



**SUPPLY**

**DR BIBHUNANDINI DAS**

# SUPPLY IN PRODUCT/OUTPUT MARKET

- Economic theory deals with the behaviour of business firms
- Supply in output Market
- Demand in input Market
- Firms engage in production to earn profit
- Supply decisions depend on profit potential



# SUPPLY IN PRODUCT/OUTPUT MARKET

- What is profit?
  - Difference between revenues and costs
- Supply is likely to react to changes in revenues and changes in production costs
- The amount of revenue earned by a firm depends on the price of its product in the market and on how much it sells
- Successful firms-able to sell their products more than it costs to produce them

# SUPPLY IN PRODUCT/OUTPUT MARKET

- Costs of production depend on many factors
  - The kinds of inputs needed to produce the product
  - The amount of each input required
  - The prices of inputs
- The best method of production is the one that minimises cost- maximizing profit

# SUPPLY IN PRODUCT/OUTPUT MARKET

- Which production technique is the best?
  - Depends on the prices of inputs
- Suppose labour is cheap and machinery is expensive and difficult to transport (what should firms do?)
- Where machines or resources to produce machines are readily available and labour is scarce or expensive
- The techniques ultimately chosen determines input requirements

# WHAT IS SUPPLY?

- Supply consists of four components
  - Willingness to sell
  - Able to sell
  - At a given price
  - Time period

# WHAT IS SUPPLY?

- Supply is the amount of a particular product that a firm would be willing and able to offer for sale at a particular price during a given time period
- A supply schedule shows how much of a product a firm will sell at alternative prices
- Supply of a product by a particular firm is individual supply
- Supply of a product by a group of firms- market supply

# DETERMINANTS OF SUPPLY

- Price
- Prices of inputs, technology
- Prices of related goods
- Taxes
- Expectations
- Number of firms, etc.
- Means of transportation and communication



# FACTORS INFLUENCING SUPPLY

- Factors influencing supply:
- $S = f (P_n, P_{n-1}, H, F_{I..F_m}, E, S_p)$
- Where:
- $P_n$  = Price
- $P_{n-1}$  = Profitability/attractiveness of other goods in production
- $H$  = Technology
- $F_{I..F_m}$  = Costs of production
- $I$  = Industrial disputes
- $S$  = Seasons

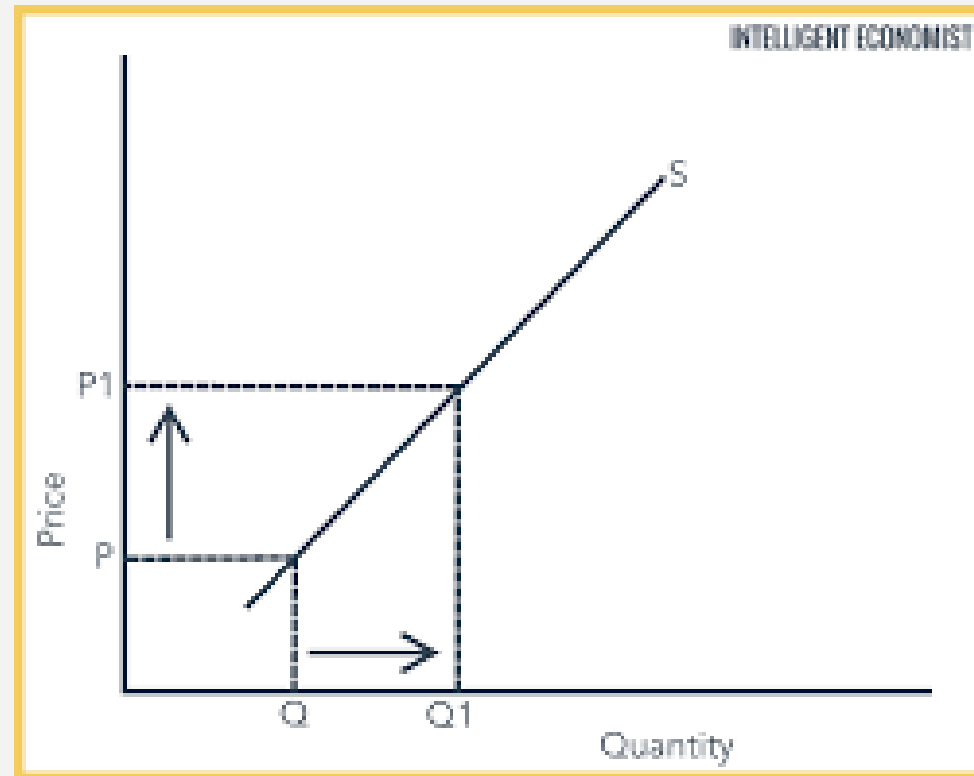
# SUPPLY SCHEDULE

Price	Quantity Supplied
5	0
8	2
12	8
15	10
20	15

# SUPPLY CURVE

- A supply curve shows the relationship between price and quantity supplied only
- All (other) factors affecting supply are assumed to remain unchanged along a supply curve.
- Higher prices are likely to lead an increase in quantity supplied, *ceteris paribus*

# THE SUPPLY CURVE



# INDIVIDUAL VS MARKET SUPPLY

- Supply by a single producer/firm- Individual Supply
- Supply by group of firms/producers- Market Supply

# INDIVIDUAL VS MARKET SUPPLY SCHEDULE

- Individual supply schedule refers to a tabular statement showing various quantities of a commodity that a producer is willing to sell at various levels of price, during a given period of time
- Market supply schedule refers to a tabular statement showing various quantities of a commodity that all the producers are willing to sell at various levels of price, during a given period of time
- Suppose  $S_m$  is the market supply, then  $S_m = S_A + S_B + \dots + S_N$
- Where  $S_A$  and  $S_B$  are individual supply of produce A and B and so on

# INDIVIDUAL SCHEDULE

Price	Quantity Supplied of good X
1	5
2	10
3	15
4	20
5	25

# MARKET SUPPLY SCHEDULE

Price	Supply of A	Supply of B	Market Supply
1	5	10	$5+10 = 15$
2	10	20	$10+20 = 30$
3	15	25	$15 + 25 = 40$
4	20	35	$20 +35 = 55$
5	25	40	$25 + 40 = 65$



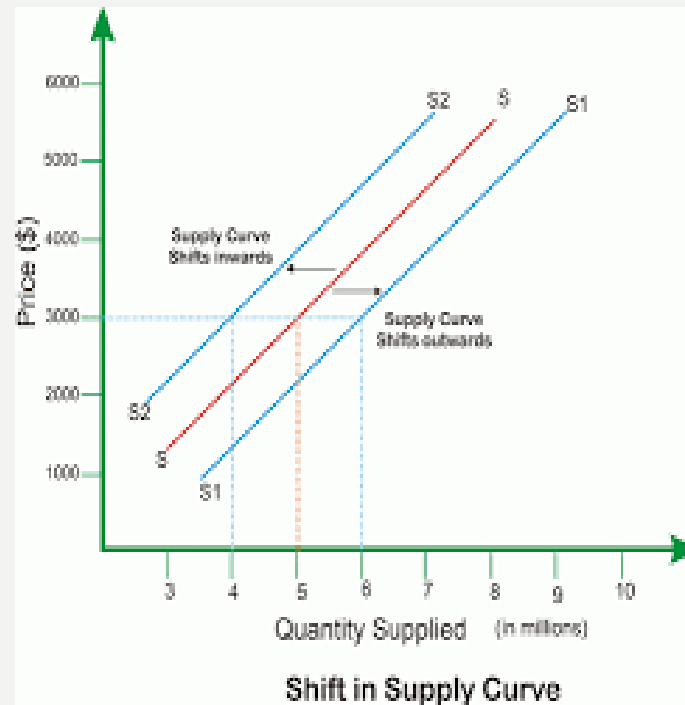
# MOVEMENT ALONG A SUPPLY CURVE/CHANGE IN QUANTITY SUPPLY

- When quantity supplied of a commodity changes due to change in its own price, keeping other factors constant-change in quantity supplied/movement along a supply curve
- Movement can be either a downward movement (contraction in supply ) or an upward movement (expansion in supply) along the same supply curve

# CHANGE IN SUPPLY/SHIFTS OF SUPPLY CURVE

- Supply curve- the relationship between price and quantity supplied of a commodity assuming all other factors being constant
- A change in one of other factors shifts the supply curve
- Increase in supply refers to a rise in the supply of a commodity caused due to any factors other than the own price of the commodity
- Decrease in supply refers to a fall in the supply of a commodity caused due to any factors other than the own price of the commodity

# CHANGE IN SUPPLY

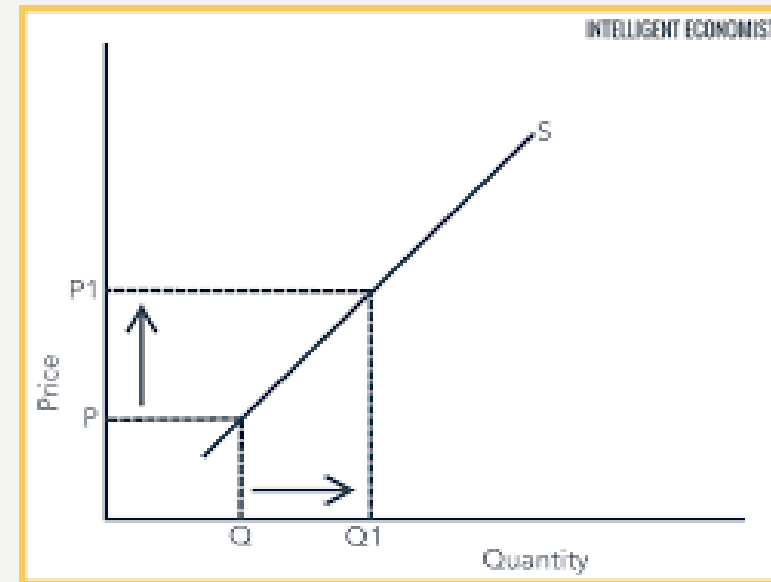


# LAW OF SUPPLY

- Direct relationship between price and quantity supplied, keeping other factors constant
- Assumptions
  - Price of the other goods are constant
  - No change in the state of the technology
  - Prices of factors of production remain the same
  - No change in the taxation policy

# SUPPLY SCHEDULE AND SUPPLY CURVE

Price	Quantity
1	10
2	20
3	30
4	40
5	50



# IMPORTANT POINTS

- States the positive relationship between price and quantity supplied, assuming no changes in other factors
- It's a qualitative statement as it indicates the direction of the change, does not indicate the magnitude of change
- Does not establish any proportional relationship
- Law is one sided

# EXCEPTIONS TO LAW OF SUPPLY

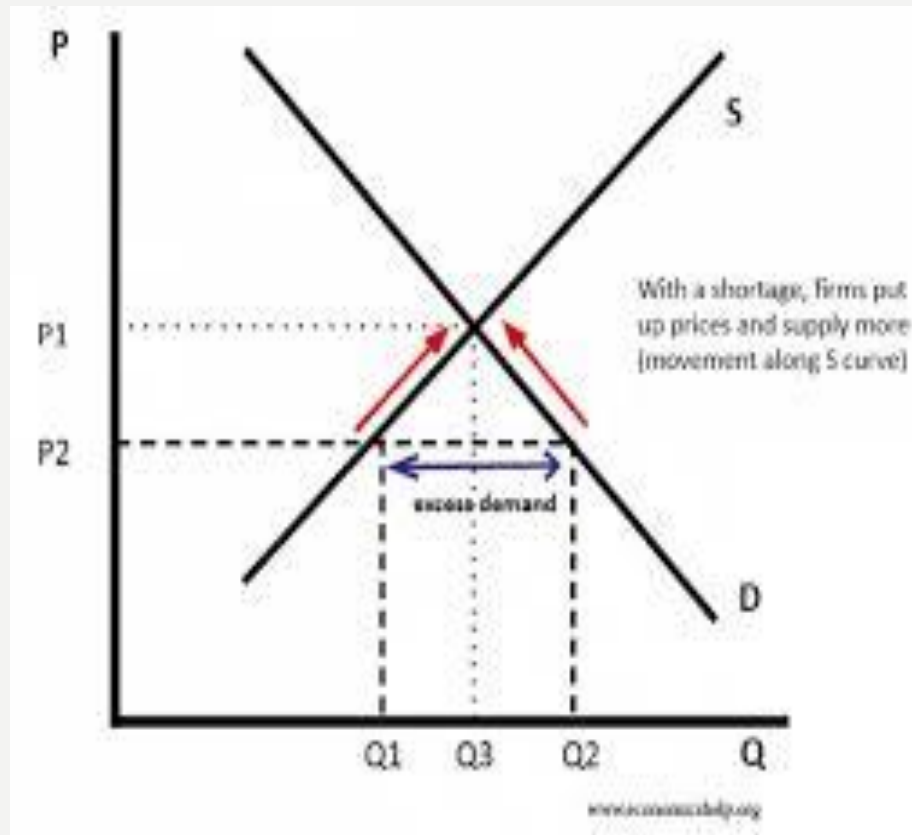
- Future expectations
- Agricultural goods
- Perishable goods
- Rare articles
- Backward countries

# MARKET EQUILIBRIUM

- Role of market price as a determinant of both of quantity demanded and quantity supplied
- Operation of market- the interaction between suppliers and demanders
- Three conditions may prevail in every market:
  - The quantity demanded exceeds the quantity supplied at the current price (Excess Demand)
  - The quantity supplied exceeds the quantity demanded at the current price (Excess Supply)
  - The quantity supplied equals te quantity demanded at the current price (Equilibrium)

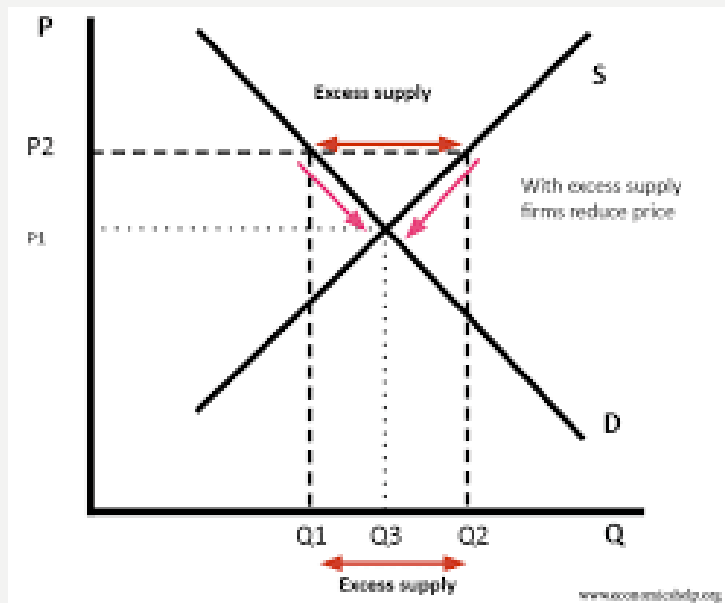


# EXCESS DEMAND



- Excess demand- Quantity demanded is greater than quantity supplied at the current price
- Tendency will be a rise in price

# EXCESS SUPPLY



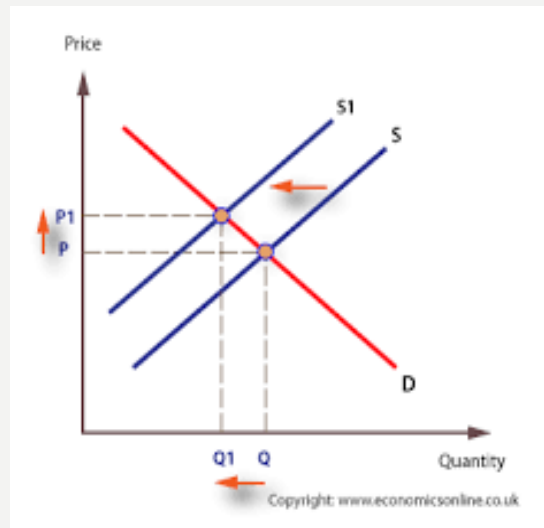
- Excess Supply- When the quantity supplied exceeds the quantity demanded at the current price
- Results fall in price
- Fall in price lead to decrease in quantity supply

# CHANGES IN EQUILIBRIUM

- Shift of supply and demand curve results change in equilibrium price and quantity

# SHIFTS OF SUPPLY CURVE

**INCREASE IN THE COST OF PRODUCTION OF X**

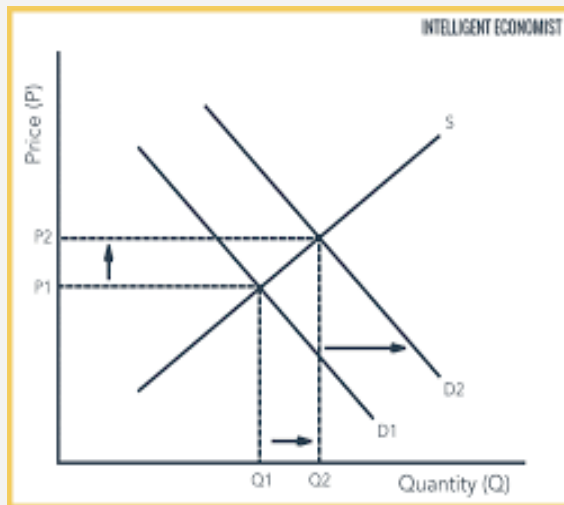


**DECREASE IN THE COST OF PRODUCTION OF X**

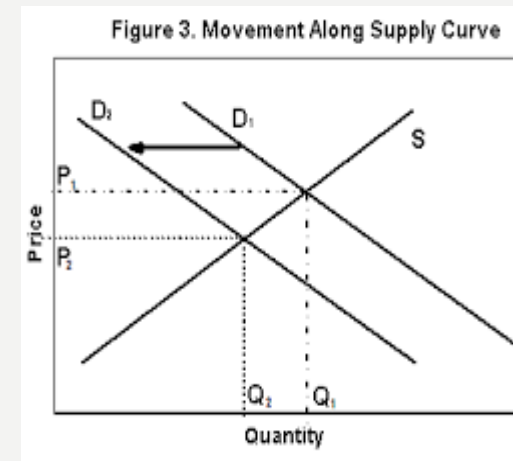


# DEMAND SHIFTS

**INCREASE IN INCOME: X IS A NORMAL GOOD**

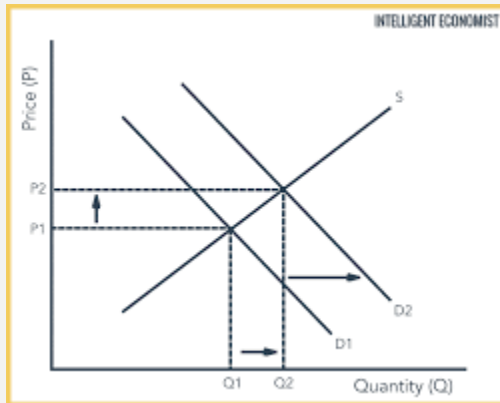


**INCREASE IN INCOME: X IS AN INFERIOR GOOD**

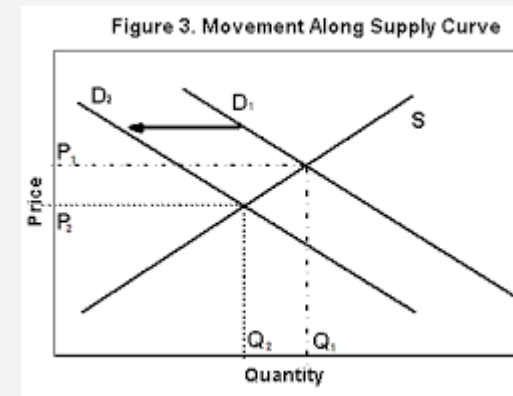


# DEMAND SHIFTS

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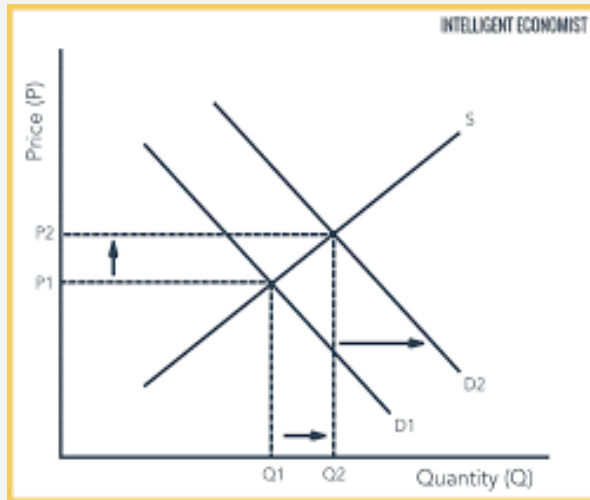


DECREASE IN INCOME: X IS A NORMAL GOOD

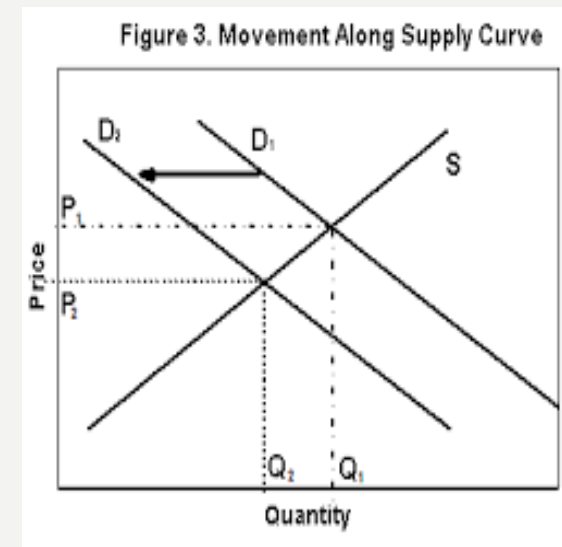


# DEMAND SHIFTS

INCREASE IN THE PRICE OF A SUBSTITUTE FOR X

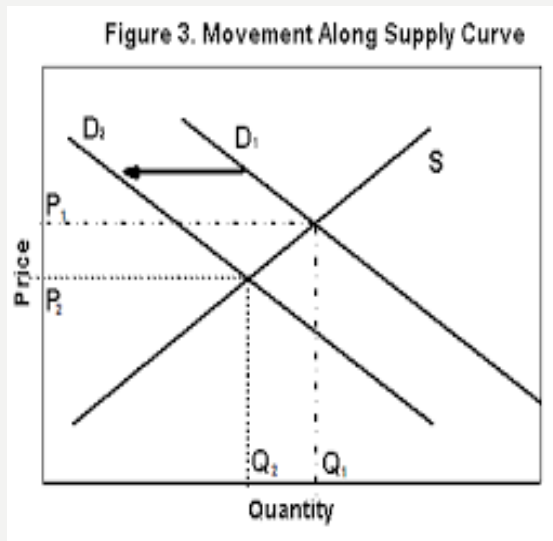


INCREASE IN THE PRICE OF A COMPLEMENT FOR X

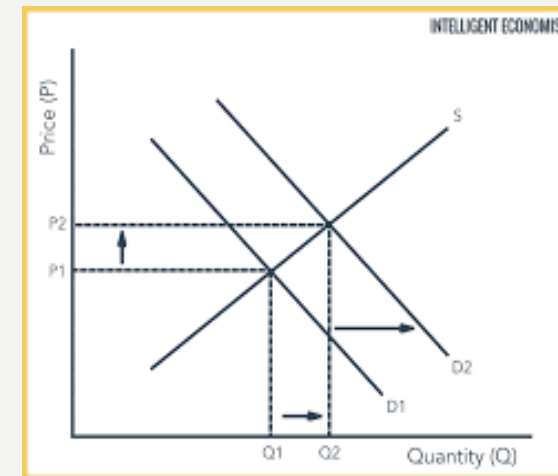


# DEMAND SHIFTS

DECREASE IN THE PRICE OF  
SUBSTITUTE FOR X



DECREASE IN THE PRICE OF A  
COMPLEMENT FOR X





# KEY TAKEAWAY.....

- Supply curve shows how much of a product a firm would supply if it could sell all it wanted at the given price.
- Quantity supplied are always per time period
- Supply of a good is determined by price, cost of production and prices of related good
- Market equilibrium exists when quantity supplied equals quantity demanded.

# **ELASTICITY OF SUPPLY**

# WHAT IS ELASTICITY OF SUPPLY?

- The sensitiveness/ responsiveness of the supply to change in price
- Percentage change in quantity supplied divided by the percentage change in price

# HOW TO CALCULATE ELASTICITY OF SUPPLY?

- $e_s = \frac{\text{Proportionate Change in Quantity Supply}}{\text{Proportionate Change in Price}}$
- $e_p = \frac{\text{Change in Quantity Supply} / \text{Original Quantity}}{\text{Change in price} / \text{Original Price}}$
- Symbolically
- $e_s = \frac{\Delta S / S}{\Delta P / P}$
- $e_s = \Delta S / S \times P / \Delta P$
- $e_s = \Delta S / \Delta P \times P / S$