

Equations to calculate the effect of an injection of **new money**:

$$\Delta D = \Delta R \times \frac{1}{r}$$

$\Delta R =$ New money

ALL

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ADD

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$$\Delta D = 3,000 \times \frac{1}{0.1}$$

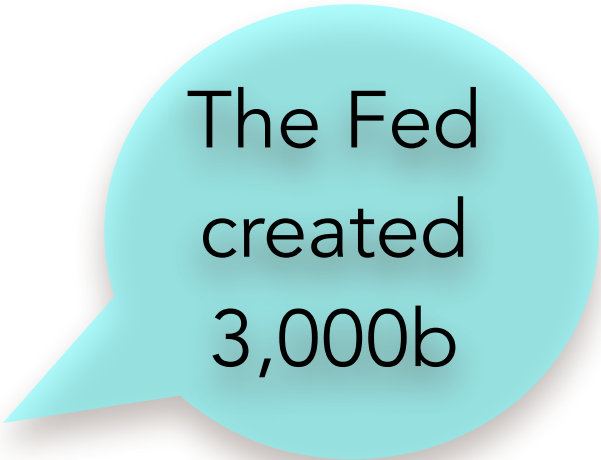
$\Delta R = 3,000$

$$= 3,000 \times 10$$

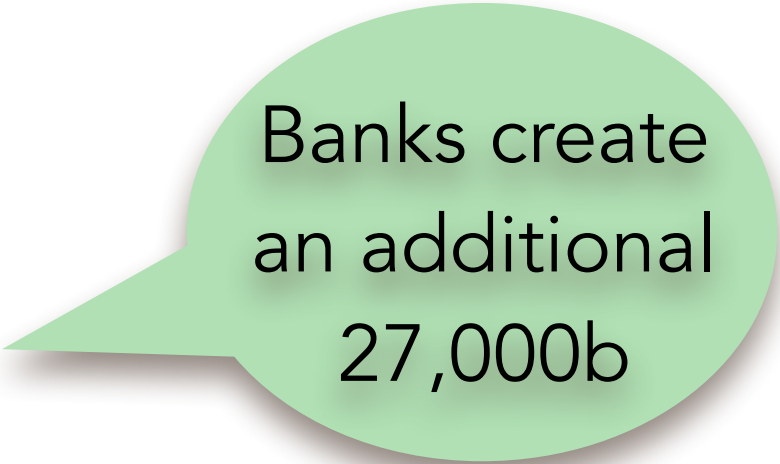
$$\Delta L = 30,000 - 3,000$$

= 30,000

= 27,000



The Fed
created
3,000b



Banks create
an additional
27,000b

Money Supply (M^s) = Currency outside banks + Deposits

Change in the Money Supply (ΔM^s):

$$\Delta M^s = \Delta \text{Currency} + \Delta \text{Deposits}$$

$$\Delta M^s = \text{zero} + 30,000$$

If we **assume** that no
portion of any loan
"leaks" into **currency**

Then the change in
the money supply is
the same as the
change in Deposits

$r=10\%$

Equations to calculate the effect of an injection of **new money**:

The Fed
created
3,000b

$$\Delta R = \text{New money} \quad \Delta R = 3,000$$

$$\Delta D = \Delta R \times \frac{1}{r} \quad r=10\% \quad \Delta D = 3,000 \times \frac{1}{0.1} = 3,000 \times 10 = 30,000$$

Banks create
an additional

$$\Delta L = \Delta D - \Delta R \quad \Delta L = 30,000 - 3,000 = 27,000$$

Money Supply (If we **assume** that no banks + **Deposits**

Change in "leaks" into **currency**): $\Delta M^s = \Delta \text{Currency}$

Then the change in
the money supply is
the same as the
change in Deposits

$$\Delta M^s = \text{zero} + 30,000$$