

S.E. AND I.E. WHEN THE TWO GOODS ARE "PERFECT COMPLEMENTS"

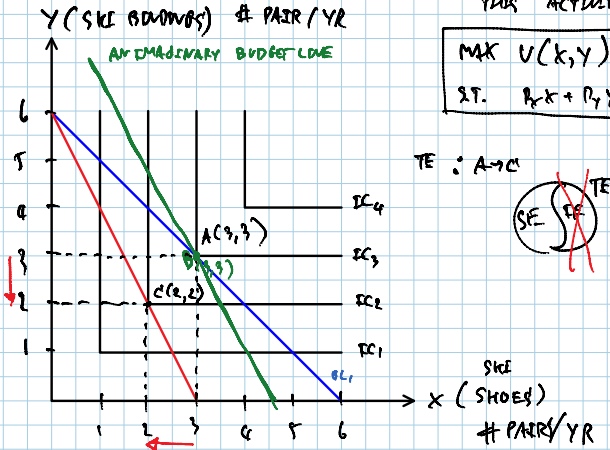
CONSUMER 2 GOODS: SKE SHOES & SKE BOARDS
 (X) (Y)

$P_x = 200 \text{ € / PAIR}$

$P_y = 200 \text{ € / PAIR}$

$M = 1200 \text{ € / YEAR}$ (PREPARED TO SPEND ON THIS ACTIVITY)

MAX $U(x, y)$
 S.T. $P_x x + P_y y = M$



RESULT #1: GIVEN $P_x = P_y = 200, M = 1200$, $A(3,3)$ IS JACK'S OPTIMAL CHOICE.

NOW SUPPOSE THAT P_x RISES TO 400 € / PAIR .

RESULT #2: GIVEN $P'_x = 400, P_y = 200, M = 1200$, THE BUDGET LINE ROTATES INWARD FROM BL_1 TO BL_2 .

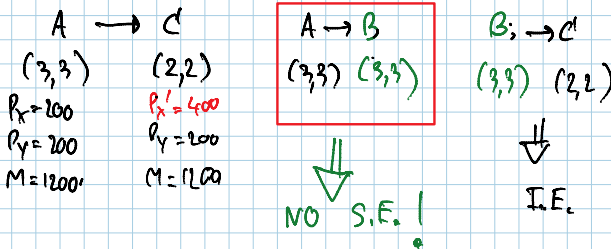
NOTICE THAT

$\frac{P_x}{P_y} \uparrow \rightarrow \frac{P_x}{P_y} = \frac{400}{200} = 2$

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AS A RESULT, JACK'S NEW OPTIMAL CHOICE IS AT $C(2,2)$.

RESULT #3: T.O.E. = S.E. + I.E.
 (ON S.E. & I.E.)



• WHEN X & Y ARE PERFECT COMPLEMENTS, THERE IS NO SUBSTITUTION EFFECT!

ONLY INCOME EFFECT PLAYS ROLE HERE.

• MORE EXPLANATION ON "ZERO" SUBSTITUTION EFFECT...

FROM $C(2,2)$, WHEN JACK FACES W/ THE NEW RELATIVE PRICE: IF HE "WERE" TO HAVE ENOUGH INCOME TO AFFORD HIS ORIGINAL UTILITY (≡ IF HE EXPERIENCES NO CHANGE IN REAL INCOME),

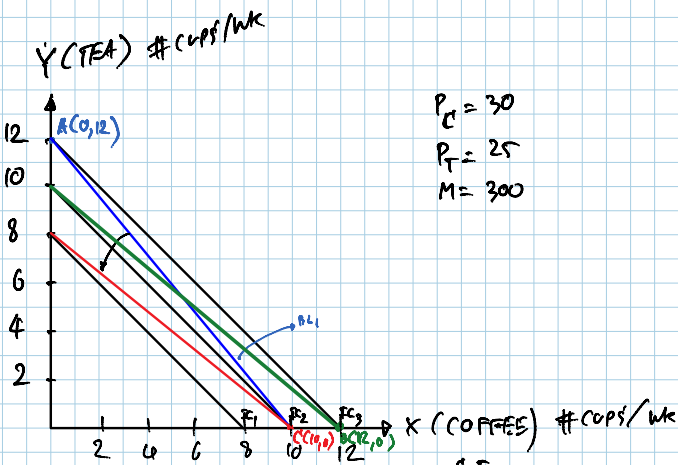


WE OBSERVE THAT HE WOULD CHOOSE $B(3,3)$ WHICH IS IDENTICAL TO ORIGINAL BASKET $A(3,3)$!

SO, THERE IS NO S.E AT ALL IN THIS CASE.

NOW, S.E AND I.E FOR PERFECT SUBSTITUTE CASE

CONSIDER COFFEE & TEA:
 (X) (Y)
 $P_C = 30$ BATH/CUP
 $P_T = 25$ BATH/CUP
 $M = 300$ BATH/WK



RESULT#1 GIVEN $P_C = 30, P_T = 25, M = 300$, $A(0, 12)$ IS THE OPTIMAL CHOICE

NOW SUPPOSE P_T RISES BY 50% : $P_T = 25 \rightarrow P'_T = 37.5$

RESULT#2 GIVEN $P'_T = 37.5, P_C = 30, M = 300$, THE NEW BUDGET LINE IS BL_2 .

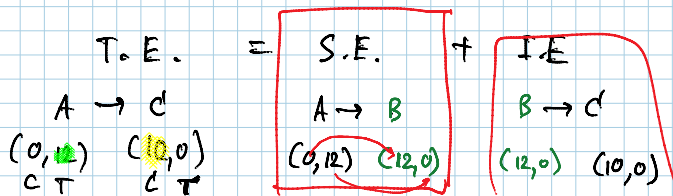
NOTICE THAT : $\frac{P_C}{P_T} \downarrow \Rightarrow$ COFFEE BECOMES CHEAPER = TEA BECOMES MORE EXPENSIVE.

NEW OPTIMAL CHOICE IS $C(10, 0)$.

OLD $A \rightarrow$ NEW C IS THE TOTAL EFFECT (T.E.)
 $(0, 12)$ $(10, 0)$
 C_T C_T

SHE RAPIDLY SWITCHES FROM CONSUMING ONLY TEA TO CONSUMING ONLY COFFEE (WHY?)

RESULT#3
 (ON S.E. & I.E)



IF PDM "WERE"

UNFORTUNATELY, HER REAL INCOME

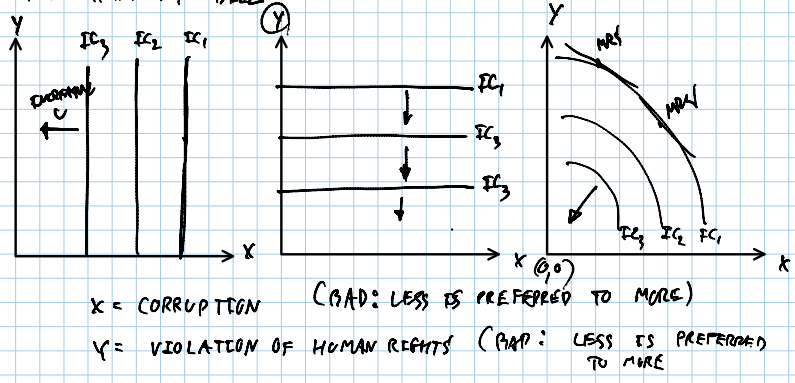
↓
 IF PDM "WERE"
 TO HAVE ENOUGH
 INCOME TO
 GET BACK TO HER
 ORIGINAL UTILITY (IC_3),
 SHE "WOULD" CHOOSE
 B(12,0).
 NOTICE THAT
 S.E. IS VERY HUGE!

UNFORTUNATELY,
 HER REAL INCOME
 FALLS! : SHE
 CANNOT GET (12,0),
 SHE CAN ONLY CHOOSE
 (10,0).

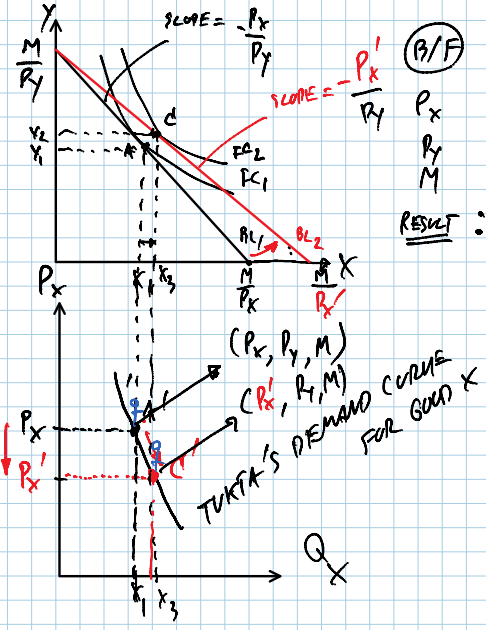
7.11.13

SOME THOUGHTS ABOUT PREFERENCES OF PROTESTORS OVER

THE AMNESTY BILL



THEORY OF CONSUMER CHOICE & DEMAND CURVE



(A/F) P_x
 P_y
 M
 (B/F) P'_x WHERE $P'_x < P_x$
 P_y
 M
 $-5 \rightarrow -2$

- WE HAVE GOT A NICE, DOWNWARD SLOPING DEMAND CURVE.
- WHEN $P \downarrow$ FROM $P_x \rightarrow P'_x$,
 $Q_x \uparrow$ FROM $x_1 \rightarrow x_3$,
 "MOVE ALONG THE CURVE"
- SHE BUYS MORE B/C
 - $\Delta \frac{P_x}{P_y}$ (S.E)
 - Δ REAL INCOME (I.E)

* NOTICE THAT
 AT A ON PICTURE 1:

$$\frac{MU_x}{P_x} = \frac{MU_y}{P_y} \quad P_x, P_y, M$$

\downarrow
 AMT SPENT ON X AMT

COST RATIO \rightarrow Y GENERATE THE SAME MARGINAL UTILITY!

AT C' ON PICTURE 1:

$$\frac{MU_x}{P_x'} = \frac{MU_y}{P_y}$$

$$\text{OR } \frac{MU_x}{MU_y} = \frac{P_x'}{P_y}$$

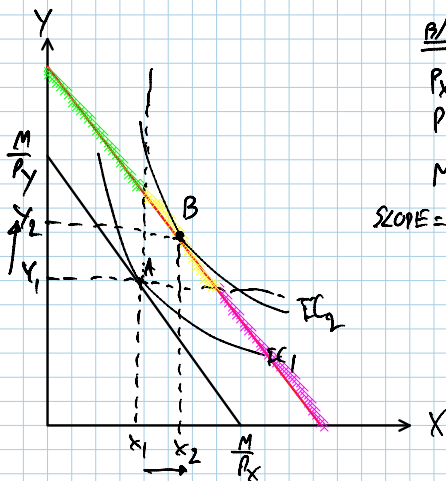
, P_x' , P_y , M

*** (5) ALL POINTS ALONG THE DEMAND CURVE ARE CONSUMER'S EQUILIBRIUM (WHY?)

HINT: CONSIDER $\frac{MU_x}{P_x} = \frac{MU_y}{P_y}$ RULE

EFFECT OF A CHANGE IN MONEY INCOME ON CONSUMER'S CHOICE

SUPPOSE MONEY INCOME RISES...



B/P

P_x

P_y

M

SCAPE = $-\frac{P_x}{P_y}$

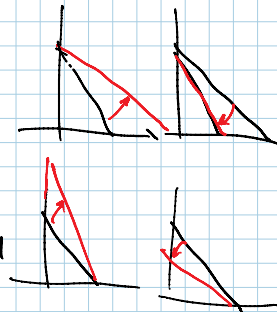
A/P

P_x

P_y

M'

WHERE $M' > M$



RESULT

① IF INCREASE IN INCOME INDUCES HIM TO BUY MORE X AND MORE Y, $Q_x \uparrow$, $Q_y \uparrow$, THEN X AND Y ARE NORMAL GOOD

NOTE C' WILL LAND ON YELLOW SEGMENT.

② IF INCREASE IN INCOME INDUCES HIM TO BUY MORE OF X BUT LESS OF Y, THEN X IS A NORMAL GOOD AND Y IS AN INFERIOR GOOD,

NOTE C' WILL LAND ON PINK SEGMENT.

③ IF INCREASE IN INCOME INDUCES HIM TO BUY LESS OF X & MORE OF Y, THEN X IS AN INFERIOR GOOD & Y IS A NORMAL GOOD,

NOTE C' WILL LAND ON GREEN SEGMENT.

• THE END •

REQUIRED READING
(ON TEE8JE)

① FRANK, PAGE 101-107.

② MANKIW, → LOOK FOR 3 APPLICATIONS

① GIFFEN GOOD ✓

② DECISION TO WORK / LEISURE ✓

③ DECISION TO CONSUME / SAVE. ✓