Topic 3 Part 2

The Theory of Demand

Decomposition of the Price Effect

- However, there is another way to look at the SE.
- It is called “the Slutskian Method”.
- It is named after Eugen Slutsky, a Russian economist.

- Using this method, we now define the SE as **“the change in the demand for a good as its price changes, holding the purchasing power constant”**.

Decomposition of the Price Effect

- Now, instead of “rolling the budget line along the original indifference curve” (as in the Hicksian Method), we will find Bundle B from “pivoting the budget line around the original bundle A”.

- In doing so, we are **holding the purchasing power constant because the consumer can still buy the original bundle A even with the price change.**

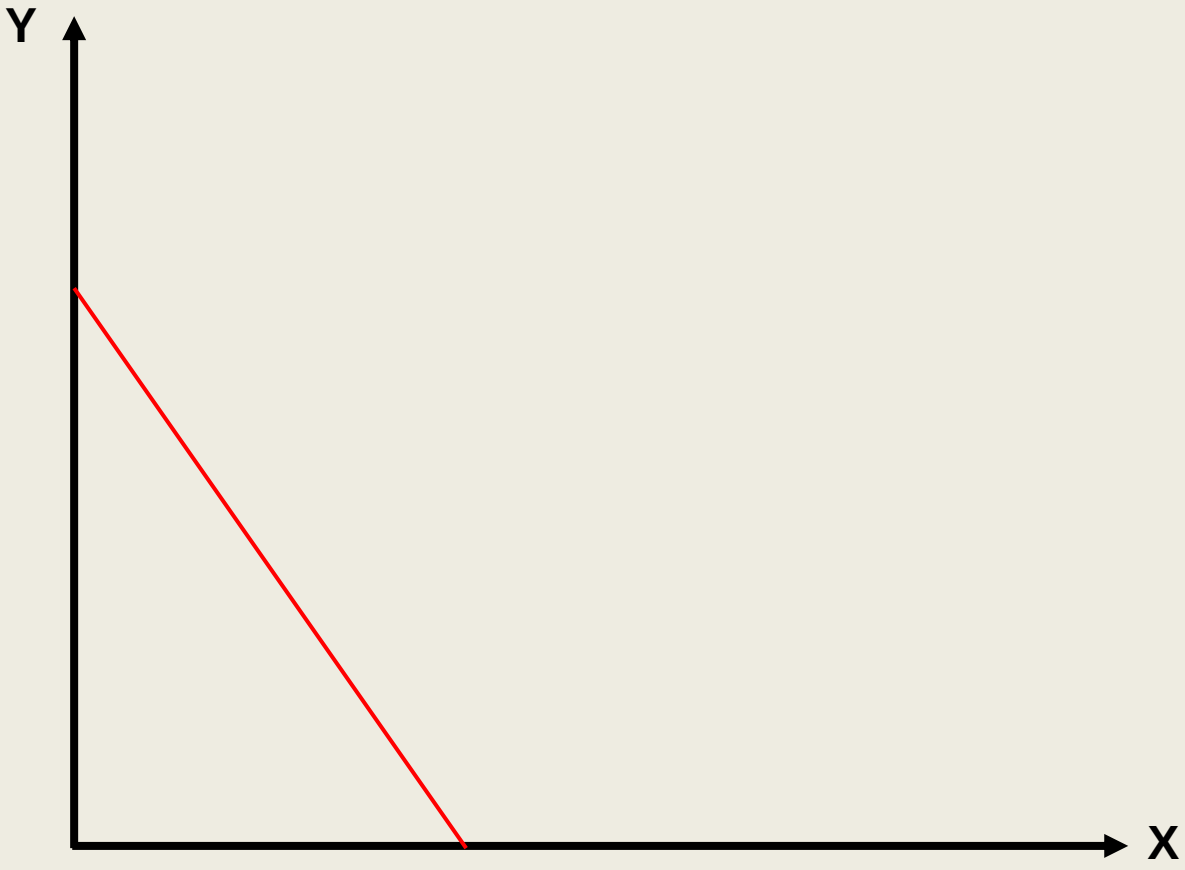
Decomposition of the Price Effect

Hicksian vs Slutskian Method

To find Bundle B, which is the bundle as a result of the SE,

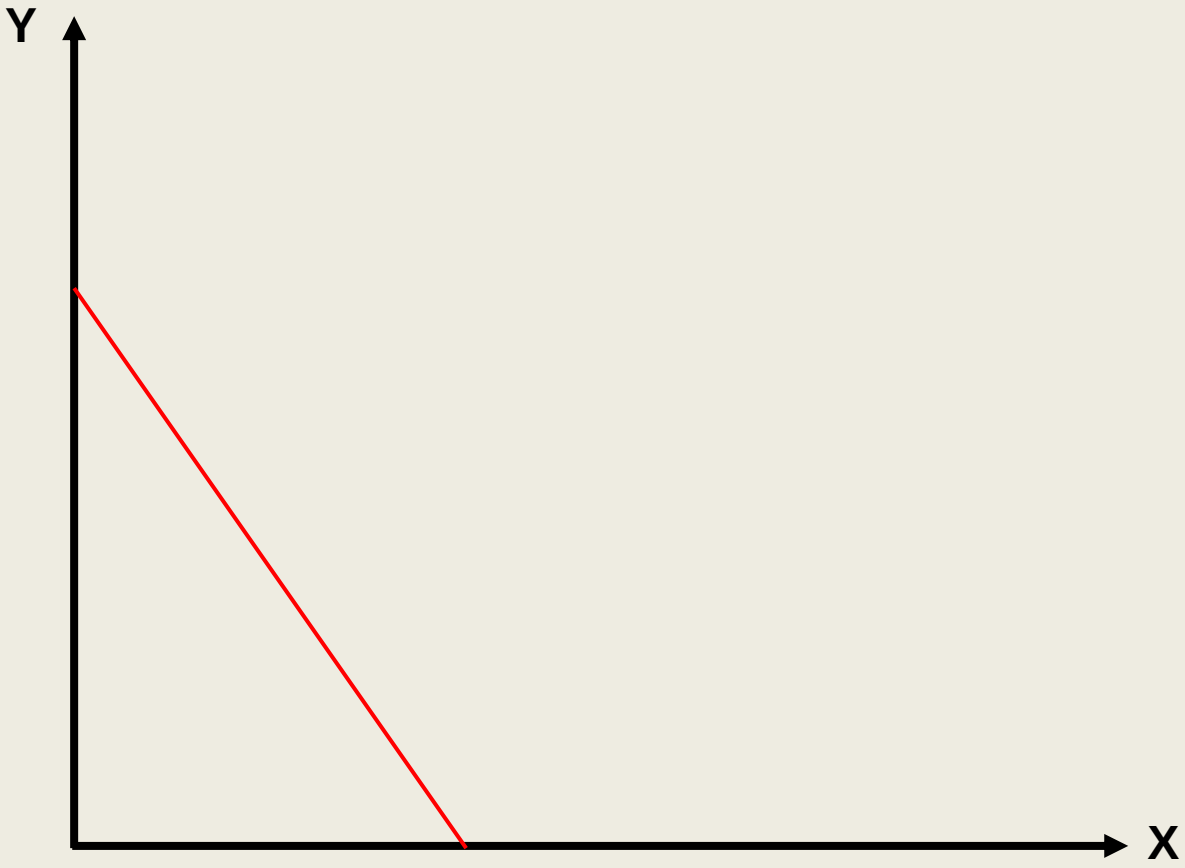
- The Hicksian Method asks:
  Which Bundle after the price change, would keep the consumer at the utility level that he had prior the price change?
- The Slutskian Method asks:
  Which Bundle after the price change, would keep the consumer at the purchasing power that he had prior the price change?

Slutskian Demand Decomposition



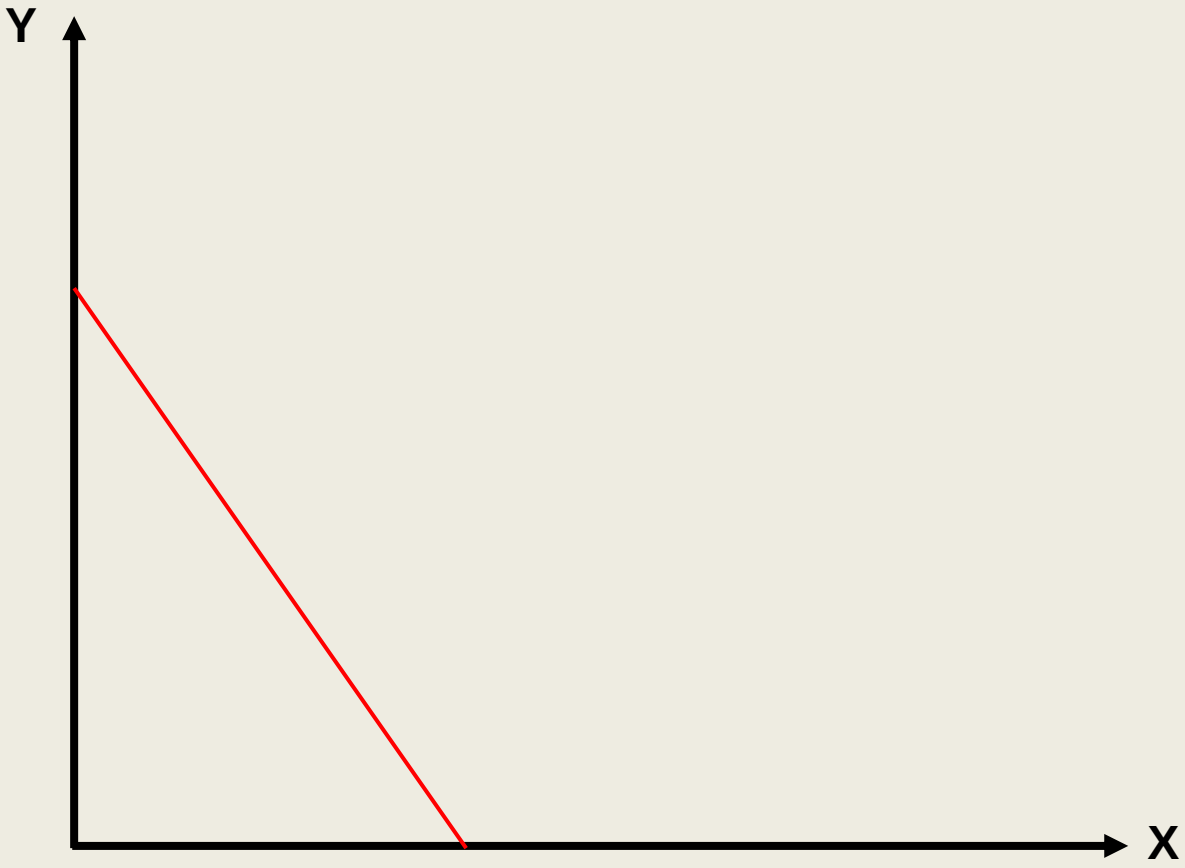
Case 1: Px falls, and X is a normal good.

Slutskian Demand Decomposition



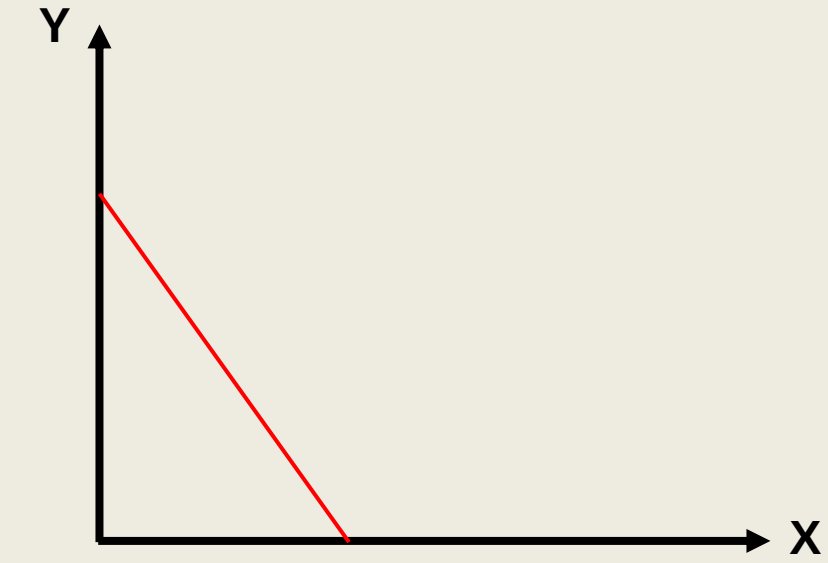
Case 2: Px falls, and X is an inferior good.

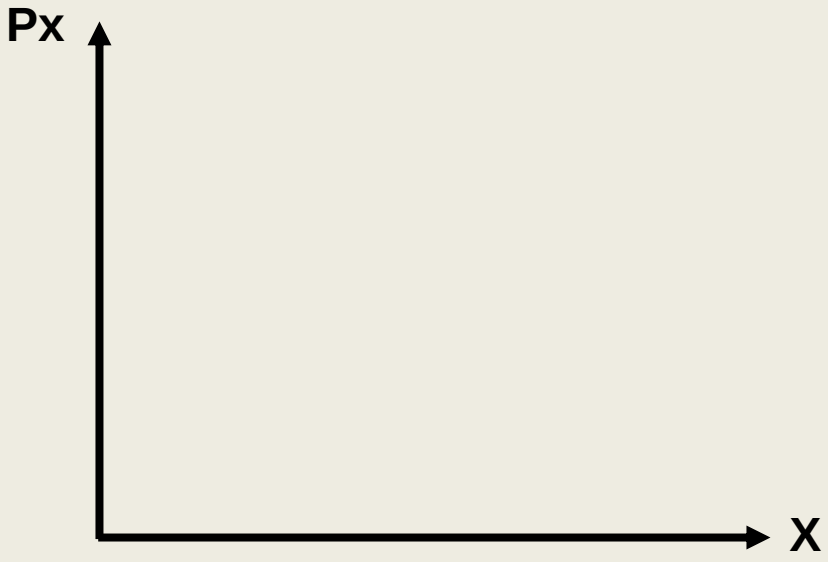
Slutskian Demand Decomposition



Case 3: Px falls, and X is a Giffen good.

Deriving the standard Demand Curve

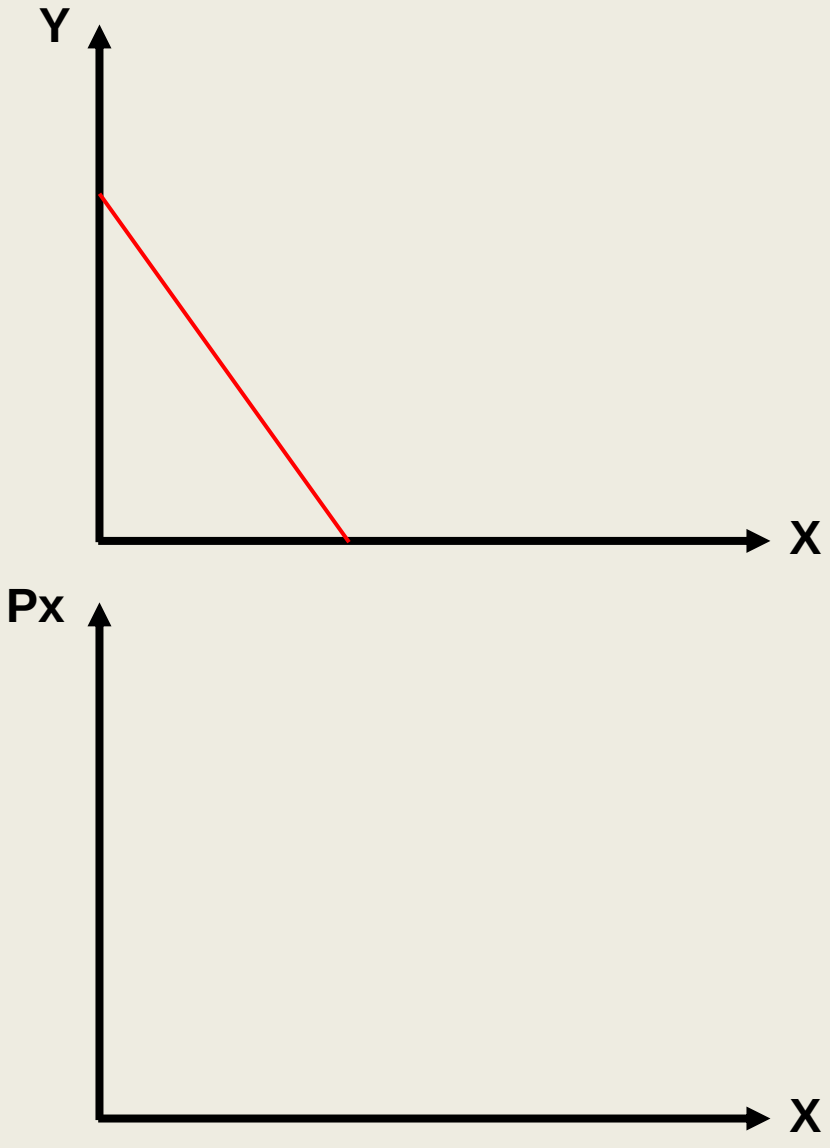




Case 1: Px falls, and X is a normal good.

Standard Demand Curve is also known as "Marshallian Demand"

Deriving the Hicksian Demand Curve



Case 1: Px falls, and X is a normal good.

Compensated Demand

- We refer the Hicksian (and Slutskian) demand curve as **"compensated"** demand curve, whereas the Marshallian demand curve is referred as "uncompensated" demand.
- The Hicksian demand curve is always downward-sloping because **it ignores the IE**.
- For the same reason, the Hicksian demand for a normal good is steeper than the Marshallian demand.

- We can draw compensated demand, using Slutskian approach as well.

Income Compensation for the SE

- **"Compensate"** refers to the approach that
  - Slutskian Method gives the consumer just enough money to get back to his original bundle A, so that his purchasing power is constant.
  - Hicksian Method gives the consumer just enough money to get back to his original utility, so that his utility is constant.

Income Compensation for the SE

- However, when Px falls, it is obvious that the consumer can still get back to his original bundle, and he should have excess money to buy something else. Thus, his purchasing power or his utility is greater after Px falls.

Income Compensation for the SE

- Thus, according to Hicks and Slutsky, to **"compensate"** the consumer,
  - the income at the Pivoted BL will be reduced when Px falls.
  - the income at the Pivoted BL will be raised when Px rises.

Summary

- When the price of a good changes, its quantity demanded changes.

- The total effect on demand (TE) is due to **the sum of two effects**:
  - Income Effect (IE)
  - Substitution Effect (SE).

- That is, **TE = SE + IE.**

Summary

When the price of a good falls…

- Substitution Effect implies that the consumer will ALWAYS buy more of the good.
- Income Effect implies that the real income increases AND
  - the consumer will buy more of the good if it is a normal good.
  - the consumer will buy less of the good if it is an inferior good.

Summary

- To represent these two effects in the consumer choice diagram, **economists adjust the BL with two steps:**

1. **"PIVOT"** to represent the SE
2. **"SHIFT"** to represent the IE

- Moreover, there are two approaches when we try to identify the SE by "pivoting" the BL.
- These approaches are
  - Hicksian Approach
  - Slutskian Approach

Summary

Hicksian Approach

- We find the SE by pivoting the BL (to reflect the price change) along the **original indifference curve**.
- We are essentially asking ourselves:
  Which Bundle after the price change, would keep the consumer at the utility level that he had prior the price change?
- Hicksian Definition of the SE:
  "the change in the demand for a good as its price changes, holding the utility constant".

Summary

Slutskian Approach

- We find the SE by pivoting the BL (to reflect the price change) around the **original bundle**.
- We are essentially asking ourselves:
  Which Bundle after the price change, would keep the consumer at the purchasing power that he had prior the price change?
- Slutskian Definition of the SE:
  "the change in the demand for a good as its price changes, holding the purchasing power constant".