

UNDERSTANDING INVESTMENTS: Theories and Strategies

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Chapter 2 The Investment Decision Process and Investment Strategies

Chapter Objectives

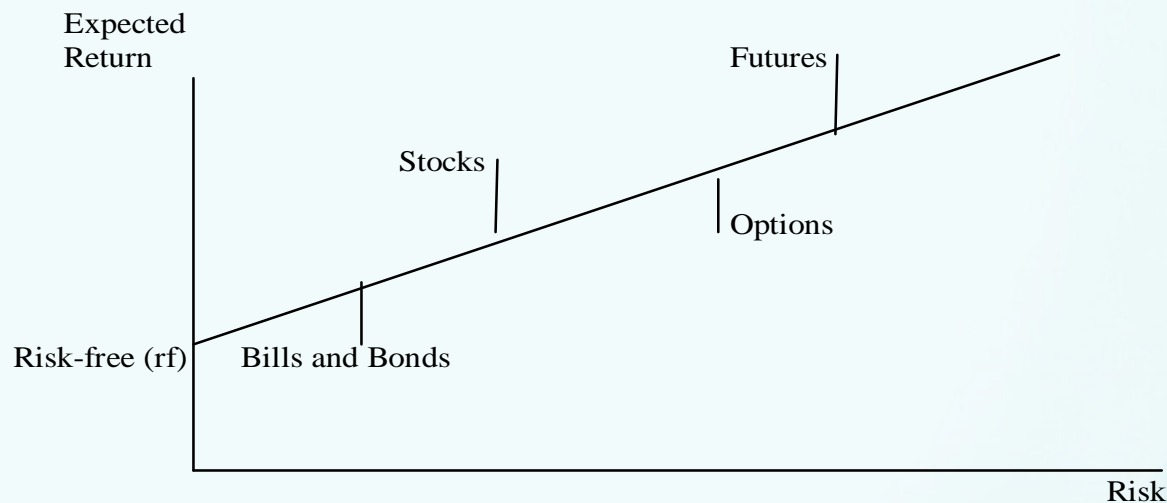
- understand the two steps in the investment process
- grasp the risk-return trade-off all investors face
- see how investors apply the investment process
- see what the differences are between a passive and an active approach to investing
- learn some other investment strategies, including the popular dollar-cost averaging technique
- know how to engage in margin purchases and short sales as well as their pros and cons
- learn the various types or orders for securities purchases or sales

1. The Investment Process

The Risk-Expected Return Trade-Off

investment process broadly describes how investors choose among the various securities, how much money to allocate to each security, and when to make the investment
higher expected return comes with higher risk

The Risk-Expected Return Tradeoff



The Asset Allocation Step in the Investment Process

asset allocation refers to the allocation (or the fraction) of your investment budget among the various available asset classes (like equities, debt, derivatives, and/or other assets)

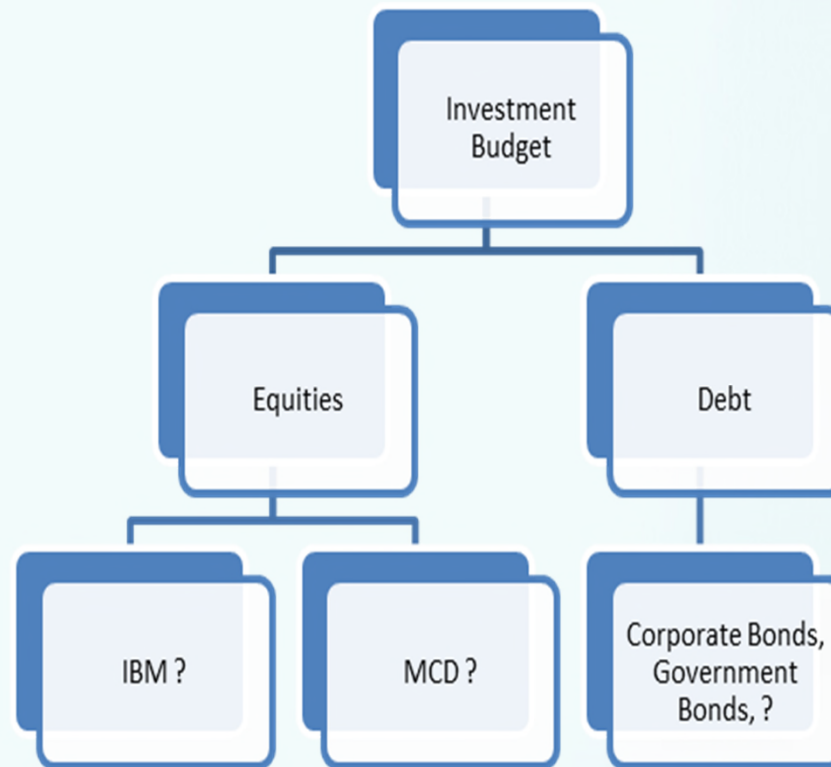
asset allocation is considered by many professional managers as the most important step in the investment process

The Security Selection Step in the Investment Process

security selection refers to the analysis of individual securities (or portfolios of securities) considered for inclusion in the investor's portfolio

security analysis involves the estimation of the values of securities for inclusion in or exclusion from the portfolio

Asset Allocation and Security Selection



Two general approaches to security analysis:

technical analysis: refers to the identification of recurring patterns in the prices of individual stocks

fundamental analysis: deals with the economics of the firm in the sense that the company's financial health or weakness is examined (via financial statements) to determine its fair stock price

2. General Investment Philosophies and Strategies

Some Prominent Investment Philosophies

Markowitz: father of modern portfolio theory; don't put all your eggs in one basket

Samuelson: risk is not completely eliminated in the long run; investing should not excite you

Bogle: invest in index funds; apply passive investment strategies

Buffett: invest in firms that you understand and that have value

What Is Your Investment Philosophy?

assess your risk tolerance (or degree of risk aversion)

are you a defensive or aggressive investor?

do you invest for the short run or the long run?

are you rational in your investment choices or do you suffer from behavioral biases?

Some Investment Strategies

top-down and bottom-up approaches to investing

top-down: asset allocation then security selection

bottom-up: security selection then asset allocation

active and passive investment strategies

active strategy involves analyzing assets in an effort to achieve better than average returns when compared to some benchmark such as the market

sector rotation involves changing the weights of a particular sector's assets so as to profitably exploit the sector's relatively better performance

market timing involves positioning the portfolio to take advantage of the relative over-performance of risky assets relative to safer or risk-free assets

passive strategy is based on the notion that securities are correctly (or fairly) priced and that there are no security bargains
the *buy-and-hold* strategy simply means that the investor buys assets and holds them until he meets his investment horizon

the *indexing* strategy involves the attempt to mirror the performance of a market index such as the S&P 500 index

Other investment strategies (some technical indicators):

advance/decline ratio: advancing to declining stocks

relative strength index: compares a particular stock's current performance to its past performance

traders' index: indicator of the market's trading momentum

Dollar-Cost Averaging Technique

example: invest \$100 each week; initial share price is \$10; weekly change in share price: \$1.00

Week	Number of Shares Purchased	
	Rising Market	Falling Market
1	10.00	7.69
2	9.09	8.33
3	8.33	9.09
4	7.69	10.00
Total Shares	35.11	35.11
Total Value	\$456.43	\$351.10

dollar-cost averaging is suitable for defensive investors who not only have a fixed amount to invest but also be disciplined when they wish to enter the market on a consistent basis

Margin Purchases

margin is defined as the amount of equity the investor has in his account

initial margin is equity in account/value of the stock

maintenance margin: min equity amount to be kept in the margin account

example: per share price is \$100, buys 100 shares, has \$7,000 of own money, borrows \$3,000 from broker, broker has a 30% maintenance margin; what stock price would trigger a margin call?

$$\begin{array}{lcl} \text{equity in account} & & 100P - 3,000 \\ \% \text{margin} = \frac{\text{-----}}{\text{value of the stock}} & 0.30 = & \frac{\text{-----}}{100P} \end{array}$$

$$P = \$42.85$$

rate of return for the investor: assume now that the investor has \$10,000 of his own money and borrows another \$10,000 from broker; the investor expects a 30% stock price appreciation, his broker charges an interest rate (the call rate) of 5%; what is the investor's rate of return?

new total dollar value of stock: \$26,000 ($= \$20,000 \times 1.30$)
minus total dollar amount of loan: \$10,500 ($= \$10,000 \times 1.05$)
equals net dollar proceeds from transaction: \$15,500

$$\text{ror} = \frac{15,500 - 10,000}{10,000} = 55\%$$

thus, he turned a 30% rise in stock into a 55% increase in his rate of return because he was correct in his expectations!

what if he is wrong in his expectations and the stock price actually falls by 30%, what would be his rate of return?

new total dollar value of stock: \$14,000 ($= \$20,000 \times 0.70$)
minus total dollar amount of loan: \$10,500 ($= \$10,000 \times 1.05$)
equals net dollar proceeds from transaction: \$3,500

$$\text{ror} = \frac{3,500 - 10,000}{10,000} = -65\%$$

thus, you see that his loss is much higher than he would suffer had he not borrowed (leveraged) money!

that's why leverage is a "double-edged sword": in good times it magnifies returns but in bad times it also magnifies losses!

Short Sales

a *short sale* is defined as the sale of stock not owned in order to profit from an expected decline in the stock's price

example: you borrowed 100 shares of stock X and sold them immediately at the market price, say, \$100 per share; credit to your account is \$10,000; put up 50% collateral or \$5,000 (T-bills are typical); so, your assets (equity) is \$15,000; broker has a 30% maintenance margin; what is the minimum price increase that would trigger a margin call?

$$0.30 = (15,000 - 100P)/100P \Rightarrow P = \$115.38$$

thus, if (theoretically) the stock's price falls slightly below \$115.38, you will get a margin call to increase the amount of equity in your account (that is, to put up more collateral)

3. Types of Markets and Orders

Types of Trading Markets

- direct market
- brokered market
- dealer market
- auction market

Types of Trading Orders

- market order* (instructs the broker to immediately buy/sell a security at current market prices)
- limit order* (instructs the broker to buy/sell a security by specifying the price to buy/sell that security)
 - limit-buy
 - limit-sell
 - stop-sell, buy, loss

Finding the Equilibrium Price of a Share

equilibrium price of a share depends on demand and supply conditions

thus, at the point where the demand (D) for shares intersects the supply (S) of shares, point A, the equilibrium price of a share is found

