

Risk and Return: Key Concepts

Understanding Risk

- **Risk** represents the uncertainty of outcomes, particularly downside risks (worse than expected results).
- **Risk** is about **negative outcomes**, not the positive ones that exceed expectations.
- Financial markets and life insurance have developed tools to deal with risk in both financial and life contexts.

Types of Risks in Life

- **Life Risks:**
- **Death:** No loss to the deceased, but significant financial loss to dependents.
- **Fire and Natural Disasters:** Fire insurance, earthquake insurance, and other forms of protection exist to mitigate such risks.

Risk in Finance

- **Risk in Finance:** Concerned with downturns or negative market outcomes.
- **Volatility** is the primary way of measuring risk in financial markets: the variance in returns.

The Relationship Between Risk and Return

- **Compensation for Risk:** Taking on risk should be rewarded with a higher expected return.
- **Example:** If two investments have the same expected return, you will prefer the one with **less risk**.
- **Higher Risk = Higher Expected Return.**

Low-Risk Investments

- **Bank Accounts:** Low risk, typically low returns. Checking accounts and cash are the safest, but often have negative returns when accounting for inflation.
- **Bonds:**
- **Government Bonds:** Low risk but not without some uncertainty, such as inflation or early withdrawals.
- **Corporate Bonds:** Riskier, but still safer than stocks, as they are repaid before stocks in case of bankruptcy.

- **High-Yield Bonds:** Offer higher returns but come with increased risk.

High-Risk Investments

- **Stocks:**
 - Riskier than bonds because shareholders get paid last in case of bankruptcy.
 - Stockholders only receive returns after bondholders are paid.

The Meme Stock Phenomenon

- **Meme Stocks:** Stocks like GameStop and AMC went through dramatic price surges, primarily driven by retail investors and social media hype.
- Many investors bought these stocks at inflated prices, leading to significant losses when prices eventually fell.

Managing Risk: Diversification

- **Diversification** is key to managing risk in an investment portfolio.
- Combining uncorrelated or negatively correlated securities helps reduce overall portfolio volatility.
- Diversification lowers risk while maintaining expected returns.

Portfolio Theory

- **Markowitz's Insight (1952):** A portfolio's return is the average return of the stocks in the portfolio, but its volatility will be less than the average of individual stocks.
- The goal is to create an **optimal portfolio** that maximizes return for a given level of risk.

Risk Preferences

- Young investors may take on more risk, while older investors may prefer more conservative portfolios.
- Risk preferences vary based on age, wealth, and other factors, allowing individuals to tailor their portfolios for their personal risk tolerance.

Beta and Risk

- **Beta** measures how sensitive a stock is to market movements.
- **Beta of 1:** Stock moves in sync with the market.
- **Beta of 0:** Stock moves independently from the market.
- Investors prefer stocks with lower betas for less volatility.

Short Selling

- **Short Selling:** Involves betting on a stock's price decline. It carries significant risks as losses are theoretically unlimited.
- Used by hedge funds to hedge risks or speculate on price drops.

Hedge Funds and Risk Mitigation

- Hedge funds often employ short selling and other strategies to mitigate risk.
- Hedge funds are compensated with a **2% fee on assets** plus **20% of profits**.
- Hedge funds can achieve smoother returns by balancing long and short positions.

The Role of Insurance in Risk

- Insurance helps mitigate life risks, financial risks, and provides **peace of mind**.
- **Life Insurance:** Protects dependents in case of death, allowing investment in riskier assets.
- **Property Insurance:** Protects against losses from catastrophic events like fires or earthquakes.

Futures and Options Markets

- **Futures:** Contracts that lock in prices for assets, mitigating risk.
- Farmers use futures to secure a price for crops regardless of market fluctuations.
- **Speculators** may bet on future price movements in various commodities.
- **Options:** Provide the right to buy (call) or sell (put) an asset at a predetermined price.
- Options limit risk to the cost of the option but can provide high rewards in volatile markets.

Conclusion: Risk and Return

- **No Free Lunch:** High returns come with high risk, and low returns come with low risk.
- **Diversification:** Key strategy for reducing risk while maximizing returns.
- **Risk Mitigation:** Tools like insurance, options, and futures allow individuals and companies to manage and hedge against potential losses.