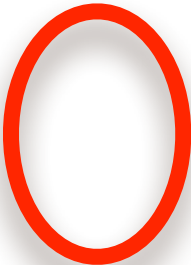




Banks now have **less** than required reserves. As loans are paid back, instead of issuing new loans banks put the money paid into reserves: This means that the amount of **loans** outstanding **decrease**





When the Fed **sells** bonds (**QT**) it **disappears** money by **reducing** bank reserves

When the Fed **sells** 20b in bonds, it disappears 20b in reserves:

$$\Delta R = -20b$$

$r = 10\%$

When the Fed **sells** 20b in bonds, Banks **reduce** loans **by** 180



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

$$\Delta D = -20 \times \frac{1}{0.1}$$

$$\Delta D = -20 \times 10 = -200$$

$$\Delta L = -2000 - (-20) = -1980$$

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

$$\Delta M^s = 0 + (-2000) = -2000$$

When the Fed **sells** 20b in bonds, the Money Supply  
**decrease** by 200b



When the Fed **sells** 20b in bonds, **Deposits** decrease by **200b**



The Fed  
destroyed 20b



Banks destroyed  
an additional  
180b

When the Fed **sells** bonds (QT) it **disappears** money by **reducing** bank reserves

When the Fed **sells** 20b in bonds, it disappears 20b in reserves:

$$\Delta R = -20b$$

Banks now have **less** than required reserves. As loans **are paid back**, instead of issuing new loans banks put the money paid into reserves: This means that **the amount of loans outstanding decrease**

$$\Delta D = \Delta R \times \left( \frac{1}{r} \right)$$

$$r = 10\%$$

$$\Delta D = -20 \times \frac{1}{0.1}$$

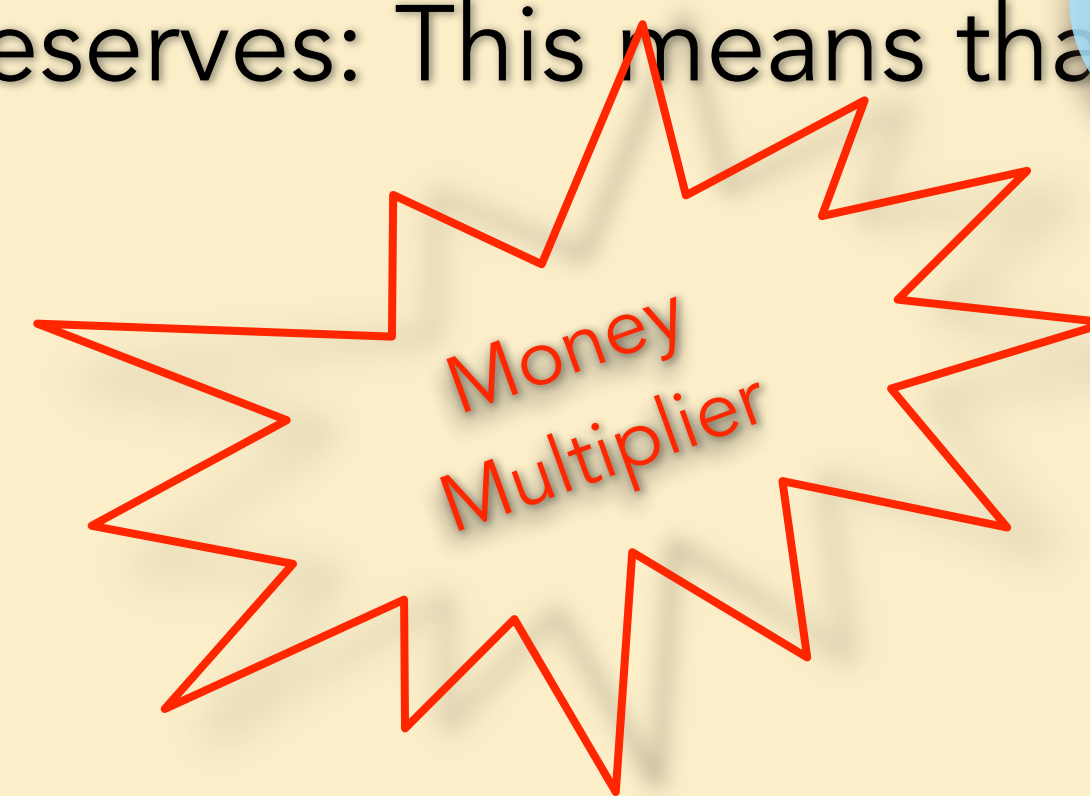
$$\Delta D = -20 \times 10 = -200$$

$$\Delta L = \Delta D - \Delta R$$

$$\Delta L = -200 - (-20) = -180$$

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

$$\Delta M^s = 0 + (-200) = -200$$



When the Fed **sells** 20b in bonds, **Deposits decrease** by 200b

When the Fed **sells** 20b in bonds, Banks **reduce loans** by 180

When the Fed **sells** 20b in bonds, the Money Supply **decrease** by 200b

The Fed destroyed 20b

Banks destroyed an additional 180b

Example: The following values are  
given

