



DP[i] → Max profit in Buy / Sell state: (definition of DP)

- Rest implies doing Nothing

- Recurrence Relationship:

$$S_0[i] = \max(S_0[i-1], S_2[i-1])$$

$$\text{Buy}[i] = \max(\text{Buy}[i-1], S_0[i-1] - \text{price}[i])$$

$$\text{sell}[i] = \text{Buy}[i-1] + \text{price}[i]$$