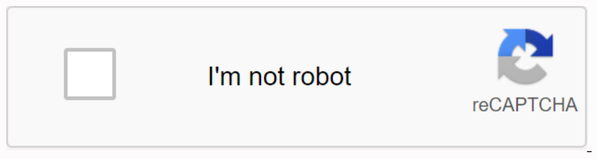

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Indifference curve analysis in economics pdf

If you're seeing this message, that means we have problems loading external resources on our website. If you are behind a web filter, please make sure that the *.kastatic.org and *.kasandbox.org are unblocked. Definition: A curve of aloof is a graph that shows the combination of two goods that gives the consumer equal satisfaction and utility. Each point on an indifference curve indicates that a consumer is indifferent between the two and all points given to him the same utility. Description: Graphically, the curve indifference is mapped as a convex under the origin. The graph shows a combination of two goods that consumers are consumers of. The diagram above shows the U indifference curve showing the bundles of goods A and B. Consumer A, packages A and B are the same as both of them giving it the equal satisfaction. In other words, point A to As utility as point B to the person. The consumer will be satisfied at any point on the supposed curve that other things are constant. Here's how the indifference curve works... A curve of apathy, related to two committees, is a graph that shows the combination of these two communities that let the consumer well off or equally satisfy---seconsequent---in there is any combination on the curve. Arch indifference are heurist devices used in contemporary microeconomics to demonstrate consumers' preferences and limitations to a budget. Economists have adopted the principles of indifference curve in the study of wellness savings. An aloof curve shows a combination of two goods that provide an equal consumer satisfaction with utilities therefore making the consumer aloof. The consumer curve sets have an equal preference for combination goods shown -- meaning that is apathy about any merchandise combination on the curve. Typically, arch indifference displays the origin convex, and no two curve indifference permanently intersect. Standard indifference curve analysis operates on a simple graph of dimensions. Each axle represents a kind of economic good. Along the curve or the line, the consumer has no preference for either combination of goods because both goods provide the same level of utility to the consumer. For example, a young boy might be aloat between owning two comic books and a toy truck, or four toy trucks and a comic book. Arch indifference operates under many assumptions, for example, typically each indifference curve is the origin convex, and no two curve indifference permanently intersect. Consumers are always supposed to be more satisfied when performing excessive goods on curve indifference that further comes from the origin. As income increases, one will usually shift their consumption level because they are able to pay more promotion, with results going to end up on a curve of diversity further from the origin—like that better. Many basic principles of microeconomics appear in indifference curve analysis, individual choice, marginal utility theory, income, substitution effect, and the subject theory of value. Indifference curve analysis highlight the marginal percentage of substitution (MRS) and opportunity costs. All other economic variables and possible complications are treated as stable or ignored unless placed on the graph of indifference. Most economic books build on curve indifference are presenting the best choice of goods for any consumer based on the consumer's income. Classic analysis suggests that the best consumption package takes place to the point where a consumer's indifference curve is tangent with their budget constraints. The slope of the curve indifference is known as the MRS. The MRS is the percentage at which the consumer wants to give up good one for another. If the apples' consumer values, for example, the consumer will slower give them up for angels, and the slope will reflect this rate of substitution. Curve indifference, like many aspects of contemporary economies, have been criticized for oversimplifying or making unrealistic assumptions about human behavior. A remarkable criticism is that indifference is designally incompatible with economic action, and all actions necessarily demonstrate preference, not indifference. Otherwise, no action would take place. Other critics note that it is theoretically possible to have concave curve indifference or even circular curve that either convex or concave to the origin of various points. Consumer preference might also change between two different points of time bearing specific indifference curve practically useless. The topics in this lesson present a somewhat more advanced material than were built in the two previous Microeconomics lessons. We start with indifference curve analysis. An indifference curve is introduced in Figure 1 below. Supposing we measure a person's consumption of commodity X and commodity Y on horizontal and vertical axes respectively and then arbitrarily choose one point to what causes (X, Y) space like, for example, point A. Now imagine that we label with a plus sign each point in the space that preferred point A and then , label with a minus sign every point in the space that point A is preferred. If we then draw a line which separates more of the minus signs, we will find out the curve indifference showing in the figure above. The individual will be indifferent between all combinations of X and Y indicated by the curve and will prefer all combinations above the curve indifference to any combination on the curve. And any combination of the indifference curve will be preferred throughout the combination below it. Since each (X, Y) combination will have an indifference curve passing through it, we can add a third axis stretch up from the bottom left edge of the face to measure degrees in which individual preferences are satisfied, and visualize curve infinitely much indifference as represented smooth surfaces that increase as consumption of commodity X and Y increases. We detect degrees in which preferences are satisfied as the level of utility and assume that people choose the combination of merchandise X and Y, among those available, which maximize the utilities, and an increase in utility that occurs whenever there is an increase in the quantity of either X or Y consuming, maintaining the consumption of other consumption at the other constant. Utility theory thus assumes that people have a consistent internal set of preferences that do not change during the time-interval during which we analyze their behavior. In this sense we assume that people are rational. Irrational behavior is illustration of Figure 2 below. Suppose that someone has curve indifference that cross, as in the case of the #1 and Curve #2 above. This involves that the person is indifferent between combination A and B and between combinationS A and C. As a result, it must also be indifferent between point B and C. But point B has to be preferred point C because it is above the indifference curve on which point C is located. The person will consume more of both merchandise at point B than in Point C. Crossing's of two arch apathetic presents a logical contradiction in the sense that people in inconsistency behave inconsistency or, as we might say, irationally. Economists were often criticised for the assumption that people are rational. After all, we can think of many examples of people doing stupid things. The Irrational behavior of friends and family and others we observe is part of the human condition. In this respect, however, it is important to understand that the definition of economists in rationality means simply that people behave consistently, however stupid and irrational consistent behavior might appear to others. And while it's clear that some people' behaviour may be unstable at times, economists have assumed that the esteemed of people with behavior is being analyzed was preference changed during the period upon which the analysis is taking place. In fact, without an assumption that people have consistent preferences that have not changed during the period are being analyzed, no coherent analysis of social behavior would be possible---tall that would be possible is a fact in what happened in the past by the historians who must carefully avoid any interpretation of such observed reality. Of course, psychologists and sociologists, and economists occasionally, will try to determine how and why preference changes in time, but they too have to assume coherent preference and consistent interpretation capable of systematic interpretation. In the simple portrait case of the above two figures, economists assume that someone's utility can be expressed as a function of ---that is, depending on---the amount of commodity X and Y burns. Mathematically, we can write 1. U = U (X, Y) U is the level of utilities and functions U (X, Y) state simply that the level of utilities depends in some mode on the levels of commodity X and Y consuming by the person. If we want to find fancy and analyze a situation where the changes of individual preferences, we could expand the utility function by inserting between the parentheses an additional input, called Li Z, which measures the forces causing preference to change, yield the function U (X, Y , Z). Analytical extensions of this sort are, of course, very difficult if not impossible to successfully pursue. The presentation of the utility function in Equation 1 is very general---wit additional specifications, the relationship denoted by U(X, Y) could take any form. Several important features of the utility function are always specified. First, as we noted above, increases in the levels of X and Y always lead to increases in U. That is, the partial derivatives of the utility function related to X and Y ---the changes to U associated with in small changes to each of the X and Y maintain the other constant---hae positive. Mathematically, this imposes two conditions to 2. ∂U/∂X=∂U(X,Y)/∂X>0 and ∂U/∂=∂U(X,Y)/∂Y > where ∂U/∂X is the partial derive of U(X, Y) with respect to X and ∂U/∂Y is the partial derivative with the Y respect. We refer to ∂U/∂X and ∂U/∂ as, respectively, the marginal utility of X and the marginal utility of Y. Equation 2 specifies that the margin utility of X and Y are positive. The second feature specified in the function U(X, Y) is the principle of reducing utility margin. This says the marginal utility of X declines as the number of X increases and the utility margin of Y declines as the amount of Y increases. The slope of a curve indifference is the negative in the ratio of the marginal utility of X on the marginal utility of Y. To see this, imagine that the amounts of X and Y changed by small amounts. The change to utility specified in Equation 1 can then be expressed math as 3. dU=∂(X,Y)/∂X dX+∂(X,Y)/∂ DY=∂U/∂X dX+∂U/∂ DYY where the letter preceded a variable change before a variable changes to that variable. Since the level of utility must be constant---that is GTA =0 ---along a curve indifference, Equation 3 can be rearrange in yield 0=∂U/∂X dX+∂U/∂ dYY which can render more as 4. dY/dX=−∂U/∂X/∂U/∂Y where dY/dYX is the slope of the indifference curve. The principle of reducing marginal utility implies that ∂U/∂X, the margin utility of X, falls as the number of X consuming increases and that ∂U/∂, the utility margin of Y, increases as the amount of Y burning decreases. As can be seen in Equation 4, this implies that the indifference curve becomes flatter as the amount of X consuming increases relative to the amount of Y consumed. Or, as we say, curve indifference to outdoor concave, or convex related to the origin. Slope of the curve indifference called the marginal rate of substitution, which declines as the number of X increases relative to the number of Y. Of course, the amounts of commodity X and Y that the person will be able to consume depends on the level of that person's income. If the whole income is spent on commodity X, the maximum amount can be consumed by the distance between the origin and point B on the horizontal axis of Figure 3 below. If the whole income is spent on commodity Y, the maximum number which can be consumed by the vertical distance between the origin and point A. If the prices of the two communities face the person's constant, the ratio of the price of commodity X at the price of commodity Y is given the slope of the budget line running from point A to point B. The best amounts consumed will be that the combination of X and the Y that puts the person on the highest possible curve indifference---that is, the number of X0 and Y0 on the highest figure. Note that the amounts poised are those for which the slope of the curve indifference equals the slope of the budget line---that is, where the margin percentage of substitution equals the cost ratio. Now suppose that the level of the individual income is increasing without any change in price. More of both communities can now be consumed and the price ratio has not changed, so the budget line changes out with the new budget line being parallel to the original one. The level of utilities increased from U0 U1 and the individual consumption of the two goods increased to X1 and Y1. At this point we have to keep in mind that the indifference map of Figure 3 conceded that both X and Y are normal---that goods is, that U1 curve indifference is tangent in the highest budget line at the right point of X0 production level. In the case where X is a good inferior, this tangence would be left to X0 production levels and the requested amount of commodity X would decline as a result of the increased revenue. Finally, let us assume that the price of commodity X fell, with no change in money revenue. Results are shown in Figure 4 below. If the person spent all his income on commodity X, the amount of X buy would now be higher. Since the price of good Y has not changed, nor has the maximum consumption possible in this commodity. The collapse of the price of X has thus reduced the slope of the individual budget line by rotation it counter-clock around point A on the vertical axis. The maximum new utility reaches point C and a large increase in the number of good X consumed with a slight decline in consumption of good Y. It is important to distinguish between two elements of change at the first point poised to the final poised to point C---the income effect and the substitution effect. The decline in the price of X leads to a substitution of Good X for Good Y alongside the initial curve, keeping real it is utility---staneous. This substitution effect indicates not the movement from the combination of a combination of block U0 indifference. The fact that real incomes have increased as a result of the declines in the price of Good X, keeping nominal incomes and the cost of good Y constant, result in an increase in the amounts consumed in both goods, represented by the movement from combination to combination. This income effect is represented by the movement from curve indifference to U0 U1. As you can see in the above figure, the burning amount of Good X increases as a result of both the substitution and income effect while the amount of good Y consuming declines as a result of the substitution effect and increased by a little less than that amount as a result of the income , leave a slight overall slight downturn. It should now be unclear why slope demand curve is down when goods, like in the analysis above, are replaced for each other. It is evident in Figure 4 that a fall in the price of commodity X, keeps nominal constants, resulting in an increase in the demand for that good. In that Figure, the fall in the price of Good X also changes the demand curve for good Y slightly to the left because the substitution further offsets the effect of the real income downturn. Also, it is clear in Figure 3 that an increase in nominal income, keeping prices constant, shift the demand curve to both goods of the right and, therefore, that both commodity in this example are superior goods. In the real world, each person will spend his income on many goods in each period of his lifetime, and he will face relative prices that can shift from periods along with the interest rate, which measures the cost of consuming in the present as opposed to future periods. In a world where external intake is present, it can also experience and loss of utilities from the behavior of others on which it has no control. This means that more advanced analysis will involve a utility function with many more arguments. On the basis of our two-commodity analysis above, however, it is reasonable to expect that the marginal rate of each good for each other in the utility function will, in poised, equal the relative cost of that freight pair. The principles of reducing marginal utilities and reducing margin rates of substitution can be reasonably supposed to be largely applicable. It is now time for a test. As always, think up your own answers before watching these given. Question 1 Question 2 Question 3 Choose another topic in the lesson