

Tax Considerations for Mean Variance Optimization

Advantages and Disadvantages to Direct Real Estate Investment

STUDY SESSION 4

STUDY SESSION 13

RISK MANAGEMENT APPLICATIONS OF DERIVATIVES

TRADING, MONITORING AND REBALANCING

Box Spread

Constant Proportion Portfolio Insurance

STUDY SESSION 15

STUDY SESSION 16

- Advantages

- Many expenses are tax deductible.
- Ability to use more leverage than usual.
- Direct control of properties.
- Ability to diversify geographically.
- Lower volatility of returns than stocks.

- Disadvantages

- Lack of divisibility.
- High information cost.
- High commissions.
- High operating and maintenance costs and management requirements.
- Geographic risks, such as neighborhood deterioration.
- Political risks, such as changing tax codes.

Ideally, the efficient frontier should be viewed on an after-tax basis. Because the tax status of an investment depends on the account it's in, it could appear on the efficient frontier in both taxable and non-taxable forms.

The mean-variance optimization should optimally allocate assets and determine the optimal asset location for each asset. Accrual equivalent after-tax returns would be substituted for before-tax returns, and risk on an after-tax basis would be substituted for before-tax risk.

Using CPPI, target weight varies with portfolio value and a specified minimum value. The difference is called the cushion. To get target allocation use

$$\text{target investment} = M \times (\text{portfolio value} - \text{floor value}) = M \times (\text{cushion})$$

where M is the constant proportion for an asset class. To use CPPI, M must be greater than 1 and it doesn't change once selected.

Combination of a bull call spread and a bear put spread. That is, a long call and short put at X_L and a long put and a short call at X_H . The payoff is always the same, regardless of the underlying price, which means assuming the prices are correct, the payoff is the risk-free rate.

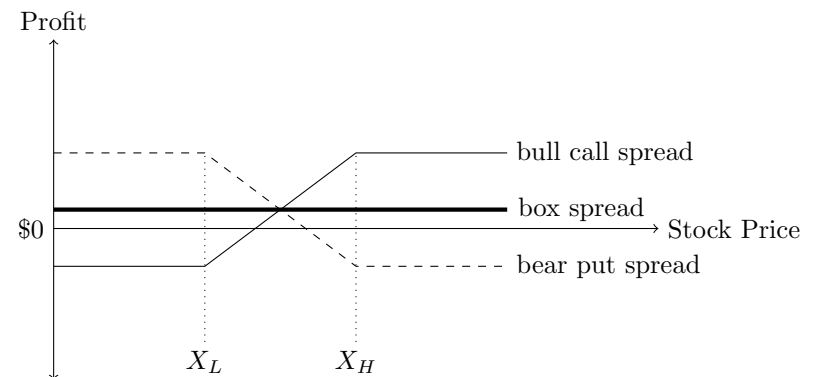


Diagram of Risk-Adjusted Measures

GIPS Characteristics

- Voluntary, minimum standards for performance presentation.
- Contain requirements and best practices.
- Only investment management firms can claim compliance.
- Provide a standard where local laws may not exist.
- Includes all actual, fee-paying, discretionary accounts in composites.
- Must present five years of history, or since inception.
- Must use prescribed calculations and provide disclosures.
- Goal of full disclosure and fair representation.
- In cases of conflict, the local law should be followed.
- Encourages monitoring processes and controls.
- Must document the policies used.

