Chapter 3

Overview of Security Types

Our goal in this chapter is to introduce the different types of securities that investors routinely buy and sell in financial markets around the world.

For each security type, we will examine:
- Its distinguishing characteristics,
- Its potential gains and losses, and
- How its prices are quoted in the financial press.

Classifying Securities

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Interest-Bearing Assets

- Money market instruments are short-term debt obligations of large corporations and governments.
  - These securities promise to make one future payment.
  - When they are issued, their lives are less than one year.

- Fixed-income securities are longer-term debt obligations of corporations or governments.
  - These securities promise to make fixed payments according to a pre-set schedule.
  - When they are issued, their lives exceed one year.

Money Market Instruments

- Examples: U.S. Treasury bills (T-bills), bank certificates of deposit (CDs), corporate and municipal money market instruments.

- Potential gains/losses: A known future payment/except when the borrower defaults (i.e., does not pay).

- Price quotations: Usually, the instruments are sold on a discount basis, and only the interest rates are quoted.

Therefore, investors must be able to do calculate prices from the quoted rates.

Fixed-Income Securities

- Examples: U.S. Treasury notes, corporate bonds, car loans, student loans.

- Potential gains/losses:
  - Fixed coupon payments and final payment at maturity, except when the borrower defaults.
  - Possibility of gain (loss) from fall (rise) in interest rates.
  - Depending on the debt issue, illiquidity can be a problem. Illiquidity means it is possible that you cannot sell these securities quickly.
**Equities**

- **Common stock**: Represents ownership in a corporation. A part owner receives a pro rated share of whatever is left over after all obligations have been met in the event of a liquidation.

- **Preferred stock**: The dividend is usually fixed and must be paid before any dividends for the common shareholders. In the event of a liquidation, preferred shares have a particular face value.

**Common Stock**

- **Examples**: IBM shares, Microsoft shares, Intel shares, Dell shares, etc.

- **Potential gains/losses**:
  - Many companies pay cash dividends to their shareholders. However, neither the timing nor the amount of any dividend is guaranteed.
  - The stock value may rise or fall depending on the prospects for the company and market-wide circumstances.

**Preferred Stock**

- **Example**: Citigroup preferred stock (Do a Google search for it).

- **Potential gains/losses**:
  - Dividends are “promised.” However, there is no legal requirement that the dividends be paid, as long as no common dividends are distributed.
  - The stock value may rise or fall depending on the prospects for the company and market-wide circumstances.

**Derivatives, I.**

- **Primary asset**: Security originally sold by a business or government to raise money.

- **Derivative asset**: A financial asset that is derived from an existing traded asset, rather than issued by a business or government to raise capital. More generally, any financial asset that is not a primary asset.

**Derivatives, II.**

- **Futures contract**: An agreement made today regarding the terms of a trade that will take place later.

- **Option contract**: An agreement that gives the owner the right, but not the obligation, to buy or sell a specific asset at a specified price for a set period of time.

**Futures Contracts**

- **Examples**: Financial futures (i.e., S&P 500, T-bonds, foreign currencies, and others); Commodity futures (i.e., wheat, crude oil, cattle, and others).

- **Potential gains/losses**:
  - At maturity, you gain if your contracted price is better than the market price of the underlying asset, and vice versa.
  - If you sell your contract before its maturity, you may gain or lose depending on the market price for the contract.
  - Note that enormous gains and losses are possible.
Option Contracts, I.

- A **call option** gives the owner the right, but not the obligation, to **buy** something, while a **put option** gives the owner the right, but not the obligation, to **sell** something.
- The “**something**” can be an asset, a commodity, or an index.
- The price you pay today to buy an option is called the **option premium**.
- The specified price at which the underlying asset can be bought or sold is called the **strike price** or **exercise price**.

Option Contracts, II.

- An **American option** can be exercised **anytime** up to and including the expiration date, while a **European option** can be exercised only on the **expiration date**.
- Options differ from futures in two main ways:
  - Holders of call options have no obligation to buy the underlying asset.
  - Holders of put options have no obligation to sell the underlying asset.
  - To avoid this obligation, buyers of calls and puts must pay a price today. Holders of futures contracts do not pay for the contract today.

Option Contracts, III.

- **Potential gains and losses from call options:**
  - **Buyers:**
    - Profit when the market price minus the strike price is greater than the option premium.
    - Best case, theoretically unlimited profits.
    - Worst case, the call buyer loses the entire premium.
  - **Sellers:**
    - Profit when the market price minus the strike price is less than the option premium.
    - Best case, the call seller collects the entire premium.
    - Worst case, theoretically unlimited losses.
  - Note that, for buyers, losses are limited, but gains are not.

Option Contracts, IV.

- **Potential gains and losses from put options:**
  - **Buyers:**
    - Profit when the strike price minus the market price is greater than the option premium.
    - Best case, market price (for the underlying) is zero.
    - Worst case, the put buyer loses the entire premium.
  - **Sellers:**
    - Profit when the strike price minus the market price is less than the option premium.
    - Best case, the put seller collects the entire premium.
    - Worst case, market price (for the underlying) is zero.
  - Note that, for buyers and sellers, gains and losses are limited.