

Focusing on normal goods, we can state the following:

If $YED > 1$, then the $\% \Delta Q_d$ is greater than the $\% \Delta Y$, thus **demand is income elastic**, as a rise in income leads to a proportionally greater rise in the Q_d of that good/service. Luxury goods are considered income elastic.

If $0 < YED < 1$, then the $\% \Delta Q_d$ is smaller than the $\% \Delta Y$, thus **demand is income inelastic**, as a rise in income leads to a proportionally smaller rise in Q_d . Basic/staple goods are considered income inelastic.

If $YED = 0$, then Q_d is **not affected** by a change in income.

If $YED = 1$, then the percentage change of Q_d will be **equal** to the percentage change of Y .

Applications of YED

- ⇒ Firms would like to know whether the demand for their good is highly income elastic or moderately income inelastic to help plan future investments.
- ⇒ If an economy is growing and incomes are increasing, then firms producing highly income elastic goods may have to invest in expanding their capacity to meet the increasing demand.

Price elasticity of supply (PES) –

The responsiveness of quantity supplied over a change in price.

Formula

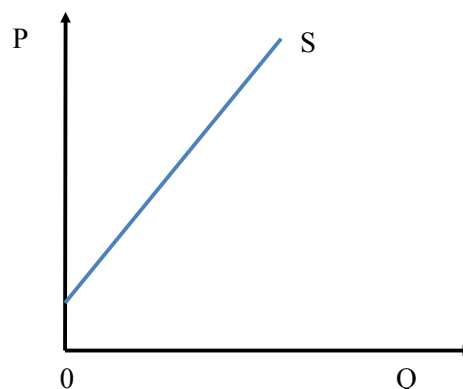
Measured by the percentage change in quantity supplied over the percentage change in price:

$$PES = \frac{\% \Delta Q_s}{\% \Delta P}$$

$$\text{Percentage change} = \frac{\text{new value} - \text{old value}}{\text{old value}}$$

Ranges of PES

1. **If $PES > 1$** , then a $\% \Delta P$ will lead to a proportionally larger $\% \Delta Q_s$. This means that **supply is price elastic**.



2. **If $PES = \infty$** , then **supply is perfectly price elastic**: A small change in price will lead to an infinitely larger change in Q_s .



3. **If $0 < PES < 1$** , then **supply is price inelastic**. This means that a $\% \Delta P$ leads to a proportionally smaller $\% \Delta Q_s$.

