



We will use the following values for this example:

CC  $\equiv$  1000 + 0.9Y

G = 500 billion

1 = 1,000,000 billion

NM = 600 billion

~~XX~~ = 900 billion

**NXX = 900 - 600 = 300**



$$AE = C + I + G + NX$$

$$AE = 100 + 0.9Y + 1,000 + 500 + 300$$

$$AE = 1,900 + 0.9Y$$

We know at equilibrium  $AE = Y$ . To find the equilibrium value of  $Y$ , we set  $AE = Y$  and solve for  $Y$ :

$$Y = 1,900 + 0.9Y$$

Rearrange terms:

$$Y - 0.9Y = 1,900$$

Factor.Y:



$$Y(1 - 0.9) = 1,900$$

Solve for **y**:

$$Y = 1,900 / (1 - 0.9)$$

$$Y = 1,900 / 0.1$$

$$Y = 19,000$$



This is the  
equilibrium value of  
**Y**



$$Y^* = 19,000$$



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$$C = 100 + 0.9Y$$

$$I = 1,000 \text{ billion}$$

$$G = 500 \text{ billion}$$

$$X = 900 \text{ billion}$$

$$M = 600 \text{ billion}$$

$$NX = 900 - 600 = 300$$

$$AE = C + I + G + NX$$

$$AE = 100 + 0.9Y + 1,000 + 500 + 300$$

$$AE = 1,900 + 0.9Y$$

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$$Y = 1,900 + 0.9Y \quad \text{Rearrange terms: } Y - 0.9Y = 1,900$$

$$\text{Factor } Y: Y(1 - 0.9) = 1,900$$

$$\text{Solve for } Y: Y = 1,900 / (1 - 0.9)$$

$$Y = 1,900 / 0.1 \quad Y^* = 19,000$$

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# Inflationary and Recessionary Gaps