

Unhedged

Option
Only

$$E[\text{Payoff}] = \underline{0.6}$$

~~0.6~~



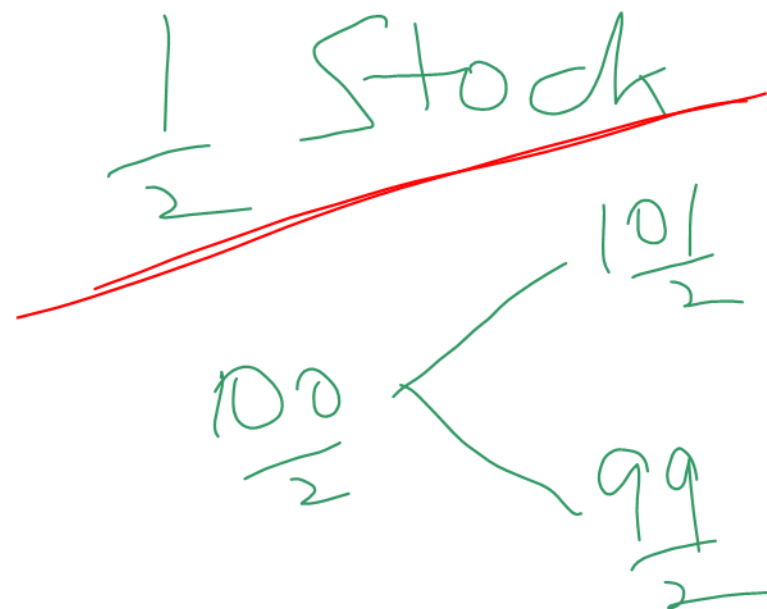
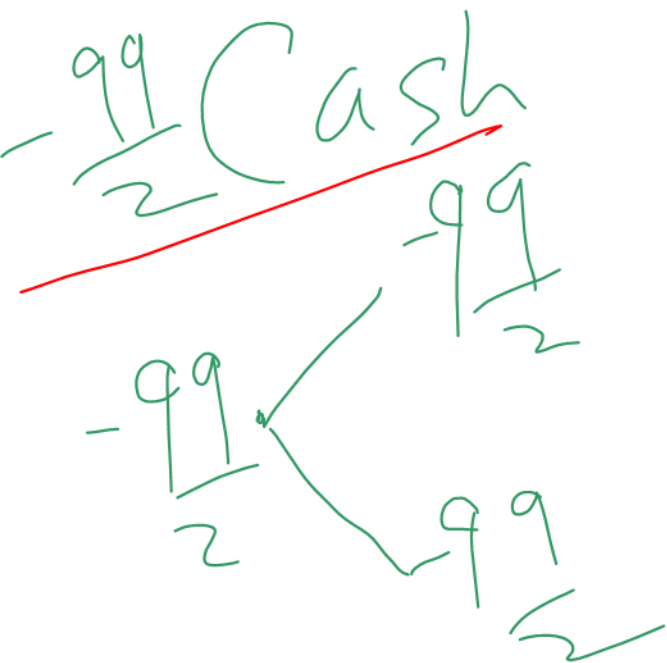
Hedging

$$V = \underline{0.5}$$

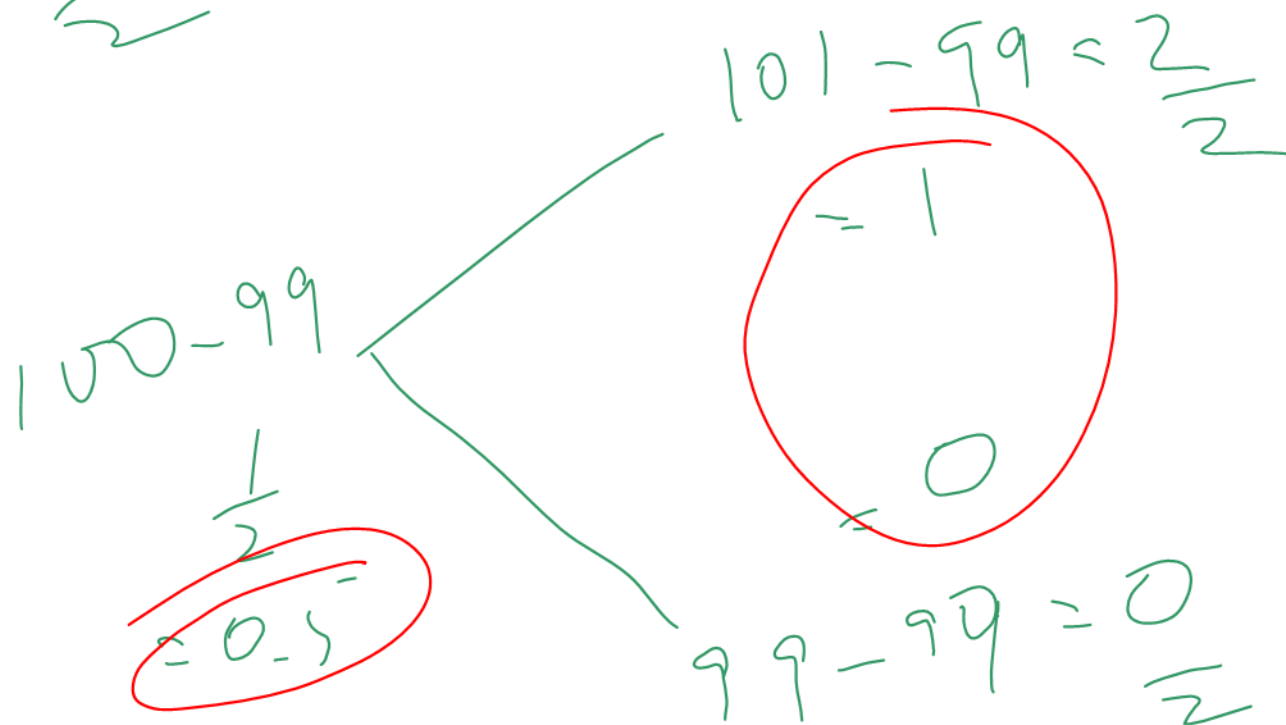
Risk-free
portfolio



Value, Price, Work



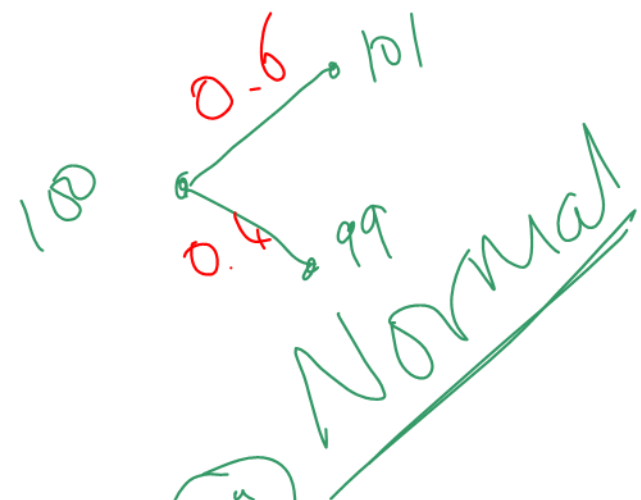
$\neq 0$



Academics

Risk-neutral world.

Risk-neutral probabilities



Risk
Data Stats

Real Work



$$101p + 99 \times (1-p) = 100$$

$$p = 0.5$$

$V = 0.5$

$E[\text{Payoff}] = \text{Value}$



$E[S_{\text{ten}}]$ \leftarrow S_{today}
 \Rightarrow ~~P'~~ \leftarrow wrong
 0.5 $(p=0.6)$

$V = E[V_{\text{pm}}]$
 \leftarrow $V = 0.5$ ✓

