

Course
on
HS205: consumer Behaviour and Welfare Economics
3rd semester
2020

Instructor

Dr. Hari K. Choudhury
Assistant Professor of Economics
Indian Institute of Information Technology Guwahati – 781 001

Lecture 7: Substitution effect

Substitution effect means the change in the purchases of a goods as a result of a change in relative prices alone, real income remaining constant

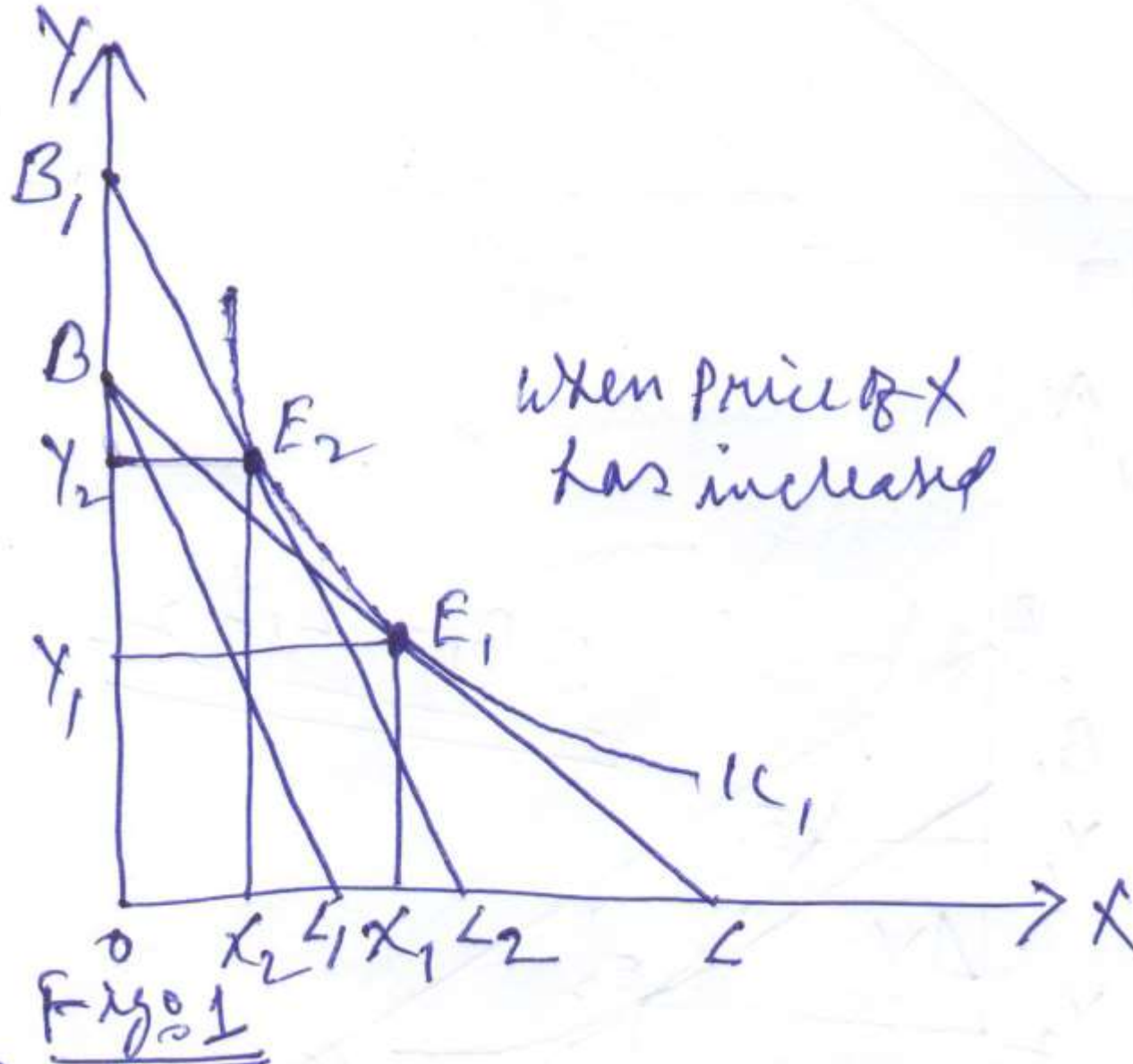
Two type of substitution effect:

- 1. Hicksian substitution effect (Compensating variation in income)**
- 2. Slutsky substitution effect**

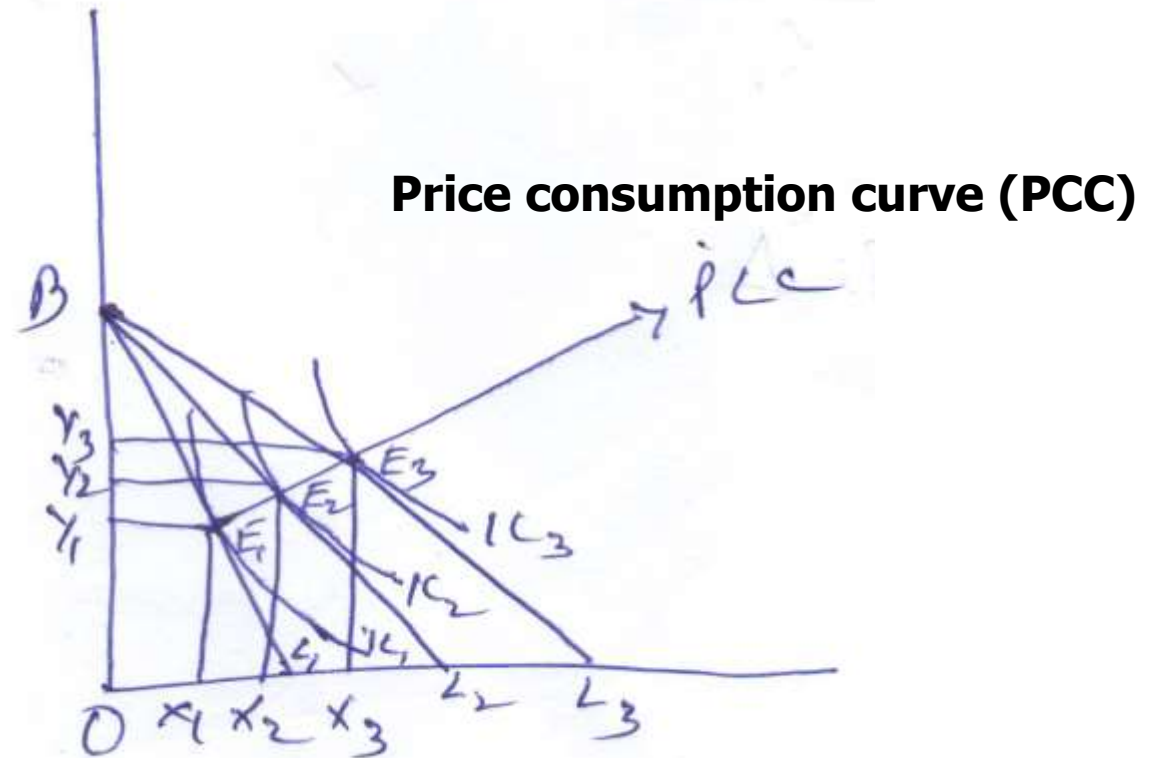
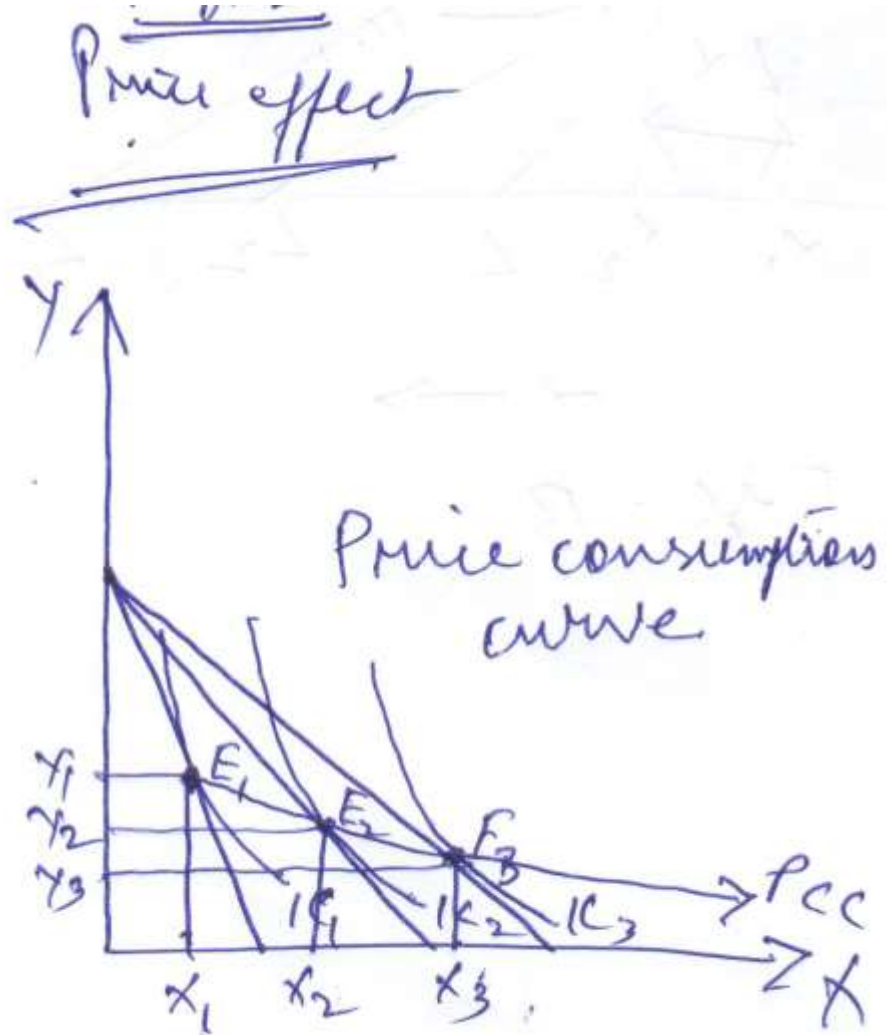
Note:

The Less the convexity of the indifference curve, the greater will be the substitution effect.

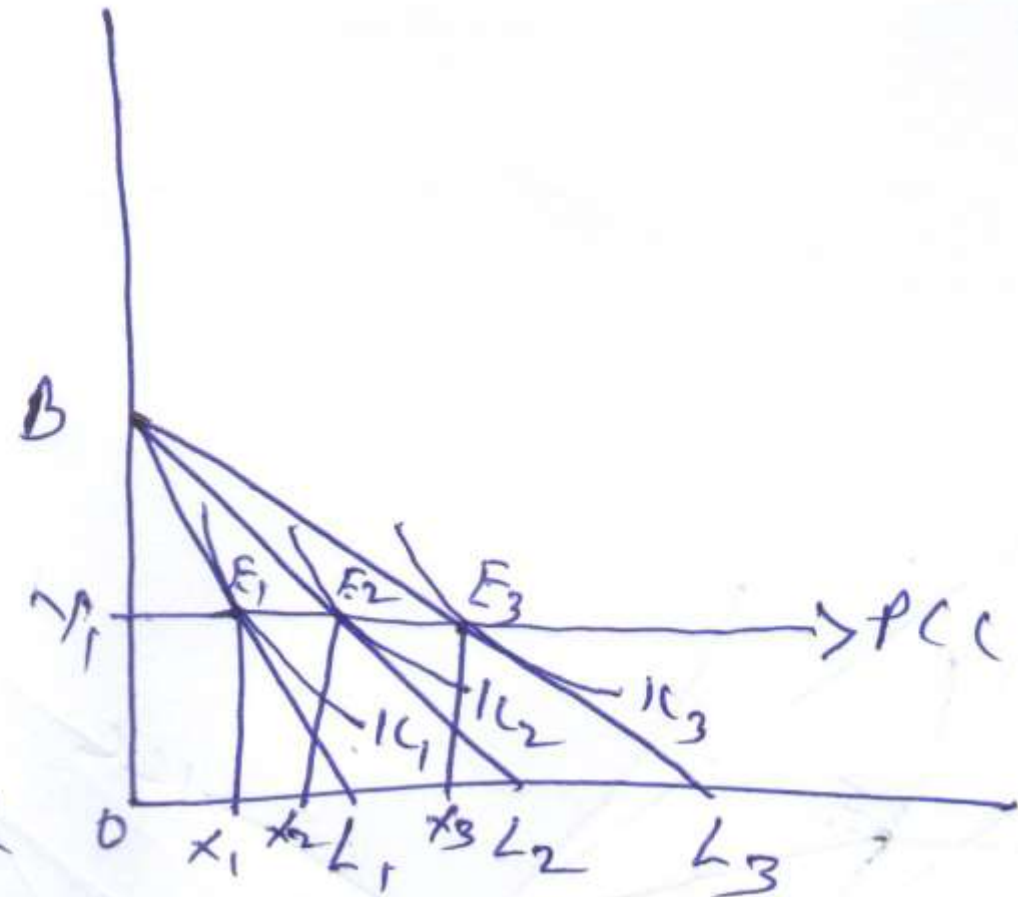
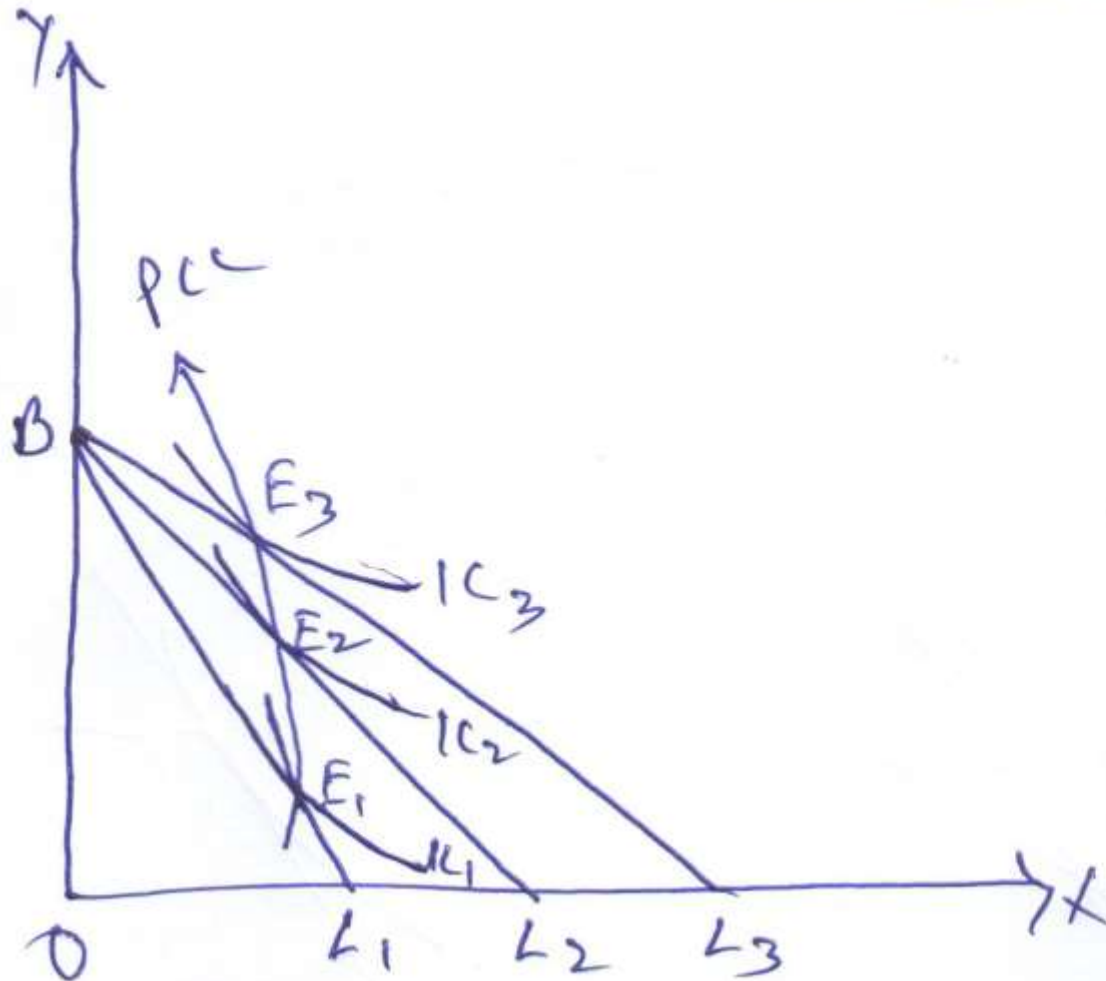
Substitution effect



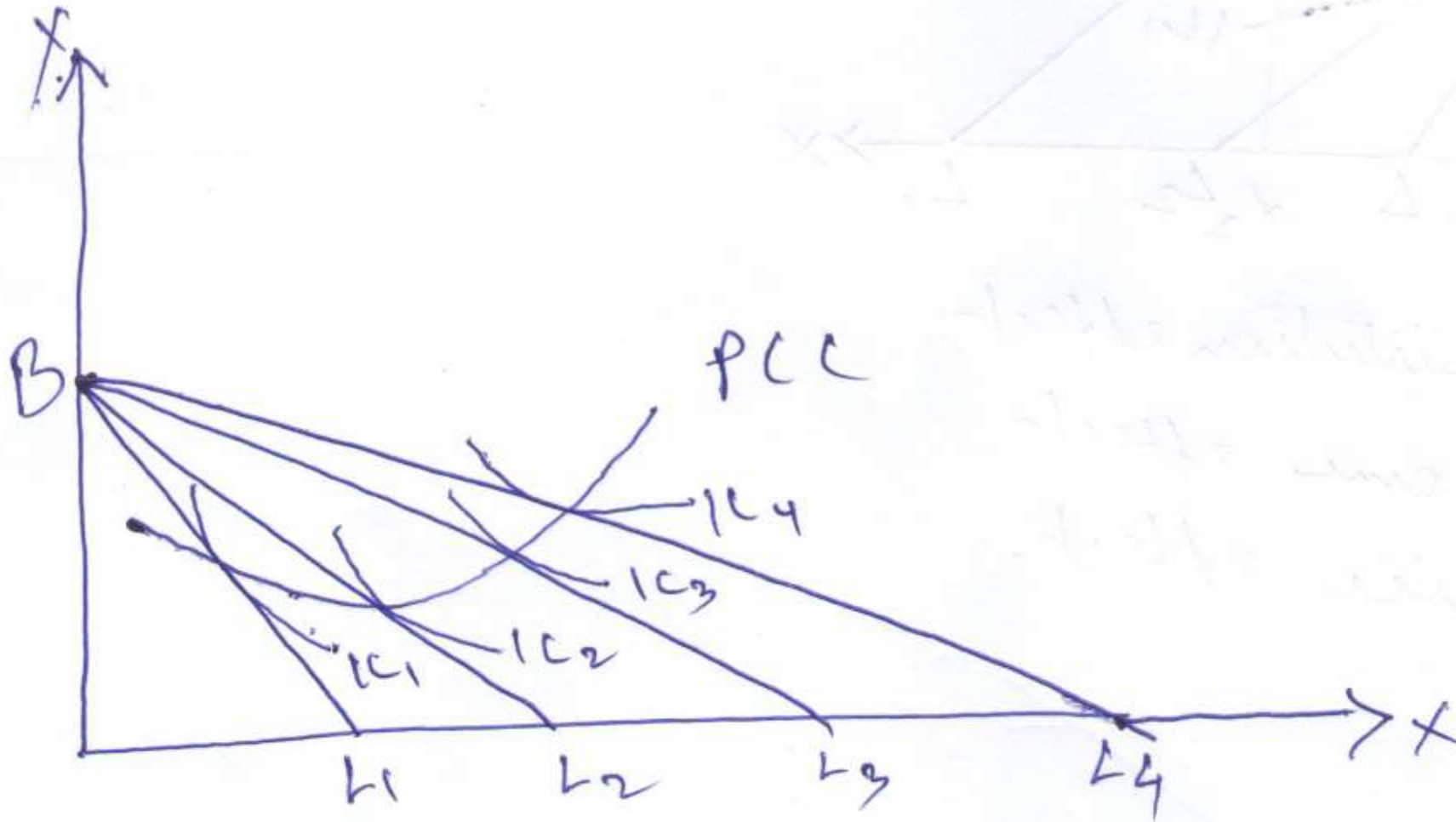
Price effect: Downward and Upward PCC



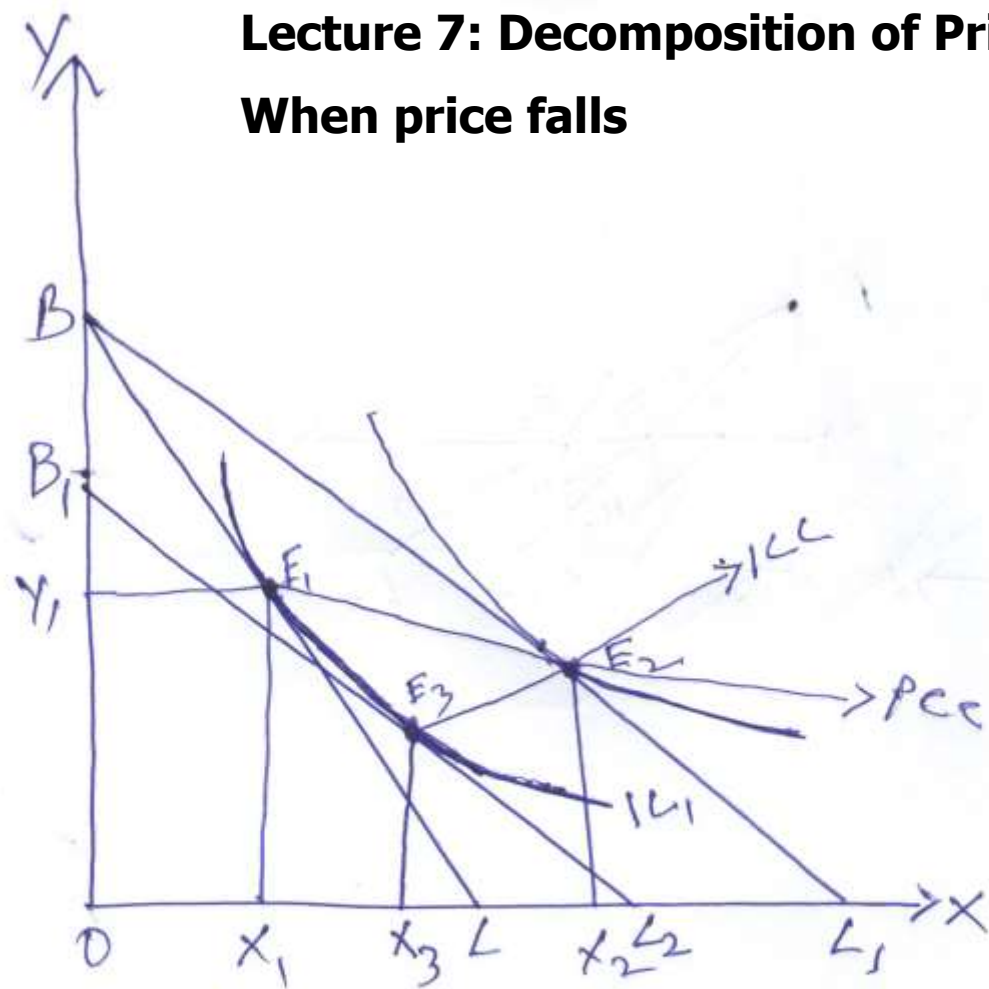
Price effect: Backward bending and straight line PCC



Price effect: U shape PCC



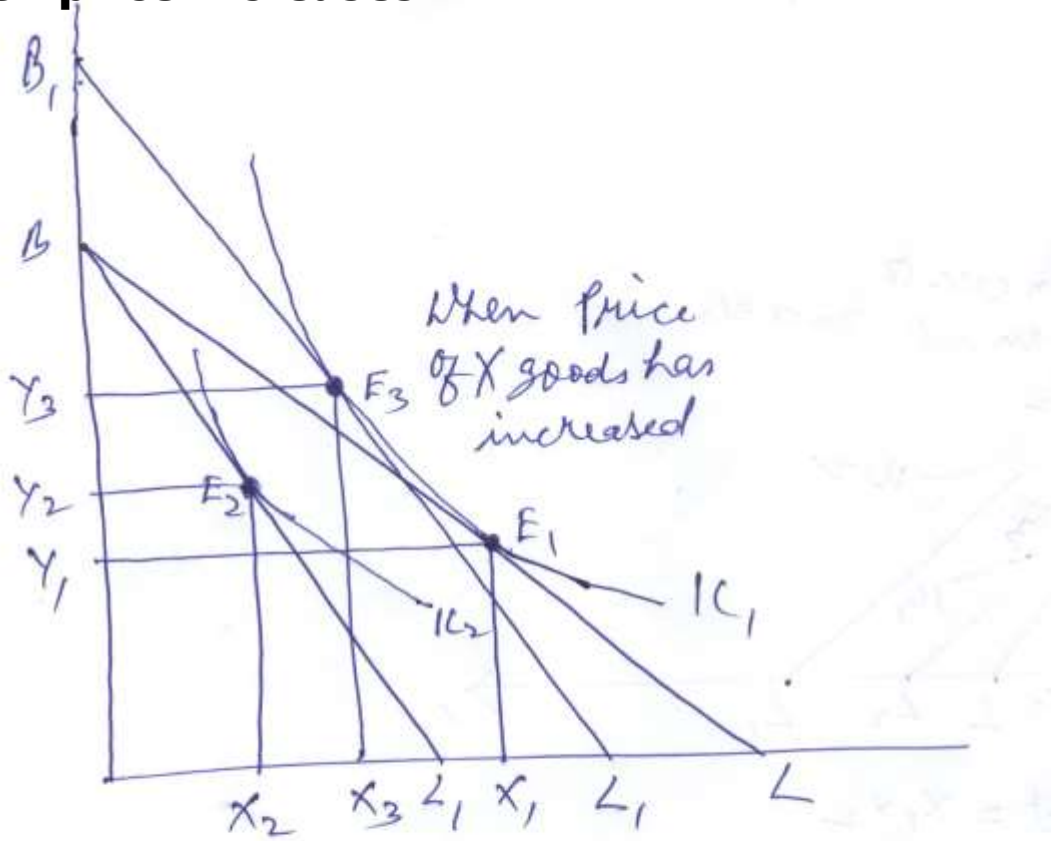
Lecture 7: Decomposition of Price effect into Income and Substitution Effect: When price falls



X_1X_3 = Substitution effect
 X_3X_2 = Income effect
 X_1X_2 = Price effect.

Lecture 7: Decomposition of Price effect into Income and Substitution Effect:

When price increases



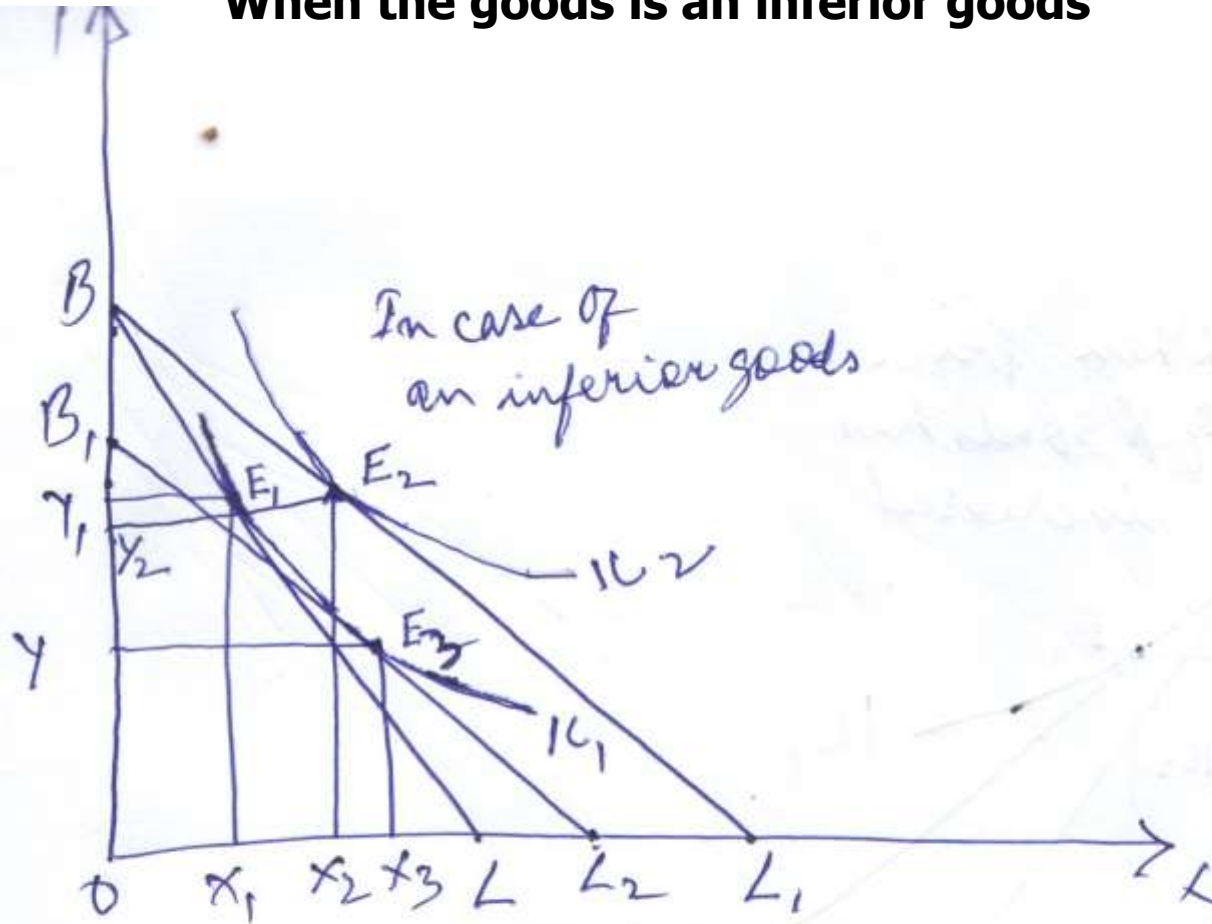
$$\text{Price effect} = X_1 X_2$$

$$\text{Substitution effect} = X_1 X_3$$

$$\text{Income effect} = X_2 X_3$$

Lecture 7: Decomposition of Price effect into Income and Substitution Effect:

When the goods is an inferior goods



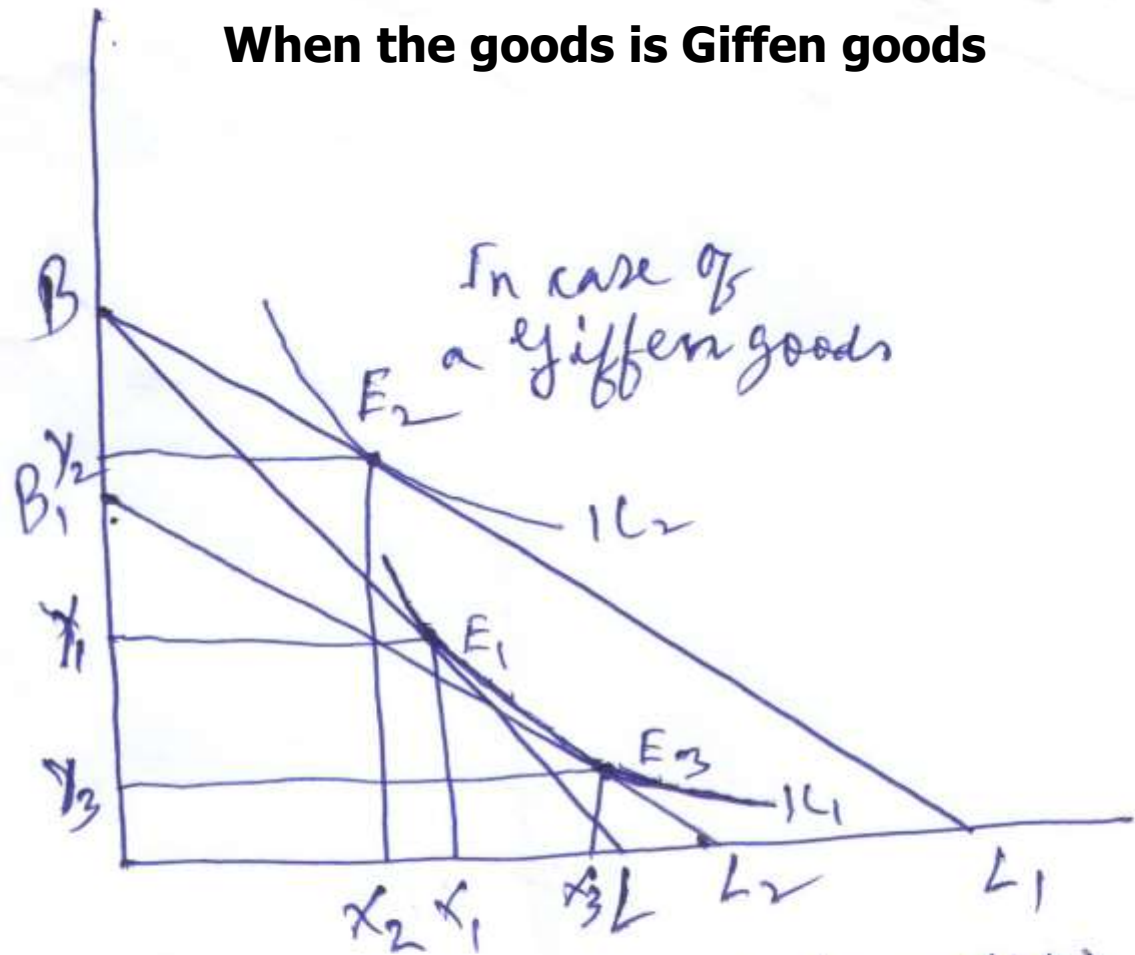
Price effect = $X_1 X_2$

Substitution = $X_1 X_3$

Income effect = $X_3 X_2$ (negative)

Lecture 7: Decomposition of Price effect into Income and Substitution Effect:

When the goods is Giffen goods



Price effect = $X_1 X_2$ (negative)
Substitution = $X_1 X_3$
Income effect = $X_3 X_2$ (negative)

