

$$\begin{array}{l} (1) \quad P_{\perp} \\ (2) \quad r \end{array} \left. \vphantom{\begin{array}{l} (1) \\ (2) \end{array}} \right\} \underline{\underline{\text{certe}}}$$

$$\begin{array}{l} (3) \quad Q_1^a \quad Q_2^a \quad \dots \quad Q_n^a \\ (4) \quad Z_1^a \quad Z_2^a \quad \dots \quad Z_n^a \end{array} \left. \vphantom{\begin{array}{l} (3) \\ (4) \end{array}} \right\} \underline{\underline{\text{incerte}}}$$

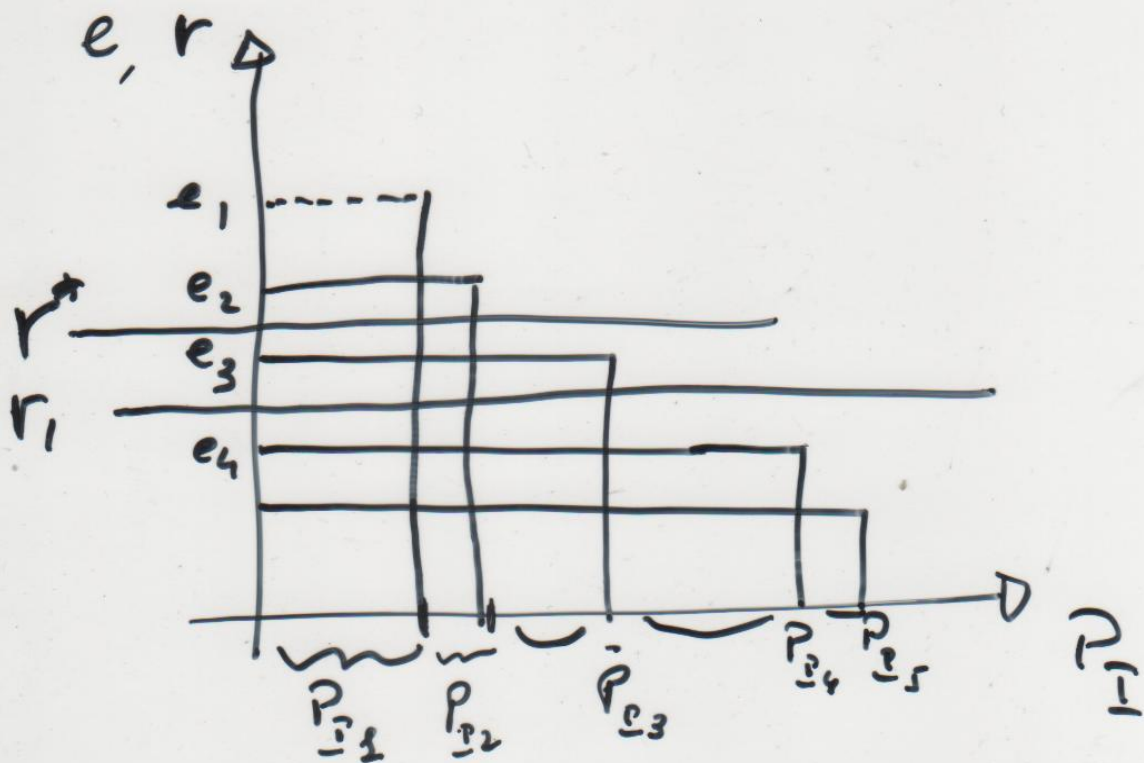
$$(Q_1^a - Z_1^a) (Q_2^a - Z_2^a) \dots (Q_n^a - Z_n^a)$$

$$A_0 = \frac{Q_1^a - Z_1^a}{1+r} + \frac{Q_2^a - Z_2^a}{(1+r)^2} + \dots + \frac{Q_n^a - Z_n^a}{(1+r)^n}$$

$$P_{\perp} \geq A_0$$

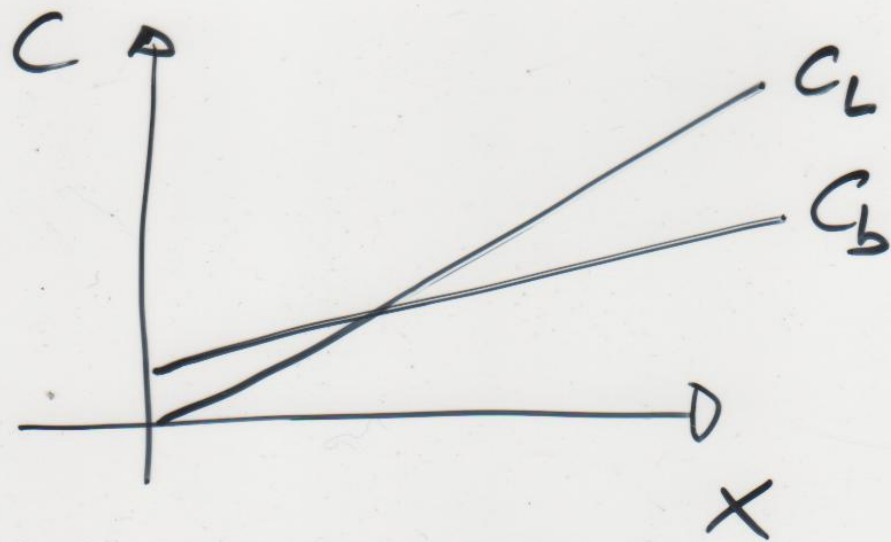
$$P_I = \frac{Q_1 - Z_1}{1+e} + \frac{Q_2 - Z_2}{(1+e)^2} + \dots + \frac{Q_n - Z_n}{(1+e)^n}$$

$$r \geq e$$



$$C = C(r, x, w)$$

$$S = S(r, x, w)$$



$$X_0 \quad X_1^a \quad X_2^a \quad \dots \quad X_n^a$$

$$X_0 + \frac{X_1^a}{1+r} + \frac{X_2^a}{(1+r)^2} + \dots + \frac{X_n^a}{(1+r)^n} = \hat{W}$$

$$\hat{W} = X_{pe} + \frac{X_{pe}}{1+r} + \frac{X_{pe}}{(1+r)^2} + \dots + \frac{X_{pe}}{(1+r)^n} =$$

$$= X_{pe} \left[1 + \frac{1}{1+r} + \frac{1}{(1+r)^2} + \dots + \frac{1}{(1+r)^n} \right]$$