

* Summary

- CAPM :

$$R_i = R_f + \beta^i (R_M - R_f) + \varepsilon_i$$

Unit of Risk
Price of Risk

source of risk

proportional to the market

$$\Delta \% R_M = 1 \Delta \% \text{inf} + 2 \Delta \% \text{GDP}$$

Stock A : $\beta^A = 2$

Stock B : $\beta^B = 0.5$

* CAPM $\Rightarrow$ POOR empirical results



APT $\Rightarrow$ many SOURCES OF SYSTEMATIC RISK

$$R_i = \beta_0^i + \beta_1^i F_1 + \beta_2^i F_2 + \dots + \beta_K^i F_K$$

At Equilibrium $\Rightarrow$ No Arbitrage Condition

Last time example : $E(R_a) = 0.08 + 0.6F_1$, $E(R_b) = 0.02 - 0.2F_1$.