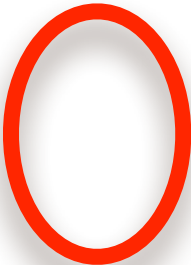


Banks now have **less** than required reserves. As loans are paid back, instead of issuing new loans banks put the money paid into reserves: This means that the amount of **loans** outstanding **decrease**





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**

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

$$r = 10\%$$

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

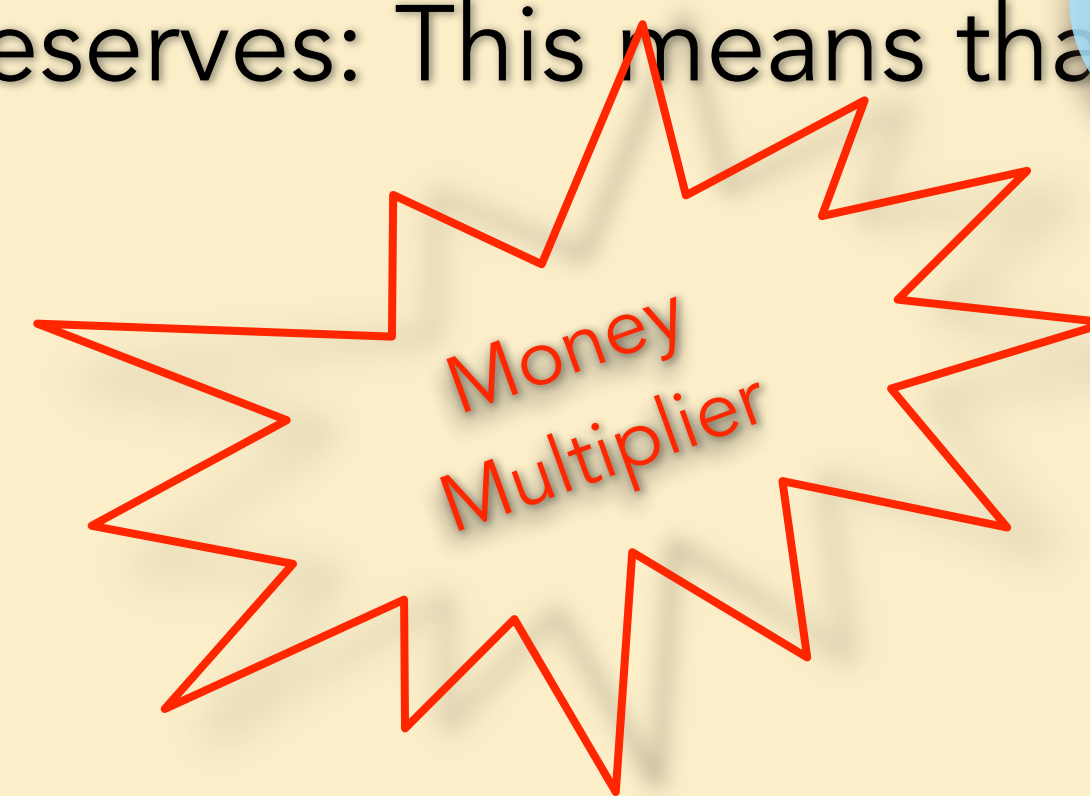
$$\Delta D = -20 \times 10 = -200$$

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

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

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

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



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 Money Market