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CONSUMPTION POSSIBILITIES

The Budget Equation

Expenditure = Income

- price of pop- P_P
- quantity of pop- Q_P
- Price of movie- P_M
- quantity of movies- Q_M
- Income- Y
- Lisa' s budget equation is:

 $P_P Q_P + P_M Q_M = Y$

CONSUMPTION POSSIBILITIES

• $P_P Q_P + P_M Q_M = Y$ • Divide both sides of this equation by P_P , to give: • $Q_P + (P_M/P_P)Q_M = Y/P_P$ • $Q_P = Y/P_P - (P_M/P_P)Q_M$

• Y/P_P is Lisa' s real income in terms of pop.

• P_M/P_P is the relative price of a movie in terms of pop.

CONSUMPTION POSSIBILITIES

• A Change in Prices

- A rise in the price of movies
- (the good on the *x*-axis)
 - Slope
 - Rotation of the budget line







- An **indifference curve** is a line that shows combinations of goods among which a consumer is *indifferent*.
- At point C, Lisa sees
 2 movies and drinks 6 cases of pop a month.







PREFERENCES AND INDIFFERENCE CURVES



PREFERENCES AND INDIFFERENCE CURVES

- I_2 is an indifference curve above I_1 .
- Lisa prefers any point on *I*₂ to any point on *I*₁.
 - Lisa prefers point J to either point C or point G.





PREFERENCES AND INDIFFERENCE CURVES

•Diminishing *MRS* of movies for pop.

At point *C*, Lisa is willing to give up 2 cases of pop to see one more movie—her *MRS* is 2.

At point *G*, Lisa is willing to give up 1/2 case of pop to see one more movie—her *MRS* is 1/2.





PREDICTING CONSUMER CHOICES

- Best Affordable Choice
- The consumer's best affordable choice is
- On the budget line
- On the highest attainable indifference curve

PREDICTING CONSUMER CHOICES • The best affordable point is C.

Lisa can afford to consume more pop and see fewer movies at point F.

But she is indifferent between F, I, and H and she prefers C to I.



















- The direction of the substitution effect never varies:
- When the relative price falls, the consumer always substitutes more of that good for other goods.
- The substitution effect is the first reason why the demand curve slopes downward.



INCOME EFFECT

- To isolate the income effect, we reverse the hypothetical pay cut and restore Lisa's income to its original level (its actual level).
- Lisa is now back on indifference curve *I*₂ and her best affordable point is *J*.
- The move from *K* to *J* is the income effect.



NORMAL GOODS

- For Lisa, movies are a normal good.
- With more income to spend, she sees more movies—the income effect is positive.
- For a normal good, the income effect reinforces the substitution effect and is the second reason why the demand curve slopes downward.





- If the negative income effect is stronger than the substitution effect, a lower price for inferior goods brings a *decrease* in the quantity demanded—the demand curve slopes upward!
- This case does not appear to occur in the real world.

Sara's income is \$12 a week.

The price of popcorn is \$3 a bag and the price of a smoothie is \$3.

The relative price of a smoothie is _____.

OA. \$3

OB. 3.0 bags of popcorn

OC. \$12

OD. 1.0 bag of popcorn



We divide the effects of a price change into the effect and the effect.
○A. substitution; income
OB. substitute; complement
OC. work; leisure
OD. quantity; elasticity

An increase in income ______. A. decreases the slope of the budget line and shifts the demand curve rightward B. shifts the budget line rightward and shifts the demand curve rightward C. shifts the budget line rightward and creates a movement downward along the demand curve D. decreases the slope of the budget line and creates a movement upward along the demand curve

Boom Time for 'Gently Used' Clothes

Unlike most retailers who are blaming the economy for their poor sales, one store chain is boldly declaring that an economic downturn can actually be a boom for its business... [It] sells used namebrand children's clothes, toys, and furniture. ... Last year, the company took in \$20 million in sales, up 5% from the previous year. "Our sales are already up 5% so far this year."

CNN, April 17, 2008

According to this article used clothing is _____ good. If the price of used clothing falls and income remains the same, the quantity of used clothing bought _____.

○A. a normal; decreases

○B. a normal; increases

○C. an inferior; decreases

OD. an inferior; increases

If the price of used clothing falls and income remains the same, the substitution effect ______ the quantity of used clothing bought and the income effect ______ the quantity of used clothing bought.

- ○A. decreases; increases
- B. increases; decreases
- ○C. decreases; decreases
- OD. increases; increases

- The direction of the substitution effect never varies:
- When the relative price falls, the consumer always substitutes more of that good for other goods.
- The substitution effect is the first reason why the demand curve slopes downward.

