



HEALTH ECONOMICS

Title : DEMAND And SUPPLY

Lecture no : "9" 😊

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وَقُلْ رَبِّ زِدْنِي عِلْمًا



﴿لَسَوْفَ يُعْطِيكَ رَبُّكَ فَتَرْضَى﴾

سَنَكُونُ يَوْمًا مَا تُرِيدُ

اللَّهُمَّ بَرَكَةَ الْخَطِيئَةِ



رَّبِّ زِدْنِي عِلْمًا

لَا أُجْرِعُ قَسِيءًا أَبْلَغُ

Definition

Demand is the **ability and desire to pay** for goods and services.

If there is a **high demand**, the for-profit sector, governments will supply those wants.

Demand refers to how much (**quantity**) of a product or service is desired by buyers or consumers.

The quantity demanded is the amount of a product people are willing to buy at a certain price; the relationship between **price** and **quantity** demanded is known as the **demand relationship**.

Demand : How much can the consumer pay for it ?

يعني قدرة المستهلك على دفع ثمنه وقادر على فعلها
في علاقة ديمانية بين Demand And price "تسعة"
Negative

↑ Price ↓ Demand يعني إذا السعر يزداد وبتكون كمية المشتريات لانه السعر وبتكون أقل
* Demand ← منحنية التهلكة consumer
* Supply ← منحنية الترخيب الذي ينتج seller

كم بقدر ينتج باع ؟
في علاقة بين price و supply
"موجودة الترخيب في السلالات المتعددة" positive

In general, demand reflects :

- Population health needs,
- Their ability to pay for service utilization
- Availability of services to be used.

Demand
 Objectively observable as behavior in the market.
 Money is a key factor.
 "Demand" is also called "effective demand," because it's expressed only by spending money.

تسعة Demand مرتبطة جدًا بالـ money نحن
الفترة الترخيب المتعدد (عدد السلع التي الناس بتقدر تشتريها)

Health is treated as a store which **degrades** over time in the absence of **investments** in health, so that health is viewed as a sort of wealth.

Investment in health is **costly**

مكلف
لكن إذا أنتهت تنصفر بتوني
State of health for human & productivity
Health system And Consumer
بالتالي هو costly
مثلا "الذين يعملون تشخيص أفضل تمديد أقل
كردنا بكمية

- * لاسمه لاذن وكل اسم بلايش كمنقول "كيتو مرمين"
- * Adam Smith → Invisible hand
- * Maslow's hierarchy → Basic needs
- * Philips → Curve (Inflation And Unemployment)
- * Grossman's → In this lecture



عذوفت

Need versus demand...

- Health plans that focus on need and ignore demand will face under- or over-utilization of service capacity
- If one believes quantity demanded is too little or too much (e.g. under-use or over-use of emergency room) relative to need, then quantity demanded must be manipulated by changing,
 - price or other costs to buyer, or
 - demand through marketing or de-marketing

A model of demand for medical care...

- According to Michel Grossman, consumers have a demand for health for two reasons:

* Health is a ^① **consumption** commodity—it makes the consumer **feel better**

– Health is an ^② **investment** commodity—a state of health will determine the amount of **time available** to the consumer for productivity

و تهدينا الحياة
اضواثا في
اخر النفق

* هون يتبدن عن Consumer point of view ← من النقص المستهلك الذي يستخدم السلع

* هسبن كين Two reasons

هون الكلام خص بال Consumer

يقول

why?

why?

productivity

هنا تتعلس عن

اذا النقص هتم بجته بيه

Time available for productivity ↑

سوف يستلعب ان يلعب اكثر ويتعمل اكثر

Grossman's demand model...

① According to this model every one inherits a **stock of health** when born

نوضح
الإستاد له ديوان يكون عنده خزنة موروثة فيها الصحة
كل ما يلبس فيه الخزنة يتمقل بالوعدل يستثمر فيها ويحافظ عليها كخزنة فترة
مملكت من ذن' Degradation التراجع

• Health **depreciated** overtime, however an investment is required to sustain health

↑ standard of living ↑ Demand تزييد Demand

• As peoples' age advances there is an **increase** in rate of illness and in the **utilization** of health services.

• The stock of health can be **sustained** by **investment** to maintain health., such as use of health services and health promoting activities

كازم خازنلا يستثمر في الصحة على الرغم انك الكومات **costly**

Grossman's demand model...

• A view of medical care demand being derived from the **demand for health** implies the following:

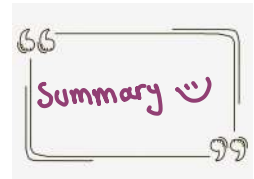
- increase in **age** result in an increase in the rate at which the person's **stock of health depreciates**

مخزون الصحة ينخفض

- Over the life cycle people will attempt to offset part of the increased rate of depreciation in their stock of health by **increasing their expenditure** on health

التعويض عن طريق زيادة الانفاق الصحي * **Demand** وليس **Need**

- the **demand for medical care will increase with increases in person's income or standard of living**



Grossman's Demand model → Health is
↳ Investment Commodity → productivity
↳ Consumption Commodity → consumer will feel better

Stock of health By time → Degradation
↓
Investment in health
↳ sustain (health)

الوقت والوقت لفترة أطول

Quantity demanded is negatively related to price. This implies that the demand curve is downward sloping (holding ALL other variables constant)

العوامل المتغيرة ثابتة، نحن ندرس العلاقة بين (Demand, price)

Curve ⇒

↓ Vertical Access Price
← Horizontal Access Demand

↓ Downward * نام

↑ Upward وليس

• Law of Demand قانون الطلب

– The *law of demand* states that, the quantity (q) demanded of a good falls when the price (p) of the good rises

Demand Schedule

Table Law of Demand

– The *demand schedule* is a table that shows the relationship between the price of the good and the quantity demanded.

Market Demand Schedule	
Price (\$)	Quantity Demanded (units)
5.00	610
10.00	460
15.00	350
20.00	270
25.00	220
30.00	180
35.00	150

WallStreetMojo

Market Demand Schedule	
Price of a Small Soda	Number demanded per day
\$0.25	890
\$0.50	500
\$0.75	480
\$1.00	470
\$1.25	410
\$1.50	350
\$1.75	280
\$2.00	240
\$2.25	200
\$2.50	150
\$2.75	100

سبحان الله
الله أكبر
الحمد لله
استغفر الله

Important ↩

Demand Curve

– The **demand curve** is a ^{رسم بياني} **graph** of the **relationship** between the **price** of a good and the **quantity demanded**.

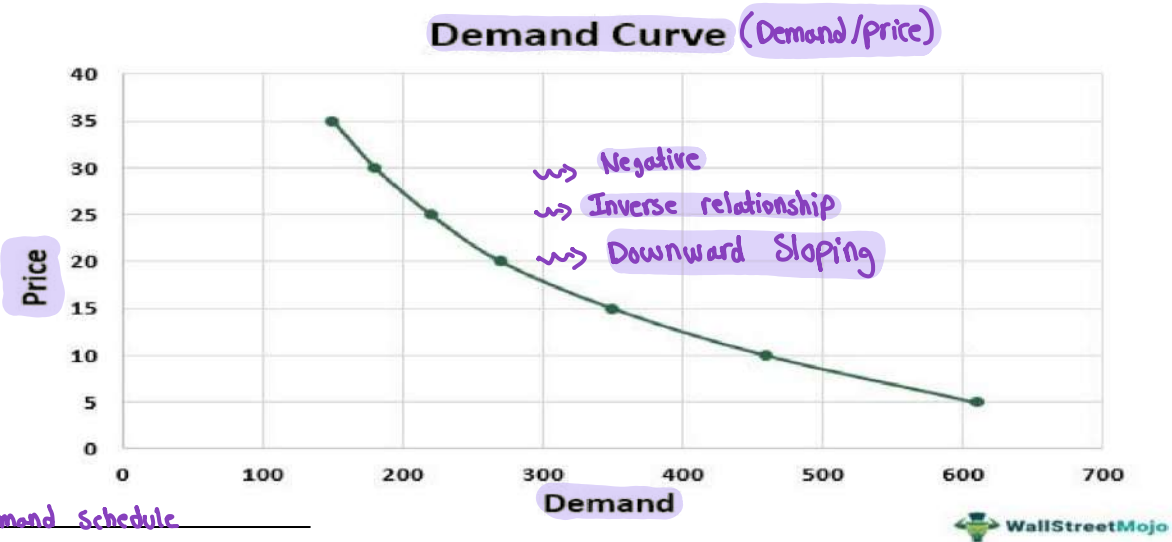
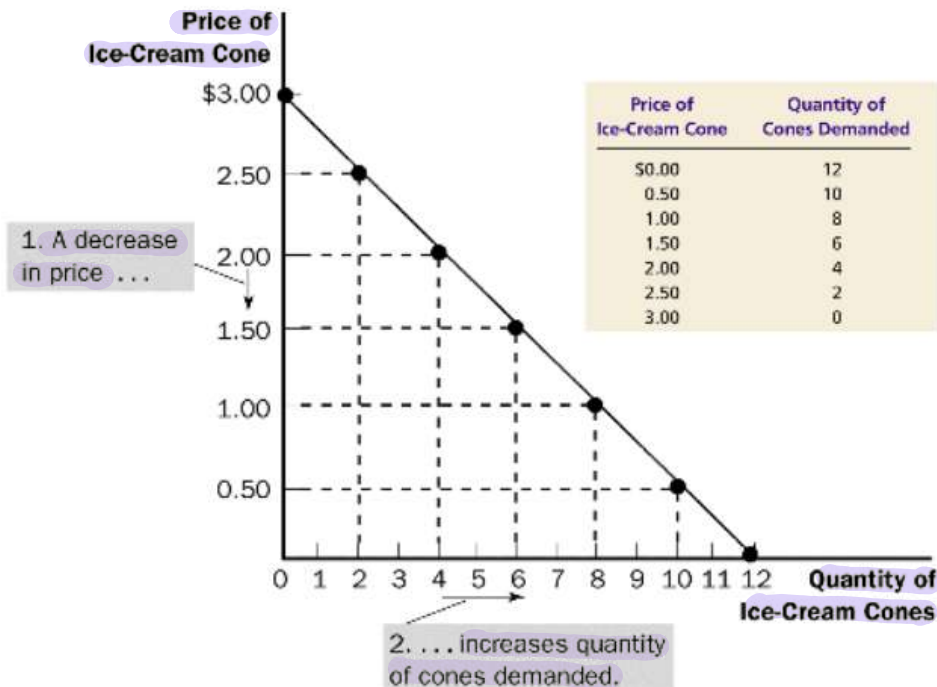


Table ↪ Demand Schedule

Graph ↪ Demand Curve



Understanding The Concept of Needs, Wants and Demands

Needs



- ايمان من الأشياء الرئيسية بالحياة
- States of deprivation ^{يدي}
 - Physical - food, clothing, shelter, safety, water ^{عاطفت}
 - Social - belonging and affection ^{العصر من الذات}
 - Individual - knowledge and self-expression

Wants



A want is a product desired by a customer that is not required for us to survive. So, want is the complete opposite of need, which is essential for our survival.

لم ليس من أساسيات الحياة ومن دونها لا نستطيع الحياة ^{حلم}

Demands



If a customer is willing and able to buy a need or a want, it means that they have a demand for that need or a want.

Substitutes بدائل

Other goods or services which **satisfy the same wants** or provide the same characteristics ^{المتافق}

ع-خ
 معنى تعذيب عند كثر Cost قليل، وقت تعذيب لكثير Cost
 روح يعطيك نفس العلاج
 فالبدائل هي علاجات معنى استعمالها بدلا من أشياء أخرى وتقليد
 نفس want

E.g;

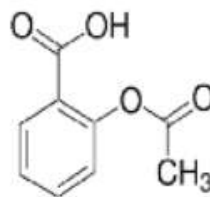
- Doctor ^{مثيل} versus general practitioner ^(GP)
- Generic ^{عقار} and brand name medications
- Private and public hospitals

If the generic medication ^{عقار} decreases in price, demand for brand name will **decreases**

Generic Drug أسعارها قليلة ويصير الإقبال على
 أقل Brand Name



Dr. Omnia Elmahdy



How can we reduce the quantity of smoking demanded in the population ?



How can we reduce the quantity of smoking demanded **In the population ?**

1. Public service ^{إعلانات} announcements, ^{E-X} mandatory health ^{إلزامي} warnings ^{حظر} on cigarette packages, and the prohibition of cigarette ^{دعاية} advertising on television are policies designed to reduce the demand for cigarettes.

2. ^{Taxes} Raising the price of cigarettes (through tobacco ^{التبغ} ^{ضرائب} taxes) ^{تقلل} lowers the quantity of cigarettes demanded



3. Studies have shown that a 10% increase in the price of cigarettes causes a 4% reduction in the quantity of cigarettes demanded. For teens a 10% increase in price leads to a 12% drop in quantity demanded.

* الارتفاع ليس للطلب
لكن يسبب انخفاض في كمية
الطلب. **Teens** قليل
منهم يفتنوا **Drop** **Teens**

4. Studies have also shown that a decrease in the price of cigarettes is associated with greater use of marijuana. Thus, it appears that tobacco and marijuana are complements.

↑ Demand
زيادة سعر الدخان قلت
استهلاك التبغ وتزايد
استهلاك **marijuana** ،
وهذا يدل على
انهما **complements**
مكملات لبعضهما البعض.

* عوامل تزيد Demand عند الطلب

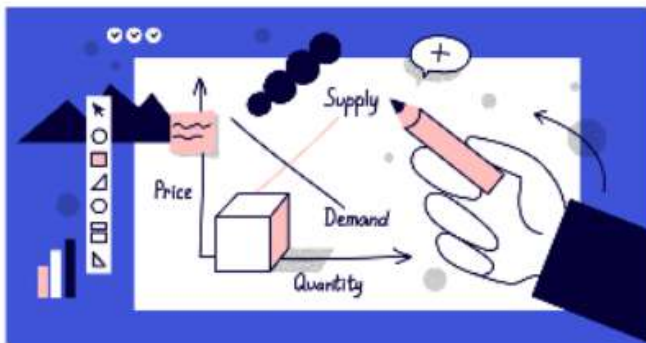
* Health Education And Awareness And Announcements

* Price ↓

Demand ↑



Healthcare Economic Terms: 3- Supply



Dr. Omnia Elmahdy

SUPPLY

Be Strong,
You make
Your Success
only if You
Want!★

- Quantity supplied is the amount of a good that **sellers** are **willing and able** to sell. And produce it.

Demand كس Consumer
البائع

Law of Supply

- The law of supply states that, the quantity supplied of a good rises when the price of the good rises.

نوضح

↓ Demand ↑ price
point of view for seller
لن يكون راضي منكمي عن
لم كانت الزيادة ليدنا تكسب أكثر فنتروح فتتبع هذا
أكثر وتقبل لها لعلانت أكثر وتعمل لها
من قوله تمسحيه قدر الإمكان من هذه الزيادة بالسعر
Shift time ← Good
الوقت الذي يعمل به الطبيب
والنفس لى تطلبه العلاج عدد كبير
و quantity المنفعة لى يري تقدمها كبير
فريعمل Shift time طويل و supply بخير
تزيد المنفعة وهذا يتعلق بالسعر.

Supply Schedule

- The supply schedule is a table that shows the relationship between the price of the good and the quantity supplied

Price of Ice-Cream Cone	Quantity of Cones
\$0.00	0
0.50	0
1.00	1
1.50	2
2.00	3
2.50	4
3.00	5

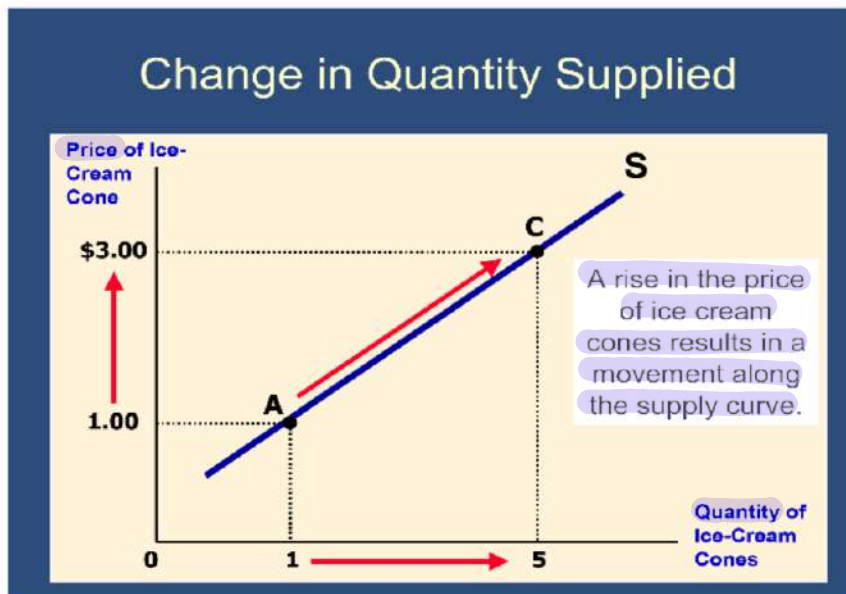
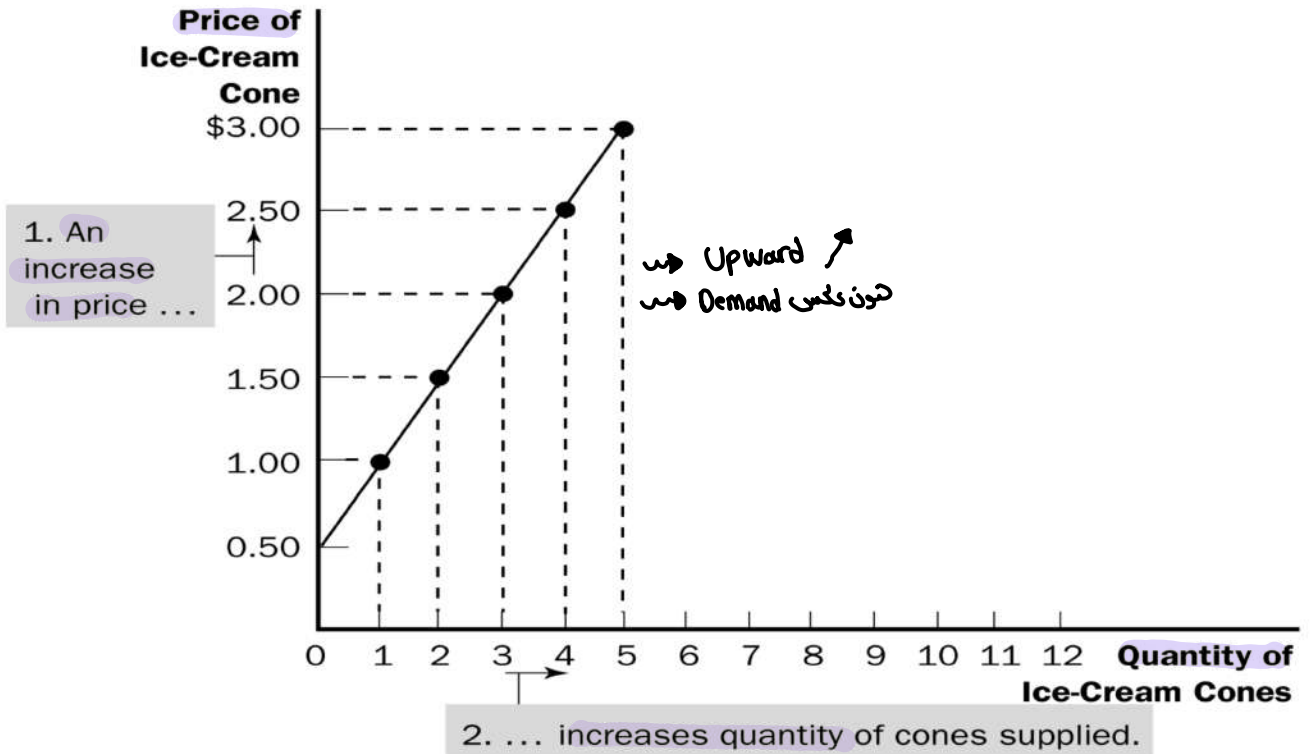
له صون الازرقام
العكس
كل ما يزيد سعر الفلدا
يزيد انتاج الشركة لها
كانت الشركة ليد لنا تكسب
profit making

أولها
بِسْمِ اللَّهِ تَوَكَّلْتُ عَلَى اللَّهِ

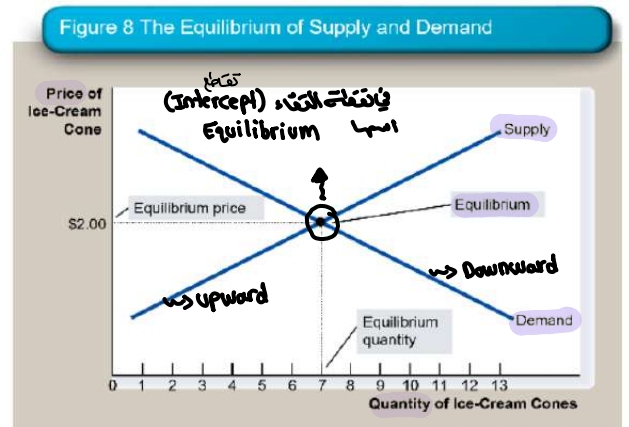
• **Supply Curve**

* Important جدا

– The **supply curve** is the graph of the relationship between the **price** of a good and the **quantity supplied**.



* لوزن كل الرسم
Demand
دع يكونا متقاطعين



Equilibrium \rightarrow Supply = Demand

What are the supplies in healthcare?

- 1- **Labor time** of various trained professionals, such as GPs, specialists, nurses, medical technicians, pharmacists, and many others
- 2- **Procedures and testing**, such as magnetic resonance imaging (MRI) scans and laboratory analyses of blood samples
- 3- Hospital and nursing care **services**
- 4- **Emergency services** such as ambulances
- 5- **Pharmaceutical products** (which itself covers a huge range, from bandages to chemotherapy drugs)

General practitioners

Equilibrium

* Important

Equilibrium refers to a situation in which the **price** has reached the level where **quantity supplied equals quantity demanded**.

level of price (مستوى السعر)
 هو الذي حقق فيه Equilibrium يتغير سعر price

Demand Schedule

Price of Ice-Cream Cone	Market
\$0.00	19
0.50	16
1.00	13
1.50	10
2.00	7
2.50	4
3.00	1

Supply Schedule

Price of Ice-Cream Cone	Market
\$0.00	0
0.50	0
1.00	1
1.50	4
2.00	7
2.50	10
3.00	13

* Demand schedule:

الأرقام تنقل Descending تنزلي

* supply schedule:

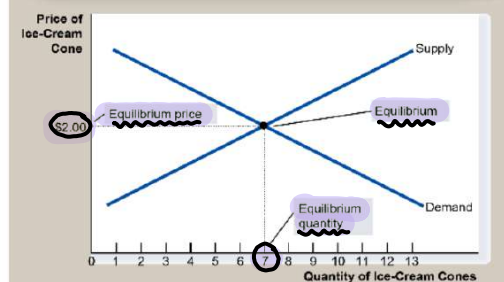
الأرقام بتزايد Ascending تصاعدي

At \$2.00, the quantity demanded is equal to the quantity supplied! = 7

Equilibrium = 7

Curves مهمين

Figure 8 The Equilibrium of Supply and Demand



• **Law of Demand** قانون الطلب

– The **law of demand** states that, the **quantity (q)** demanded of a good falls when the **price (p)** of the good rises

The demand curve is downward sloping And there is a negative or inverse relationship between (demand and price)

Table → Demand schedule

Descending: Quantity demand, Ascending: price
Curve → Demand curve

• **Law of Supply**

– The **law of supply** states that, the **quantity supplied** of a good **rises** when the **price** of the good **rises**.

The Supply Curve is upward sloping And there is a positive relationship between Price And Supply

Table → Supply schedule

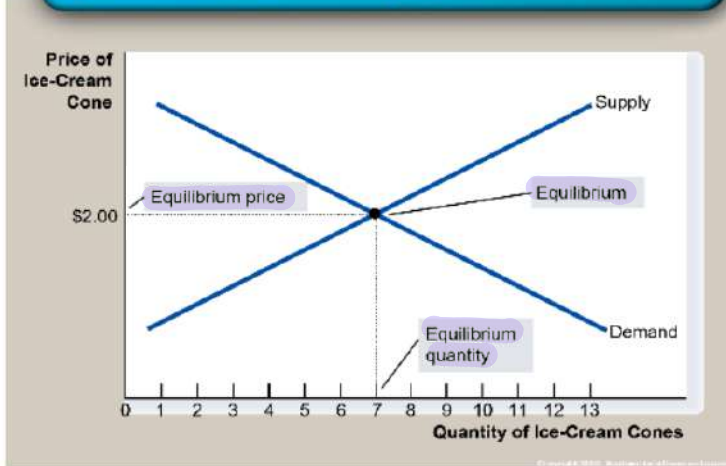
price + Supply → Ascending تصاعدي

Curve → Supply Curve

تكون كقولهم عن الخدمات الطبية والعقار والمواد الكيميائية، كانت الوفيرة، لوزا مع هذا السعر، طرح تشتريا

Medical services like: Drugs
مثل اوزا الزيت ... - - - - - حواد لوزا سعرهم الساسا مظرة تشتريهم، بالتحف كالا، حل على جيد الصنع
↑ profit-making ↑ ربحية

Figure 8 The Equilibrium of Supply and Demand



Quantity Supply = Equantity Demand
* وكذا لنفس السلع

اللَّهُمَّ أَعْنِي عَلَى الدَّرَاسَةِ
وَلَا تَجْعَلْ قَلْبِي يَمَلُّ مِنْهَا
وَكُنْ مَعِي فِي كُلِّ لِحْظَةٍ
وَوَفِّقْنِي لِمَا تُحِبُّ وَتَرْضَى
وَارْزُقْنِي التَّوْفِيقَ وَالنَّجَاحَ

📌 @dia44.0

اللهم و فِقني
فإن التوفيق
من عندك و
سهل امري
فإن التسهيل
من لطفك

اللهم ارني عجائب قدرتك و
عجائب الفرج في مستقبلي
وامنياتى واكتب لى حظاً ونصيباً
اكبر مما اتمنى. اللهم اسألک ان
لا تضع لى تعب. اللهم وفقنى
فإن التوفيق من عندك



موفقين ☺
تذكروا : اللهم يقتره

Done by: Maram Al-wraiknt