

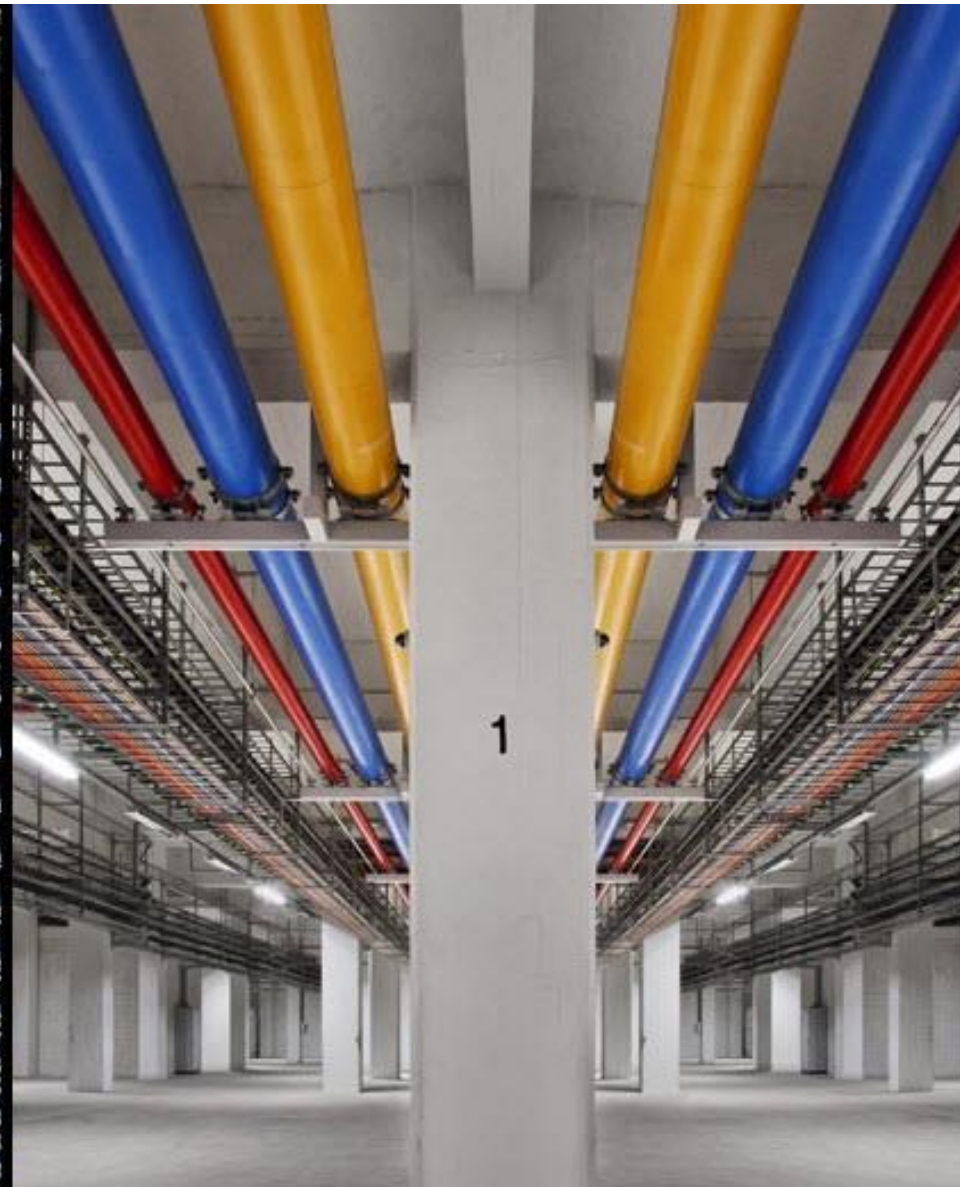


# Economies and Diseconomies of Scale

## Internal Economies of Scale

Buying economies	Buying in greater quantities usually results in a lower price (bulk-buying)
Technical	Use of specialist equipment / bulky units of capital or specialist processes to boost productivity
Risk-bearing	Grow a wider range of products and customer markets through diversification to lower market risk for investors
Marketing	Spreading a fixed marketing spend over a larger range of products, markets and customers
Network	Adding extra customers or users to a network that is already established (e.g. mobile phones)
Financial	Larger firms benefit from access to cheaper finance; smaller businesses are often credit constrained
Industry	An external economy – all competitors benefit – e.g. specialist businesses grouped close together

# Servers at Google

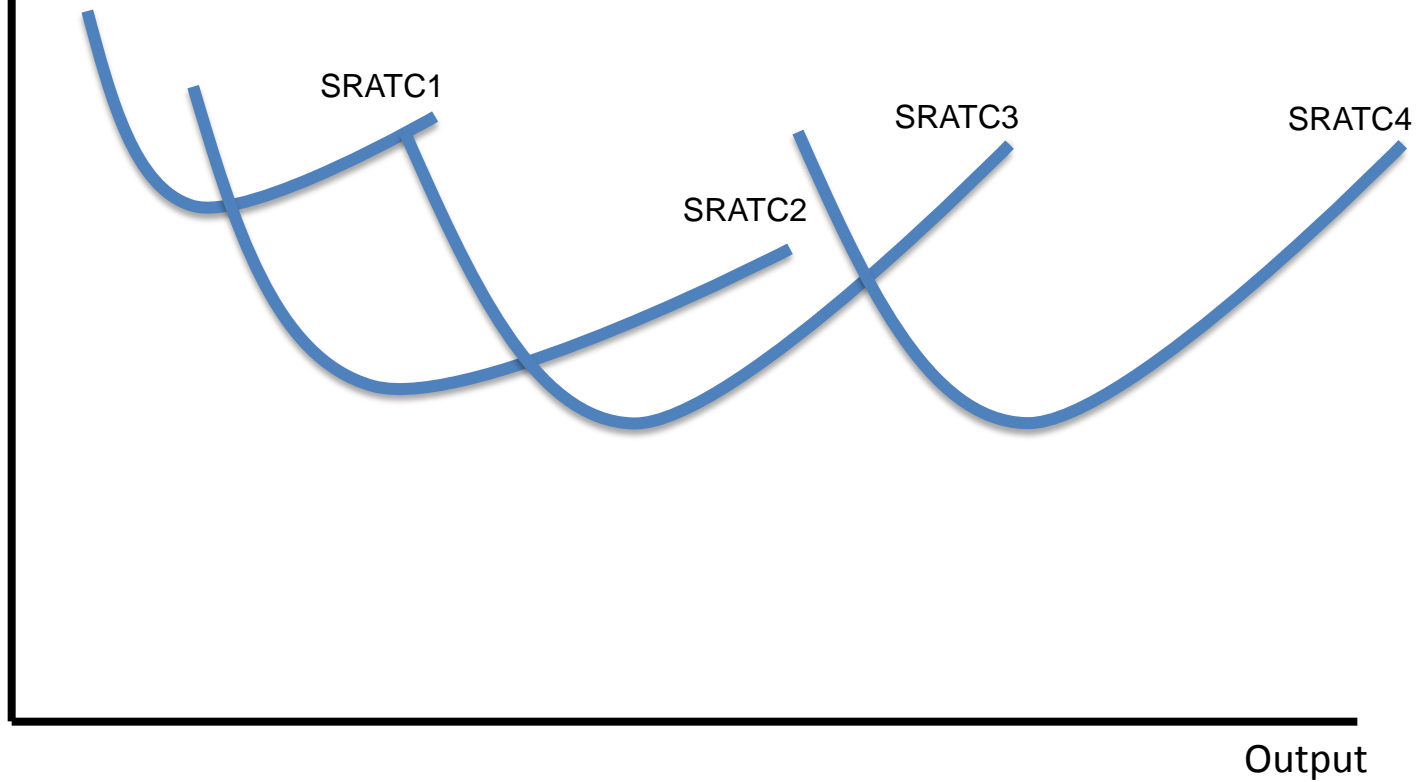




# Long Run Cost Per Unit

Cost  
per unit

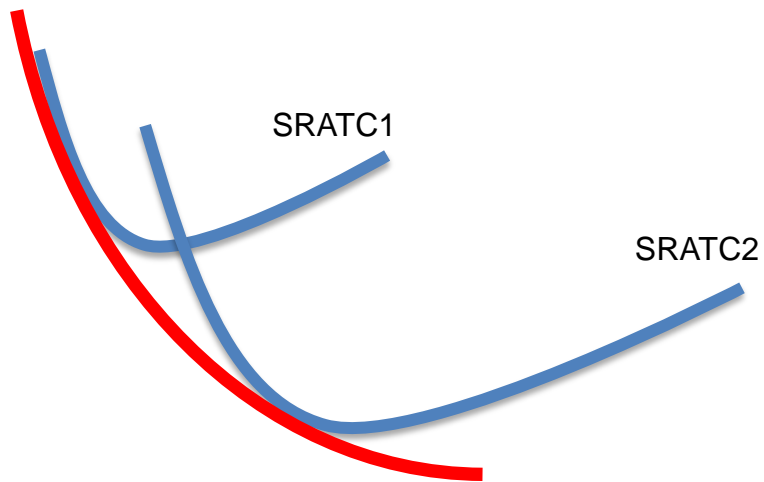
Internal economies of scale – falling unit costs as the scale of production grows



# Long Run Cost Per Unit

Cost  
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Internal economies of scale – falling unit costs as the scale of production grows



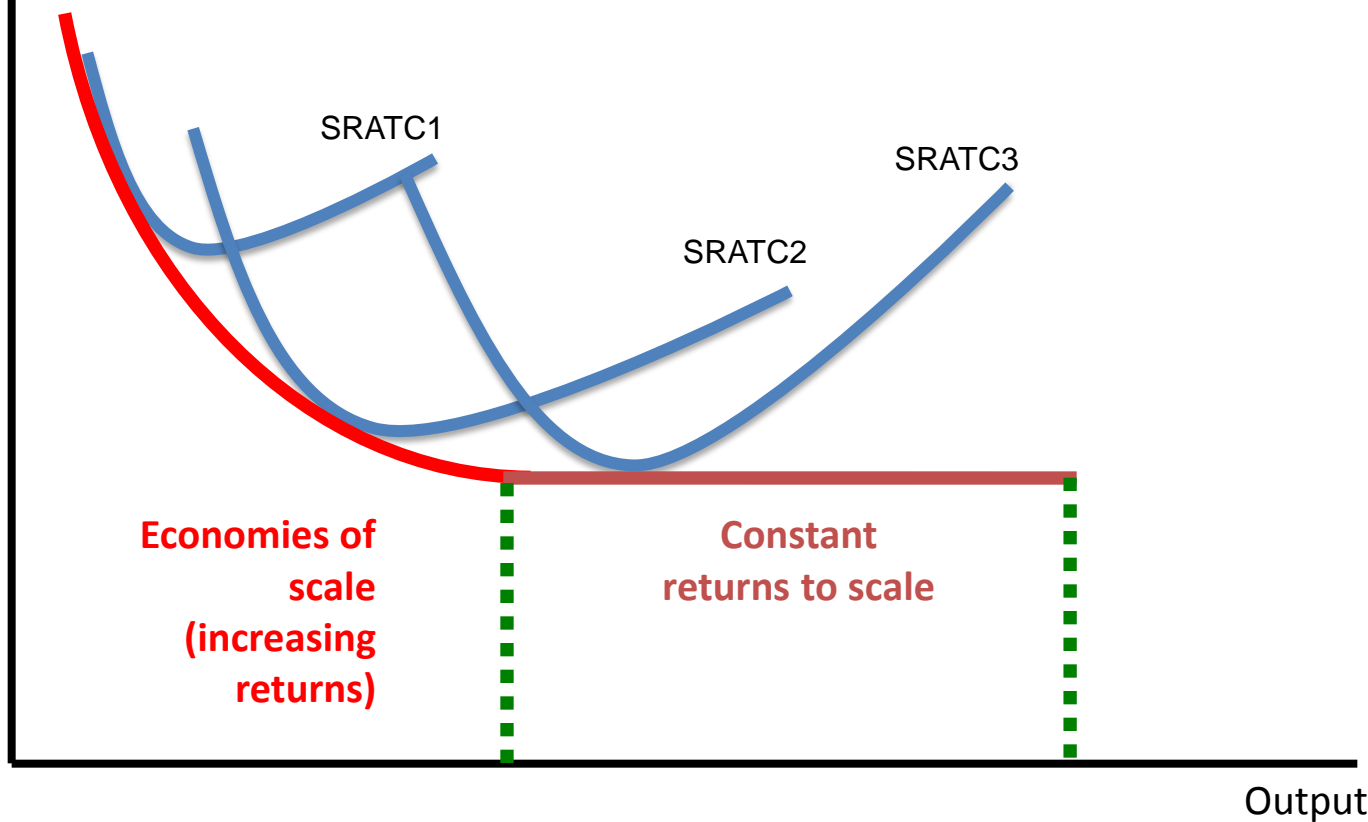
**Economies of  
scale  
(increasing  
returns)**

Output

# Long Run Cost Per Unit

Cost  
per unit

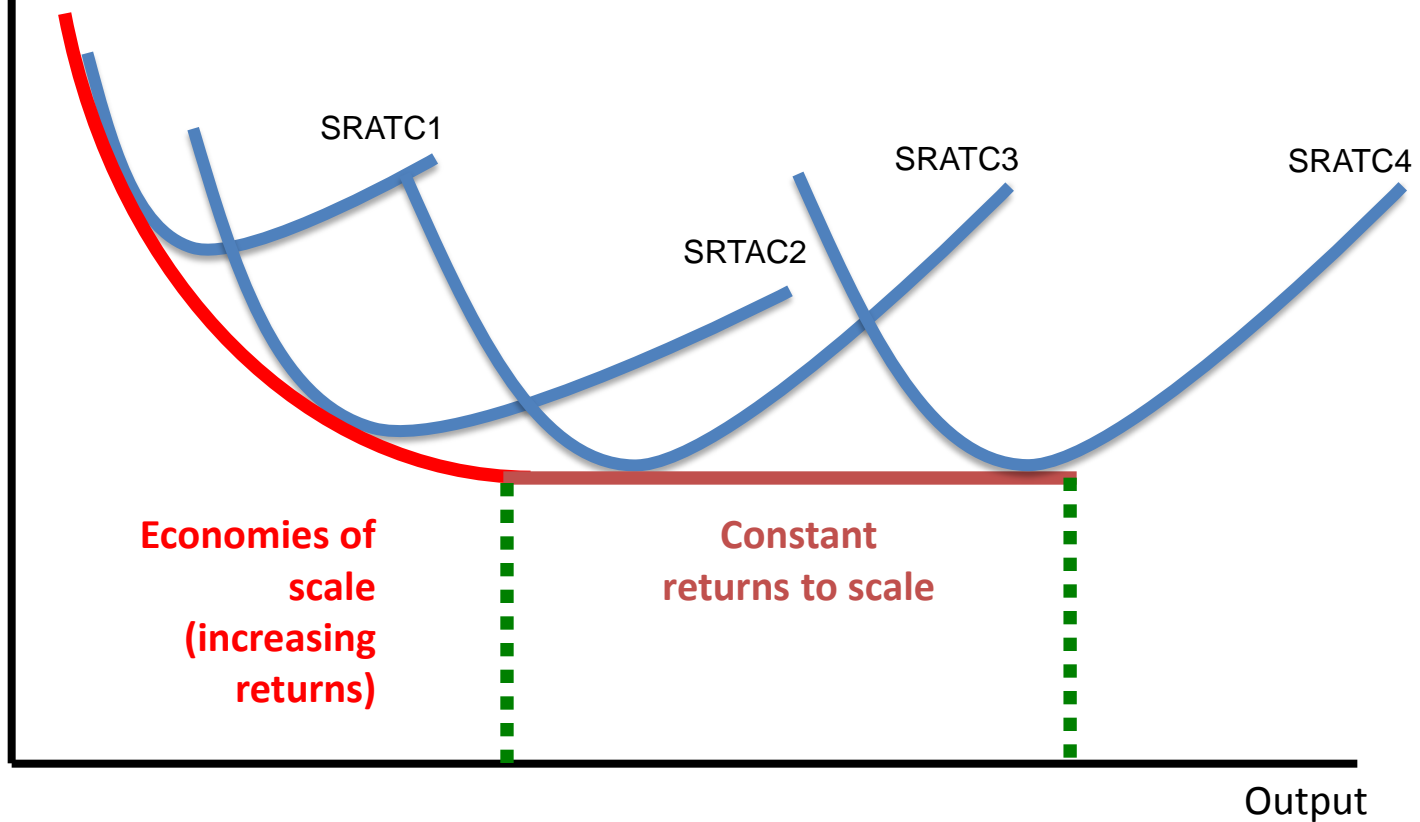
Internal economies of scale – falling unit costs as the scale of production grows



# Long Run Cost Per Unit

Cost  
per unit

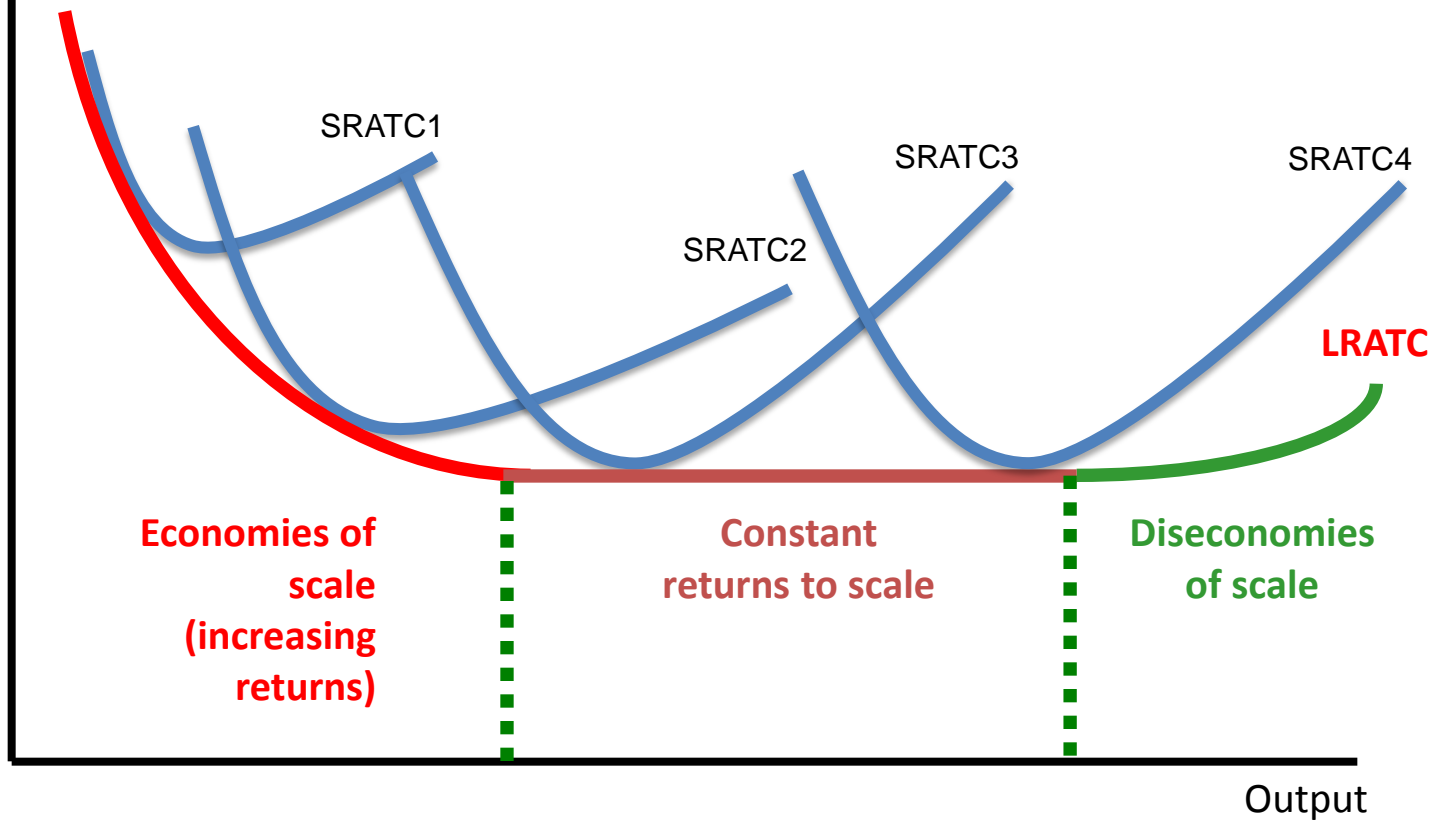
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# Long Run Cost Per Unit

Cost per unit

Internal economies of scale – falling unit costs as the scale of production grows

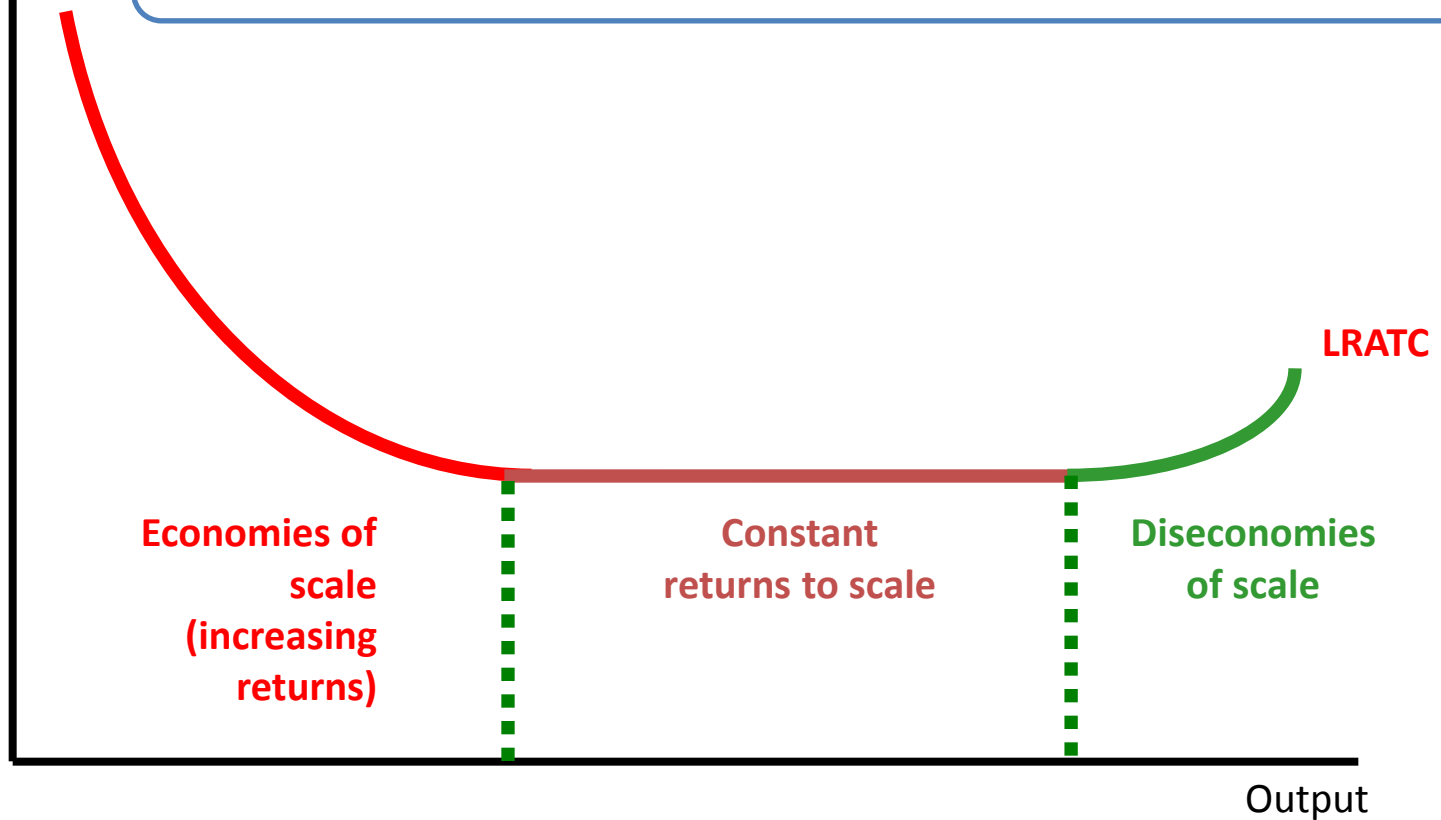




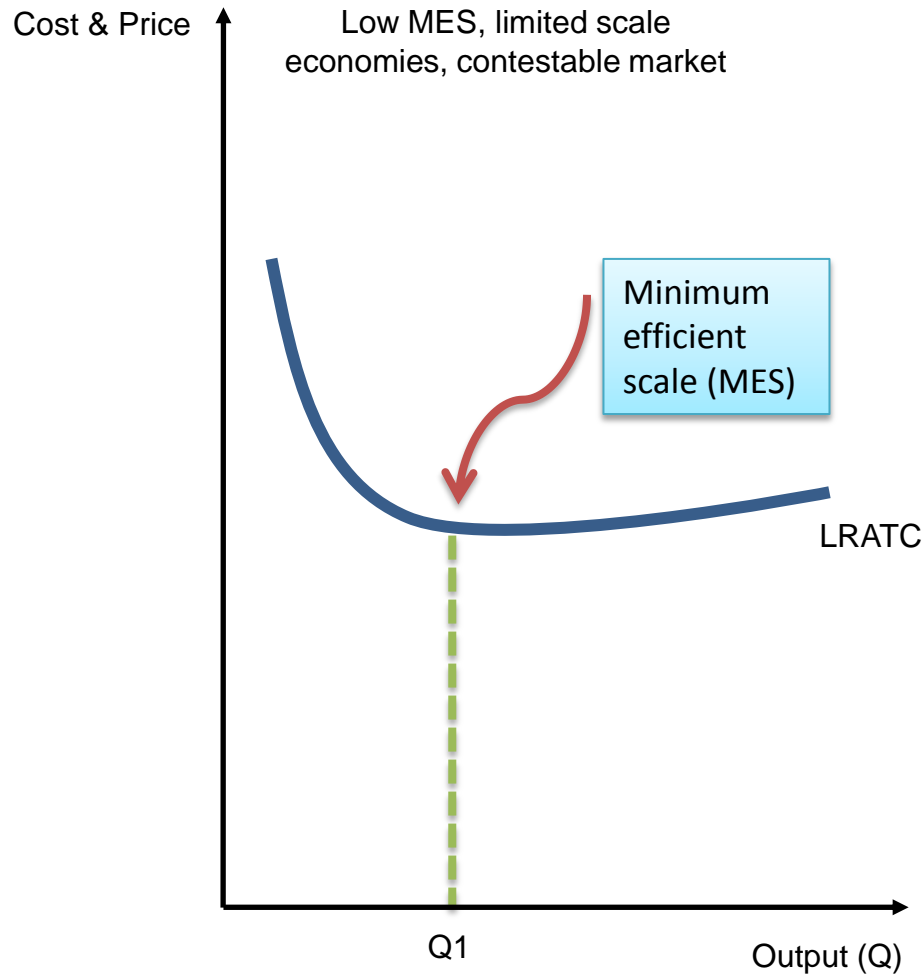
# Minimum Efficient Scale (MES)

Cost  
per unit

The **minimum efficient scale** is the scale of output where internal economies of scale have been fully exploited



# Different Shapes of Long Run Average Cost Curves

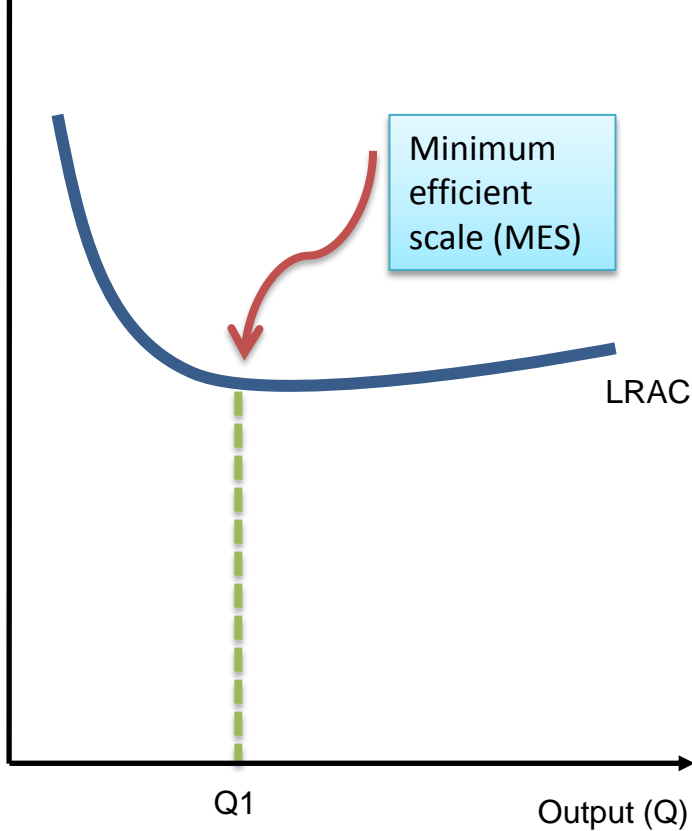


Scope for many firms to reach the MES

# Different Shapes of Long Run Average Cost Curves

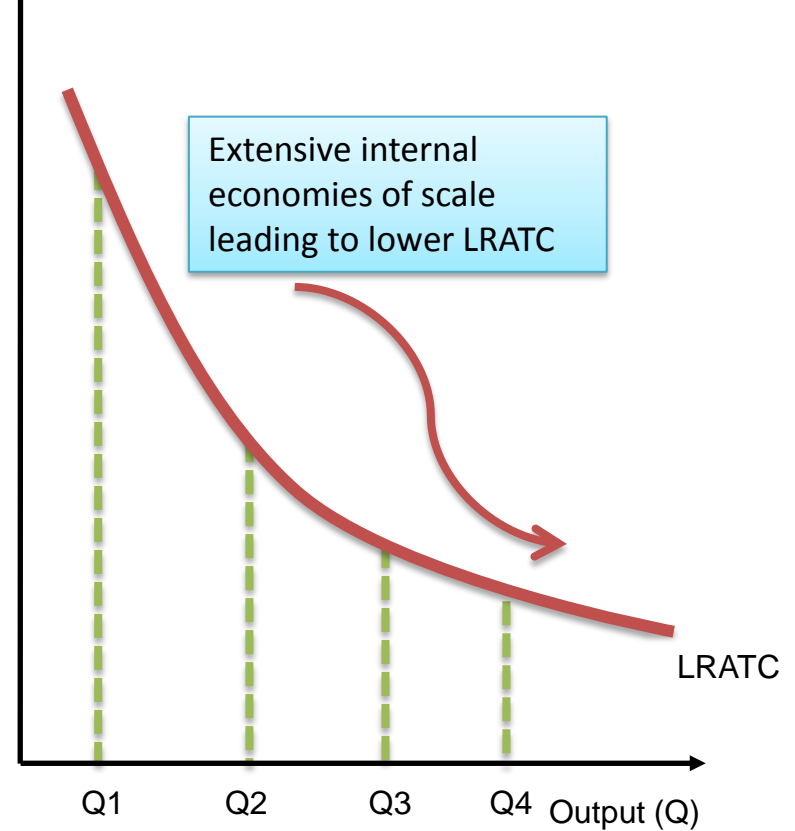
Cost & Price

Low MES, limited scale economies, contestable market



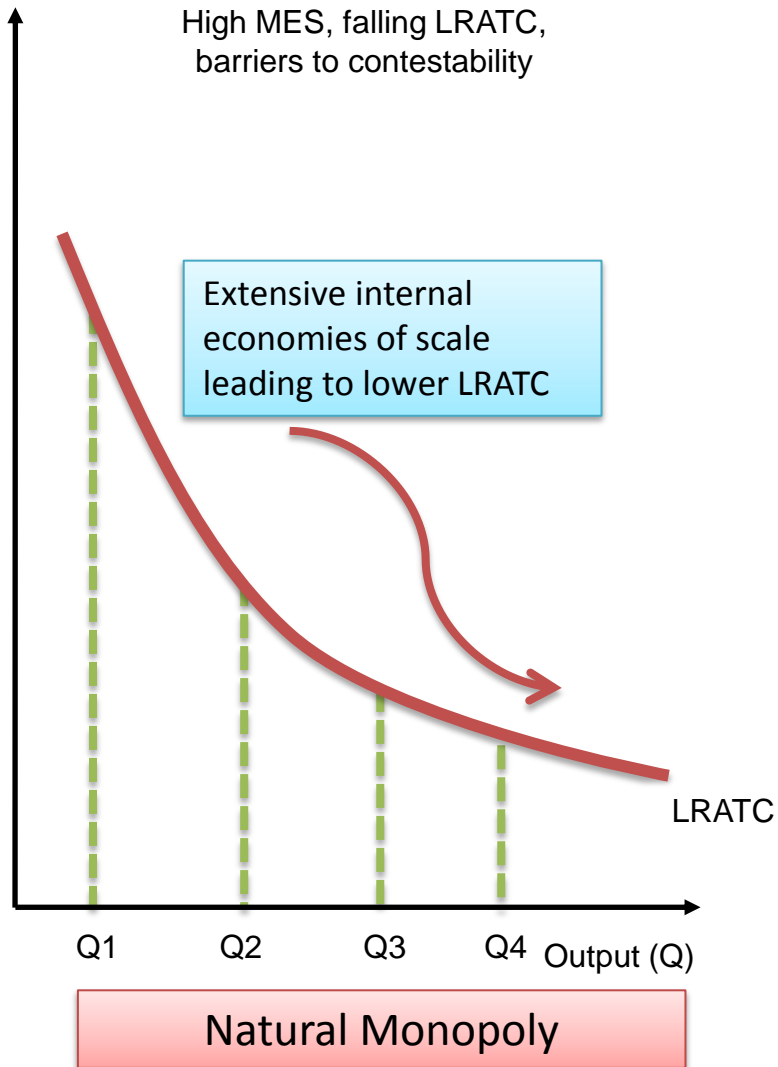
Scope for many firms to reach the MES

High MES, falling LRATC, barriers to contestability



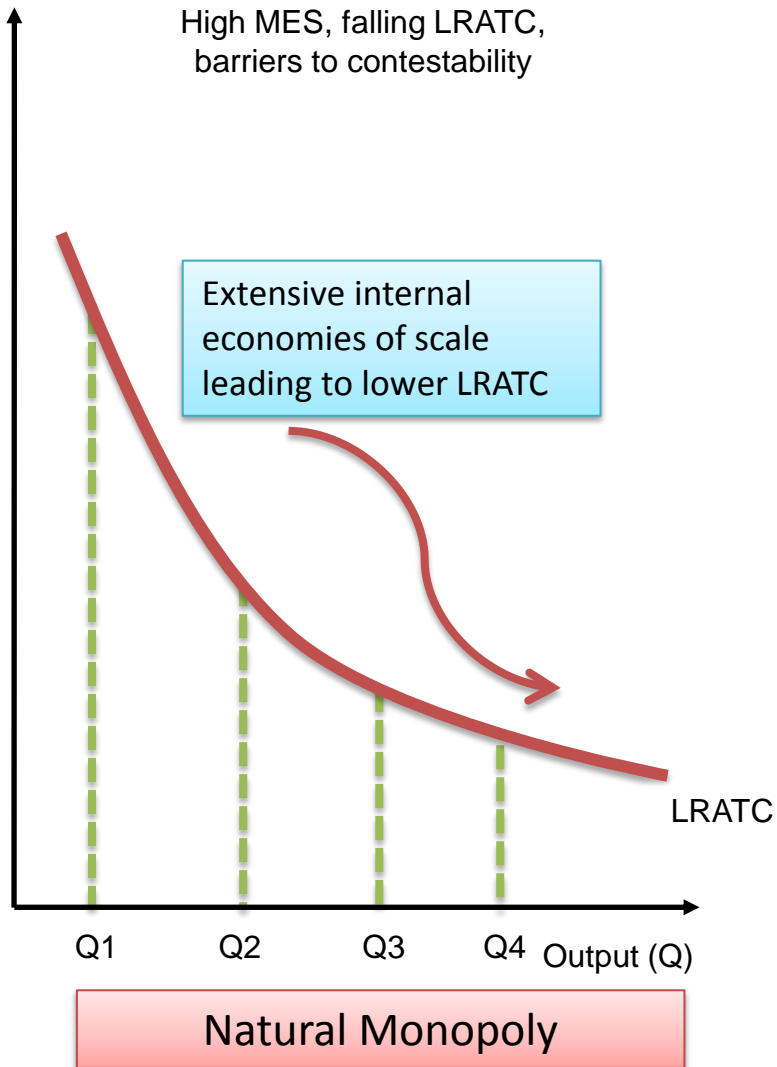
Natural Monopoly

# Falling LRATC for a natural monopoly



London Underground

# Falling LRATC for a natural monopoly

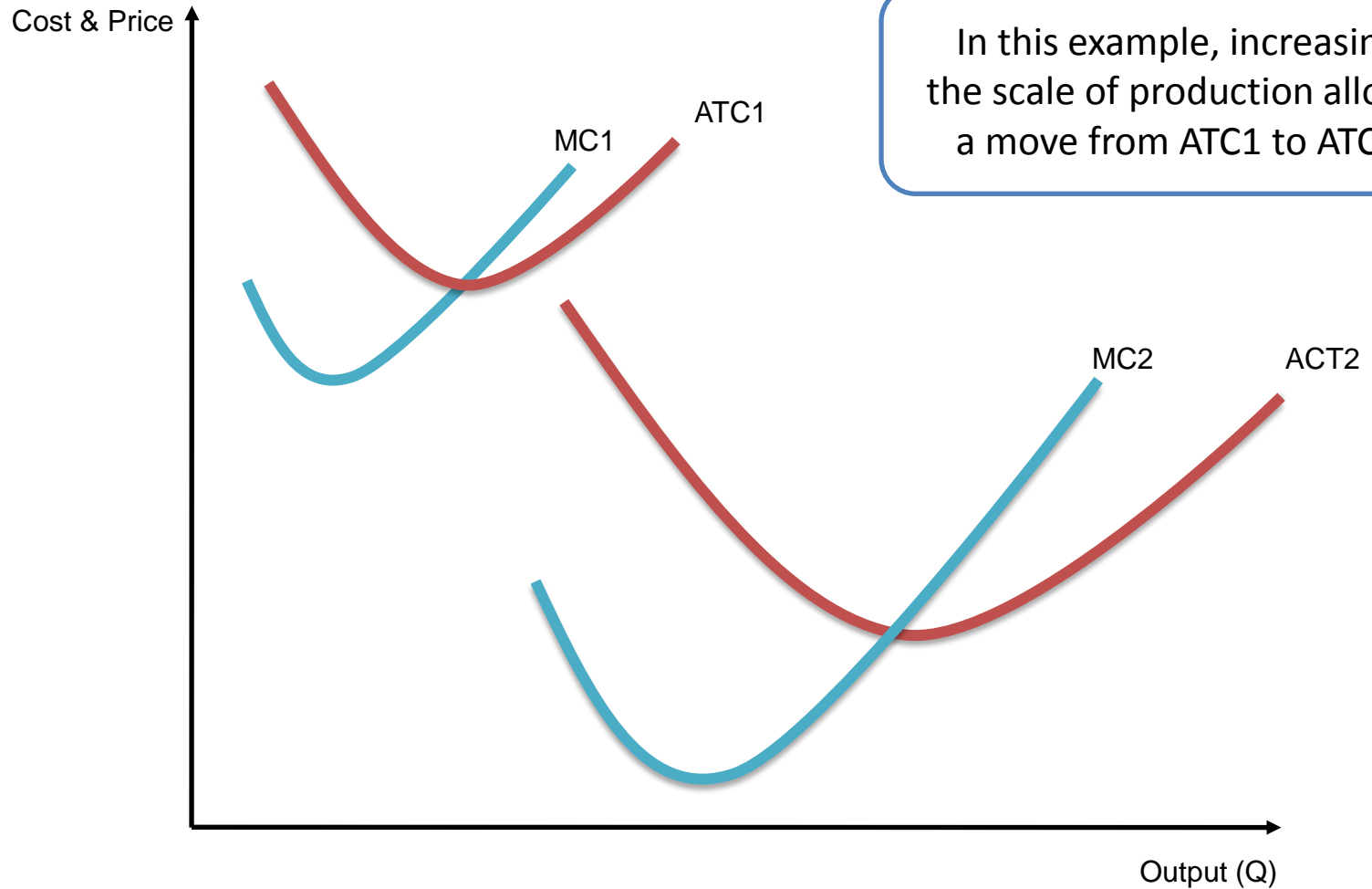


London Underground



Water and Sewage Networks

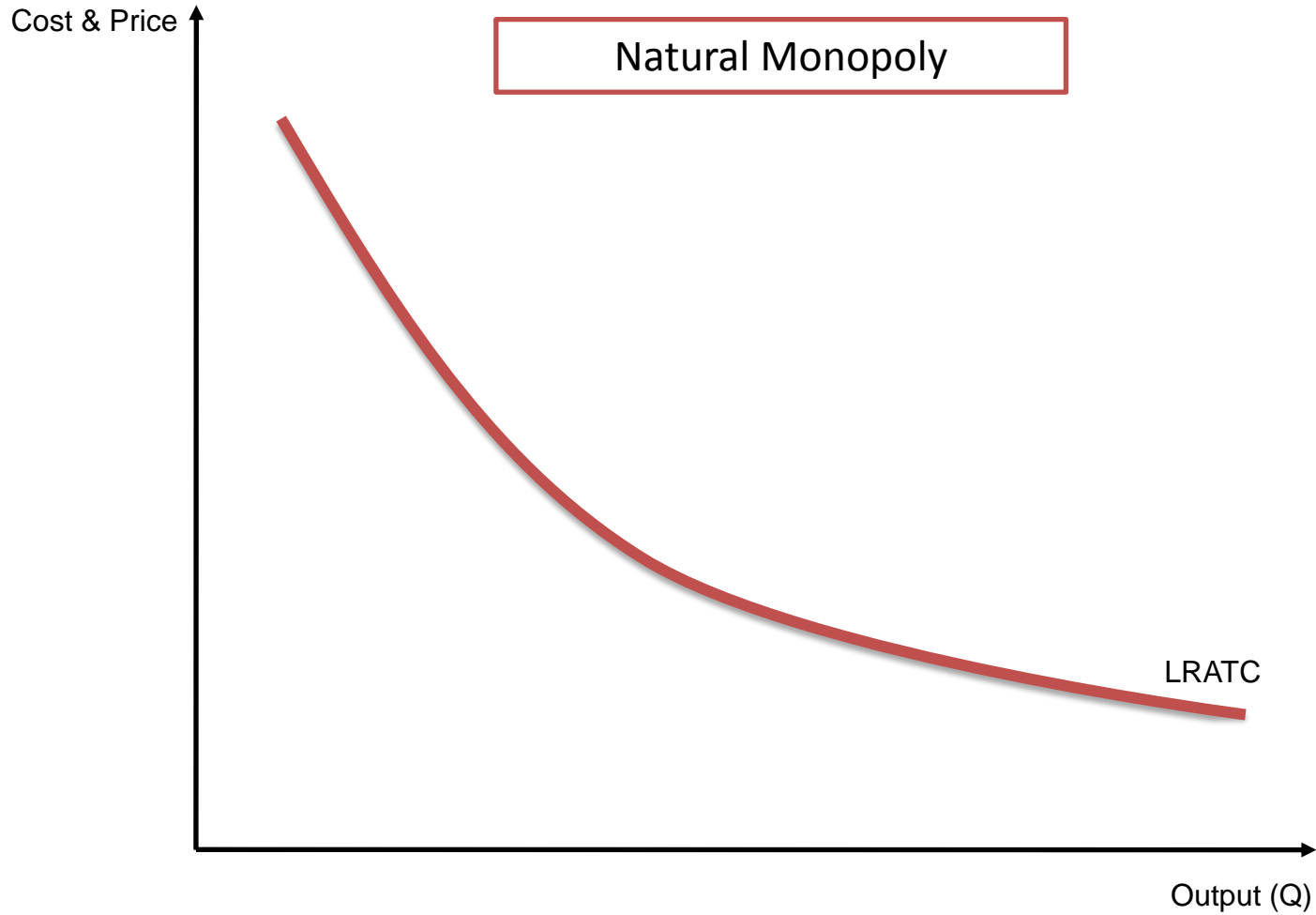
# Economies of Scale – Prices, Profit and Welfare



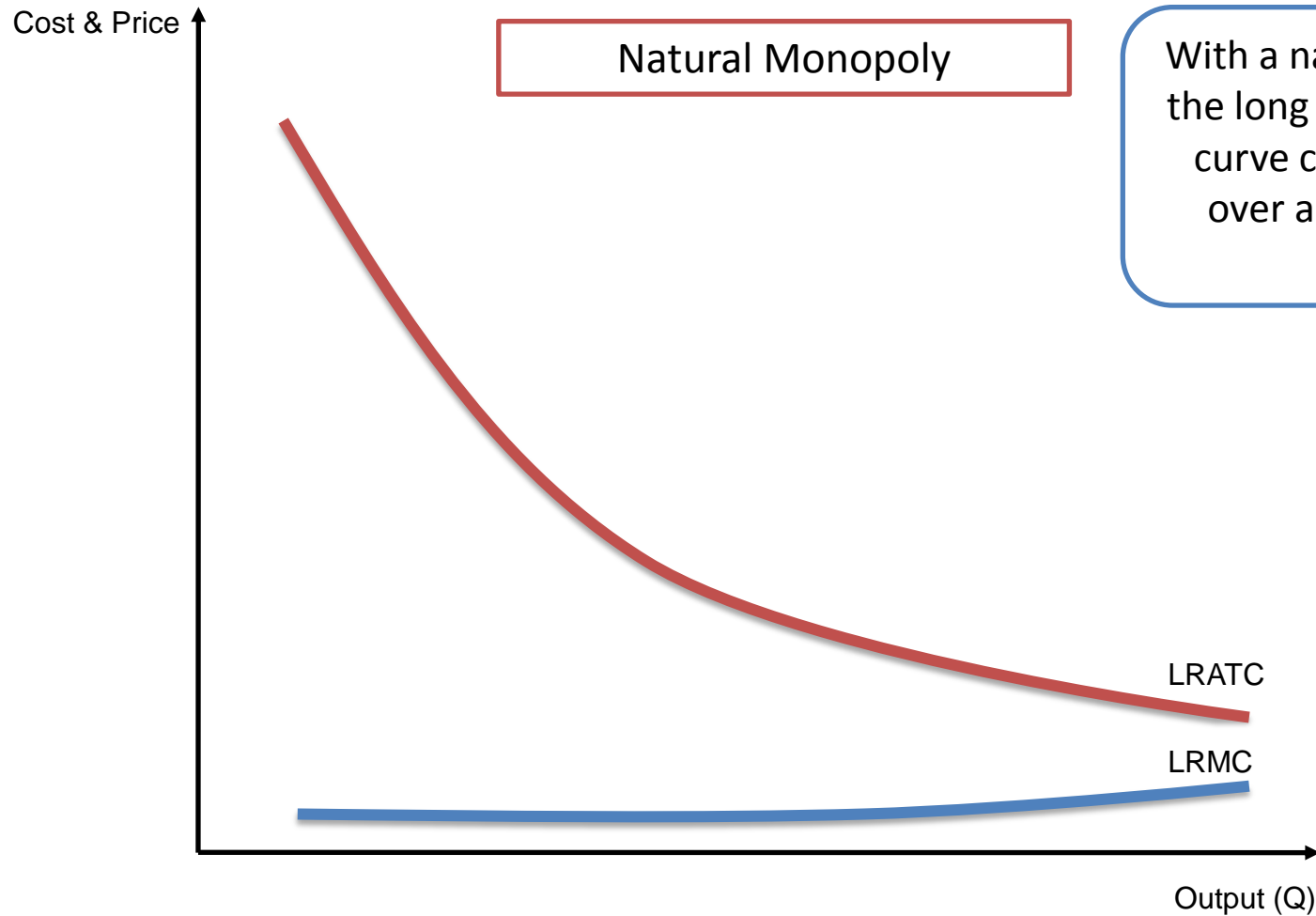
In this example, increasing the scale of production allows a move from ATC1 to ACT2



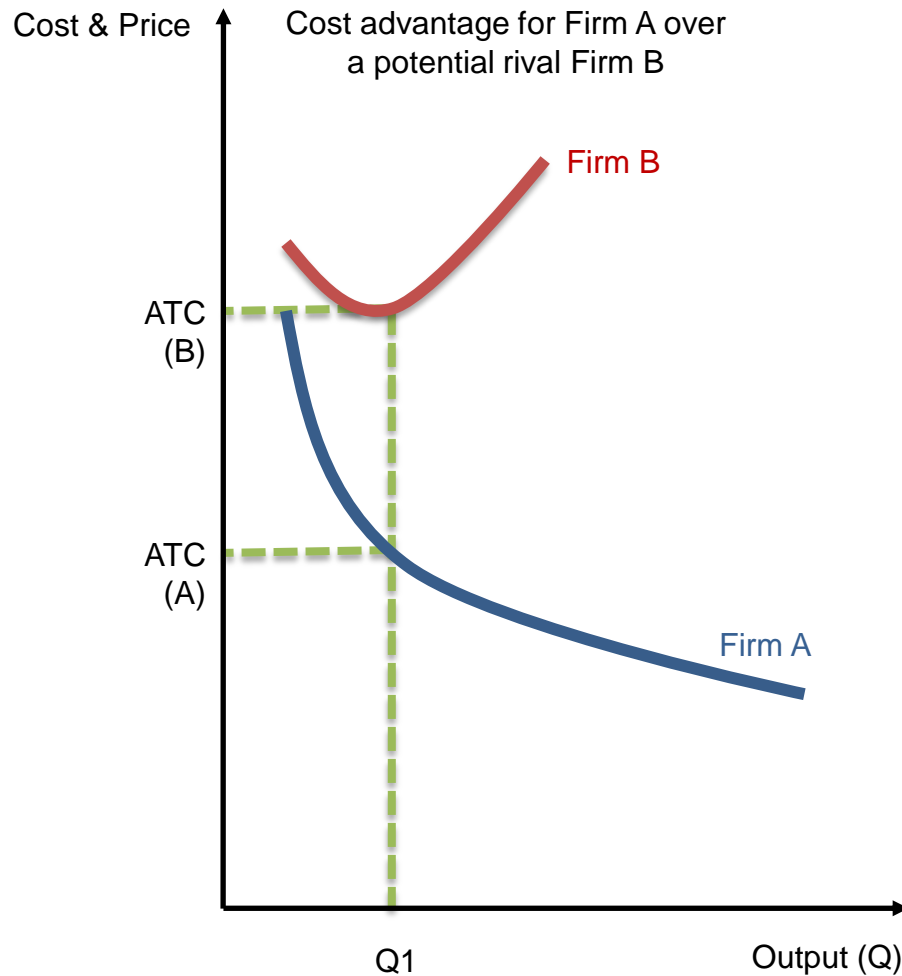
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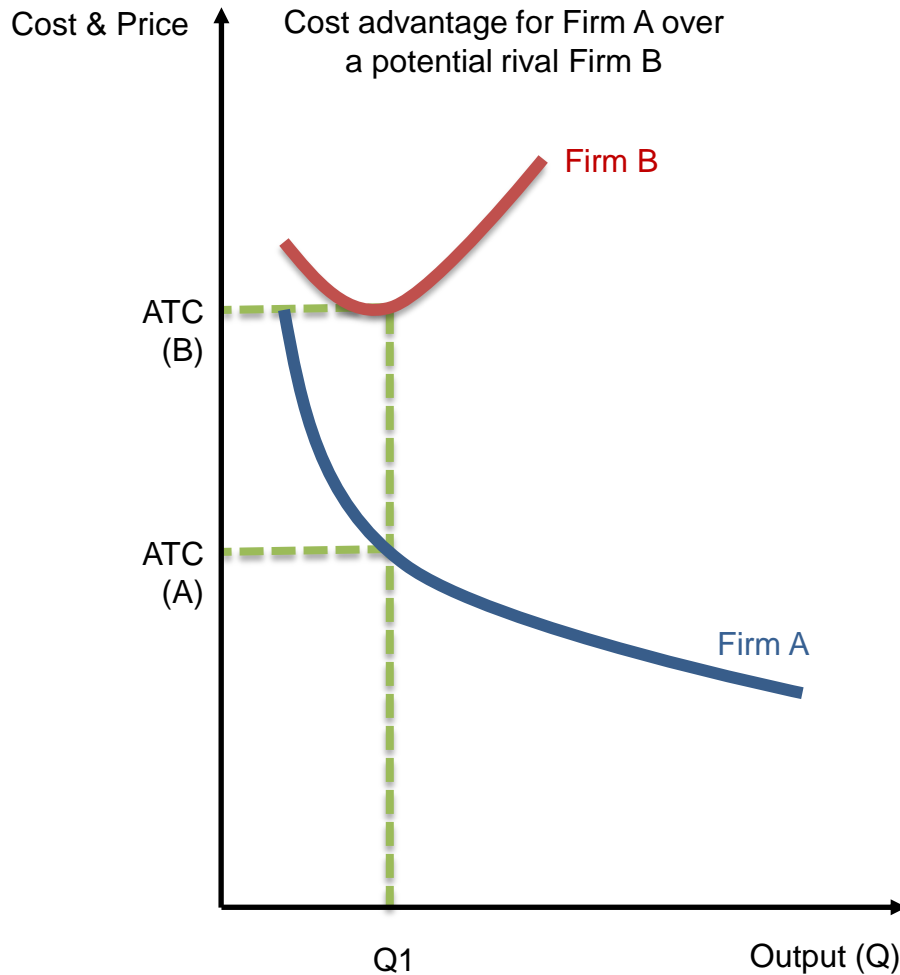
# Long Run Cost Advantages for Existing / Established Businesses



At output  $Q_1$  – firm A has a big **cost advantage** over a potential rival firm B

Reasons?

# Long Run Cost Advantages for Existing / Established Businesses



At output  $Q_1$  – firm A has a big **cost advantage** over a potential rival firm B

1. Learning economies
2. Vertical integration
3. Lower customer churn
4. Monopsony power

## Internal Diseconomies of Scale – Rising LRATC

**Factors which cause the average production cost per unit of a business to increase above the efficient level ... for example**

Poor communication within businesses

More difficult to control a larger, more complex business

More frequent machinery and employee breakdown if output and capacity utilization is too high

Loss of management focus, greater risk of industrial relations problems and possible strikes