What is the Risk-Return Tradeoff?

Worksheet

The risk-return tradeoff states: higher expected return = higher risk of loss. Bonds are safer but pay less; stocks are volatile but offer growth potential. Choose based on your risk tolerance and time horizon.

Questions

1. Which investment offers the lowest risk but also lowest return?
A) Growth stocks
B) Cash/money market
C) Emerging markets
D) Penny stocks

2. An investor with 30 years until retirement should prioritize…
A) Maximum safety
B) Maximum growth (higher stock allocation)
C) Bonds only
D) Avoiding markets

3. What is the relationship between risk and return?
A) High risk always means high returns
B) Higher risk = higher expected return (but more volatility)
C) Risk and return are unrelated
D) Lower risk always better

4. Which is true about bonds vs stocks?
A) Bonds are riskier
B) Stocks are riskier but offer higher long-term returns
C) Both are equally risky
D) Bonds always win

5. A conservative investor is offered a 2% return (bonds) or 8% return (growth stocks). What are the tradeoffs?

6. An investor has 20 years until retirement. Can they afford higher risk?

7. A new investor with €10k has high risk tolerance. How much should go to crypto (80% volatility) vs bonds (5% volatility)?

8. Define: What is the risk-return tradeoff?

9. Define: Why do stocks return more than bonds?

10. Define: What is volatility?

Answer Key

1. B) Cash/money market — Cash is safest but inflation erodes value; bonds are next; stocks offer growth but volatility.

2. B) Maximum growth (higher stock allocation) — Long time horizon absorbs market crashes; higher equity allocation grows wealth more.

3. B) Higher risk = higher expected return (but more volatility) — Risk and return are positively correlated; investors get paid for bearing risk.

4. B) Stocks are riskier but offer higher long-term returns — Stocks are volatile; bonds are stable; historically, stocks beat inflation better long-term.

5. Bonds: 2% yearly, stable, predictable, low volatility. Growth stocks: 8% average, but can gain 30% or lose 20% in a year. Tradeoff: +6% extra return vs. risk of double-digit losses and sleepless nights. Decision: depends on risk tolerance and need for stability.

6. Time horizon = 20 years — enough to weather market crashes (2008, 2020). Historically, stocks +10% year, bonds +4% year over 20-year spans. Risking 40% stocks vs 60% bonds gives +6% extra return compounded. 20 years of compounding justifies higher volatility. Shorter horizons (<5 years) → lower risk advisable.

7. High risk tolerance ≠ all eggs in crypto basket. Recommended: €5k (50%) balanced portfolio + €5k (50%) crypto/high-risk. Not: €8k crypto — catastrophic loss would devastate emergency fund. Risk tolerance is bounded by financial capacity; mismatch = ruin.

8. Higher expected returns require accepting higher risk of loss. Lower-risk investments yield lower returns.

9. Stocks are riskier (higher volatility); investors demand higher expected returns as compensation.

10. The size and speed of price swings; high volatility = high risk = high potential returns or losses.