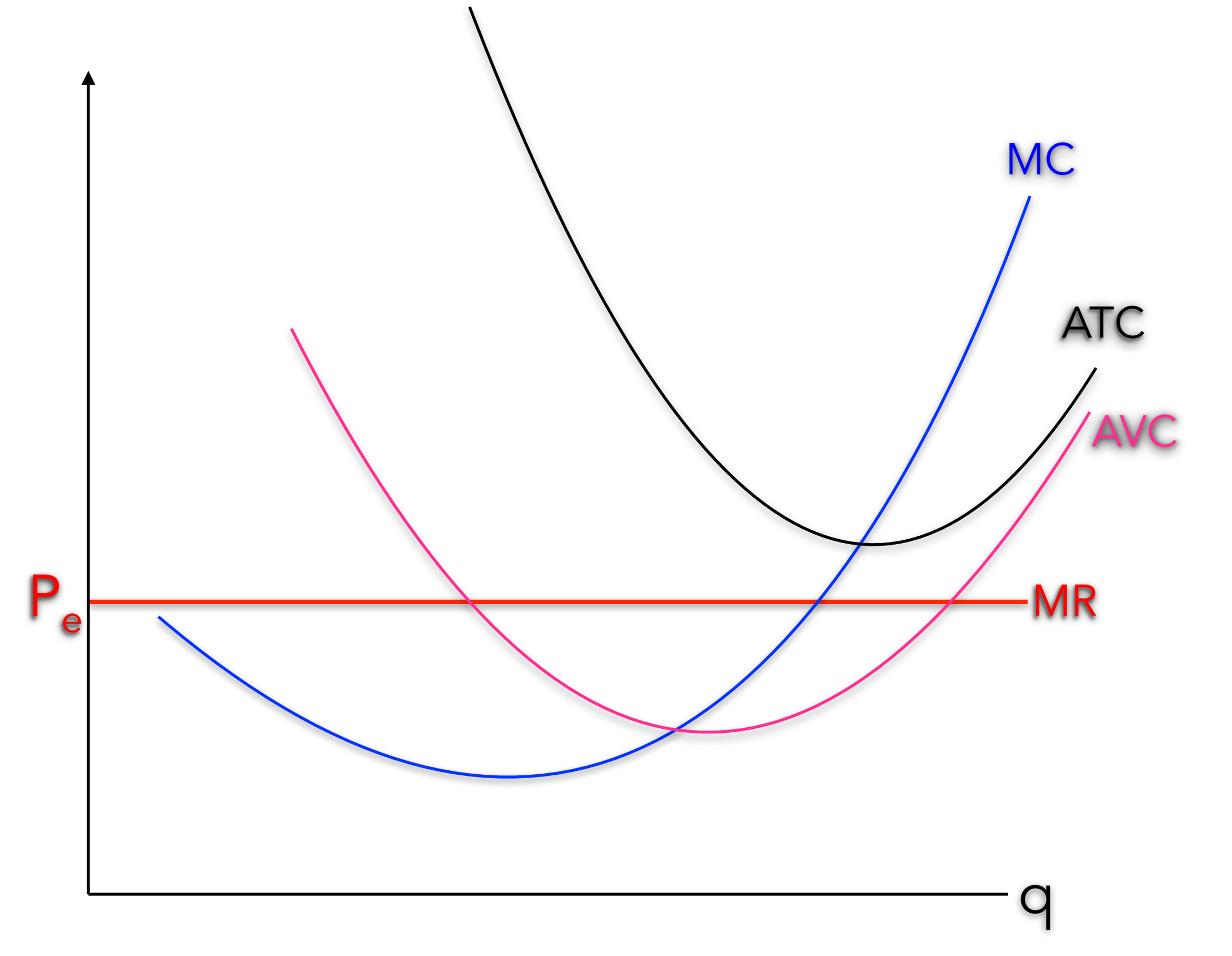
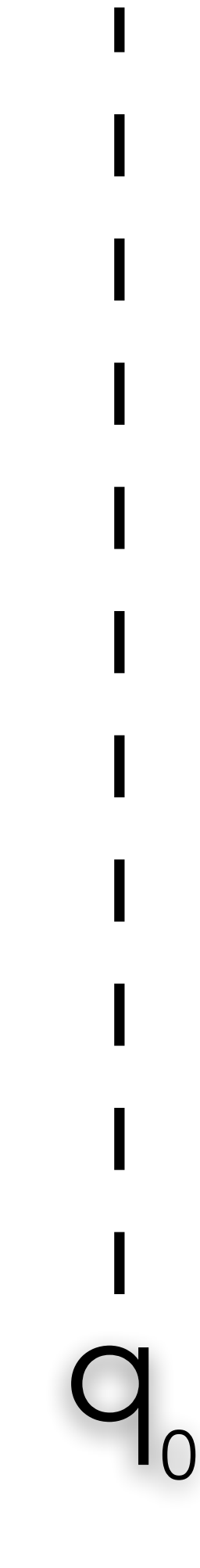
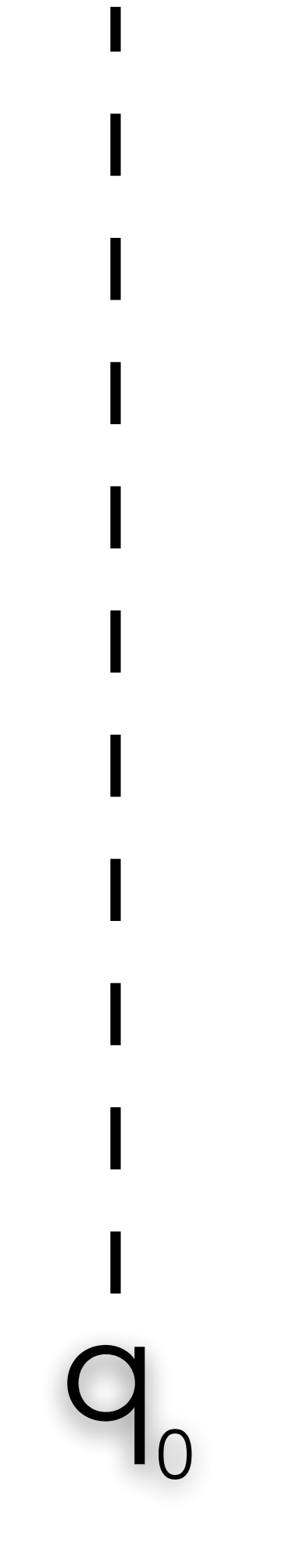

MC
ATC
AVC
P_e
MR
q


q_0

$ATC \times q_0 = TC$

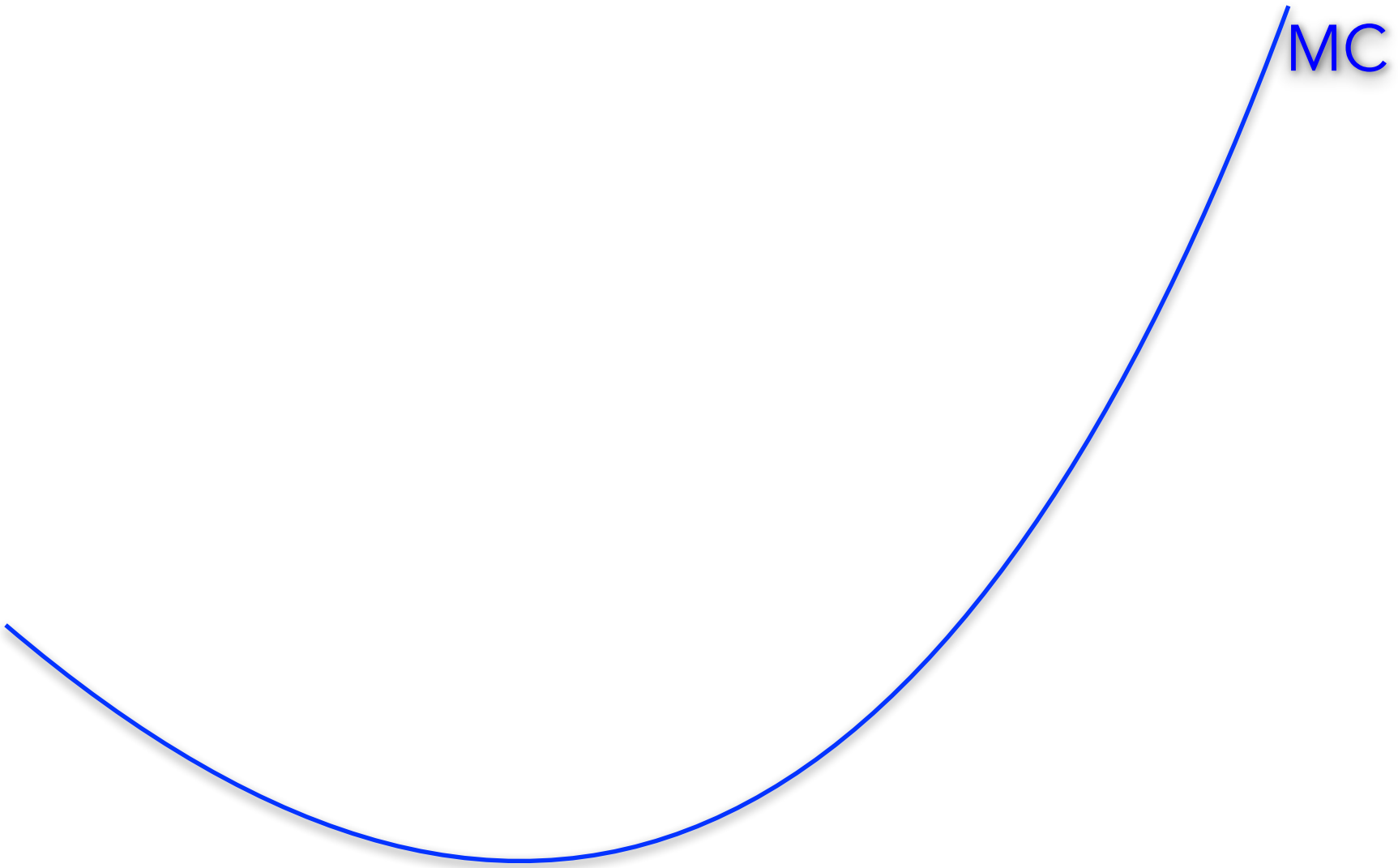
ATC

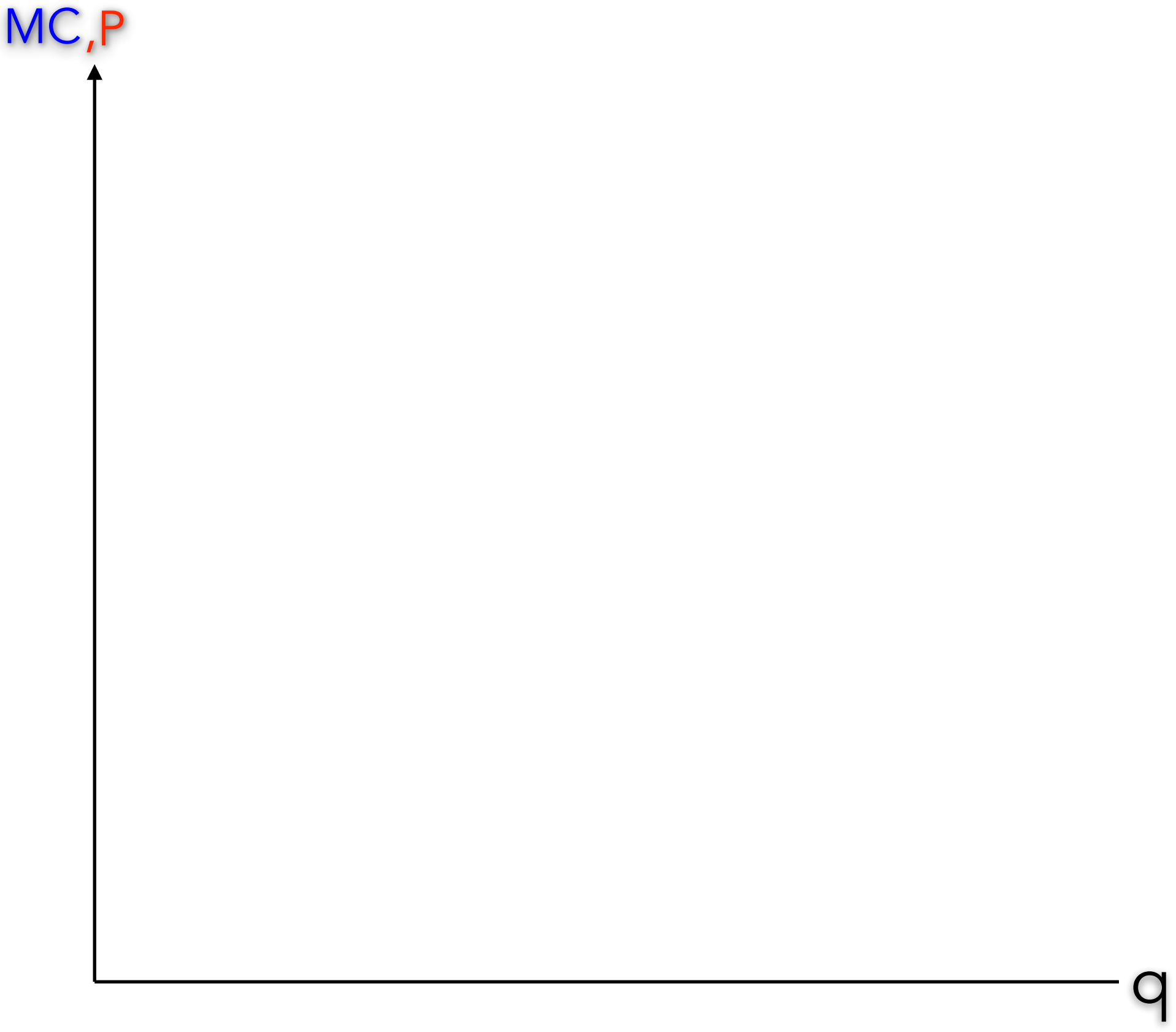

q_0

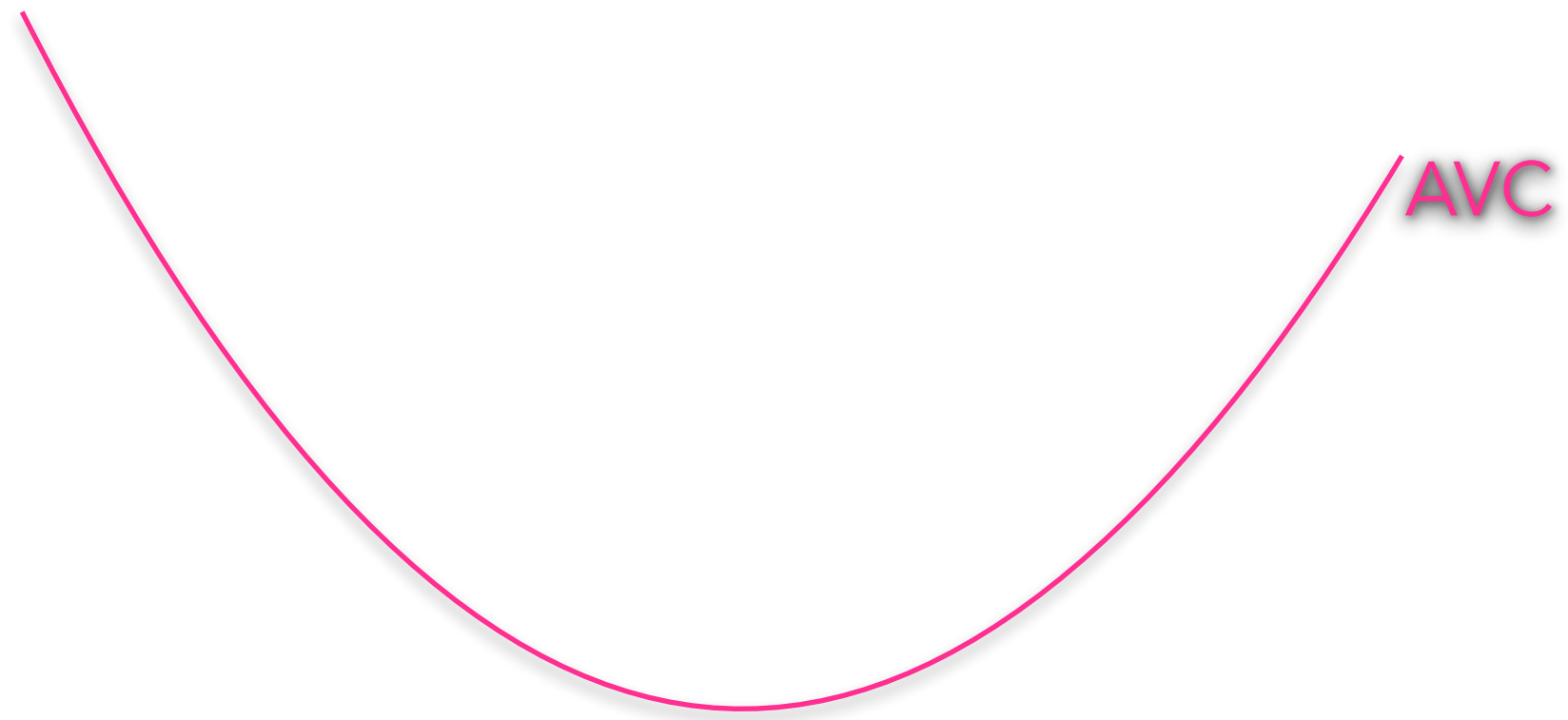
$$AFC \times q_0 = FC$$

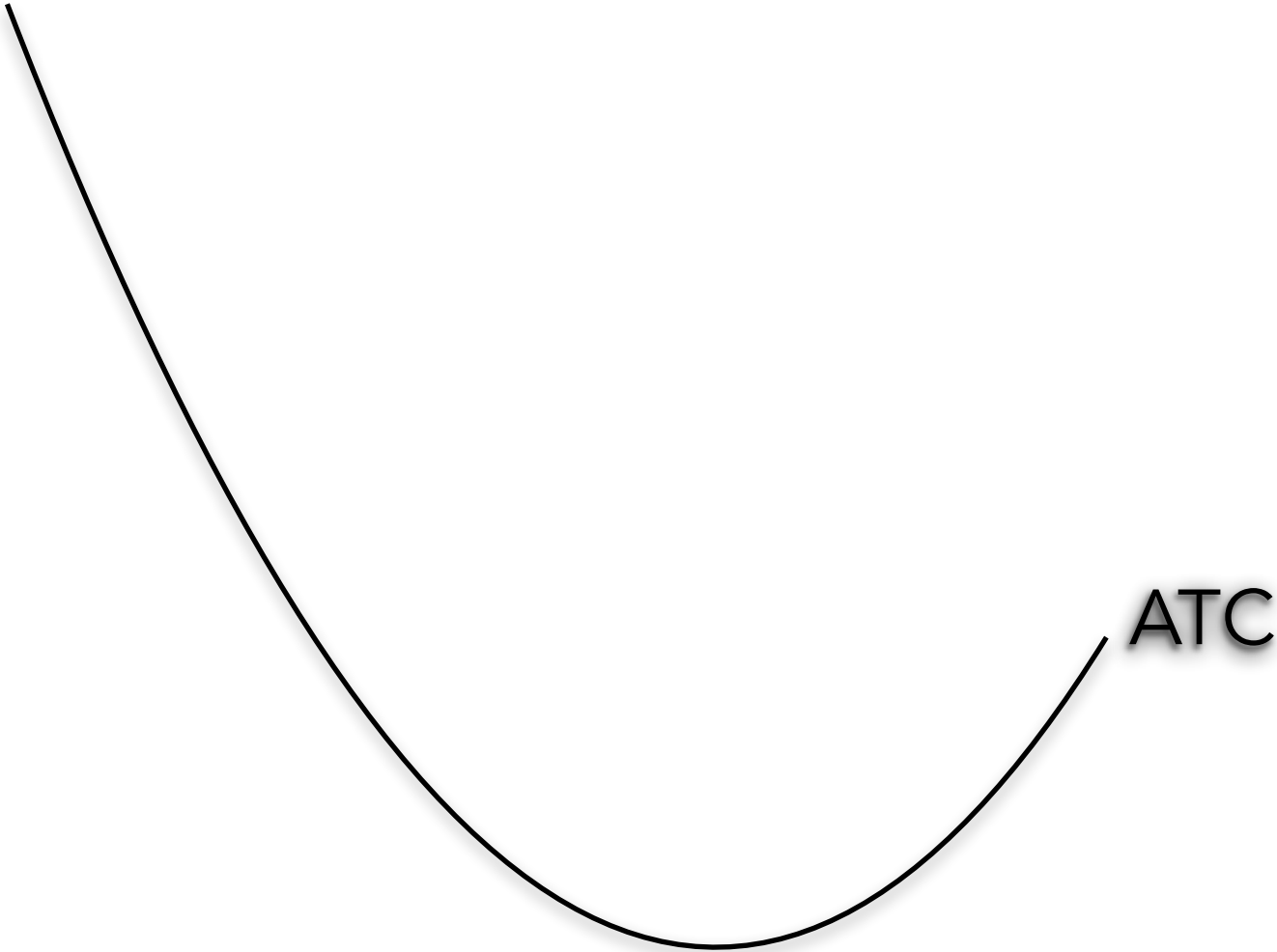

AFC

$$\text{Loss} = TR - TC$$


MC


MC,P
q


AVC


ATC

ATC

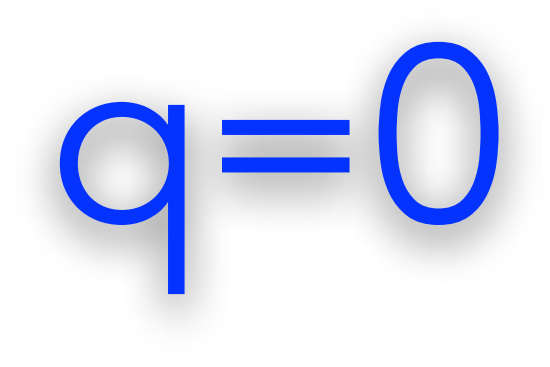
AVC

$$\text{Price} \times q_0 = TR$$

If the firm produces q_0 units

If the firm produces q_0 it pays this Fixed Cost

If the firm "shuts down", the firm produces zero units


q=0

If the firm wants to keep the plant, it must continue to pay the Fixed Cost which is the same even though q=0

Total Revenue is zero

Loss = TR - TC

Total Cost is just the FC

Loss = 0 - FC

Loss if the firm shuts down = FC

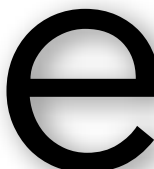
Loss if the firm produce q_0

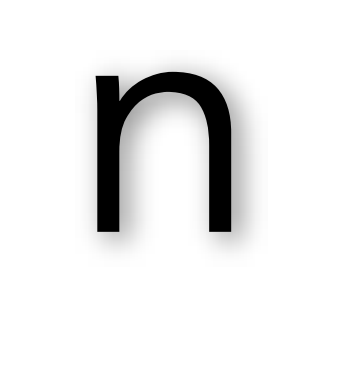
Loss if the firm produce q_0

Smaller than

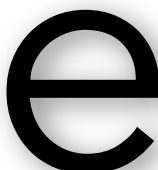
Loss if the firm shuts down = FC

W

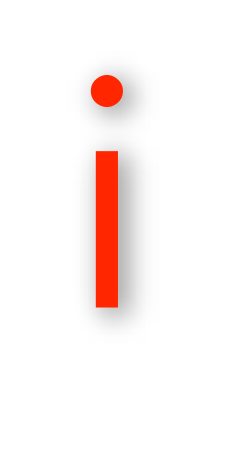


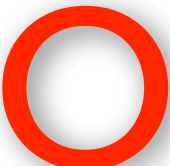

n

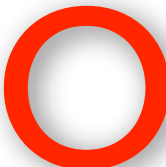
t

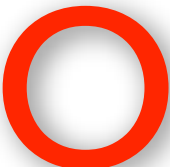


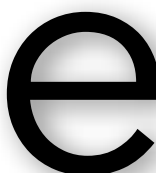

C



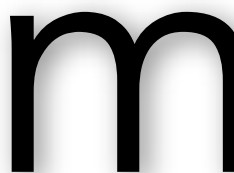


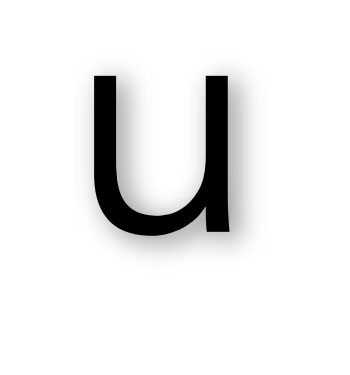






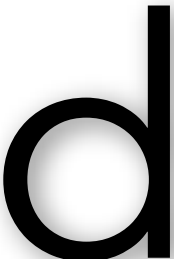
r

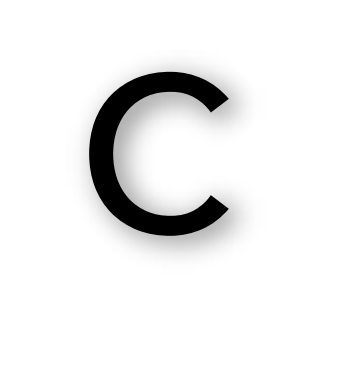


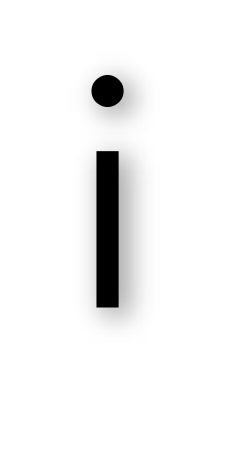


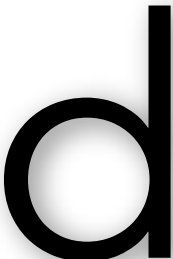
S

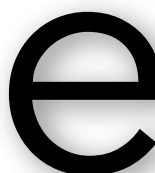
t

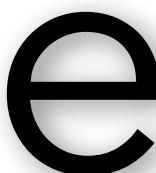



C

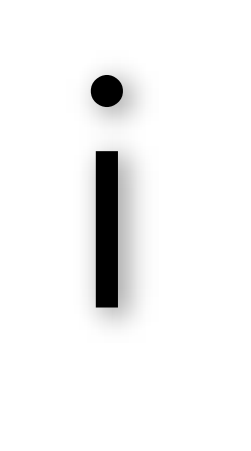




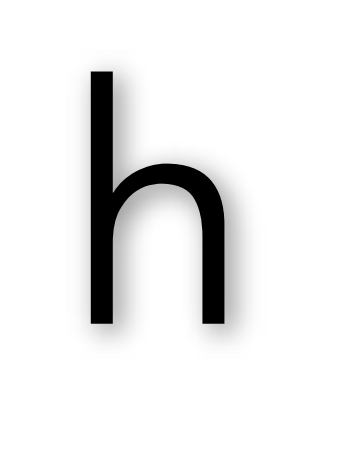


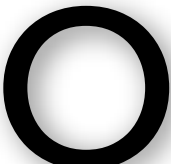


r

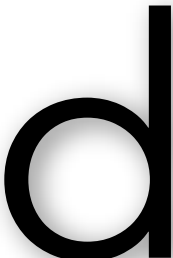


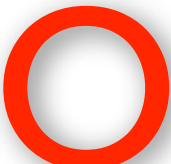
S



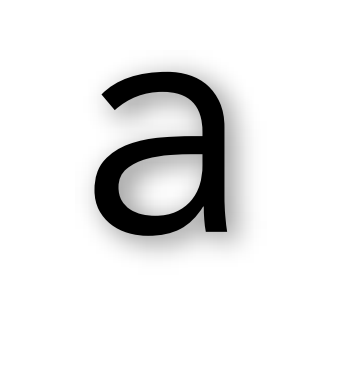


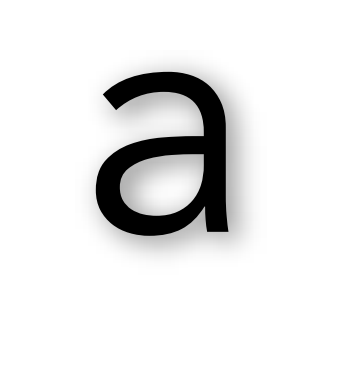
u

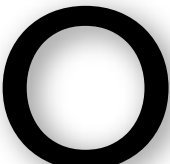


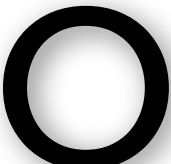


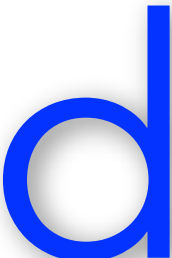

C

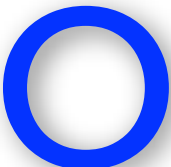

a


a





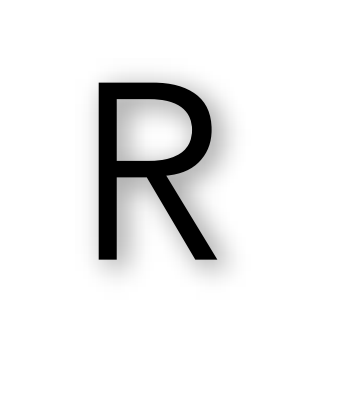




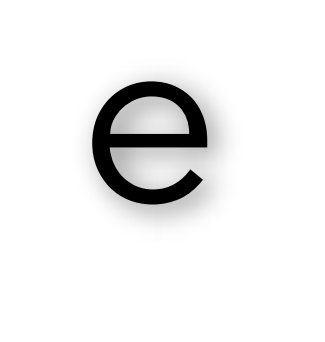

W

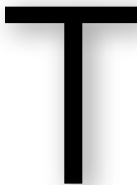
Variable Cost is zero

In this case, the firm should produce q_0 at a loss instead of shutting down


R

u


e



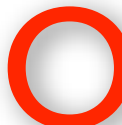
C

S

e

t

e




S


n

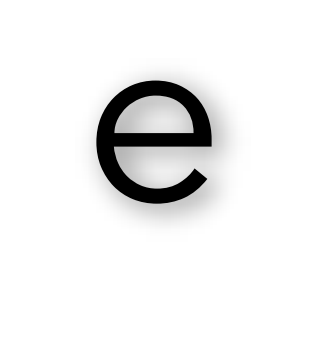

n

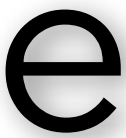
u

t

u

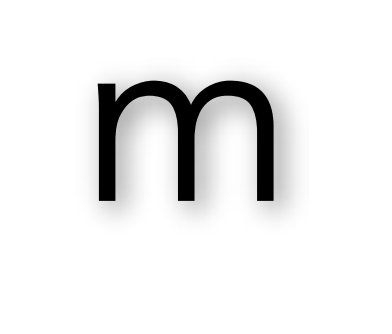
t



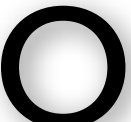


t

r



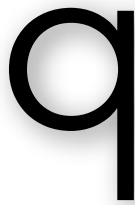
C



S

e

S




W

e

r

e

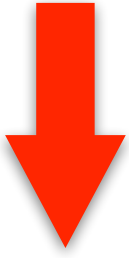

M


R

If the firm produces zero units it pays this same Fixed Cost

Producing at a loss is a "short run" decision: The firm would not want to close the plant and get out of the industry as soon as the price becomes too low to make a profit

The firm waits and if in the "long run" the price is still too low to make a profit, the firms then closes the plant and leaves the industry



The firm "exits" the industry in the long run

To minimize the loss, the firm must produce q_0

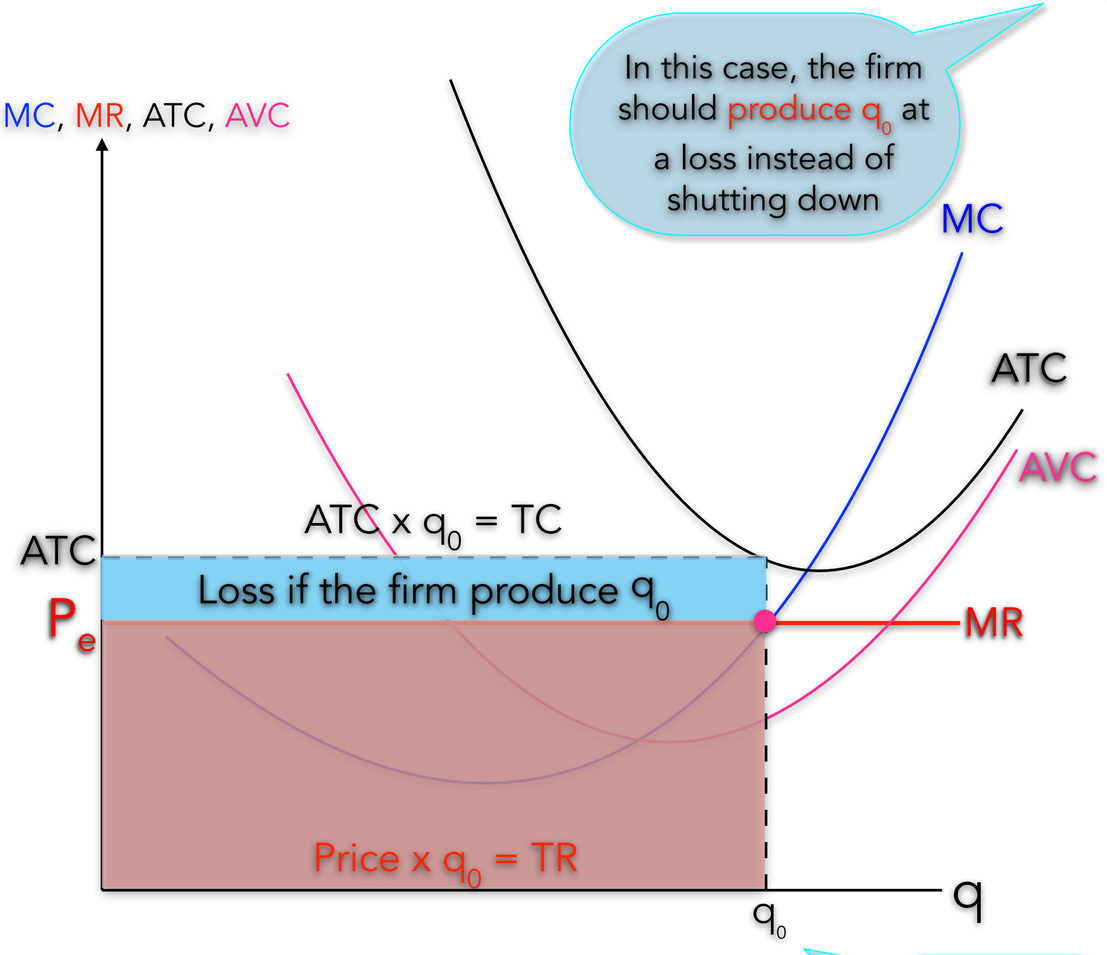
P, MC, MR, ATC, AVC

When the price is too low, the firm must decide whether it should produce at a loss or shut down

Rule: To choose the loss minimizing output level the firm chooses q where MC = MR

When the price is too low, the firm must decide whether it should produce at a loss or shut down

Loss if the firm produce q_0 **Smaller than** Loss if the firm shuts down = FC

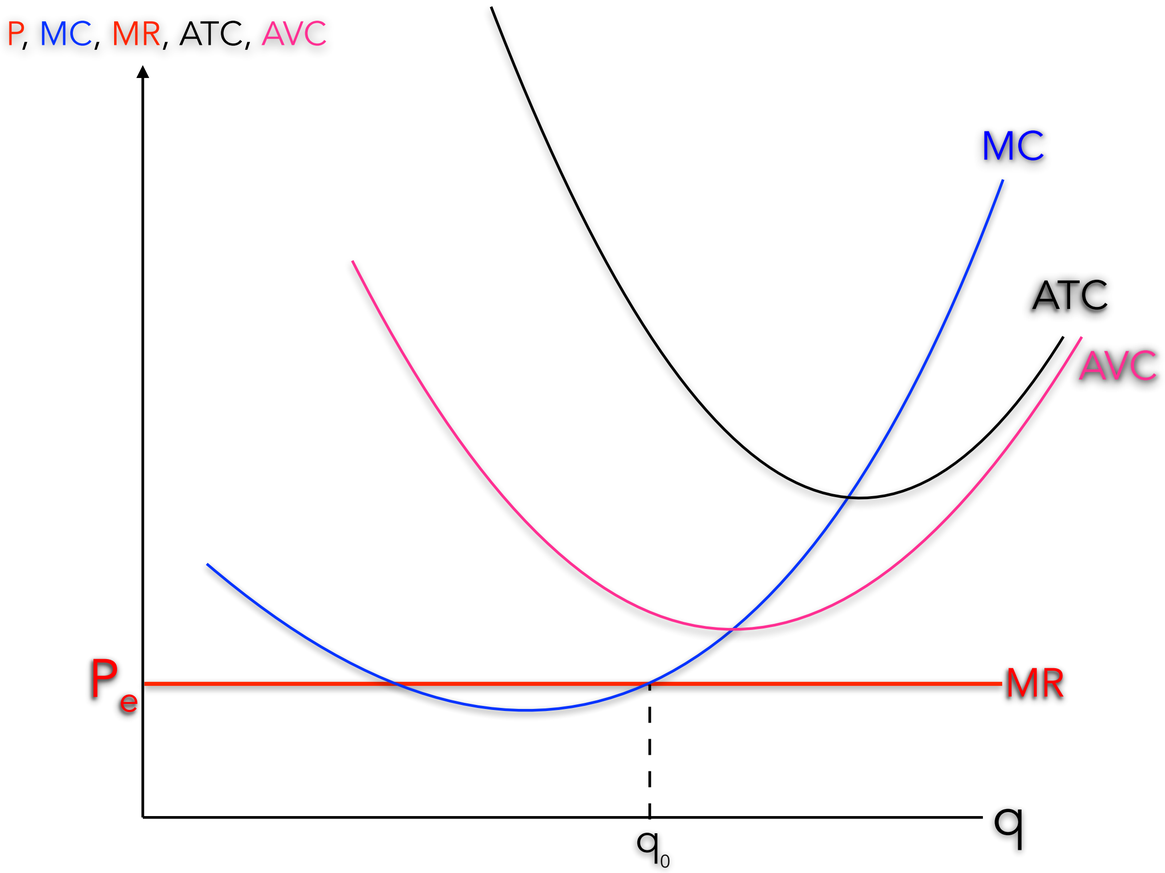


Rule: To choose the loss minimizing output level the firm chooses q where MC = MR

Producing at a loss is a "short run" decision: The firm would not want to close the plant and get out of the industry as soon as the price becomes too low to make a profit

The firm waits and if in the "long run" the price is still too low to make a profit, the firms then closes the plant and leaves the industry

The firm "exits" the industry in the long run


P, MC, MR, ATC, AVC
MC
ATC
AVC
P_e
MR
q
q_0