

# Consumer Choice Theory

by Sophia Tutorial



## WHAT'S COVERED

This tutorial will cover consumer choice theory, discussing the different choices that consumers have to make in the context of a two-good economy, a simplified model in which each consumer has different preferences.

Our discussion breaks down as follows:

1. Consumer Choices in a Two-Good Economy
2. Consumer Preferences: Indifference Curves
3. Assumptions About Preference Behavior
  - a. Completeness
  - b. Transitivity
  - c. Non-Satiation
4. Inconsistent Preferences

## 1. Consumer Choices in a Two-Good Economy

We know that consumers make choices every single day. We also know that consumers are constrained by both time and income, which are consumers' two biggest constraints.

So, how do we maximize our utility in all of the decisions that we have to make?



### HINT

Remember, utility is satisfaction, or what we get out of something, so we want to maximize it.

### IN CONTEXT

In the context of a two-good economy, which, again, is a simplified model, suppose you must choose between chicken and beef for dinner each night of the week.

How much of each will you consume each week? Is it the same for everyone? Obviously not.

Different consumers will have different preferences, and individual preferences affect how much chicken versus beef a person chooses.

Your choice might be different if your income changes, or if the price of either chicken or beef changes.



## BIG IDEA

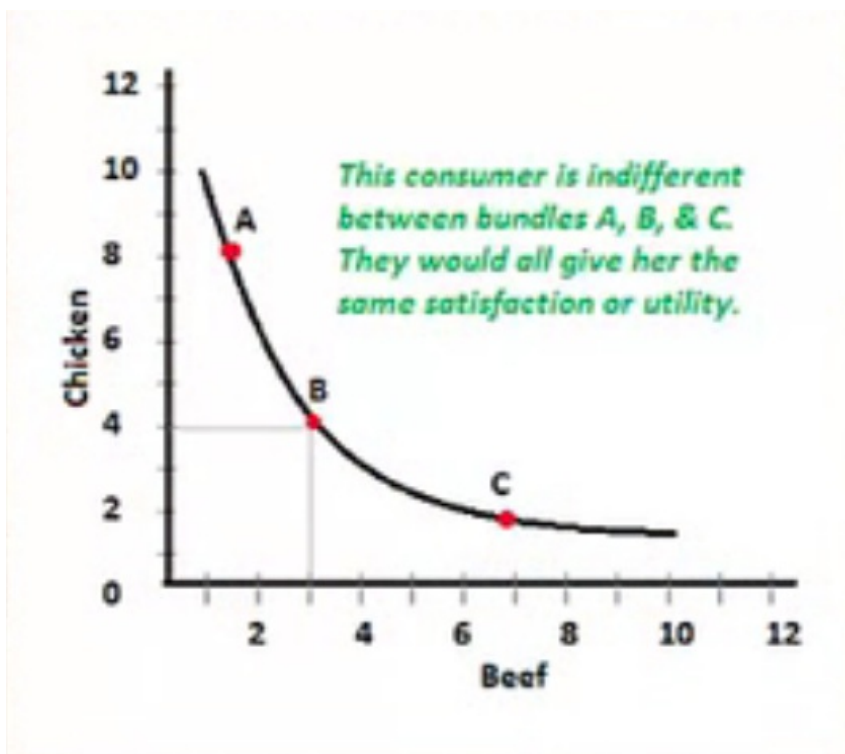
We each have our own utility functions which show our preference behavior.

## 2. Consumer Preferences: Indifference Curves

The graph below is called an indifference curve, which in this case maps the two goods in our two-good economy--beef on the x-axis and chicken on the y-axis.

Indifference curves show all possible combinations--in this example, of chicken and beef. It is called an indifference curve because the consumer is "indifferent" to bundle A, B, C, or any other point along the curve.

Any point along this curve will give the consumer the same utility.



For instance, this consumer would enjoy the same amount of utility out of point A, which is consuming eight chicken and one beef, as he or she would out of point B, which is consuming four chicken and three beef, or point C, consuming two chicken and seven beef.

All of these combinations would provide the same utility, so the consumer is indifferent to them.

Ultimately, indifference curves will be used to show which choice will maximize our utility, which will be covered in a different tutorial.

# 3. Assumptions About Preference Behavior

When discussing consumers' preference behavior, we make three assumptions:

1. Completeness
2. Transitivity
3. Non-Satiation

## 3a. Completeness

**Completeness** is a condition of rational decision-making, where consumers' preferences are defined for all combinations of goods or services.

Let's circle back to the chicken and beef example to further explain this definition of completeness.

If you are confronted with the choice between two different combinations of chicken and beef, as illustrated by the different points along the indifference curve, you are always able to choose.

You could choose one over the other, or you could be indifferent between the two.

However, you would be violating the condition of completeness if someone offered you a combination of three chicken and 10 beef, and you answered, "I have never thought of that before. I don't know how I feel about that combination."

In order to be complete, you have to either prefer one combination over the other, or be indifferent between the two.



### TERM TO KNOW

#### Completeness

A condition of rational decision-making where consumers' preferences are defined as for all choices of combinations of goods or services

## 3b. Transitivity

The next assumption we make is **transitivity**, which is a logical method of predicting preferences by examining decisions made by consumers. Note, transitivity assumes that we are rational.

➡ **EXAMPLE** For example, if x is preferred to y, and y is preferred to z, then x is preferred to z.

In the chicken and beef example, then, assuming you are rational, consider the following statements:

- I prefer chicken to beef.
- I prefer beef to shrimp.
- Therefore, I must prefer chicken to shrimp.



### TERM TO KNOW

#### Transitivity

Logical method of predicting preferences by examining decisions made by consumers; if x is preferred to y

and y is preferred to z, then x is preferred to z.

### 3c. Non-Satiation

Finally, **non-satiation** is a complicated term for saying that consumers always like *more*; a consumer will always opt to have more of a good than less.

More is always preferred to less, and this assumes that you can always throw it away if you do not want it! It won't cost you anything to throw it away.

➡ **EXAMPLE** If two bundles are exactly the same except one has more chicken, then you will take the one with more chicken.



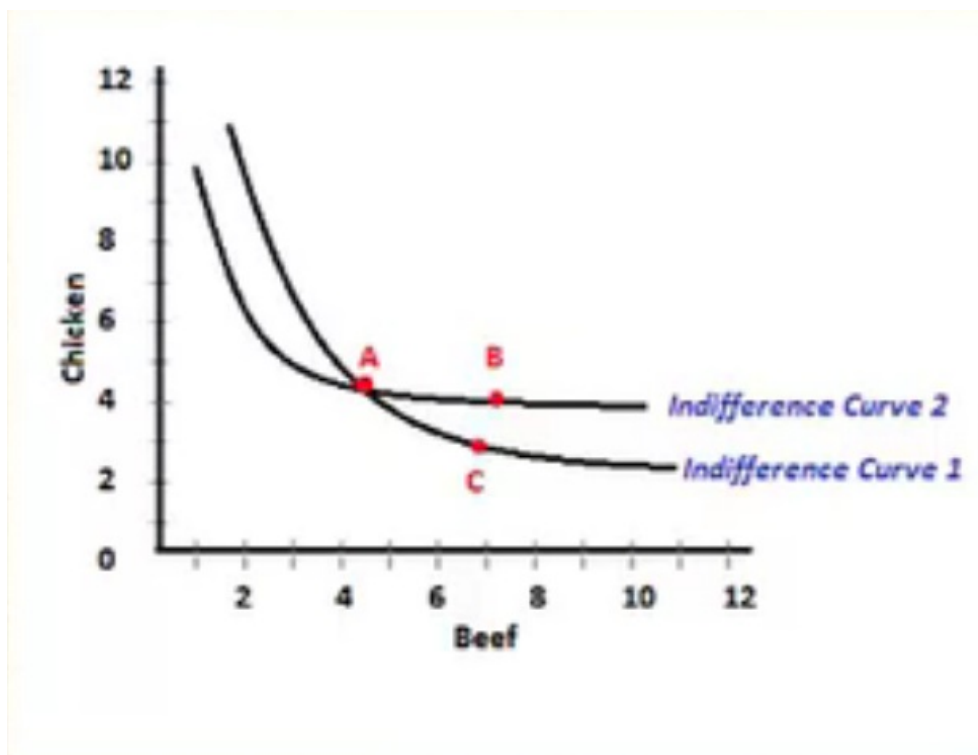
#### TERM TO KNOW

#### Non-Satiation

A consumer will always opt to have more of a good than less

## 4. Inconsistent Preferences

Let's wrap up our lesson with one final graph. This graph shows indifference curves that cannot ever happen, because they represent inconsistent preferences.



Curve 1 shows that the consumer likes A and C the same, because they are on the same indifference curve.

However, at the same time, indifference curve 2 suggests that the consumer likes A and B the same.

Unfortunately, this does not make sense, because that would mean C and B should be preferred the same. This is because if A and C are the same, and A and B are the same, then B and C should be preferred the same.

However, this violates both transitivity and non-satiation, because B would be preferable to C because it contains more chicken and more beef. Therefore, this simply cannot be the case and the curves cannot cross, given the three assumptions about preference behavior.



## SUMMARY

Today we learned about the different **consumer choices in a two-good economy**, which is a simplified model. We learned that every consumer has different **preferences** when faced with a choice in a two-good economy, and when we map our preferences, we arrive at a utility function. An **indifference curve** shows all possible combinations of choices; any point along this curve will give the consumer the same utility. We learned that there are three **assumptions about preference behavior**: **completeness**, **transitivity**, and **non-satiation**. Lastly, we looked at a pair of indifference curves that crossed, which cannot ever happen, because they represent **inconsistent preferences**.

Source: Adapted from Sophia instructor Kate Eskra.



## TERMS TO KNOW

### Completeness

A condition of rational decision-making where consumers' preferences are defined as for all choices of combinations of goods or services.

### Non-Satiation

A consumer will always opt to have more of a good than less.

### Transitivity

Logical method of predicting preferences by examining decisions made by consumers; if x is preferred to y and y is preferred to z, then x is preferred to z.