# Module 4 & 5 Introduction

## What is Investing?

Investing, broadly speaking, is building financial wealth by allocating resources, usually money, to work with the expectation of generating more resources. Or to put simply, investing is “saving to build wealth”. When we spend less money than we make, we have a surplus. In a prior module, we called this saving. Saving typically occurs over the short term while *investing* occurs in the long term, over years and even decades. There’s a myriad of ways one can invest – purchasing bonds, stocks, commodities & derivatives, mutual funds, or real estate.

The purpose of investing is having your money work *for* you. In the following sections, I include examples of each type of investment.

## Bonds

Bonds are debt. Companies or entities issue bonds to borrow money, promising the purchasers of bonds interest payments, as well as repayment of the initial investment upon maturity, or when the principal amount is due back to the purchaser. When we want to borrow money, we typically go to an individual or a bank. But when a company (or nation) wants to borrow a lot of money, they issue bonds to find many lenders to distribute the risk. For example:

On 6/12/2024, U.S. Treasury 3-Month Bonds are generating 5.37% (annualized) interest. If I buy 3-month bonds today, in 90 days (3-months) the bonds will mature, returning the principal I invested plus 1.3425% interest (5.37%/yr amortized to 1.3425% in ¼ of a year). If I purchased $5,000 in bonds, upon maturity I’d receive $5067.13.

Bonds typically have lower risk compared to other investments, particularly in larger entities like AAA corporations or nations.

## Stocks

Stocks are shares of ownership of companies, also known as equity. When you purchase a share of a stock, you are buying a portion of the corporation. The size of your share of ownership of the corporation is proportional to your stock holding. Unlike bonds, there is no guarantee your stock shares generate additional value (what is commonly called generating a return in your investment). If a company is profitable over time, becoming more valuable, your shares become more valuable (generating wealth or a return in value). If a company loses value over time, your shares become less valuable (losing wealth or generating a loss in value). For example:

On 3/1/2024, shares of Apple Inc (AAPL – NASDAQ) opened at $179.55. I purchased 10 shares for $1,795.50. On 3/8/2024, seven days later, AAPL opened at $169.00. If I sold my 10 shares that morning, I would receive $1,690. This sale would be at a loss of $105.5. On 6/25/2024, AAPL opened at $209.15. If I held these shares until the 25th of June and sold them, I would receive $2091.50, generating a return (or profit) of $296. As you can see, there is no guarantee that purchasing shares of a stock will generate a profit.

Gains from appreciation in price, as described in the above example, are known as *c*apital gains*.* In addition to capital gains, investors may also receive dividends, which is the distribution of the company’s earnings to its owners (or shareholders). It is important to remember that dividend income is not guaranteed, just as there is no guarantee that shares will appreciate in value. Not all companies pay dividends. In fact, in the last five decades majority of companies have not paid dividends, and those companies that do, do not promise that dividends will continue in the same amount, if at all. You can see how this makes investments in stocks (equity) more risky that the investment in bonds (debt). Bonds are governed by a contract which stipulates that investors can take the issuer to court in case of falure to pay interest and principal. Investors in stocks do not enjoy such legal protections. Why would an investor than choose to invest in stocks? Because the return potential is not limited by the contract, either! Risk and reward march hand-in-hand.

Companies issue stock (and bonds) to raise capital for investment. Shares can be private or public, but public are the most common. Public shares of corporations are traded on markets (stock markets), thus the label *publicly-traded*. The two most well known stock exchanges are the New York Stock Exchange (NYSE) and the NASDAQ. Only members of the exchanges can trade stocks, so the general public utilizes brokers to manage their accounts and perform trades, typically for a nominal fee. Common brokerage companies include *Charles Schwab*, *Fidelity*, and *Vanguard*. Large banks like *Chase*, *Wells Fargo*, and *Bank of America* also offer brokerage services.

## Commodities & Derivatives

Commodities are raw materials like agricultural products (pork bellies, corn), energy resources (oil, natural gas), precious metals (gold, silver), or currencies (dollar, euro). There is risk in producing commodities (my grandfather, who once farmed, spoke often about the risks of growing corn as a profession.) Because of these risks and as commodity trading became more industrialized, increasing in scale, commodity trading was formalized to reduce volatility, allowing prices to be locked in over longer terms. *Futures*, a form of derivative, were introduced. For example:

It is July 2024, and you own a tortilla company, specializing in corn tortillas. You know you will need to purchase corn in July 2025. You can wait until July 2025 and purchase corn at market price, but you don’t know what that price will be (perhaps there will be a drought next summer, and little corn will be produced, driving up the value, making it cost prohibitive for you to purchase corn). Alternately, you can purchase the corn today, in July 2024 at today’s known price, and pay to have it stored until next year. Or you can purchase a futures contract for July 2025. You would be buying July 2025 corn at a price known to you (as stated in your futures contract), but you will not take delivery of the corn until that date.

There is value in such contracts. You can purchase corn in the future at a price known to you, removing uncertainty (risk). Similarly, producers of corn have a known purchases of their future corn at a known price, removing uncertainty for them. There is also potential value in such contracts as an investment. Continuing our example:

In June 2024, you purchase 10 future contracts for July 2025 corn for $466 each. A year later, drought devastates production of corn, and the market price for corn is $650. Because you purchased contracts for corn, guaranteed to be filled for $466, they have an inherent value. Rather than filling those contracts, you can choose to sell them on a commodity market. Alternately, the spring and early summer of 2025 had perfect growing conditions. Farmers see exceptional returns on their corn crops. Market value of corn in July 2025 is now $300. Your future contracts now have less value, as you purchased corn for significantly higher than market value. If you sold these contracts, you’d generate a loss.

As you can see from this example, futures contracts are standardized and once issued, can be traded among investors. The price of the futures contract depends or is “derived” from the price of the commodity itself (traders call it the *underlying asset*). Another important example of derivatives are *options.* An option gives an investor an opportunity, or **a choice** (hence the term “an option”) **to buy** the underlying asset (say, a share of stock or 1,000 barrels of crude oil) for a certain price in the future **or to pass on the purchase**. Of course, such flexibility is valuable, and so the buyer of the option has to pay a price, known as a premium. Again, as with the futures, the premium would depend on the price of the *underlying asset* (a share of stock or 1,000 barrels of crude oil).

***As you might guess, commodity trading is quite risky, more so than stocks and bonds, and so they are not the best choice for most individual investors.*** To manage such risk at the institutional level, brokerage companies and banks often do not offer access to commodity trading to individual investors unless the individual holds a substantial amount of financial resources at the institution.

## Mutual Funds

A mutual fund is a portfolio or collection of investment securities (stocks, bonds, etc.) that individuals can invest in without having to purchase each item in the collection individually. In other words, a fund offers an investor the opportunity to own multiple investments in a single purchase rather than through multiple purchases. Mutual funds are popular because they offer access to diverse investment holdings without having to purchase (and incur the cost of trading) multiple investments. They are especially popular with first-time investors with smaller available capital to invest and investors who desire diversity in investments without having to do the research to decide which investments they wish to hold. Diversifying investments is one way to reduce risk when investing. Think about it as not holding all your eggs in one basket, but, instead, distributing them among as many baskets as possible.

A common type of mutual fund is called an index fund. An index fund mimics the performance of an index, typically stocks or bonds, whose performance is tracked by an institution. For example, Standard & Poor’s (S&P) 500 is an index of the 500 largest publicly traded corporations (corporations come and go, dependent on performance), and the Dow Jones Industrial Average is an index of 30 stocks of major corporations.

Like stocks, individuals can purchase shares of mutual funds (as exchange-traded funds) through brokers and banks. They are similar to stocks in that purchase orders are placed, and shares can be sold at later dates for profit or loss.

## Real Estate

Following the same general tone and structure of the above investment types (sometimes called investment vehicles), when you purchase a home, even with a mortgage, you are making a direct investment as both the investor and the owner who holds the title to the property. For most of us, our home purchase is the single largest investment we make in our lifetime.

You may wish to purchase additional real estate as an investment. Tax laws and insurance are different for second homes or homes purchased for investing purposes (such as rental homes in college towns or for short-term rentals through Airbnb), so it is worth consulting professionals if you wish to pursue this route. Finally, you may also wish to purchase other real estate indirectly, for your investment portfolio. Real Estate Investment Trusts (REITs) are mutual funds of real estate holdings.

## Quiz Questions

1. Which of the following is not a method discussed for investing:
   1. Stocks
   2. Bonds
   3. Real Estate
   4. Mutual Fund
   5. Hiding your money under your mattress \*Answer
2. Which investment vehicle offers you the opportunity to own a collection of securities without having to purchase each one individually?
   1. Stocks
   2. Bonds
   3. Real Estate
   4. Mutual Fund \* Answer
3. Which investment vehicle is a form of debt, issued by corporations, nations, or other large entities, that pays out interest upon maturity?
   1. Stocks
   2. Bonds \* Answer
   3. Real Estate
   4. Mutual Fund

## Vocabulary

Definitions from [Oxford Languages](https://languages.oup.com/google-dictionary-en) and [Wikipedia](https://en.wikipedia.org/wiki/Main_Page)

* AAA Corporations: AAA is the highest possible rating that may be assigned to an issuer’s bonds by any of the major credit-rating agencies. AAA-rated bonds have a high degree of creditworthiness because their issuers are easily able to meet financial commitments and have the lowest risk of default.
* Amortize: to pay off (an obligation, such as a mortgage) gradually usually by periodic payments of principal and interest or by payments
* Annualize: to convert a short-term calculation or rate into an annual rate.
* Investing: building financial wealth by allocating resources, usually money, to work with the expectation of generating more resources
* Bonds: a form of debt
* Capital Gains: an increase in the value of an asset, such as a stock or a bond. If the investor sells that appreciated asset, it creates a realized capital gain, which is taxable.
* Commodities: raw materials like agricultural products (pork bellies, corn), energy resources (oil, natural gas), precious metals (gold, silver), or currencies (dollar, euro)
* Dividends: the percentage of a company's earnings that is paid to its shareholders as their share of the profits. Dividends are generally paid quarterly, with the amount decided by the board of directors based on the company's most recent earnings.
* Index Fund: mimics the performance of an index, typically stocks or bonds, who performance is tracked by an institution
* Lender: an individual, a group (public or private), or a financial institution that makes funds available to a person or business with the expectation that the funds will be repaid. Repayment will include the payment of any interest or fees.
* Mutual Fund: a portfolio or collection of investment securities (stocks, bonds, etc.) that individuals can invest in without having to purchase each item in the collection individually
* NASDAQ: a global electronic marketplace for buying and selling securities. Its name was originally an acronym for the National Association of Securities Dealers Automated Quotations.
* Principal amount: the initial amount invested or received in a loan
* S&P 500: an index of the 500 largest publicly traded corporations
* Saving: spending less money than we earn
* Stocks: shares of ownership of companies, also known as equity

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