CAPM = Capital Assets Pricing Theory <https://www.youtube.com/watch?v=uL3wibgTC04>

Return of a i-th stock is given by a

Remember: alpha is considered random, with expectation = 0

APT = Arbitrage Pricing Theory (Ross, 1976) -> isles (sectors) of stocks

For a portfolio, each weight is chosen as . <https://www.youtube.com/watch?v=UlmbelifWYY>

Cap weighted: <https://www.youtube.com/watch?v=bOssuMtJ68M>

Weights are taken negative to represent a short sell.

Riscriviamo la CAPM per un portafoglio: <https://www.youtube.com/watch?v=jF4oJc0Qo4Q>

Ma

Quindi

Riscrivo alpha\_p

Esempio: <https://www.youtube.com/watch?v=AtzQx3vfsWQ> se betaA = 1, betaB = 2, aplhaA = 1%, alphaB = -1%

Scopo: minimizzare il rischio di mercato betaP!

Recap:

CAPM permette di costruire portafogli minimizzando il rischio dato dal mercato betaP.