

$$\frac{(\text{new income} - \text{old income})}{\text{old income}}$$

%change Qd is the percentage change in the quantity demanded
 %change is the percentage change in income

Direct relationship between income and demand --> YED coefficient positive: normal good

Indirect relationship --> YED coefficient negative: inferior good

It can be applied to measure the change in an individual's consumption of particular goods to a change in income or it can be applied to analyze the effects of change in national income on the demand for particular goods and services in the nation as a whole

E.g. The demand for bicycles increased during US recession as it was perceived as an inferior. However, when the income levels rose, the consumption of cars increased, meaning that it is a normal good.

Interpreting the YED coefficient

Income elastic --> percentage change in income will lead to a larger percentage change in quantity demanded

Income inelastic --> percentage change in income will lead to a smaller percentage change in demand

Income unit elastic --> particular percentage change in income will lead to a same percentage change in demand

Applications of income elasticity of demand

YED allows businesses and governments to analyze the effect of changing incomes among consumers and taxpayers on the level of demand for a particular good

Firms: may wish to determine whether the income of its consumers are likely to rise or fall in the future when deciding on production numbers for its product

- If a firm produces inferior good, then a recession could be good for business and it will increase its output in order to meet the rising demand among consumers
- If a firm produces normal goods, they would reduce production if incomes decline

Understanding YED allows firms to produce at a more efficient level of output

Government must also recognize the effects of varying YED for different goods produced by the economy

- The largest source of tax revenue for most governments is a direct tax on income
- A government's decision to raise or lower income tax will directly affect disposable income and therefore demand for goods and services
- A tax increase will reduce demand for normal goods and increase demand for inferior good