$P_X \downarrow$.

X normal.

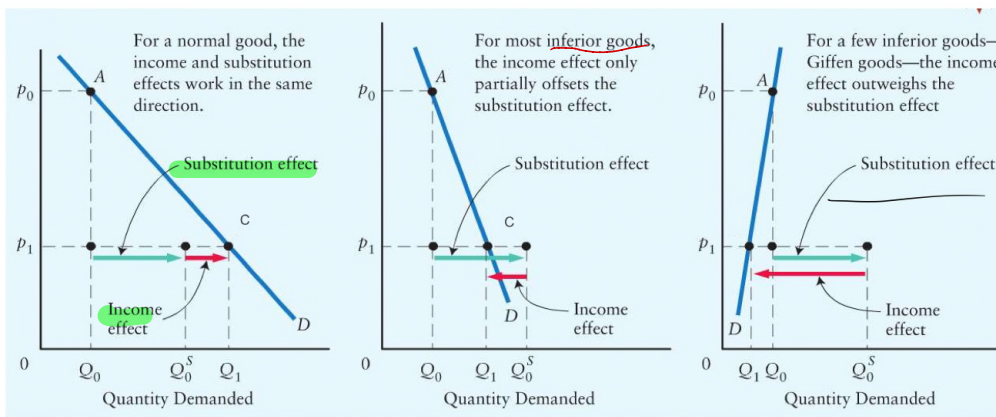Y normal.

$A \to C$ total effect.

Y_2

Y_1

A

B

C

$S.E$

$Z.E$

X_1 X_2 X_3

P_1, P_2, m

P_1', P_2, m' — real income.

Income effect $= X_3 - X_2 = X_3(P_1', P_2, m) - X_2(P_1', P_2, m')$.

1. The law of demand holds for all normal goods because: SE 和 IE 方向相同

2. The law of demand holds for inferior goods if the substitution effect dominates the income effect. (steeper, more inelastic than normal goods)

3. The law of demand does not hold for Giffen goods.

For a normal good, the income and substitution effects work in the same direction.

Substitution effect

Income effect

p_0 p_1 0 Q_0 Q_0^S Q_1
Quantity Demanded

For most inferior goods, the income effect only partially offsets the substitution effect.

Substitution effect

Income effect

p_0 p_1 0 Q_0 Q_1 Q_0^S
Quantity Demanded

For a few inferior goods— Giffen goods—the income effect outweighs the substitution effect

Substitution effect

Income effect

p_0 p_1 0 Q_1 Q_0 Q_0^S
Quantity Demanded

➢ X的变化量

Type of Good	Substitution Effect	Income Effect	SE 和 IE 比较	Total Effect	Slope of Demand Curve
Normal	X↑	X↑	SE Reinforce IE 加强	X↑	flat. positive
Inferior (Non-Giffen)	X↑	X↓	SE Dominate IE X↑ 主导 X↓	X↑	steep positive
Giffen	X↑	X↓	IE Dominate SE X↑ X↓	X↓	positive upward slopping