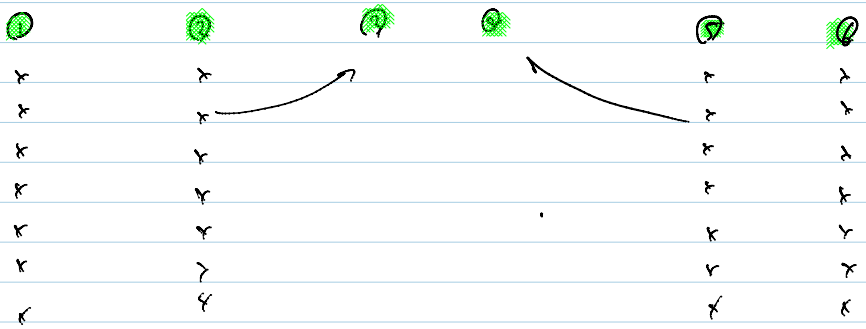
REMINDER

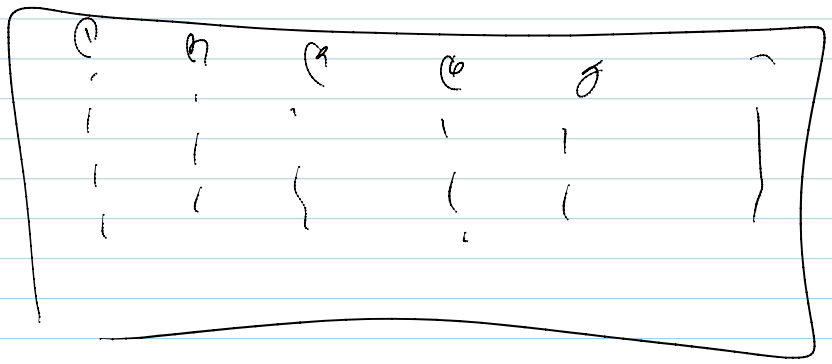
1. GET A TEXTBOOK (KRUGMAN V MANKEW V LIPSEY V FRANK) ④
2. 3-0-6 RULE (ALWAYS ON YOUR MIND)
3. DO NOT SKIP ANY LECTURE
4. BE CAREFUL FOR THOSE PONG CHEER LEADER SQUADS.
5. SEC B

TOOLS USED IN MICROECONOMICS (CONTINUED)

MORE EXAMPLES ON EQUILIBRIUM...

CONSIDER PASSPORT CONTROL AT SUVANABHUM AIRPORT.





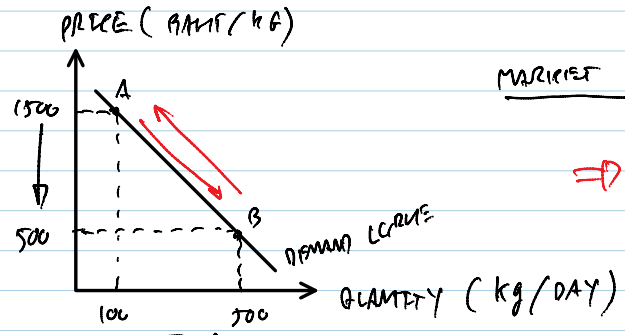
INCENTIVES => CARROT AND STICK

(REWARD)

(PUNISHMENT)

SUPPLY AND DEMAND MODEL

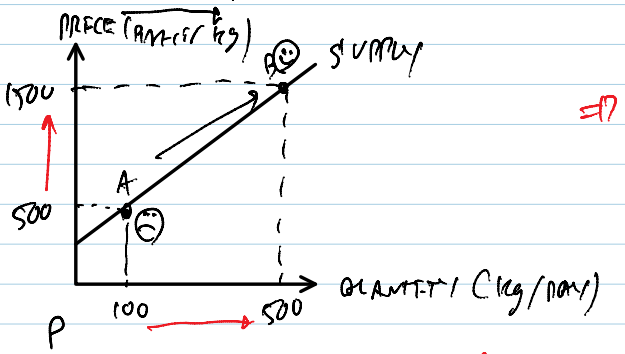
SUPPLY AND DEMAND MODEL



MARKET FOR SEAFOOD (SHRIMP)

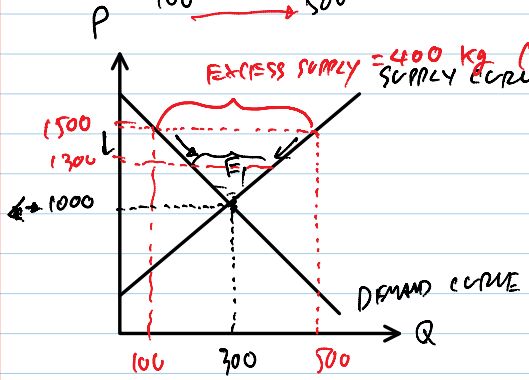
⇒ BUYERS' BEHAVIOR

↓P → ↑ QUANTITY BOUGHT



⇒ SELLERS' BEHAVIOR

↑P → ↑ QUANTITY SUPPLIED.



AT E, (EQUILIBRIUM POINT)

$P^* = 1000$ (EQUILIBRIUM PRICE)

$Q^* = 300$ (EQUILIBRIUM QUANTITY)

$Q^D = Q^S$

QUANTITY DEMANDED = QUANTITY SUPPLIED

~~QUANTITY SUPPLY~~

AT $P = 1500$, $Q^D = 100$, $Q^S = 500$

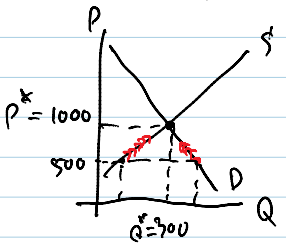
SO, $Q^S > Q^D$

↳ WE CALL "SURPLUS" OR "EXCESS SUPPLY"

NOTICE THAT WHEN $P > P^*$, EXCESS SUPPLY OCCURS. THERE WOULD BE A DOWNWARD PRESSURE ON PRICE AS SOME SELLERS WILL CUT THE PRICE IN ORDER TO GET RID OF UNSOLD QUANTITY.

THIS PROCESS CONTINUES UNTIL THE MARKET EQUILIBRIUM IS ACHIEVED.

DIY:



EXPLAIN WHAT HAPPENS IF $P < P^*$ (LET'S SAY AT $P = 500$).

FYI:

"DEMAND AND SUPPLY" ✗

"SUPPLY AND DEMAND" ✓

$Q^* = 300$ Q

"SUPPLY AND DEMAND"?

II CONSTRAINED OPTIMIZATION

↳ "DO YOUR BEST GIVEN YOUR AVAILABLE RESOURCES"

EXAMPLE CONSIDER VINN AS OUR REPRESENTATIVE BUYER. VINN HAS A WELL-DEFINED GOAL: TO MAXIMIZE UTILITY OR SATISFACTION FROM A BASKET OF GOODS HE IS ABOUT TO CHOOSE. HOWEVER, HE HAS A GIVEN FINANCIAL RESOURCE (MONEY)

SUPPOSE good X = CLOTHES
Good Y = FOODS
} 2 GOODS FOR VINN TO CHOOSE FROM

ECONOMIC ENVIRONMENT HE FACE WITH (HE HAS NO CONTROL OVER P_x, P_y, M)

- P_x = PRICE OF CLOTHES ($ UNIT / UNIT)
- P_y = PRICE OF FOODS ($ UNIT / UNIT)
- M = INCOME ($ UNIT / WEEK)

- Q_x = QUANTITY OF CLOTHS
- Q_y = QUANTITY OF FOOD

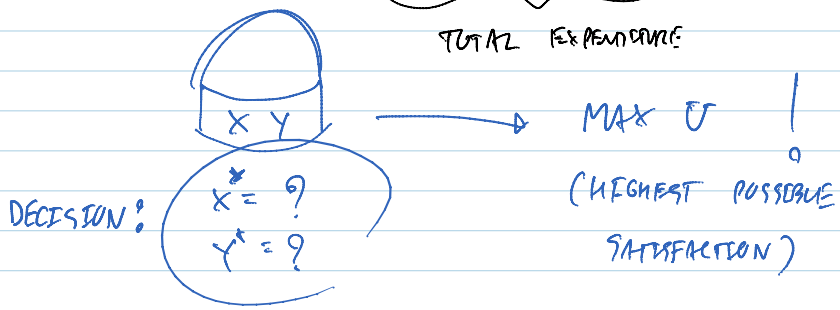
CHOICE VARIABLES: SOMETHING THAT DECISION MAKER CAN DECIDE.

OR CONSUMER'S UTILITY MAXIMIZATION PROBLEM

CONSUMER'S OPTIMIZATION PROBLEM

MAXIMIZE	$U(x, y)$	⇒ OBJECTIVE FUNCTION
SUBJECT TO	$P_x \cdot Q_x + P_y \cdot Q_y \leq M$	⇒ CONSTRAINT

$P_x \cdot Q_x$: EXPENDITURE SPENT TOWARD GOOD X
$P_y \cdot Q_y$: EXPENDITURE SPENT TOWARD GOOD Y
TOTAL EXPENDITURE
M: INCOME



EXAMPLE FOR A PRODUCER:

MINIMIZE	COST OF PRODUCTION
SUBJECT TO	REQUIRED OUTPUT BY CEO.

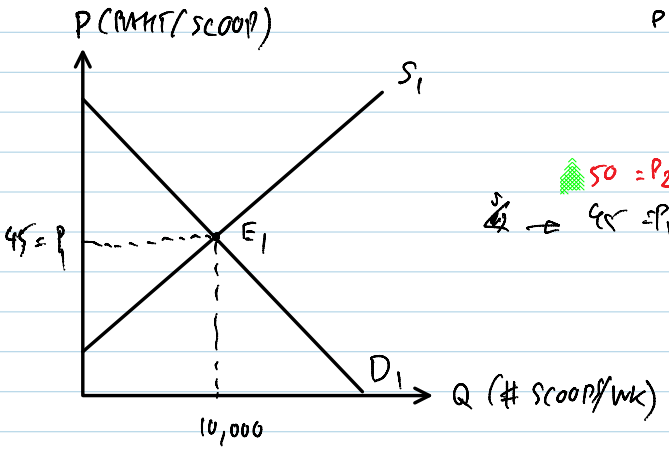
COST'S MINIMIZATION PROBLEM FACED BY PRODUCTION MANAGER.

22.08.13

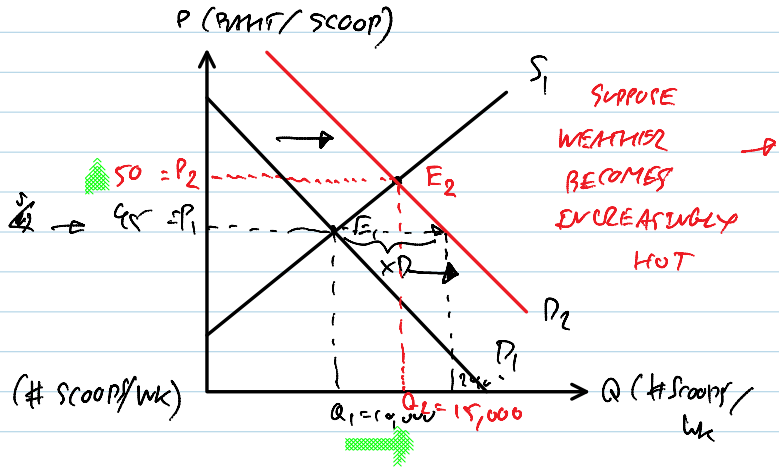
III COMPARATIVE STATIC ANALYSIS (TWO-SNAPSHOT ANALYSIS) OR BEFORE-AND-AFTER ANALYSIS

OBJECTIVE: TO "COMPARE" MARKET OUTCOME BEFORE AND AFTER A SHOCK HAPPENS.

CONSIDER A MARKET FOR ICECREAM. SUPPOSE THE MARKET IS PERFECTLY COMPETITIVE.



MARKET OUTCOME: P_1, Q_1



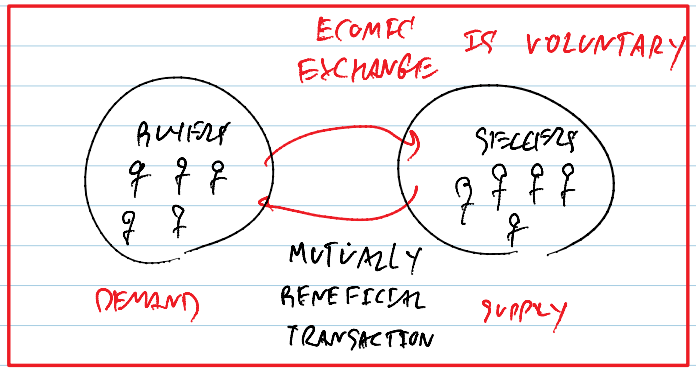
SUPPOSE WEATHER BECOMES INCREASINGLY HOT → D CURVE SHIFTS RIGHTWARD...

MARKET OUTCOME: P_2, Q_2

P ↑, Q ↑

MARKET BECOMES MORE ACTIVE

SUPPLY AND DEMAND



A MARKET FOR ICECREAM

MARKET IS A GROUP OF BUYERS AND SELLERS OF A PARTICULAR GOOD OR SERVICE.

FIRST, LET'S ASSUME THAT THE MARKET (WE ARE GOING TO STUDY) IS "PERFECTLY COMPETITIVE".

FIRST, LET'S ASSUME THAT THE MARKET (WE ARE GOING TO STUDY) IS "PERFECTLY COMPETITIVE".

→ 2 CHARACTERISTICS ① LARGE NUMBER OF BUYERS AND SELLERS

② THE GOOD IS NON-DIFFERENTIATED PRODUCT (OR HOMOGENEOUS)

⇓ IMPLY THAT

BUYERS AND SELLERS ARE "PRICE TAKERS"!!!

BUYERS: TAKE PRICE AS GIVEN AND MAKE PURCHASE DECISION

SELLERS: TAKE PRICE AS GIVEN AND MAKE OUTPUT DECISION (PRODUCTION)

DEMAND (BEHAVIOR OF BUYERS)

QUANTITY DEMANDED: AMOUNT OF GOOD OR SERVICE THAT BUYERS ARE WILLING TO BUY AT A GIVEN PRICE.

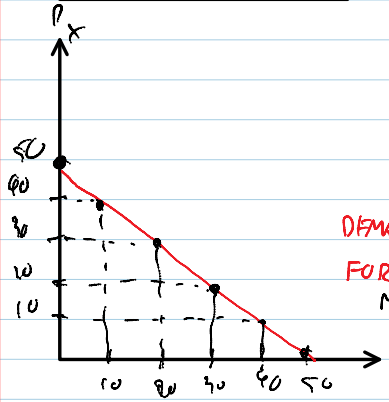
DEMAND SCHEDULE (TABLE): TABLE THAT SHOWS THE RELATIONSHIP BETWEEN QUANTITY DEMANDED AND PRICE.

QUANTITY/UNIT #UNITS/TIME PERIOD PRICE

P_X	Q^d_X
0	50
10	40
20	30
30	20
40	10
50	0

P_X = PRICE OF GOOD X

Q^d_X = QUANTITY DEMAND FOR GOOD X



DEMAND CURVE FOR GOOD X BY MR. TOM.

DEMAND CURVE: A GRAPHICAL REPRESENTATION OF THE RELATIONSHIP BETWEEN QUANTITY DEMANDED AND PRICE.

DEMAND CURVE IS DOWNWARD SLOPING B/C Q^d_X AND P_X ARE "NEGATIVELY RELATED".

AS $P_X \uparrow$, $Q^d_X \downarrow$

AND AS $P_X \downarrow$, $Q^d_X \uparrow$

(P_X AND Q^d_X MOVE IN "OPPOSITE" DIRECTION)

LAW OF DEMAND : A CLAIM THAT WHEN THE PRICE OF A GOOD RISES, ITS QUANTITY DEMANDED FALLS, VICE VERSA, CETERIS PARIBUS.

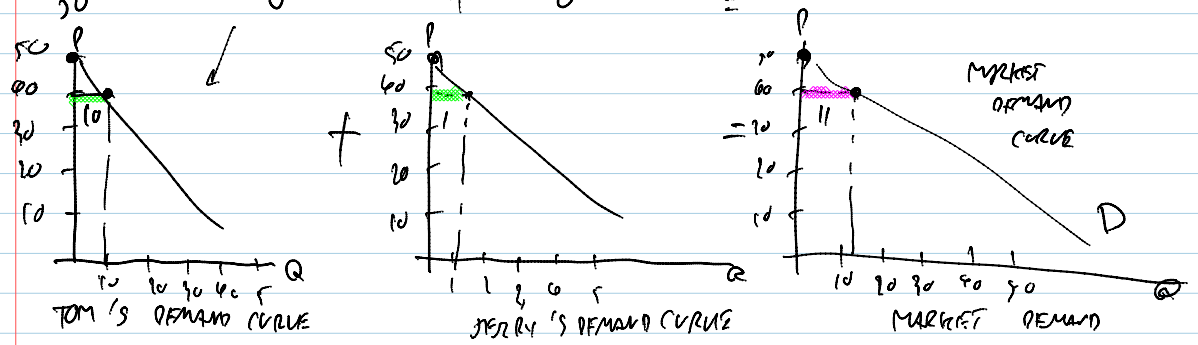
{ = ALL ELSE EQUAL
= ALL OTHER EQUAL
= ALL ELSE REMAIN UNCHANGED
= ALL OTHER FACTORS REMAIN CONSTANT.

$Q_x^d = f(P_x, \text{INCOME}, \text{WEATHER} \ldots\ldots)$

INDIVIDUAL DEMAND CURVE Vs. MARKET DEMAND CURVE

SUPPOSE WE HAVE ONLY 2 BUYERS IN THE MARKET : TOM & JERRY

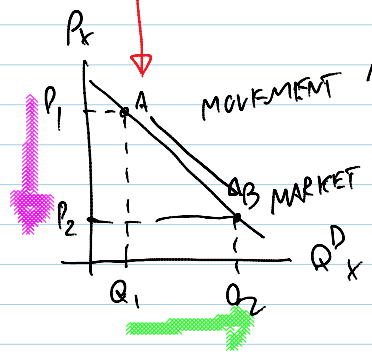
$P_{ICECREAM}$	$Q^d_{ICECREAM, TOM}$		$Q^d_{ICECREAM, JERRY}$		$Q^D_{ICECREAM}$
0	50	+	5	=	55
10	40	+	4	=	44
20	30	+	3	=	33
30	20	+	2	=	22
40	10	+	1	=	11
50	0	+	0	=	0



TOM'S DEMAND CURVE | JERRY'S DEMAND CURVE | MARKET DEMAND CURVE

DEMAND FUNCTION : $Q^D_x = f(\bar{P}_x)$.

QUANTITY DEMANDED FOR X DEPENDS NEGATIVELY ON PRICE OF X.



MOVEMENT ALONG THE CURVE FROM A TO B (WHY?)

MARKET DEMAND CURVE FOR GOOD X

"CETERIS PARIBUS"

$Q^D_x = f(P_x, I, P_y, \text{TASTES}, \text{WEATHER}, \text{PRICE EXPECTATION}, \text{INCOME EXPECTATION}, \#\text{ OF POPULATION})$

Q^D_x = QUANTITY DEMANDED FOR X

P_x = PRICE OF X

I = INCOME

p_y = PRICE OF RELATED GOODS