
Micro Economics

Of what use is it to us?

Special FC 2021

Consumer choice

- **Depends On:**
- Tastes and preferences
 - Some people like pink shirts, some like black ones.
 - Some people prefer cheap old cars and big houses.
 - Others prefer expensive new cars and small houses, etc.

Opportunities (or Constraints)

- The price of the commodity in question
- Prices of related commodities
- Consumer income
- Other factors (e.g., quality, expectations, non-monetary costs)

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- Note that Tastes and Preferences are not observable.
 - Prices and Incomes, however, are observable.

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- So, while economists recognize that tastes and preferences are important determinants of the consumption choices people make, we focus much more on the impacts of Opportunities (or Constraints) on economic behavior.

Demand

- Relates the price of a commodity to the quantity purchased.
- Price represents the opportunity cost of consuming the commodity.

or

- Price represents how much of other commodities must be given up to consume the commodity of interest.

Class Demand for Burgers

- How many burgers will you want if the burgers are free?
- You might want to tell them that they have to plan to eat whatever they take before they leave the class.

Demand

- How many if the price is
 - 25?
 - 50?
 - 100?
 - 200?
- Graph the responses (Price on the vertical axis, Quantity on the horizontal axis)

Law of Demand

- There is an inverse relationship between the price and the quantity demanded of a good.
- As the price increases the quantity demanded decreases.
- Or, as the price decreases the quantity demanded increases.
- This is the Law of Demand

Law of Demand

- In other words, the demand curve is negatively sloped.
- Depending on the size of your class (and maybe the time of day), you should get . . .

Law of Demand

The Demand Curve for Burgers is **Negatively Sloped**



An Important Distinction

- Changes in Quantity Demanded

vs.

- Changes in Demand

Factors that Affect Demand

Changes in the Price of a Commodity

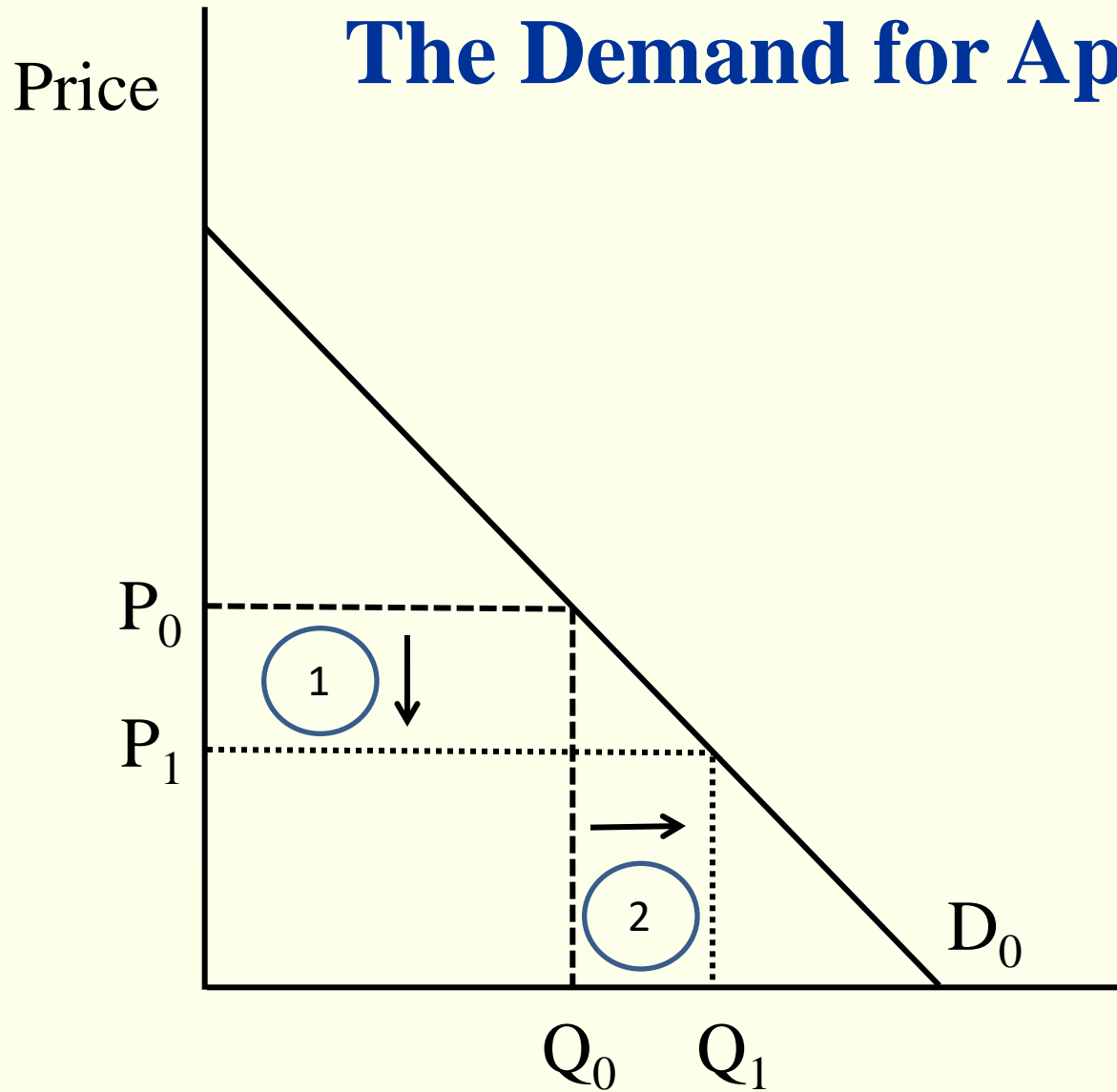
- ❑ Say, Apples
- ❑ If the price of apples increases, then consumers will purchase fewer of them.
- ❑ If price decreases, consumers will purchase more apples.
- ❑ Other factors held constant.

Factors that Affect Demand

Changes in the Price of a Commodity

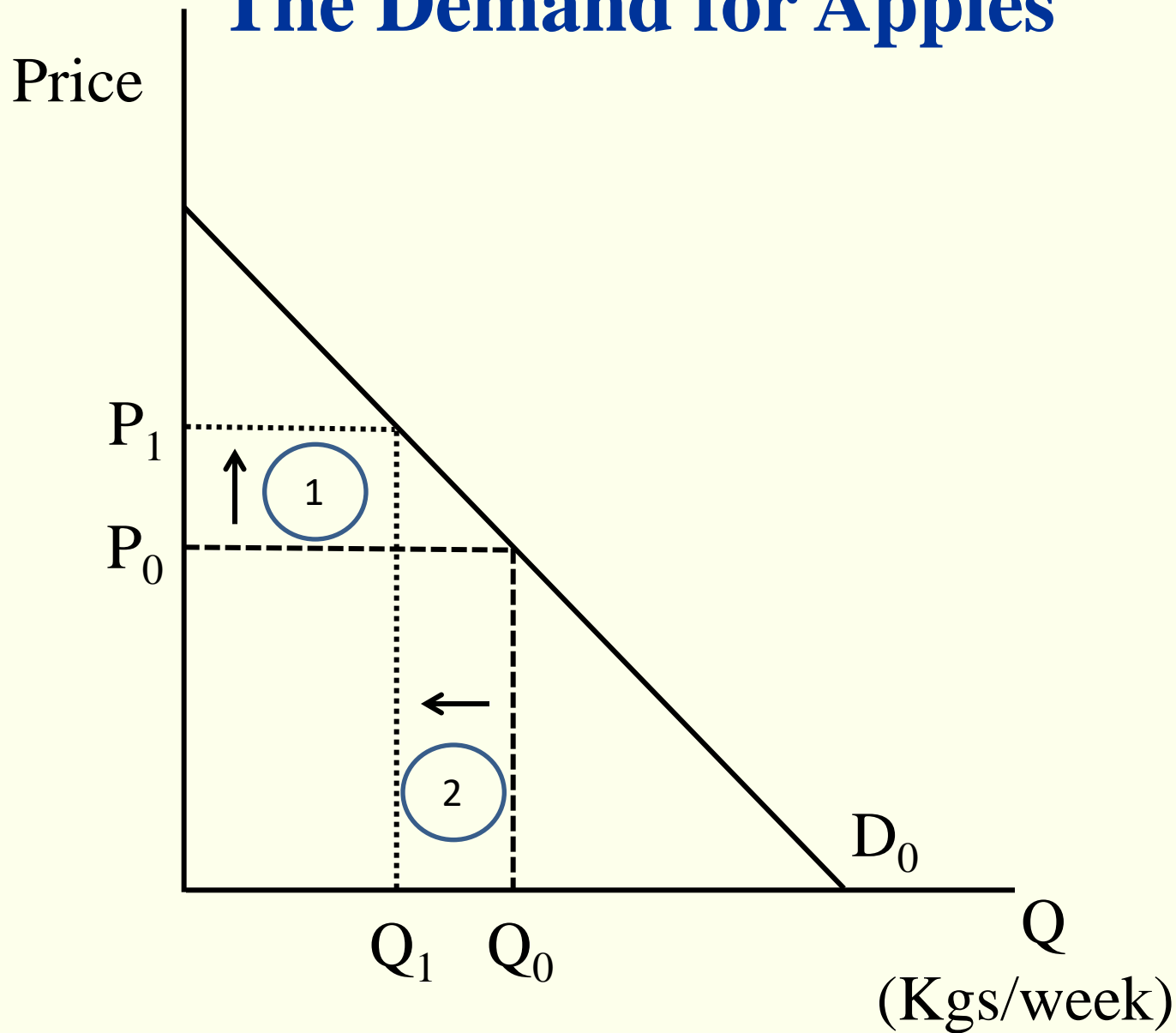
- Change in Quantity Demanded
 - Movements along the demand curve for apples result from changes in the price of apples.
 - Such movements are referred to as **changes in quantity demanded.**

The Demand for Apples



An Increase in Quantity Demanded

The Demand for Apples



A Decrease in Quantity Demanded

Factors that Affect Demand

Prices of Related Goods

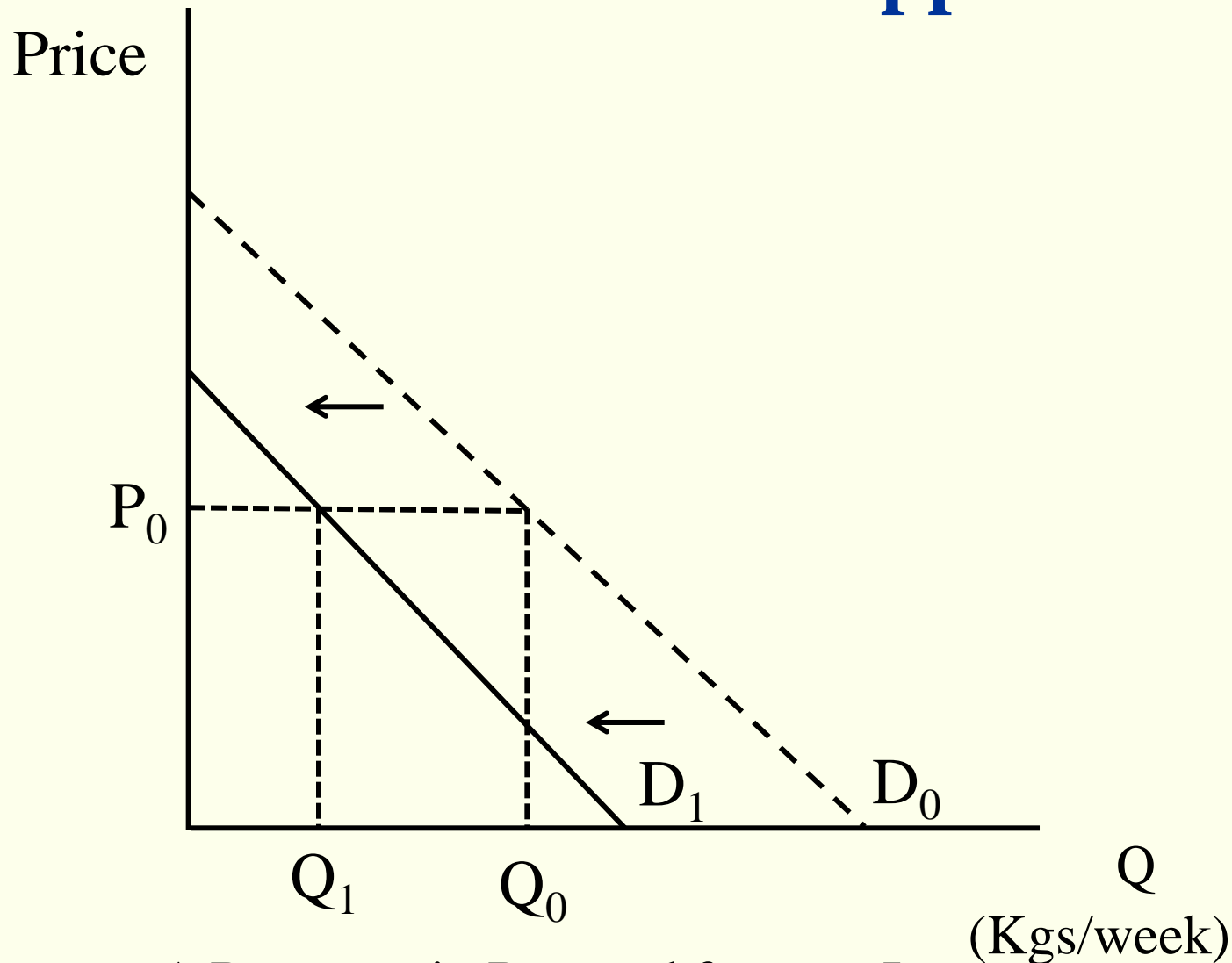
- **Complements:** Goods that are consumed together.
 - If apples are more enjoyable with oranges then the two are **complements**.
 - Cookies and milk.
 - Coffee and cream.
 - Movies and popcorn.
 - Mountain Bikes and Helmets
 - And so forth.

Factors that Affect Demand

Prices of Related Goods:

- **Complements** (cont.)
- If the price of oranges increases,
 - Less oranges will be demanded,and
- The demand for apples will decrease (it will shift to the left).
- This shift is referred to as a **change in demand**.

The Demand for Apples



A Decrease in Demand from an Increase
in the Price of a Complement

Factors that Affect Demand

Prices of Related Goods

- **Substitutes:** Goods that replace each other.

- Fuji apples and Gala or Red Delicious or Pink Lady apples are substitutes.

Also,

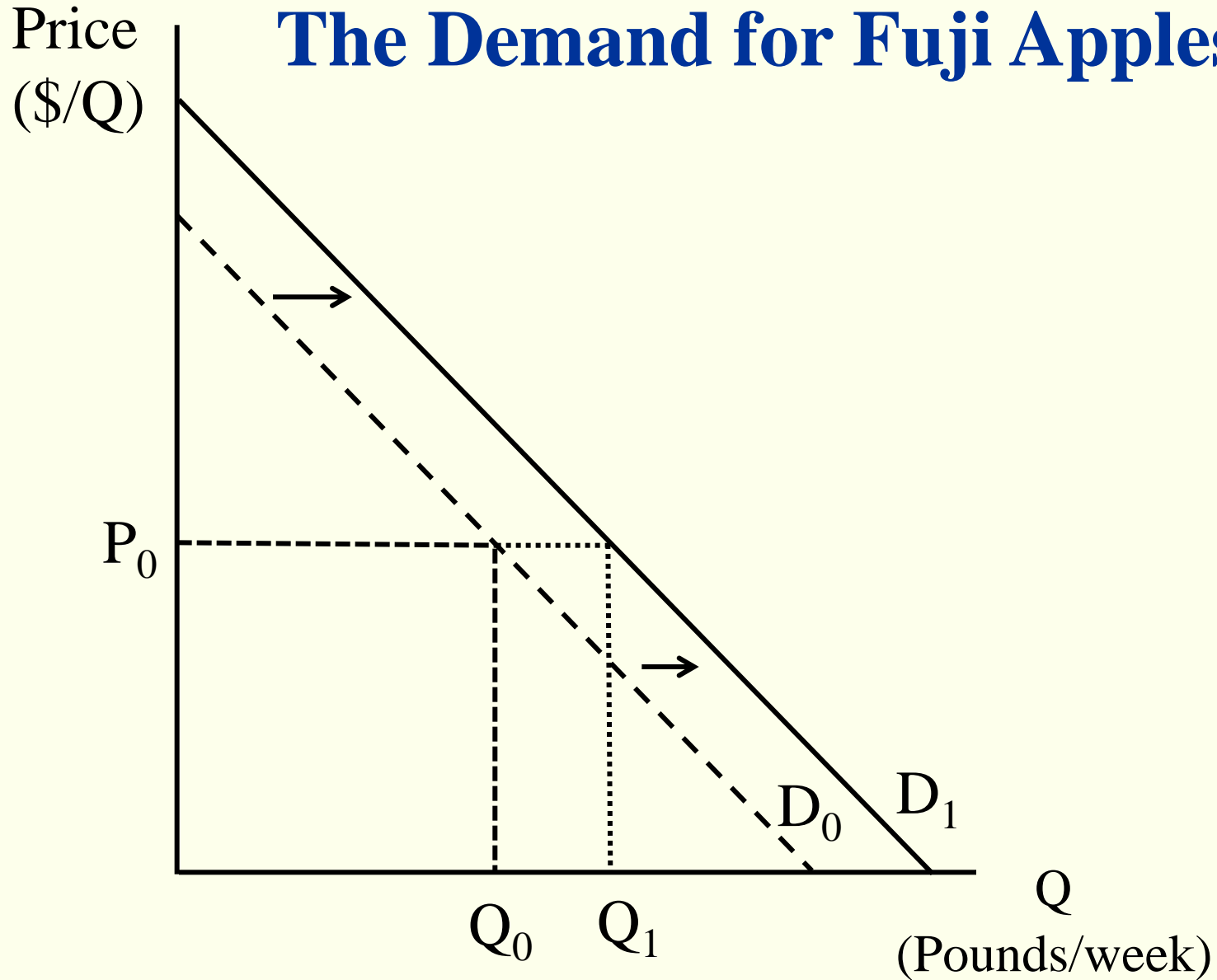
- Cap'n Crunch and Trix cereals.
- Cans and bottles of Diet Pepsi.
- Bikes and scooters
- Toyotas and Hondas.
- And so forth.

Factors that Affect Demand

Prices of Related Goods:

- **Substitutes (cont.):**
- If the price of Gala apples increases,
 - Fewer Gala apples will be demanded, and
 - The demand for Fuji apples will increase as some people switch from Gala to Fuji Apples (it will shift to the right).
- Again, this shift is referred to as a **change in demand.**

The Demand for Fuji Apples



An Increase in Demand from an
Increase in the Price of a Substitute

Factors that Affect Demand

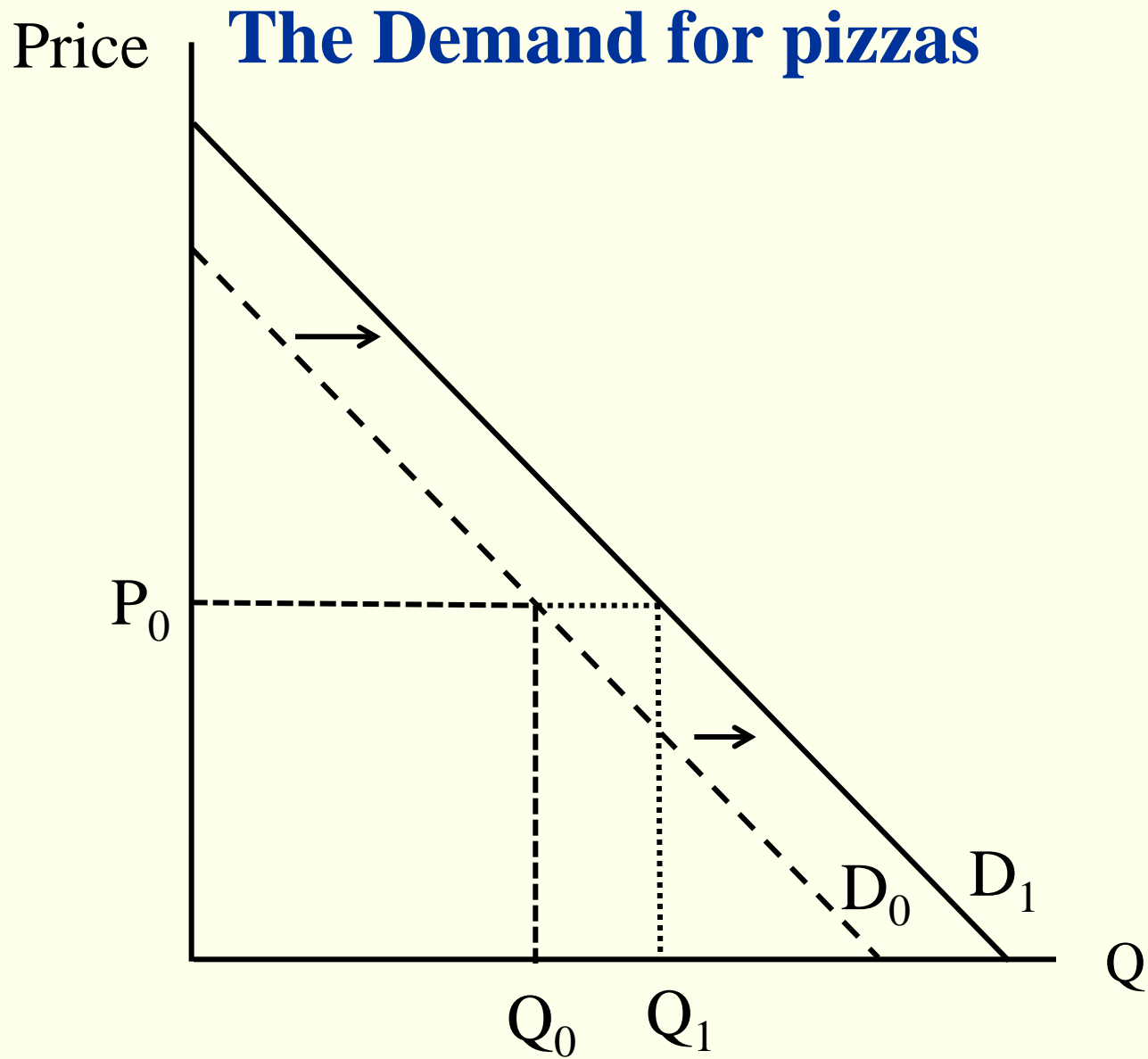
Income:

- Income is held constant along a demand curve. What happens if income increases?
- It depends on the good we are discussing.
- Consider pizzas . . .
- If my income increases, at any given price of these pizzas, I will now want to purchase more than I did before.

Factors that Affect Demand

Income:

- Economists refer to goods like pizzas as “normal goods.”
- When incomes increase, the demand for these goods increases. If income decreases
- This shift is referred to as a **change in demand**.



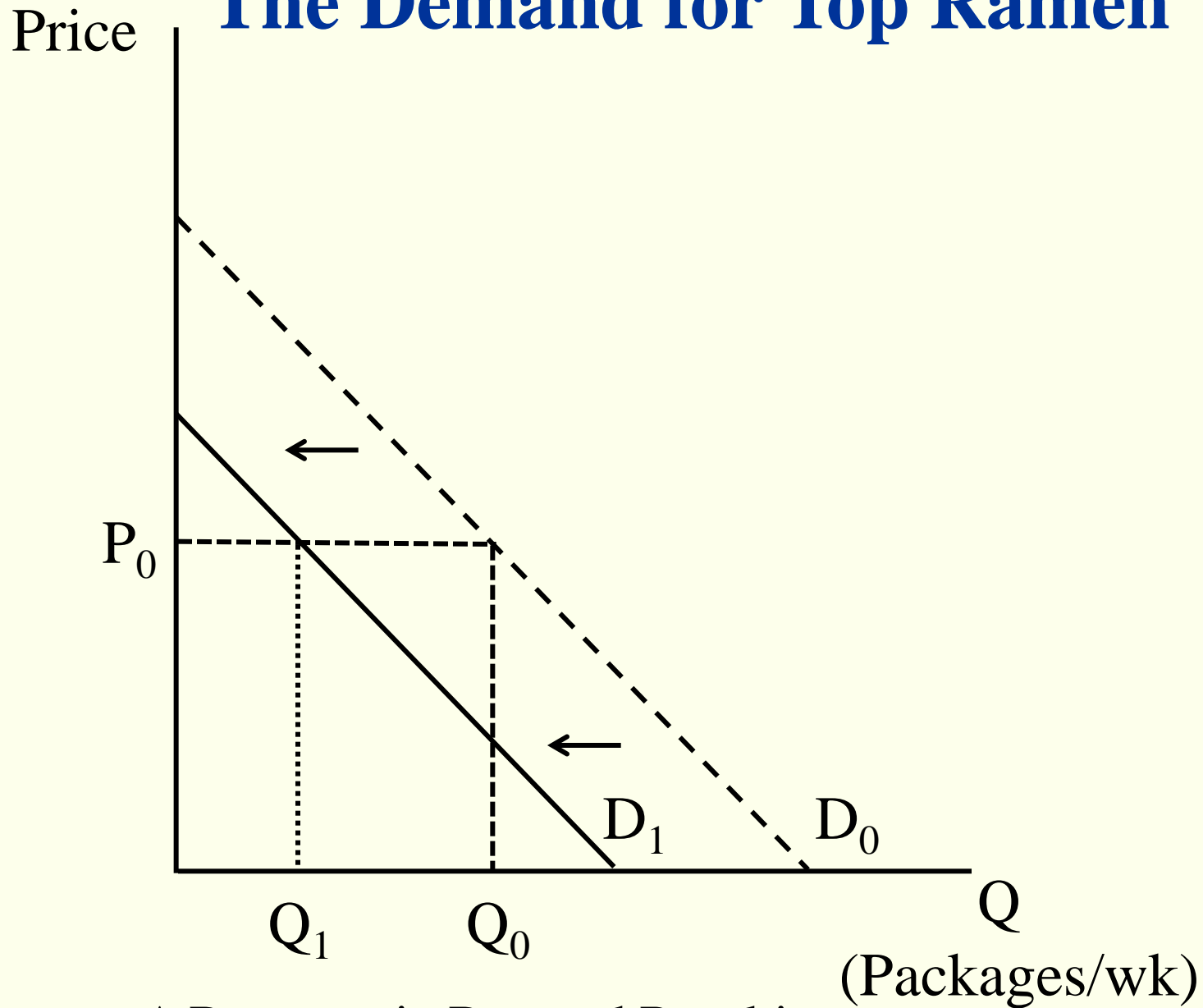
An Increase in Demand Resulting
from an Increase in Income

Factors that Affect Demand

Income (cont.):

- Alternatively, consider Top Ramen . . .
- If my income increases, at any given price of Top Ramen, I will now want to purchase less than I did before.
- Top Ramen is called an “inferior good.”
- When incomes increase, the demand for these goods decreases. And vice versa.
- Again, this shift is referred to as a **change in demand**.

The Demand for Top Ramen



A Decrease in Demand Resulting
from an Increase in Income

Summary

- **Key Concepts:**

- Determinants of Consumer Choices
- Demand curves
- Law of demand
- Factors that affect demand (price of the good of interest, incomes, prices of substitutes, prices of complements)

Summary

An Important Distinction is:

■ **Change in Quantity Demanded:**

- A change in the price of a commodity causes a movement along the demand curve, or a change in quantity demanded.

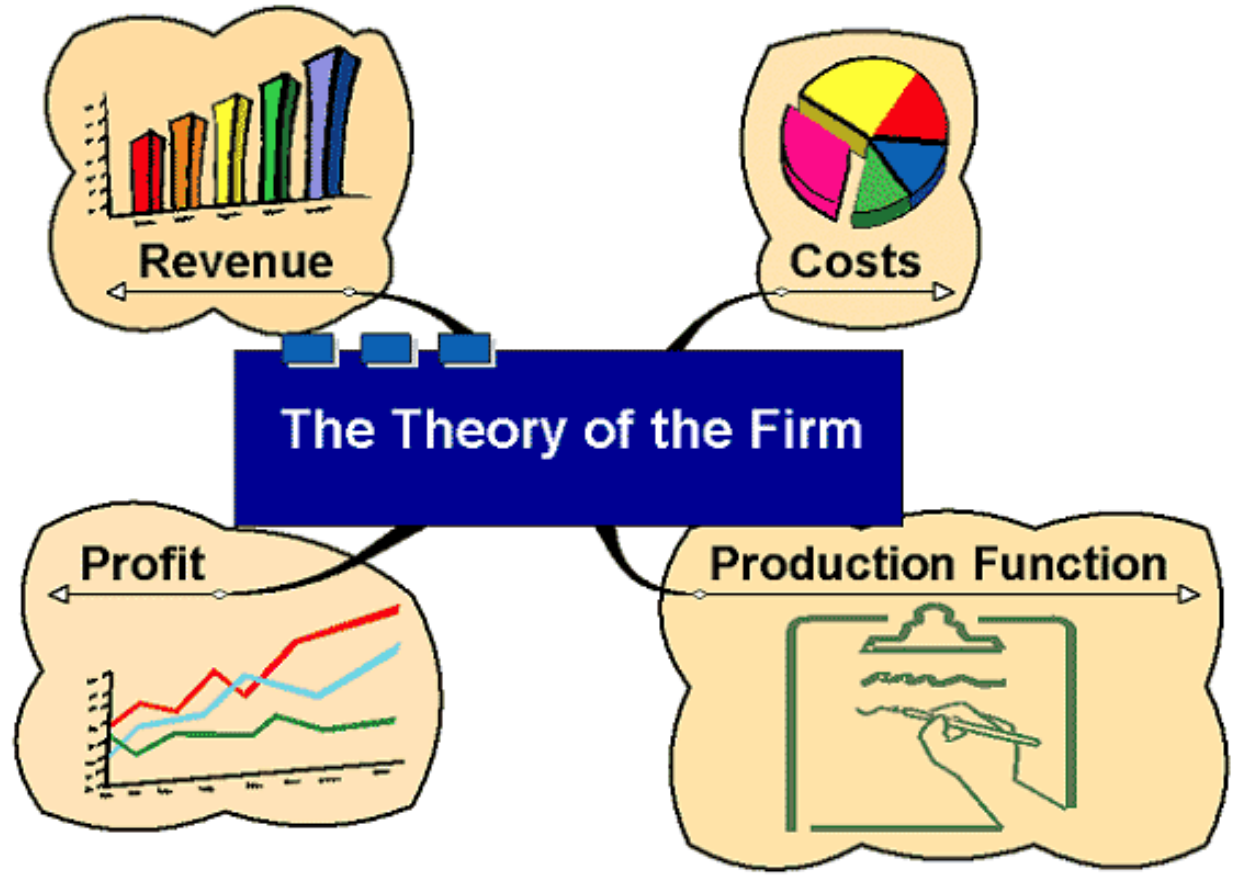
vs.

■ **Change in Demand:**

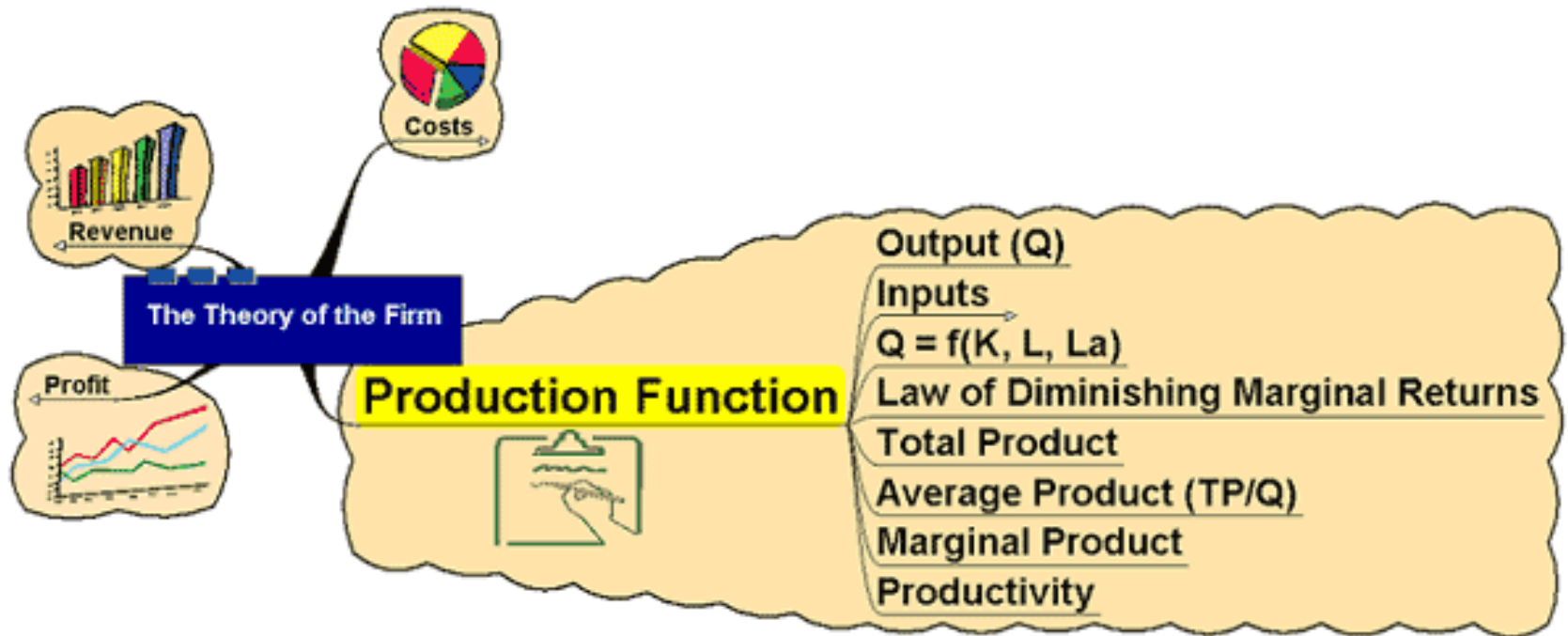
- An event other than a change in the price of a commodity causes a shift in the demand curve, or a change in demand.
- Incomes, prices of substitutes, prices of complements, etc.

The Theory of the Firm

The Theory of the Firm



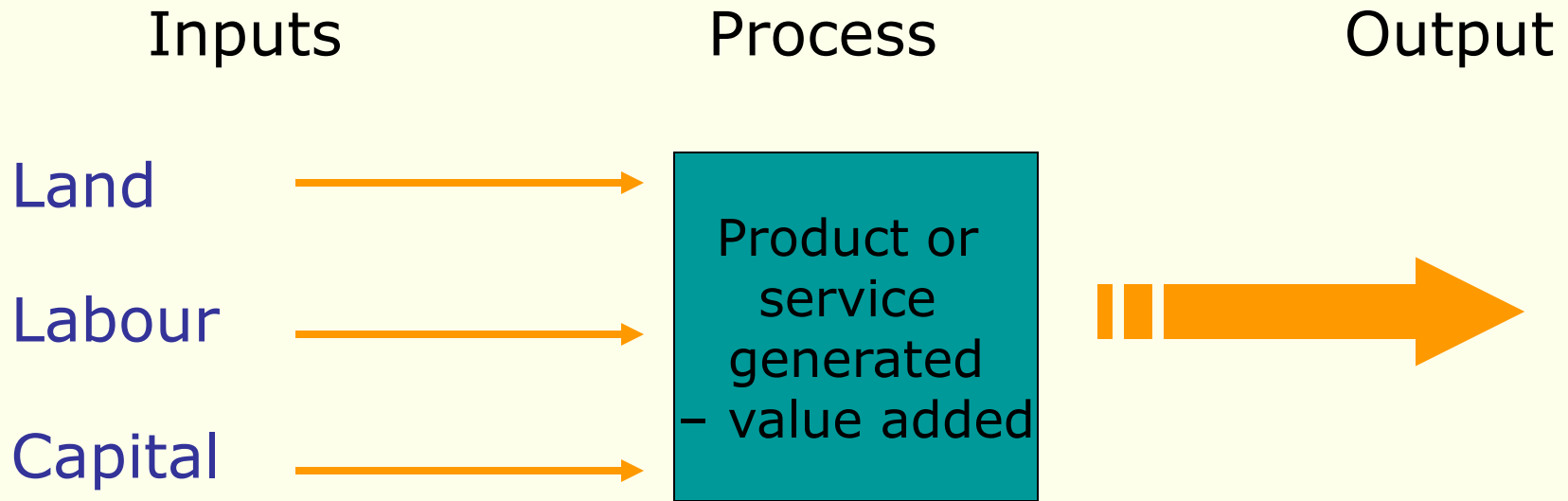
Production Function



Production Function

- States the relationship between inputs and outputs
- **Inputs** – the factors of production classified as:
 - **Land** – all natural resources of the earth – not just ‘terra firma’!
 - Price paid to acquire land = **Rent**
 - **Labour** – all physical and mental human effort involved in production
 - Price paid to labour = **Wages**
 - **Capital** – buildings, machinery and equipment not used for its own sake but for the contribution it makes to production
 - Price paid for capital = **Interest**

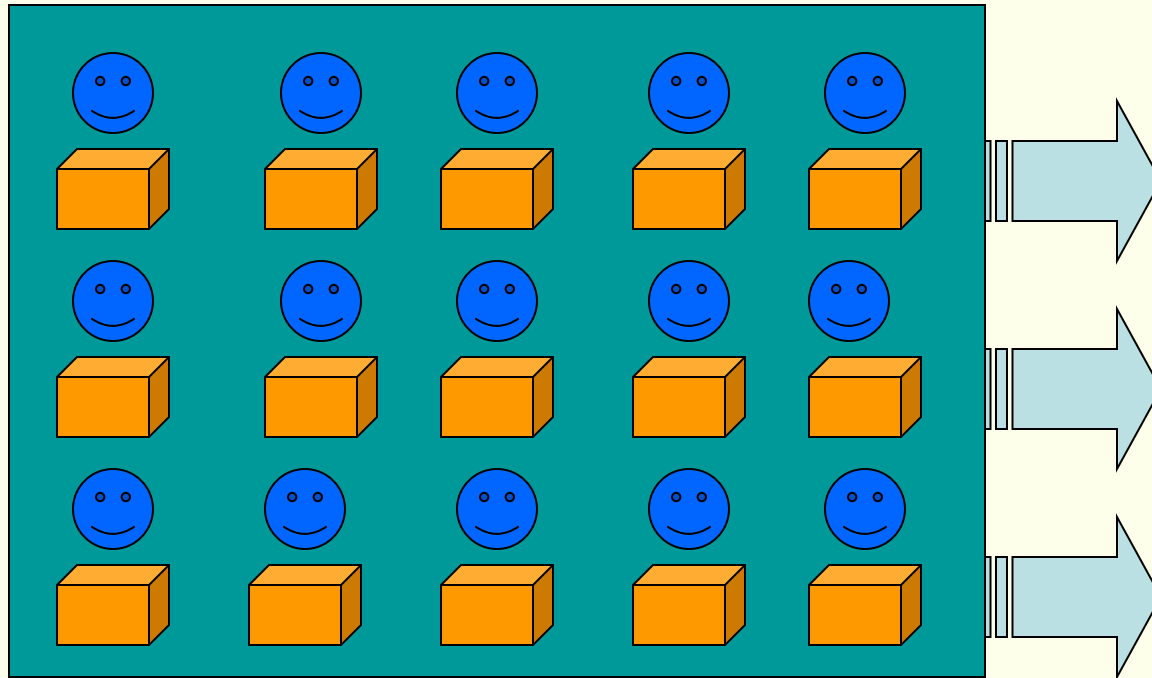
Production Function



Analysis of Production Function: Short Run

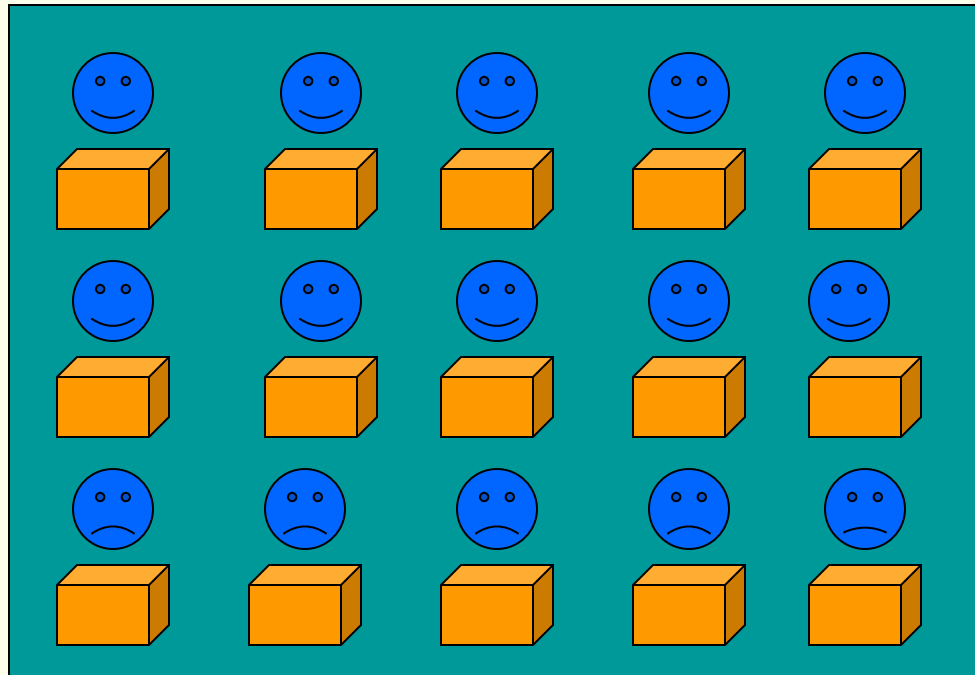
- In the short run at least one factor fixed in supply but all other factors capable of being changed
- Reflects ways in which firms respond to changes in output (demand)
- Can increase or decrease output using more or less of some factors but some likely to be easier to change than others
- Increase in total capacity only possible in the long run

Analysis of Production Function: Short Run



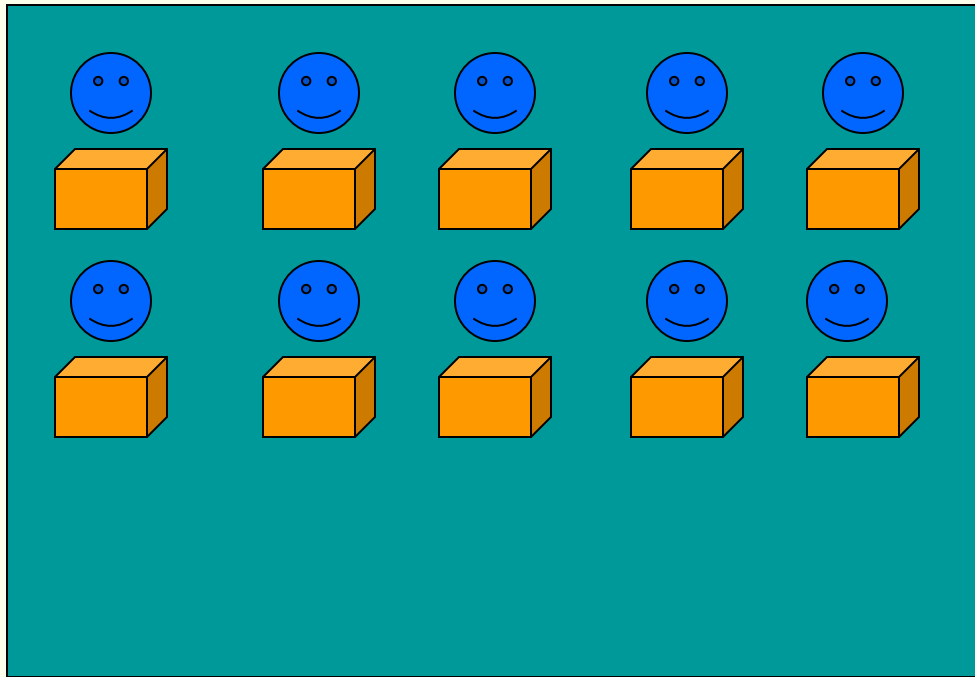
In times of rising sales (demand) firms can increase labour and capital but only up to a certain level – they will be limited by the amount of space. In this example, land is the **fixed factor** which cannot be altered in the short run.

Analysis of Production Function: Short Run



If demand slows down, the firm can reduce its variable factors – in this example it reduces its labour and capital but again, land is the factor which stays fixed.

Analysis of Production Function: Short Run

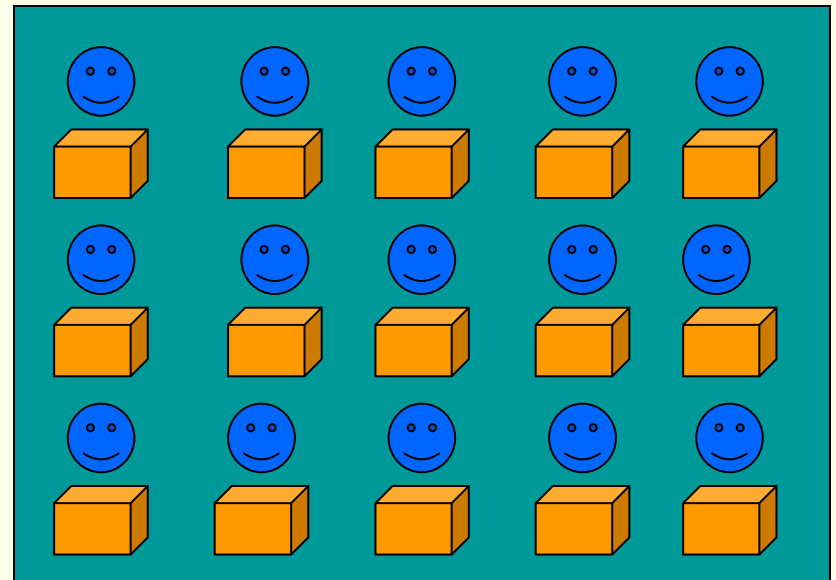
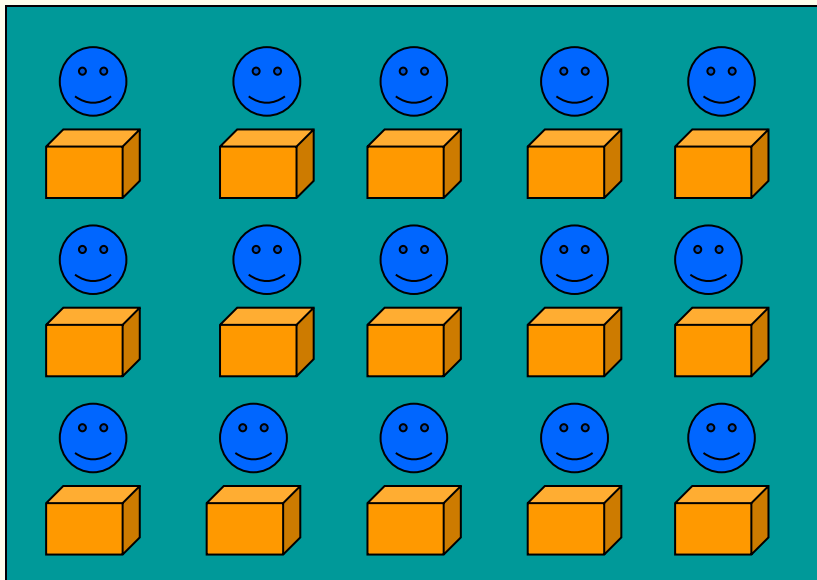


If demand slows down, the firm can reduce its variable factors – in this example, it reduces its labour and capital but again, land is the factor which stays fixed.

Analysing the Production Function: Long Run

- The long run is defined as the period of time taken to vary all factors of production
 - By doing this, the firm is able to increase its **total capacity** – not just short term capacity
 - Associated with a change in the **scale of production**
 - The period of time varies according to the firm and the industry
 - In electricity supply, the time taken to build new capacity could be many years; for a market stall holder, the 'long run' could be as little as a few weeks or months!

Analysis of Production Function: Long Run

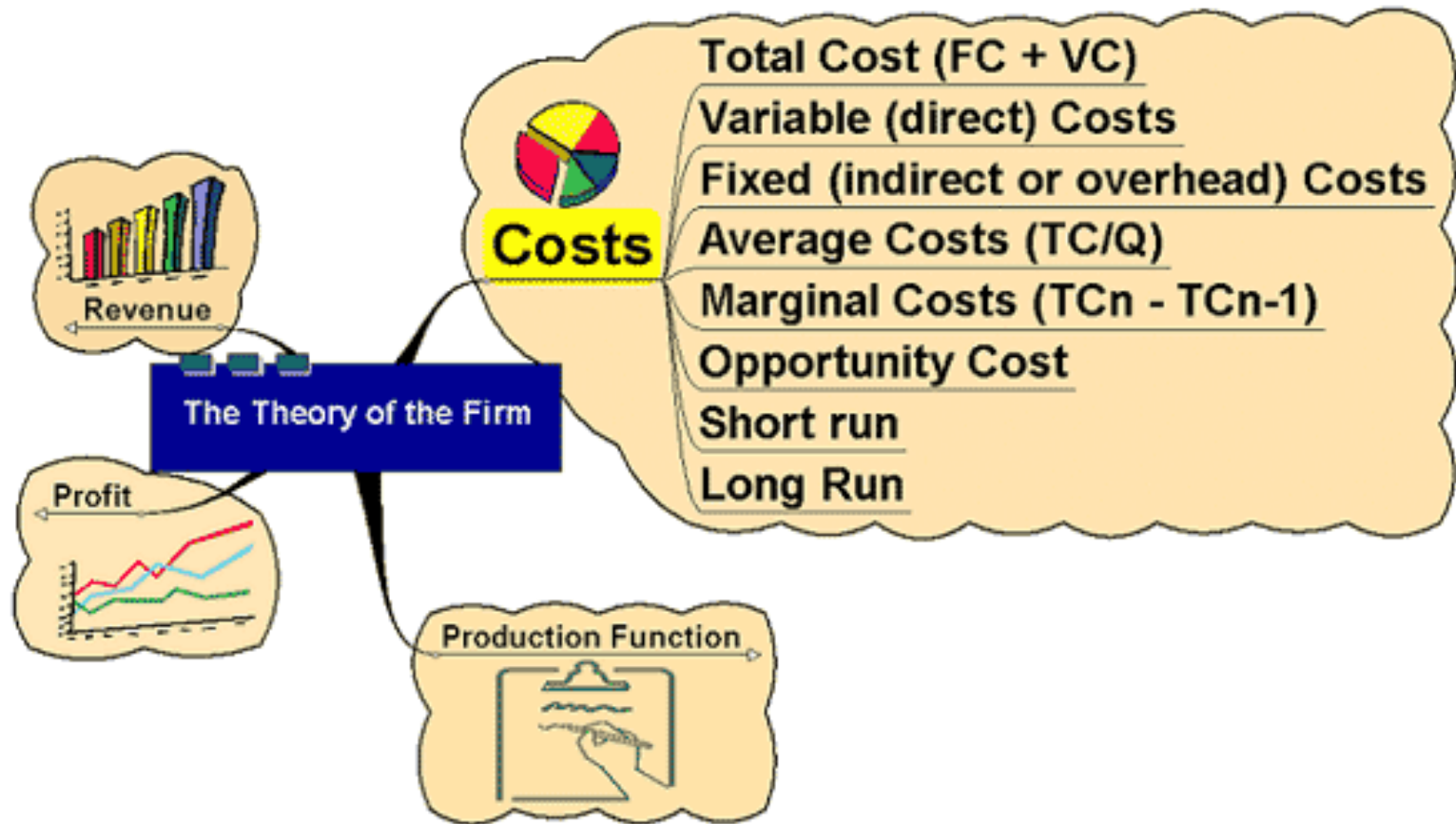


In the long run, the firm can change all its factors of production thus increasing its total capacity. In this example it has doubled its capacity.

Production Function

- Mathematical representation of the relationship:
 - $Q = f(K, L, La)$
- Output (Q) is dependent upon the amount of capital (K), Land (L) and Labour (La) used

Costs



Costs

- In buying factor inputs, the firm will incur costs
- Costs are classified as:
 - **Fixed costs** – costs that are not related directly to production – rent, rates, insurance costs, admin costs. They can change but not in relation to output
 - **Variable Costs** – costs directly related to variations in output. Raw materials primarily

Costs

- **Total Cost** - the sum of all costs incurred in production

- $TC = FC + VC$

- **Average Cost** – the cost per unit of output

- $AC = TC/Output$

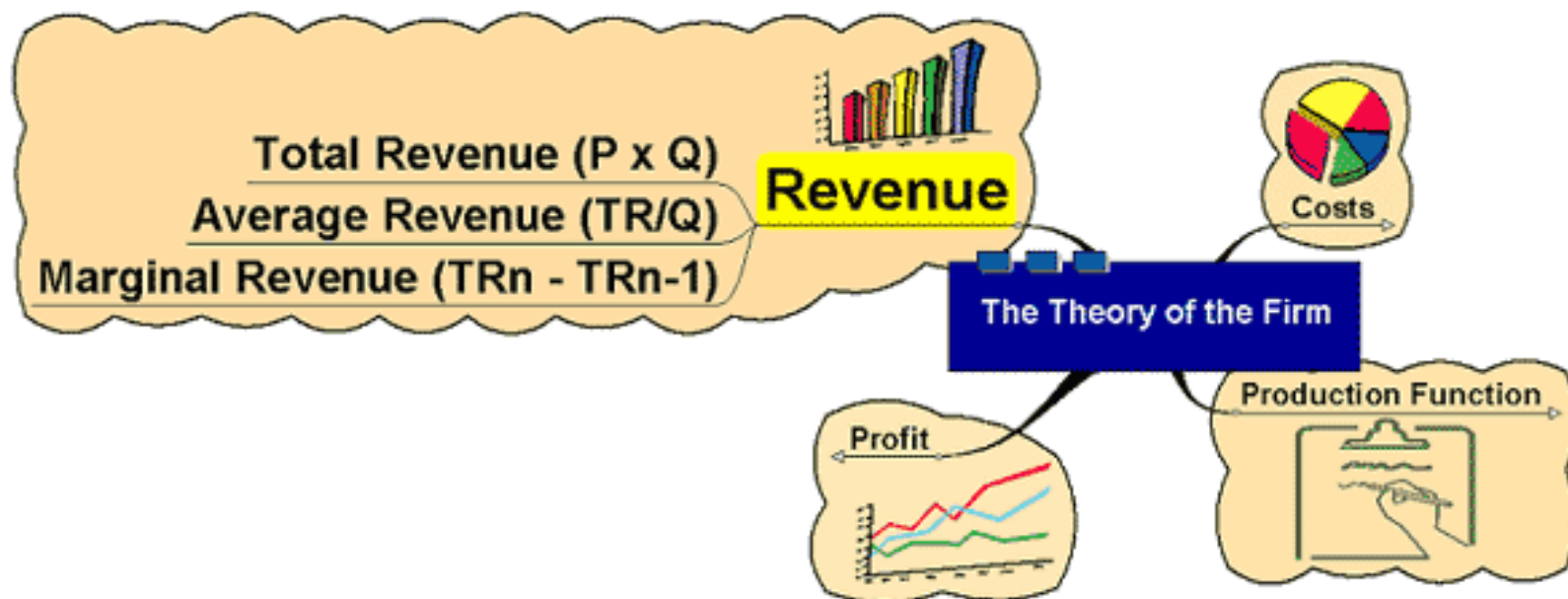
- **Marginal Cost** – the cost of one more or one fewer units of production

- $MC = TC_n - TC_{n-1}$ units

Costs

- **Short run** – Diminishing marginal returns results from adding successive quantities of variable factors to a fixed factor
- **Long run** – Increases in capacity can lead to increasing, decreasing or constant returns to scale

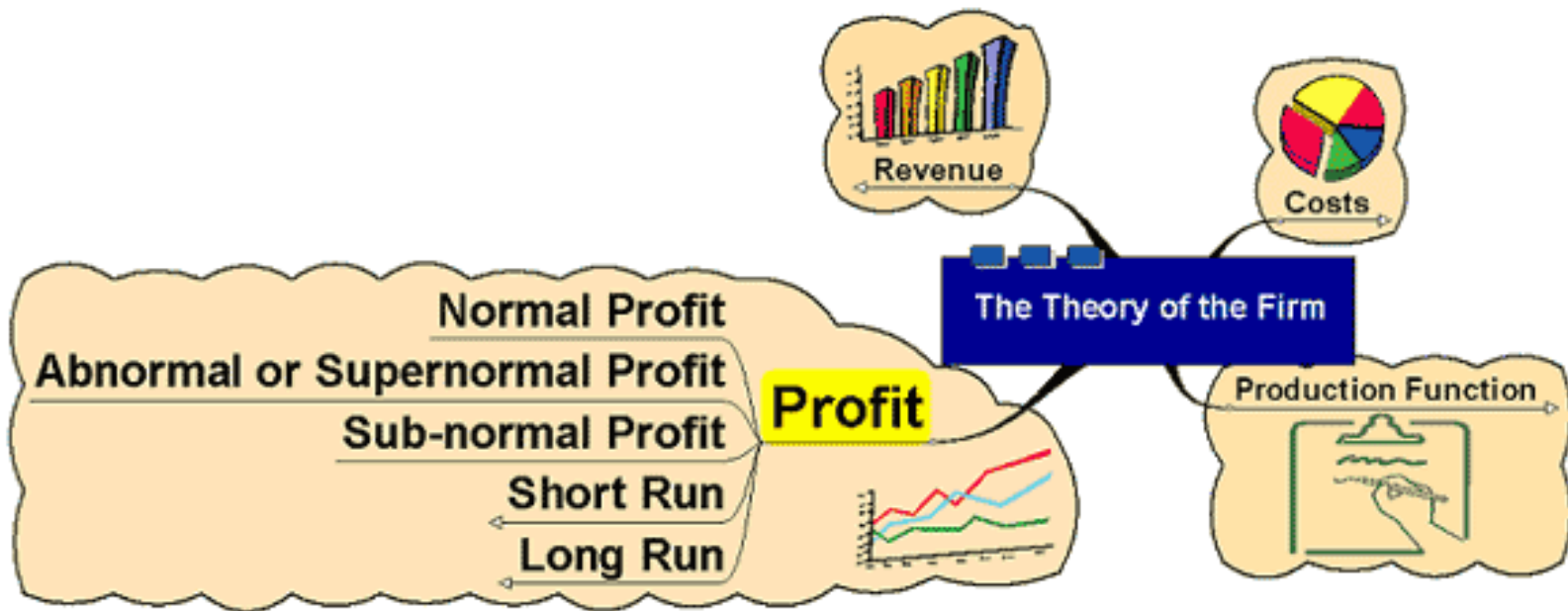
Revenue



Revenue

- **Total revenue** – the total amount received from selling a given output
 - $TR = P \times Q$
- **Average Revenue** – the average amount received from selling each unit
 - $AR = TR / Q$
- **Marginal revenue** – the amount received from selling one extra unit of output
 - $MR = TR_n - TR_{n-1}$ units

Profit



Profit

- **Profit = TR – TC**

- The reward for enterprise
- Profits help in the process of directing resources to alternative uses in free markets
- Relating price to costs helps a firm to assess profitability in production

Profit

- **Normal Profit** – the minimum amount required to keep a firm in its current line of production
- **Abnormal or Supernormal profit** – profit made over and above normal profit
 - Abnormal profit may exist in situations where firms have market power
 - Abnormal profits may indicate the existence of welfare losses
 - Could be taxed away without altering resource allocation

Profit

- **Sub-normal Profit** – profit below normal profit
 - Firms may not exit the market even if sub-normal profits made if they are able to cover variable costs
 - Cost of exit may be high
 - Sub-normal profit may be temporary (or perceived as such!)

Profit

- Assumption that firms aim to maximise profit
- May not always hold true – there are other objectives