

Summary of Irrational Behavior and Economic Theory

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Abstract

This paper explains how important theorems of modern economics such as negatively inclined demand curves result from a general principle which not only includes rational behavior, but also irrational behavior.

Part I Households

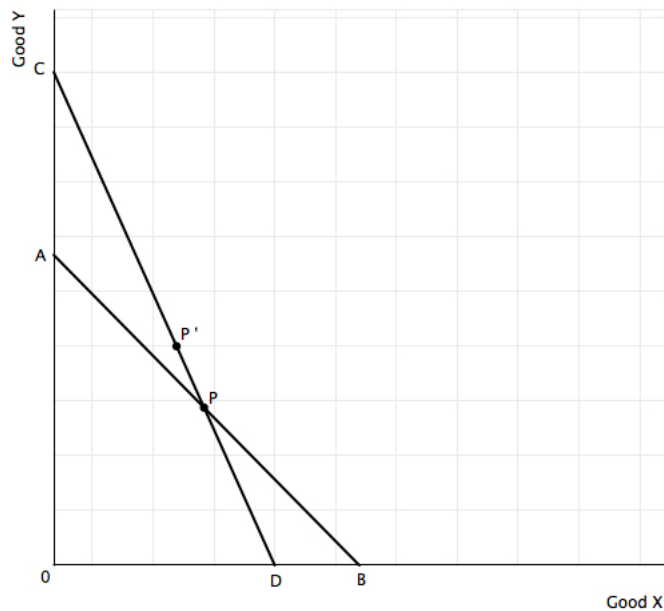
Traditional household theory assumes that households maximize utility subject to the budget constraint. The main implication of this theory is that the demand curve for any commodity (real income held constant), must be negatively inclined. However, this utility approach to household decisions has been criticized because some deny that households maximize a utility function consistently.

This paper explains that negatively inclined market demand curves result not so much from rational behavior but also from a wide variety of irrational behavior as well. We will discuss two types of irrational behavior: inert and impulsive. The paper shows that the negatively inclined demand curves is largely a result from the change in opportunities alone. The budget line CD which has a higher relative price for good X and a lower price for good Y than does AB implies that the set OCD offers more opportunity to consume X than does the set OAB. If the amount of any good chosen were positively related to its availability, demand would be negatively related to price regardless of rationality.

Now let's assume households behave impulsively. We assume impulsive households act "as if" they only consulted a probability mechanism (no preference system but just random consumption points in the feasible region). In this case, although the consumption of a single household could not be determined in advance, the average consumption of a large number of independent households would almost certainly be at the middle of the opportunity set. So given the budget line AB, the average consumption will be at point P. Now suppose there is an increase in the relative price of X. This implies that the average consumption will be at the point P' (since P' is the midpoint of CD).

Hence, a compensated increase in the price of X reduces the quantity demanded for X even when households behave impulsively.

Now let's consider when households have inert behavior (they prefer the old consumption bundle). We begin at point P. After the relative price of X increases, households who are initially at the region AP will not change their consumption since it's still feasible. However, households who are initially in the region PB will have to reduce consumption of X because it is no longer attainable due to the shift in the budget line. Therefore, even inert behaved households would tend to have negatively inclined demand curves.



Part II

Firms

Similarly, decisions of irrational firms are limited by a budgetary constraint as well. Under perfect competition, the firm can produce between the point Q_e and Q_u . Completely impulsive firms will assign equal probability and select a point at random (without equating marginal cost to marginal revenue or profit maximizing behavior). Then the average output is almost certainly at the midpoint Q_c . Now a cartelization would shift the demand curve to DD (industry demand) and shift the opportunity set to the left of Q_e Q_u to Q_e' to Q_u' . If outputs were again chosen randomly, the average output is almost

certainly be at the midpoint, which is to the left of Q_c . Hence, a change from competition to monopoly shifts the production opportunity set toward lower outputs, which encourages irrational firms to lower their output.

