IS 2230 ECONOMIC APPLICATIONS IN BUSINESS

Supply and Demand: How Markets Work

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Learning Outcomes

At the end of the session, you should be able to:

- Define what is demand
- Define what is supply
- Explain the law of demand
- Explain the law of supply
- Explain the variables influencing demand
- Explain the variables influencing supply

Recap

- The central economic problem
- Opportunity cost
- Production Possibilities Frontier (PPF)

Market Forces of Supply and Demand

- Supply and Demand are referred to as forces because they act in different ways and put pressure on prices to change
- The theory of supply and demand considers how sellers and buyers behave and how they interact with one another.
- Price signals influencing both buyers and sellers to change behaviour and go some way to allocating the economy's scarce resources.
- Two terms which are often used interchangeably but having distinct definitions.
    - Price: the amount of money a buyer (a business or a consumer) must give up to acquire something
    - Cost: the payment to factor inputs in production

Assumptions of the Model of Supply and Demand

- Economists use models to represent reality. **No model is perfect, and no model describes every situation.** The model of supply and demand is built on several assumptions and is referred to as the ***perfectly competitive market*** model.

- **Assumptions:**
  - Many buyers and sellers
  - Homogeneous goods
  - Perfect information
  - Freedom of entry and exit
  - Buyers and sellers are clearly defined
  - Clearly defined property rights
  - Zero transaction costs
  - Rational behaviour

- **Unrealistic assumptions?**
- There are many who cast doubt on the validity of using a model which relies on so many unrealistic assumptions and they suggest that its predictive powers are so limited as to be useless.

- We must be mindful of the assumptions.
  - We can then look at different contexts, gain insights, and understand behaviour and outcomes that might be different from that predicted by the model.
  - While these assumptions seem unrealistic, the model of Supply and Demand does allow us to make some predictions.
  - It provides an approximation to many everyday experiences, and a means of assessing how markets might behave differently when these assumptions are relaxed.

Demand

What is demand?

- Demand is the **willingness** and **ability** to buy.
  - Willingness without ability will not create demand.
  - Ability without willingness will not create demand.

Law of Demand

The quantity demanded of a good falls when the price of the good rises, Cēterīs paribus.

Cēterīs paribus : Latin phrase, literally translated as "with other things the same," or "all other things being equal or held constant."

Quantity demanded of a good/service is inversely related to its price

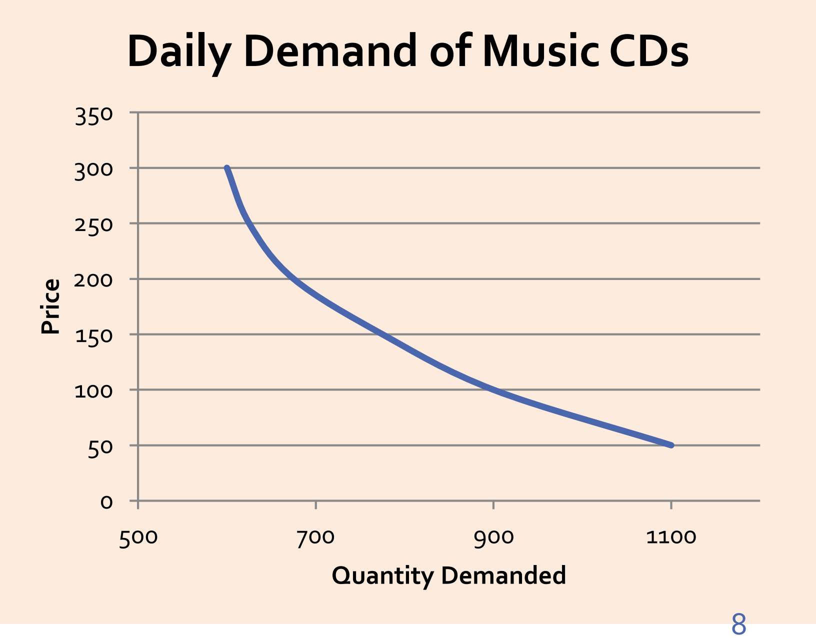
Demand Schedule and Demand Curve

- Demand schedule is a table that shows the relationship between the price of a good and the quantity demanded, holding constant everything else that influences how much consumers of the good want to buy.

- Demand curve is the graphical representation of the relationship between price and the quantity demanded of a good.

Demand Schedule of Daily Demand of Music CDs

Price	Quantity Demanded
50	1100
100	900
150	775
200	675
250	625
300	600



Downward sloping demand curve

- The quantity demanded will fall when the price of a commodity rises, because;

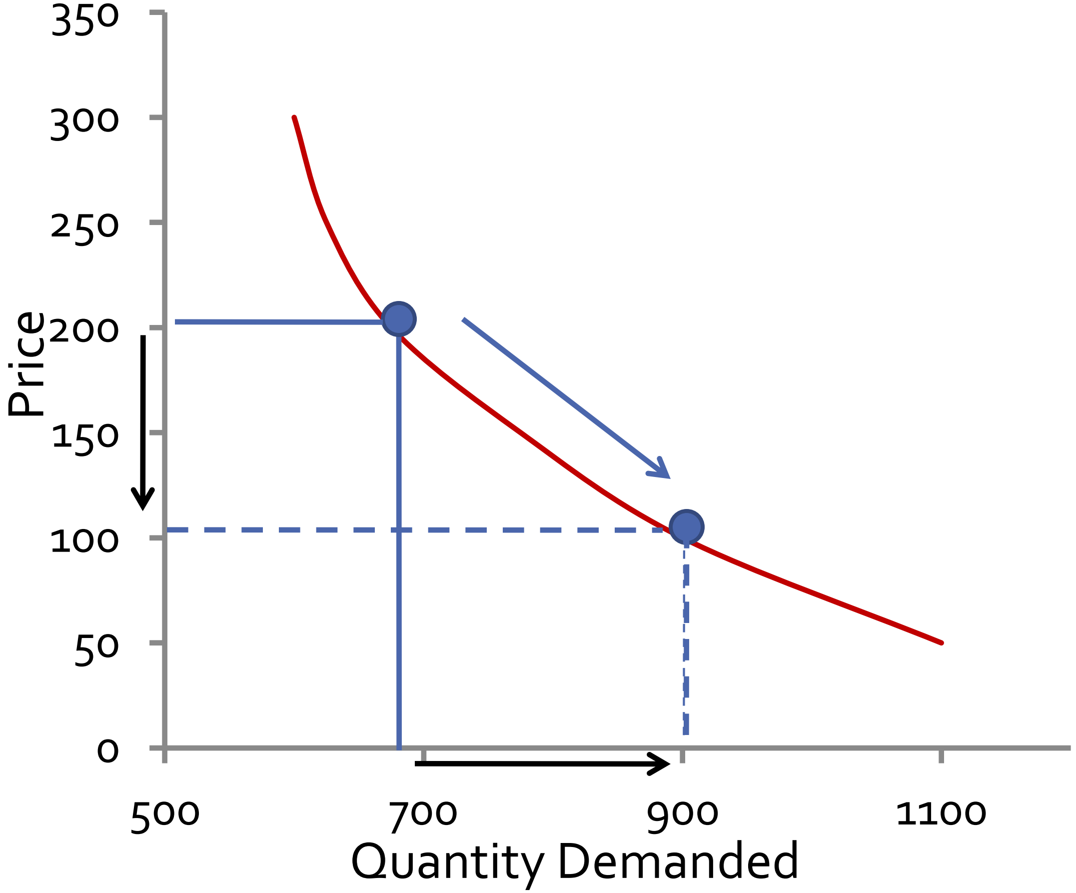
- *Substitution effect*

Price for one good rises compared to a similar good, consumers will substitute the similar good for their purchases. When price of rice goes up, more people will eat bread giving up consumption of rice.

- *Income effect*

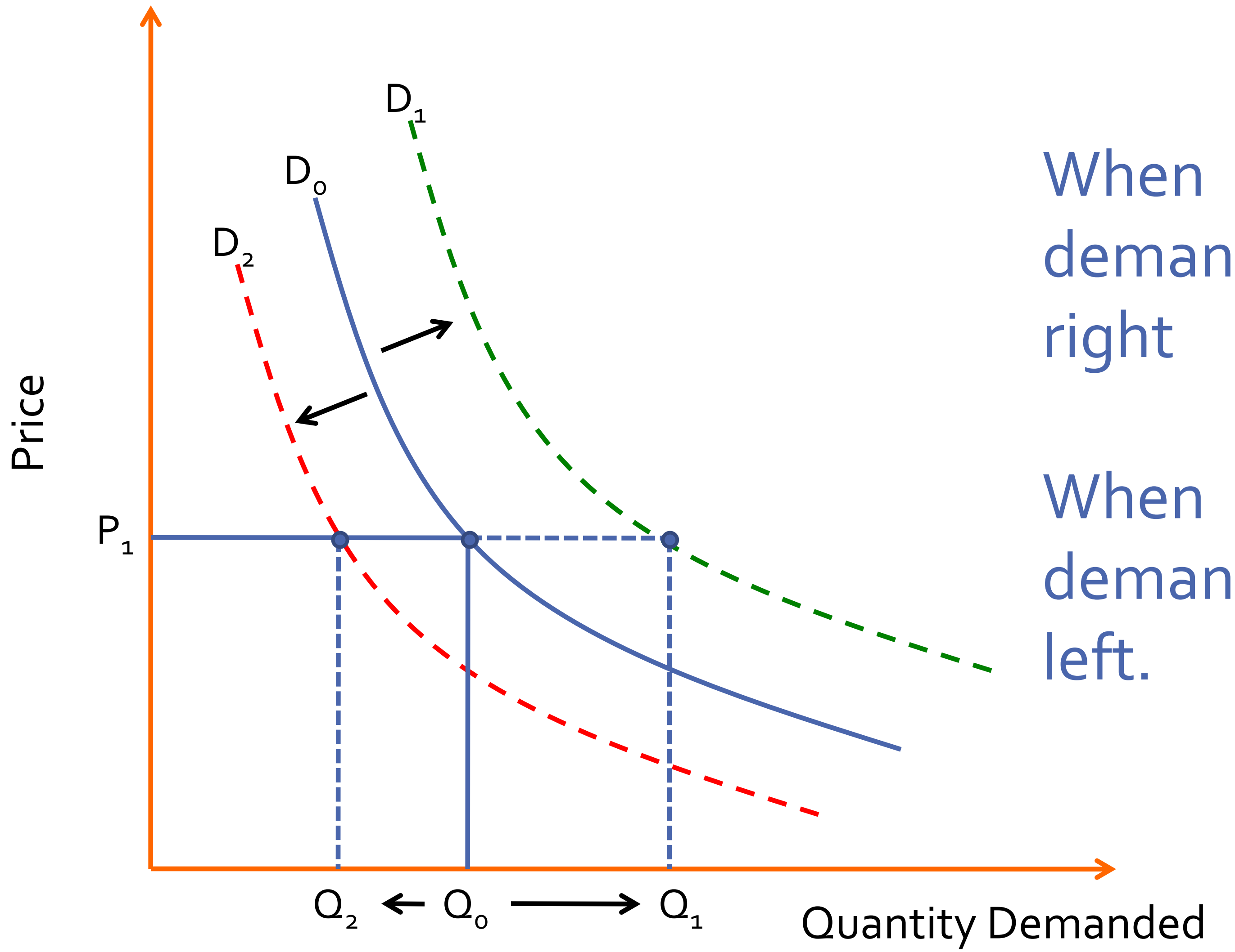
Price changes affect the real income of the consumers. (price decreases real income increases)

Movement along the demand curve



- **Single point** on the curve indicates single price quantity relationship.
- The **entire demand curve** shows the complete relationship between price and quantity demanded.
- Movement along the curve indicates the **change in quantity demanded** as a result of a change in price.

Shifts in demand curve



When there is an increase in demand, it is called a **shift** to the right

When there is a decrease in demand, it is called a **shift** to the left.

Shifts in the demand curve (Cont'd.)

- Shift in the demand curve happens when there is a change in demand at the same price level, i.e. any other factor affecting demand than price change.
- Variables that can shift the demand curve:
  - **Income** (Normal goods, Inferior goods)
  - **Prices of related goods** (Substitute goods, Complementary goods)
  - **Tastes**
  - **Expectations**
  - **Size and the structure of population**

- ✓ Normal good: A good for which, the other things being equal, an increase in income leads to an increase in demand
- ✓ Inferior good: A good for which, the other things being equal, an increase in income leads to a decrease in demand
- ✓ Substitutes: Two goods for which an increase in the price of one leads to and increase in the demand for the other (and vice versa)
- ✓ Complements: Two goods for which an increase in the price of one leads to a decrease in the demand for the other (and vice versa)

Summary - Demand

Variable	A change in this variable…
Price	…. is represented as a movement along the demand curve
Income	…. shifts the demand curve
Prices of related goods	…. shifts the demand curve
Tastes	…. shifts the demand curve
Expectations	…. shifts the demand curve
Size and the structure of population	…. shifts the demand curve

Supply

What is supply?

- Supply is the quantity of any good or service that sellers are **willing** and **able** to sell at different market prices

Law of Supply

The quantity supplied of a good rises when the price of the good rises, Cēterīs paribus.

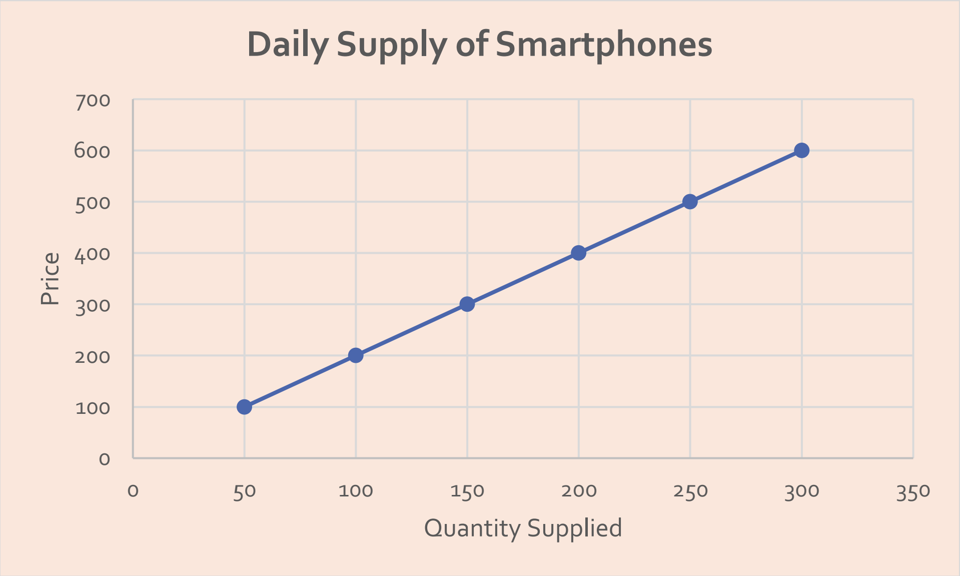
Quantity supplied of a good/service is positively related to its price

Supply Schedule and Supply Curve

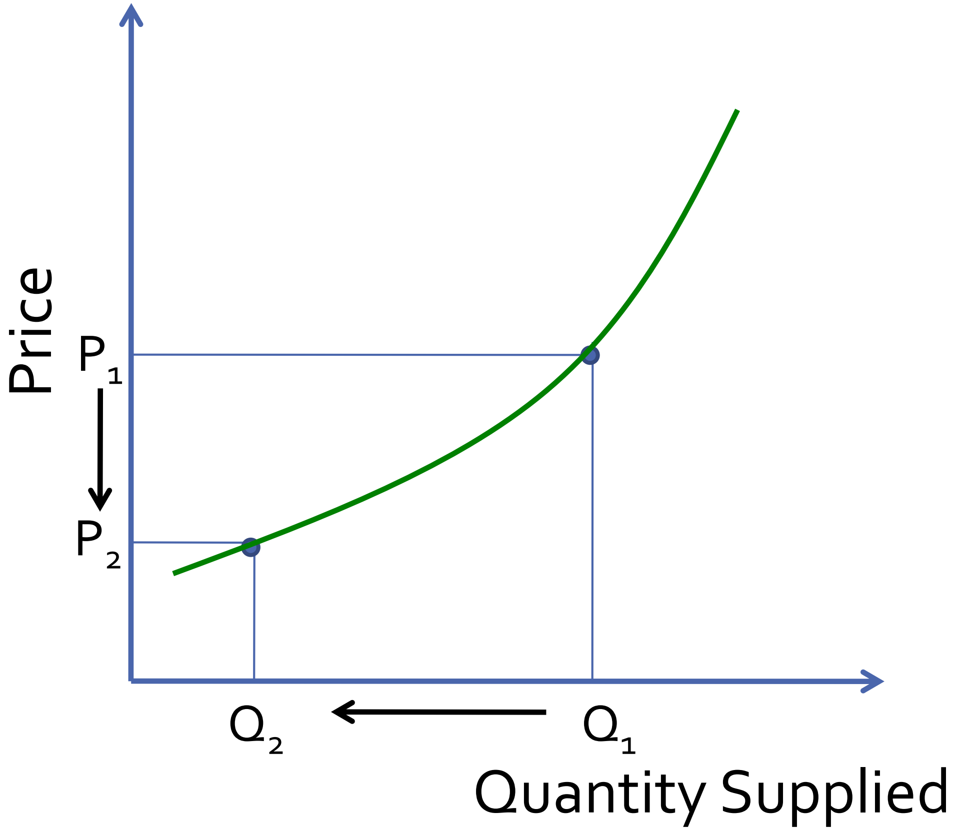
- Demand schedule is a table that shows the relationship between the price of a good and the quantity supplied, holding constant everything else that influences how much producers of the good want to sell.

- Supply curve is the graphical representation of the relationship between price of the good and the quantity supplied.

Supply Schedule of Daily Supply of Smart phones	
Price	**Quantity Supplied**
50	100
100	200
150	300
200	400
250	500
300	600



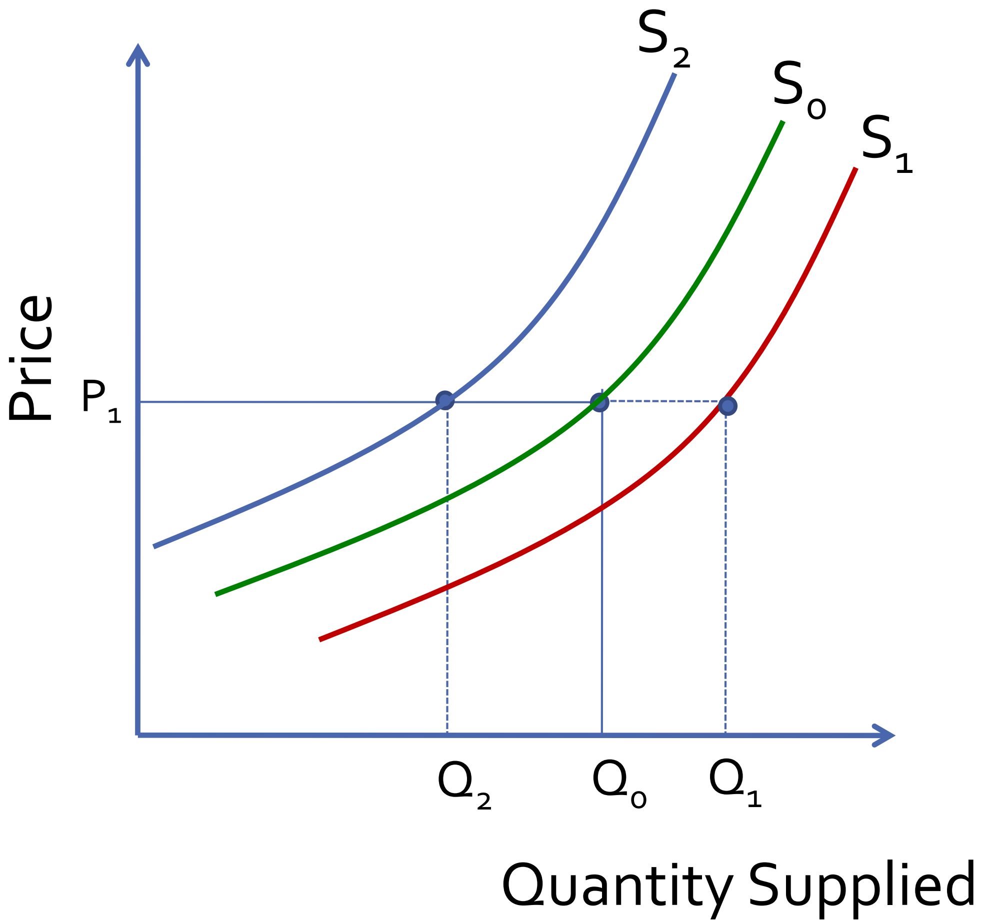
Movement along the supply curve



- Movement along the supply curve occurs when there is change in price, assuming other factors affecting supply are held constant

- Thus, **change in price** leads to a **movement along the supply curve** and is referred to as a change in quantity supplied.

Shifts in supply curve



When there is an increase in supply, it is called a **shift** to the right

When there is a decrease in supply, it is called a **shift** to the left.

Shifts in the supply curve (Cont'd.)

- Variables that can shift the supply curve:
  - **Price of factors of production (Input prices)**
  - **Technology**
  - **Expectations**
  - **Number of sellers**
  - **Natural/Social factors**
    - Weather conditions
    - natural disasters
    - pestilence and disease
    - changing attitudes and social expectations (production of organic food/ disposal of waste/ reducing carbon emissions/ ethical supply sourcing, etc.)

Summary - Supply

Variable	A change in this variable...
Price	.... is represented as a movement along the supply curve
Input prices	.... shifts the supply curve
Technology	.... shifts the supply curve
Expectations	.... shifts the supply curve
Number of sellers	.... shifts the supply curve

Next.....

Tutorial Class 02:

- ✓Exceptions to Law of Demand
- ✓Exceptions to Law of Supply

Next Lecture:

- ✓Equilibrium
- ✓Applications of Demand and Supply