

Review Notes – The Slutsky Equation

- Definitions
 - Income and Substitution Effects
 - Do Demand curves always have a negative slope?
 - No – what's a giffen good?
 - How likely are giffen goods?
 - Substitution effect of a price change – as price increases then Q_D decreases and the reverse.
 - Income effect of a price change
 - As the price decreases, then like \$\$ increases, so change consumption of the good
 - If the good is normal then what happens?
 - If the good is inferior then what happens?
 - You should know how to show the substitution and income effects graphically in each of four situations.
 - Slutsky Decompositions
 - Price Increases
 - Price Decreases
 - Hicks Decompositions
 - Price Increases
 - Price Decreases
- The Slutsky Equation
 - Start with $\Delta M = \Delta P_1 X_1$
 - Assumes that P_1 is the price that changes.
 - What does the equation mean?
 - The substitution effect:
 - $\Delta X_1^S = X_1(P_1^1, M^1, P_2) - X_1(P_1, M, P_2)$
 - What does this mean graphically?
 - $X_1(P_1, M, P_2)$ = original optimization point
 - $X_1(P_1^1, M^1, P_2)$ = Optimum with new prices and taking away just enough money to either make $X_1(P_1, M, P_2)$ possible (Slutsky) or to keep utility constant (Hicks).
 - How is this done using the demand function itself?
 - Example from class
 - What is the sign of the substitution effect?
 - The income effect:
 - $\Delta X_1^N = X_1(P_1^1, M, P_2) - X_1(P_1^1, M^1, P_2)$
 - What does this mean graphically?
 - $X_1(P_1^1, M, P_2)$ = optimization point after P_1 changes.
 - $X_1(P_1^1, M^1, P_2)$ = Optimum with new prices and taking away just enough money to either make $X_1(P_1, M, P_2)$ possible (Slutsky) or to keep utility constant (Hicks).
 - How is this done using the demand function itself?

- How is this done using the demand function itself?
- Example from class
- What is the sign of the income effect?
- The Slutsky Equation
 - $X_1(P_1^1, M, P_2) - X_1(P_1, M, P_2) = \Delta X_1$
 - $\Delta X_1 = \Delta X_1^S + \Delta X_1^N$
 - What is the sign of the Slutsky equation income and substitution effects?
 - If you do rates of changes =>
 - $\Delta X_1^S / \Delta P_1$ is always negative – why?
 - What is this equations' interpretation?
 - is always negative – why?
 - $\Delta X_1^M / \Delta P_1 = (\Delta X_1^M / \Delta M) X_1$
 - What is this equations' interpretation?
 - Note that $\Delta X_1^M = - \Delta X_1^N$
 - When is this negative?
 - When is this positive?

- The Law of Demand
 - What is the ECO 165 law of demand?
 - Is this true?
 - What is the actual law of demand now that we know income effects can be negative?
- Examples of Substitution and Income Effects
- Should Know Definitions for Three Demand Curves
 - What is the regular Demand Curve?
 - What is the Slutsky Demand Curve?
 - What is the Hicks or Compensated Demand Curve?
 - What is the law of demand for each type of curve – that is, is this demand curve always downward sloping?