APPLICATIONS:

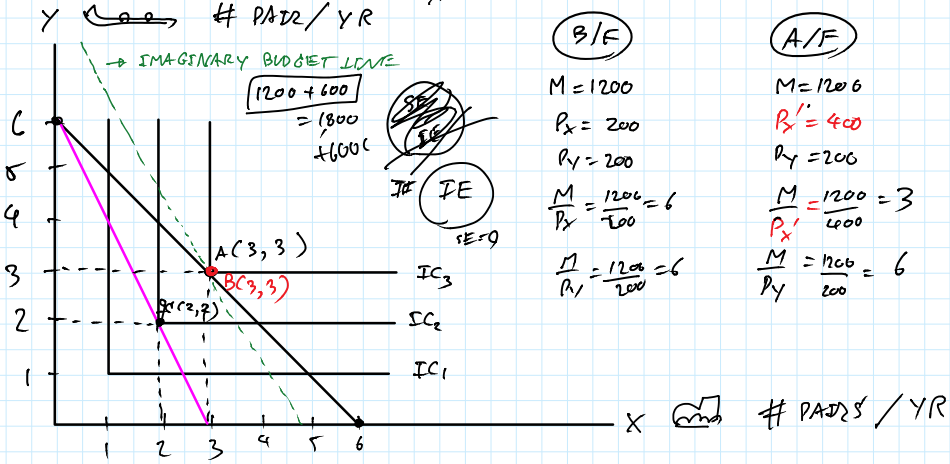
WHEN X AND Y ARE "PERFECT COMPLEMENTS."

SUPPOSE X = SKI BOOTS

Y = SKI BINDINGS

P_X = 200 €/PAIR P_Y = 200 €/PAIR M = 1200 €/YR.

Q: WHAT HAPPENS IF P_X RISE FROM 200 → 400 €/PAIR ?



B/E

M = 1200

P_X = 200

P_Y = 200

$\frac{M}{P_X} = \frac{1200}{200} = 6$

$\frac{M}{P_Y} = \frac{1200}{200} = 6$

A/F

M = 1200

P_X' = 400

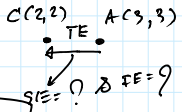
P_Y = 200

$\frac{M}{P_X'} = \frac{1200}{400} = 3$

$\frac{M}{P_Y} = \frac{1200}{200} = 6$

C(2,2) → 2 · 400 + 2 · 200 = 800 + 400 = 1200.

TE = SE + IE



SUMMARY

WHEN X AND Y ARE PERFECT COMPLEMENTS, SUBSTITUTION EFFECT PLAYS No ROLE IN EXPLAINING HIS CONSUMPTION BEHAVIOR. INCOME EFFECT IS SIGNIFICANTLY HUGE.

CASE WHEN X AND Y ARE "PERFECT SUBSTITUTES"

SUPPOSE X = COFFEE

Y = TEA

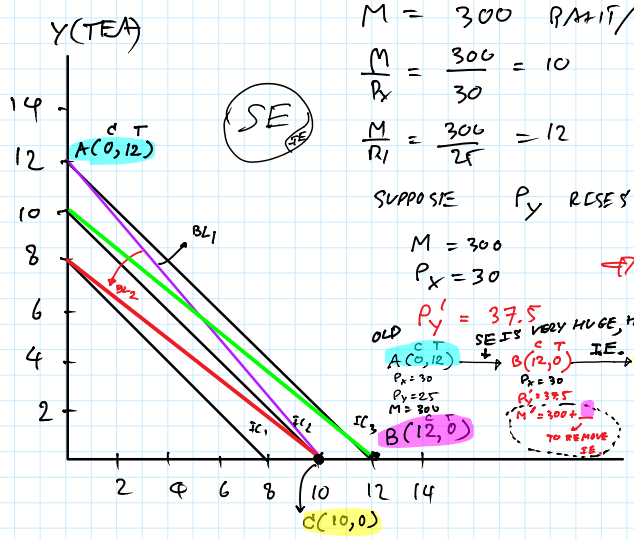
P_X = 30 BAHT/CUP

P_Y = 25 BAHT/CUP

M = 300 BAHT/CUP

$\frac{M}{P_X} = \frac{300}{30} = 10$

$\frac{M}{P_Y} = \frac{300}{25} = 12$



SUPPOSE P_Y RISES BY 50%.

$M = 300$

$P_X = 30$

$P_Y' = 37.5$

$\Rightarrow \frac{M}{P_X} = \frac{300}{30} = 10$

$\frac{M}{P_Y'} = \frac{300}{37.5} = 8$

OLD A(0,12) P_X=30 P_Y=25 M=300

SE IS VERY HUGE, HERE → B(12,0) P_X=30 P_Y'=37.5 M'=300+ (TO REMOVE SE)

IE → C(10,0) NEW P_X=30 P_Y'=37.5 M=300

A(0,12) → TOTAL EFFECT → C(10,0)

TO SEE PURE SUBSTITUTION EFFECT, WE MUST GET RID OF INCOME EFFECT.

HOW TO GET RID OF IE? WE ASK THE FOLLOWING QUESTION: FACING WITH (P_X 30, P_Y' 37.5, M 300) IF HE "WERE" TO HAVE ENOUGH MONEY INCOME (OR IF WE "VIRTUALLY" GIVE HIM MORE MONEY INCOME) SO THAT HE HAVE A CHANCE TO GET BACK TO HIS ORIGINAL INDIFFERENCE, WHAT BASKET WOULD HE SELECT?

NOTE ONCE HE ARRIVED AT OLD IC, HE GOT THE SAME UTILITY WHEN FACING W/ THE "NEW RELATIVE PRICE" ALREADY. SO PLEASE "SHUT UP"! YOUR REAL INCOME IS NOW RESUMED! (SUCCESSFULLY REMOVE I.E NOW AND CAN SEE HIS SUBSTITUTION EFFECT)

IT IMPLIES THAT

SUMMARY FOR PERFECT SUBSTITUTE CASE.

IN RESPONSE TO AN INCREASE IN PRICE OF A GOOD, CHANGE IN CONSUMPTION BEHAVIOR IS HEAVILY INDUCED BY SUBSTITUTION EFFECT.

$A(0, 12) \rightarrow C'(10, 0)$