**Market**

Place or context where goods/services traded between buyers/sellers

Transactions involve buyers/sellers evaluating their private costs and benefits

Voluntary transaction should mean both the buyer/seller better off

Markets normally should exhaust all transactions that are mutually satisfactory

A socially efficient allocation for a good maximizes net benefits to society

Markets allocate many goods/services efficiently

Many environmental goods have no natural market

Example: Although just about everyone values clean air, we don’t normally individually buy the good

We consume the good collectively

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We need to measure the value people place on goods/services, to determine whether markets function efficiently

Value measured by amount consumer willing to pay for unit of good

**Hypothetical consumer demand for copier/printer paper**

|  |  |
| --- | --- |
| Package of copier paper consumed in a month | How much willing to pay? |
| 1st | $5.00 |
| 2nd | $3.00 |
| 3rd | $1.50 |
| 4th | $0.25 |

How much am I willing to pay for the 1st pack of paper in a month? $5.00

Consumer is marginally willing to pay $5 for first pack, $3.00 for second etc.

Marginal Willingness to Pay reflects value consumer places on next or marginal unit of good

 MWTP normally falls as consumption of good increases

Relationship between willingness to pay and quantity is a demand curve

 Price Individual Consumer’s Demand

5.00

$3.00

$1.50

d

 1 2 3 Packages of Copier Paper per Month

Demand curve is collection of points indicating consumer’s marginal benefit, or maximum willingness to pay for next unit

Suppose market price is $3.00/per package. How many packs would consumer purchase? 2 packs

How much is consumer willing to pay for the last pack purchased at $3.00/package? $3.00

Why didn’t consumer purchase the 3rd pack at the given price?

**Demand curve reflects consumer equating marginal willingness to pay with market price**

**Suppose market for consist of 3 people**

Given that use of copier paper are not normally shared

market demand for the good is constructed by summing the quantities demanded

|  |  |  |
| --- | --- | --- |
|  | **Individual Quantities Demanded** |  |
| price | A | B | C | **Market Demand** |
| $5.00 | 1 | 2 | 3 | 6 |
| 3.00 | 2 | 3 | 4 | 9 |
| 1.50 | 3 | 4 | 5 | 12 |
| 0.25 | 4 | 5 | 6 | 15 |

Particular market for copier paper consists of thousands of consumers

 Price Market Demand

$5.00

$3.50

D

$2.00

 10 15 20 Packs of Paper per month (in 1000’s)

Suppose market price is $3.50

Market quantity demanded is 15,000 packs/month

For every purchase made, consumer must have been willing to pay at least $3.50

Are there consumers who value paper but nevertheless don’t acquire it?

Assume the consumption of the good generates no costs or benefits to anyone other than the purchaser/consumer

**Copier paper would be a private good**

For a private good, the **Social Benefit** of the good equals the **Private Benefit**

**Private Benefit**: The benefits the individual purchaser enjoys in consuming good

**Social Benefit**: Private benefits plus the benefits going to anyone else in society possibly affected by the good

Good is a private good (in consumption) if no one other than the individual consumer is affected by the good's consumption

The benefit of the next individual unit is the **marginal benefit**, measured by marginal willingness to pay

If good is private, the **Marginal Private Benefit (MPB)** equals the **Marginal Social Benefit (MSB)**

Private good: MSB=MPB

Define MSB and MPB

The benefit society reaps from the next pack of paper consumed equals that gained by the individual consumer

Give example in which: MSB>MPB

MSB<MPB

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**Cost of producing paper**

When society produces a pack of paper it forgoes the opportunity to produce something else

The manufacture of paper diverts resources (trees, labor etc.) from other uses

The opportunity cost of producing paper would be the best alternative good not produced with the resources used to manufacture paper

 Best alternative is determined by what people value

Supply of Paper Copipapers

S

P

The supply curve reflects the various

quantities suppliers are willing to produce

b

as a function of price

$5.00

a

Collection of points revealing opportunity cost

$3.50

of producing next quantity of paper

20

15

Packs of paper (1,000’s)

Cost of producing 20,000th pack per month higher than producing 15,000th

Why?

Resources are scarce; more resources used at 20,000 packs per month

Cost of resources greater at point b than point a

Marginal Social Cost (MSC) – represents the opportunity cost to society when a unit pack of paper is produced

Marginal Private Cost (MPC) - Cost recognized by the producer

Assume MSC=MPC what does that mean?

Assume that all costs of producing paper are borne by actual manufacturer

Opportunity cost to society equals cost to producer

What is scenario if MSC>MPC?

**Market Equilibrium**

P

S=MPC=MSC

P\*=3.00

D=MPB=MSB

Quantity (1,000’s per month)

Q\*= 25

**Market Equilibrium**

Assuming no external costs or benefits in consumption or production

1. Market equilibrium P\*, Q\* is socially efficient
	1. Q\* is the *correct* amount of paper that should be produced per time period
	2. All transactions in which the cost to society is less (or equal to) the benefits to society are exhausted
	3. No transaction takes place in which the opportunity cost to society is greater than social benefit
2. An output level such as Q=20 would be considered inefficient. Why?
3. An output such as Q=30 is inefficient. Why?

If all costs and benefits of a good is recognized by the people buying/selling good, the market should generate allocate resources efficiently