Supply Elasticity
Elasticity of Supply,

Is the percentage change in quantity supplied associated with a percentage change in price.

$$Es = \frac{\% \Delta Qs}{\% \Delta P}$$
\[ E_s = \frac{\Delta Q_s}{\Delta P} \times \frac{P_0}{Q_0} \]
Interpreting Elasticity of Supply

If

\[ Es > 1 \Rightarrow \text{elastic supply} \]

\[ Es < 1 \Rightarrow \text{inelastic supply} \]

\[ Es = 1 \Rightarrow \text{unitary elastic supply} \]
If the Supply curve is a straight line:

If the supply curve cuts the price axis (Y), then supply is ELASTIC.
If the Supply curve is a straight line:

If the supply curve cuts the quantity axis (X), then supply is INELASTIC.
If the Supply curve is a straight line:

If the supply curve comes out of the origin, then supply is UNITARY ELASTIC.
Sections of Elasticity

Es > 1

More Elastic

Less Elastic

P

Qs/ut
Sections of Elasticity

$P$

$S$

Es $< 1$

Less Inelastic

More Inelastic

$Q_s/ut$
Time and Elasticity of Supply

The longer the time period for adjustment, the more price elastic is the supply curve.
The longer the time allowed for adjustment to a \( \Delta \) Price, the more firms are able to figure out ways to increase or decrease production in an industry.
The longer the time allowed for adjustment to a Δ Price, a greater amount of resources can flow into or out of an industry by means of expansion or contraction of existing firms.