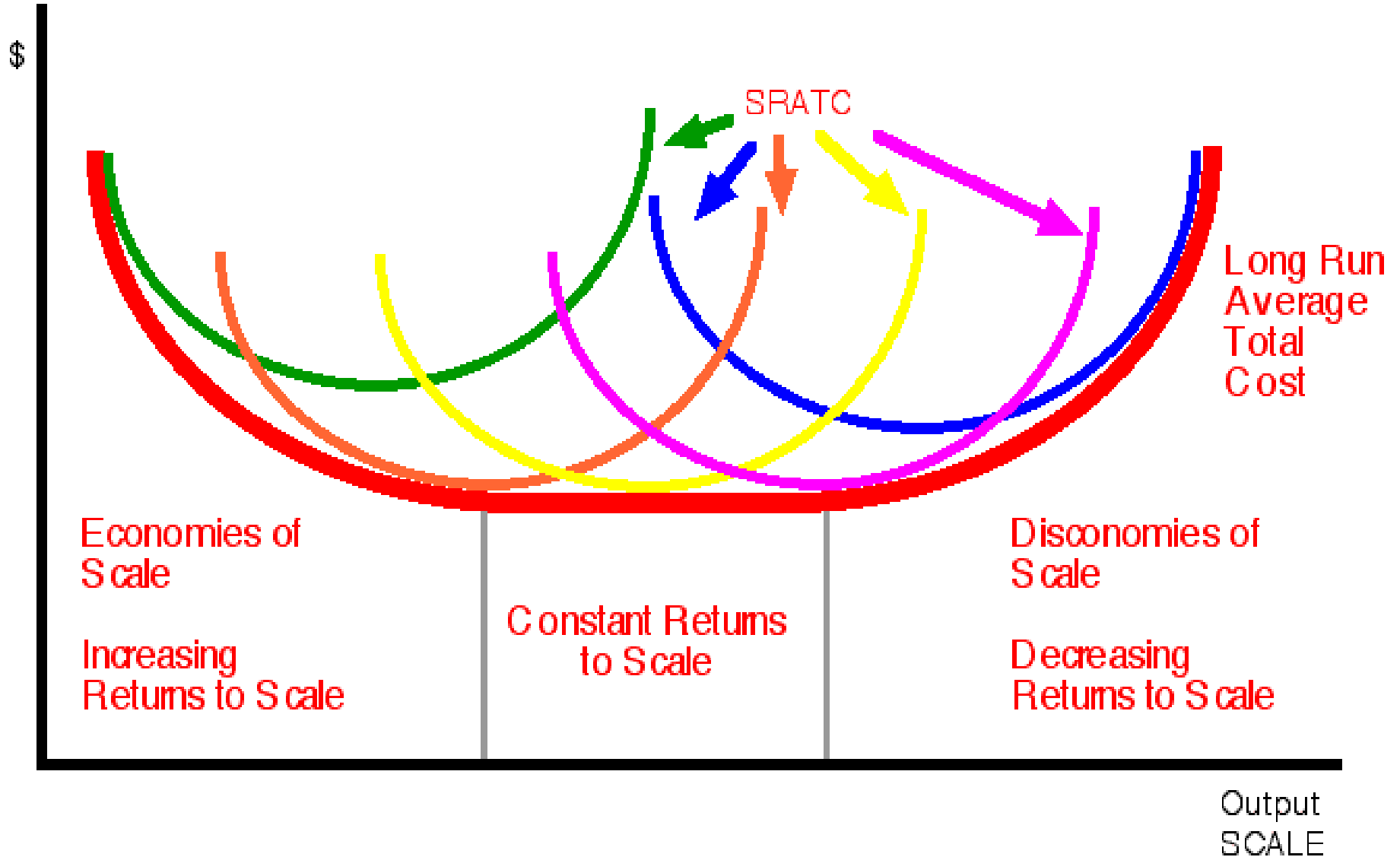
Long Run Cost Curve

Long-run cost curves show the cost that a company faces in the long run for producing a certain amount of output.

While in the short run, some of the factors of production are fixed, meaning that the firm isn't flexible in changing these factors, their cost is also fixed.

On the other hand, the cost faced by a company, in the long run, is entirely variable. That's because all factors of production during the long run are to be variable.

Long Run Cost Curve



Long Run Cost Curve

Table 1 : The Derivation of Long-run Cost Schedules

Output	Least-cost usage of		Total cost at Rs.5 per unit of labour, Rs.10 per unit of capital (Rs.)	Average Cost (Rs.)	Marginal cost (per unit) (Rs.)
	Labour (Units)	Capital (Units)			
100	10	7	120	1.20	1.20
200	12	8	140	0.70	0.20
300	20	10	200	0.67	0.60
400	30	15	300	0.75	1.00
500	40	22	420	0.84	1.20
600	52	30	560	0.93	1.40
700	60	43	720	1.03	1.60

Short & Long Run Cost Curve

Short Run and Long Run Total Cost Curves

