Budget $= B$ $\qquad$ $i \in \{1,2,3,4,5\}$

s_i amount invested in stock i
b_i amount invested in bond i
c_i amount invested in crypto i

O_{si} opening price of stock i
O_{bi} opening price of bond i
O_{ci} opening price of crypto i

$$\left.\begin{array}{l} \alpha_{si} \text{ risk associated with stock } i \\ \alpha_{bi} \text{ risk associated with bond } i \\ \alpha_{ci} \text{ risk associated with crypto } i \end{array}\right\} \text{MAD on the daily returns of the assets}$$

Maximize:

Expected returns

$$\sum_{i=1}^{5} \frac{s_i}{O_{si}} \mathbb{E}(r_{si} | O_{si}) + \frac{b_i}{O_{bi}} \mathbb{E}(r_{bi} | O_{bi}) + \frac{c_i}{O_{ci}} \mathbb{E}(r_{ci} | O_{ci})$$
$$- \beta(\alpha_{si} + \alpha_{bi} + \alpha_{ci})$$

$\beta \rightarrow$ risk parameter