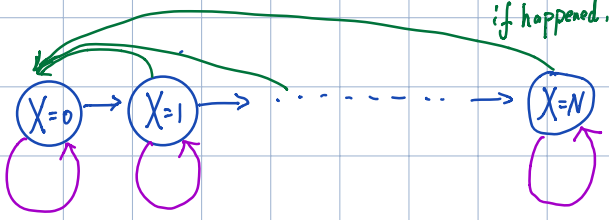
(X) states, where X = # of asset "X" we have on hand.

Transitions =

- $X=n \rightarrow X=n$: if action = 0 $\quad \forall n \geq 0$
- $X=n \rightarrow X=n+1$: if action = 1 $\quad \forall n \geq 0$
- $X=n \rightarrow X=0$: if action = 2 $\quad \forall n > 0$



N: set budget constraint

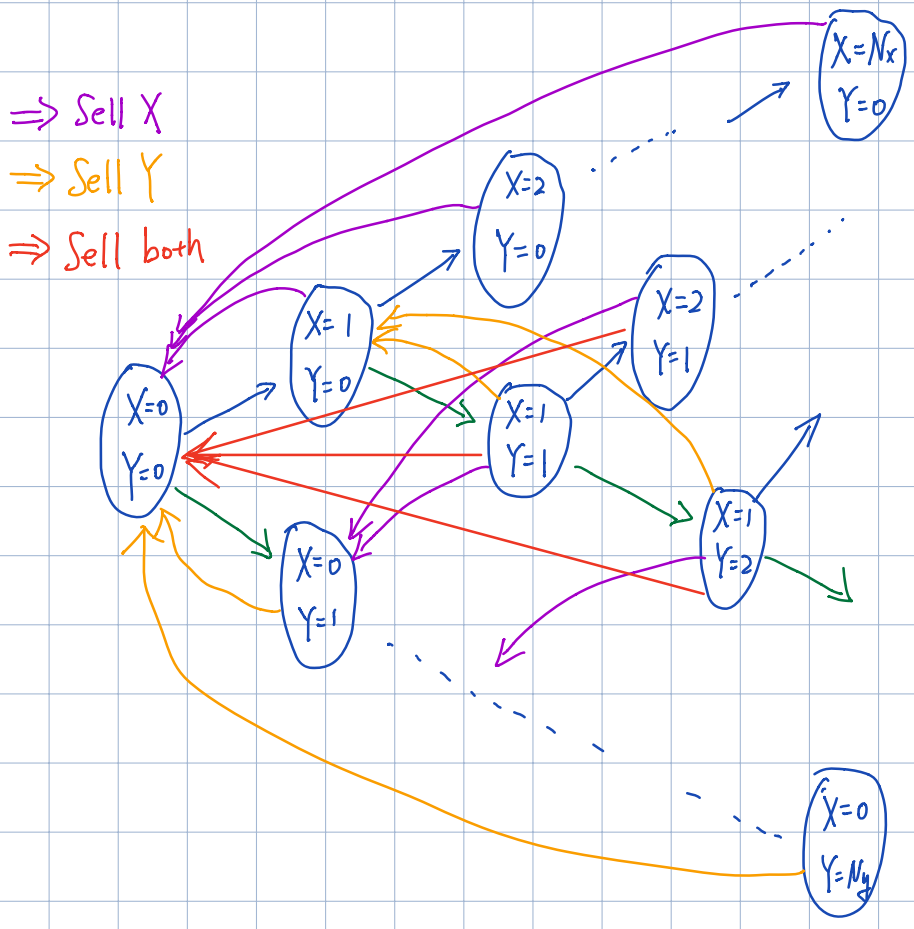
If action taken, reward = $\sum_{\text{Inventory}}$ (market price − purchase prices)

State

$X = x$

$Y = y$

where X, Y = # of "X" & "Y".



$\Rightarrow$ Sell X

$\Rightarrow$ Sell Y

$\Rightarrow$ Sell both

N_x = max # of X we can hold on hand.

N_y = max # of y we can hold on hand.