Module 3 – (ch11) Optimal Portfolio Choice and the Capital Asset Pricing Model

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Note: This summary will be delivered **in printed form only**. No PDF version is available.

Overview: This summary covers the key points from Ch. 11 of *Berk & DeMarzo*.

1) **Expected Return** vs. **Volatility of Portfolios**
   Return = weighted average. Weights depend on prices. Diversification reduces volatility when assets are imperfectly correlated. In large portfolios, variance is mainly driven by covariances.
2) **Efficient Portfolios**
   Definition: highest expected return for a given risk, or lowest risk for a given return.
   Attention: Efficient frontier, minimum variance portfolio, and diversification benefits.
3) **Risk-Free Asset and Borrowing/Lending**
   Combining risky portfolios with the risk-free rate. CML and tangent portfolio.
   Sharpe ratio as the measure of efficiency.
4) **Capital Asset Pricing Model (CAPM)**
   Remember assumptions: frictionless markets, homogeneous expectations, borrow/lend at Rf, etc.
   Takeaway: All investors hold the market portfolio + risk-free asset.
   Security Market Line (SML) links beta to expected return.

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