

CHAPTERS 1 – RISK & RETURN

Return on the investment = the gain or loss from an asset of any type.

- Dividends x (# of Shares)

Capital Gain or loss = the change in value of the asset

- $(P_f - P_i) \times (\# \text{ of Shares})$

Total dollar return = the return on an investment measured in dollars that accounts for all cash flows and capital gains or losses.

- Dividend income + Capital Gain (or Loss)

Annual Returns:

- Percentages = How much do we get for each dollar we invest?
- Dividend Yield - (t+1) = After/End
- Capital Gains Yield = Formula Sheet
- Total Percentage Return = Dividend Yield + Capital Gains Yield

Annualized Returns:

- Holding Period = length of time you own the stock
- Effective annual return (EAR) = the return on an investment expressed on a per-year, or “annualized” basis.
 - $I + \text{EAR} = (1 + \text{holding period percentage return})^m$
 - $m = \# \text{ of holding periods in a year} = (12 \text{ months} / \#)$

Inflation = Prices – go up, Purchasing Power – goes down

Real return = average annual return of stock – inflation

Risk-free rate = the rate of return on a riskless investment (T-Bills)

Risk premium = the extra return on a risky asset over the risk free rate; the reward for bearing risk.

- Average return – T-Bill (risk-free rate)

Measuring Variability = subject of risk

Variance = common measure of volatility

Standard deviation = the square root of the variance

Volatility = a statistical measure of the dispersion of returns for a given security or market index.

Geometric Average return = “What was your average compound return per year over a particular period?”

Arithmetic Average return = “What was your return in an average year over a particular period?”

Standard Deviation -> Variance

- Variance / 2 = X
- Arithmetic Average – X = Geometric Average

If there are estimates of both arithmetic and geometric average returns, then the arithmetic average is probably too high for longer periods and the geometric average is probably too low for shorter periods.

Blume’s formula:

- $R(T) = (T-1)/(N-1) \times \text{Geometric Average} + (N-T)/(N-1) \times \text{Arithmetic Average}$

Dollar-weighted average return = average compound rate of return earned per year over a multiyear period accounting for investment inflows and outflows.

For IRR (Dollar-Weighted Average Return)

- Use EQU section on calculator:
- Import formula: $-1000(1+x)^3 - 4000(1+x)^2 + 4845(1+x)^1$

Risk-free rate = time value of money = compensation for waiting

Risk premium = compensation for worrying

CHAPTER 2 – Diversification and Risky Asset Allocation

Investment risk plays an important role in portfolio diversification.

Variance & Standard Deviation are measures of risk.

- Dealing with future possible returns and their probabilities.

Portfolio = group of assets such as stocks and bonds held by an investor

Portfolio weight = percentage of a portfolio's total value invested in a particular asset.

If the return is the same when a recession or a boom occurs = no risk = 0 variance

Principle of diversification = spreading an investment across a # of assets will eliminate some, but not all, of the risk.

- Reduces risk only up to a point

Correlation = the tendency of the returns on two assets to move together.

Covariance = closely related to correlation coefficient

- Returns of 2 assets relate to each other and move with respect to each other
- - Covariance = two assets' returns move opposite
- + Covariance = two assets' returns move in same direction
- Formula

Asset allocation = how an investor spreads portfolio dollars among assets

Investment opportunity set = collection of possible risk-return combinations available from portfolio of individual assets.

Efficient portfolio = a portfolio that offers the highest return for its level of risk.

CHAPTER 3 – The Investment Process

Risk-averse = expose themselves to the minimum risk level possible

Investor constraints =

- Resources = if you have no money, you cannot invest at all
- Horizon = planned life of the investment
 - In thinking about the riskiness of an investment, one important consideration is when the money will be needed.

- Liquidity = high liquidity indicates higher chance of an asset being sold quickly without a significant price concession.
- Taxes = different types of investments are taxed differently.
 - When talking about return on an investment, what is really relevant is the after-tax return.
- Unique Circumstance

Once the investment policy statement (IPS) is in place, there are 3 strategies they need to address:

- Investment Management = A basic decision that you and every other investor must make is whether you will manage your investments yourself or hire someone else to do it.
 - You could open an account with a broker, and make the entire buy and sell decisions yourself.
 - Invest all your money in a managed account, such as a wrap account, and make no buy and sell decisions at all.
- Market Timing = The investment decisions you make are influenced by how the economy progresses or fails.
 - Some investors very actively move money around to try to time short-term market movements; others are less active but still try to time longer-term movements. A fully passive strategy is one in which no attempt is made to time the market.
- Asset allocation = How much to invest in common stocks and how much to invest in bonds.
 - Asset allocation is the most important determinant of portfolio returns.
- Security selection = must decide which specific securities to buy within each class.

Investment Professionals

- Brokerage / Trading Accounts.
- Brokers divided into 3 groups:
 - Full-service brokers = provide investment advice regarding the types of securities and investment strategies that might be appropriate for you to consider (or avoid). – Management of account too – specialize in wealth management
 - Investment advisors = will charge an annual fee, covers advice and trading. – more closely aligned
 - Frequently discount commissions to attract new customers (particularly those with large accounts).
 - Discount brokers = fall somewhere in between.
 - Offer securities research and extensive account management services
 - Deep-discount brokers = over the telephone, or Internet. Account maintenance & order execution – buying and selling
- Online Brokers
- Investment Fraud = insurance for this, does not exist.
- When you deposit money in a bank, your account is normally protected (up to \$100,000) by the Canadian Deposit Insurance Corporation (CDIC).
- Canadian Investor Protection Fund (CIPF) = Insurance fund covering investors' brokerage accounts with member firms.
 - Insures account for up to \$1,000,000 for losses of securities, commodity and future contracts, segregated insurance funds and cash.
 - Not a government agency

Broker-Customer Relations:

- There are several important things to keep in mind when dealing with a broker:
 - Any advice you receive is not guaranteed.
 - Your broker works as your agent and has a legal duty to act in your best interest.
 - Waive your right to sue and/or seek a jury trial.

- Any disputes will be settled by arbitration.

Types of Accounts

- Cash Accounts = a brokerage account in which all transactions are made on a strictly cash basis.
- Margin Account = a brokerage account in which, subject to limits, securities can be bought and sold on credit.
- Call money rate = the interest rate brokers pay to borrow bank funds for lending to customer margin accounts.
- Margin = the portion of the value of an investment that is not borrowed.
- Initial Margin = the minimum margin that must be supplied on a securities purchase.
- Margin Call = a demand for more funds that occurs when the margin in an account drops below the maintenance margin.
 - Demand by your broker to add to your account, pay off part of the loan, or sell enough securities to bring your margin back up to an acceptable level.
- Margin is a form of financial leverage. Any time you borrow money to make an investment, the impact is to magnify both your gains and losses.
- Critical price = P^* = lowest price before you get a margin call.

Annualizing Returns on a Margin Purchase:

- Amount repaid = amount borrowed \times $(1 + \text{interest rate per year})^t$
 - $t = \text{holding period months} / 12 \text{ months}$.
- Always use the EAR equation to find out the annualized return at the end.

Hypothecation = pledging securities as collateral against a loan.

- Pledge for repayment

Street name = an arrangement under which a broker is the registered owner of a security.

- Brokerage firm = the owner of record
- Account holder = beneficial owner
- Benefits:
 - No danger of theft or other loss of the security
 - Any dividends or interest payments are automatically credited, and they are often credited more quickly than they would be if the owner received the cheque in the mail
 - The broker provides regular account statements showing the value of securities held in the account and any payments received.
- Advisory account = if you do not wish to handle your account yourself.
- Wrap account = choose a money manager or set of money managers from a group offered by the brokerage firm.
 - All of the costs, commissions, and expenses associated with your account are “wrapped” into a single fee that you pay.
- Discretionary account = if you simply authorize your broker to trade for you, then there is no management fee, but you are still responsible for any commissions.
- Asset management account = provide for complete money management, including cheque-writing privileges, credit cards, and margin loans, especially for larger investors.
- Mutual fund = means of combining or pooling the funds of a large group of investors.
 - If you do not want to actively buy and sell securities, but you do want to own stocks, bonds, or other financial assets.

Types of Positions:

- Long position = an investor who buys and owns shares of stock – make money if the price of the stock increases and lose money if it goes down. – hopes that the price will increase.
- Short sale = a sale in which the seller does not actually own the security that is sold. – Benefits from the price decreases.
 - If you feel like that the company's share of stocks are going to decline in value, you engage in this.
 - Borrow shares of stock from your broker and sell them
 - At some future date, you will buy the same number of shares that you originally borrowed and return them, thereby eliminating the short position. = Covering the position = curing the short.
- When you short a stock:
 - Must borrow it from your broker,
 - There is an initial margin and a maintenance margin.
 - After you sell the borrowed stock, the proceeds from the sale are credited to your account but you cannot use them. – Frozen until you return the stock
 - If there are any dividends paid on the stock, while you have a short position, you must pay them.
- Four items on the account balance sheet:
 - Proceeds from sale
 - Margin deposit
 - Short position = loan
 - Account Equity = Difference of total – loan

Short interest = the amount of common stock held in short positions.

CHAPTER 4 – Overview of Security Types

Financial assets = bonds, and stocks are often called securities.

Interest-bearing (pay interest)

- Money market instruments
- Fixed-income securities

Equities

- Common Stock
- Preferred Stock

Derivatives

- Options
- Future

Money market instruments = debt obligations of large corporations and governments with an original maturity of one year or less. – Simplest form

- They are essentially IOUs sold by large corporations or governments to borrow money
- They mature in less than one year from time they are sold, meaning the loan must be repaid within one year.
- T-Bill (Treasury Bill) = sold on a discount basis. = sold less than its stated face value.
 - An investor buys a T-Bill at one price and later, when the bill matures, receives the full face value. The difference is the interest earned.
 - Most liquid type of money market instrument – the type with the largest and most active market.

- The potential gain from buying a money market instrument is fixed because the owner is promised a fixed future payment.
- Most important risk is the risk of default, which is the possibility that the borrower will not repay the loan as promised.
- Essentially risk-free.

Fixed-income securities = longer-term debt obligations, often of corporations and governments, that promise to make fixed payments according to a preset schedule.

- Have lives that exceed 12 months.
- Cheque for a fixed amount = coupon bond.
- Rate = coupon rate = most of the time it doesn't change
- Current yield = annual coupon divided by the current bond price

Fixed-Income Price Quotes = prices for fixed-income securities are quoted in different ways, depending on what type of security is being priced.

- Potential gains come in two forms:
 - There are fixed payments promised and the final payment at maturity.
 - The prices of most fixed-income securities rise when interest rates fall, so there is the possibility of a gain from a favorable movement in rates.
 - An unfavorable change in interest rates will produce a loss.
 - The possibility that the issuer will not make the promised payments. The risk depends on the issuer.

Equities are the most familiar type of security:

- Common Stock = represent ownership in a corporation
 - Ex: IBM Shares, Microsoft Shares, Intel, Dell Shares
- Preferred Stock = The dividend on a preferred share is usually fixed at some amount and never changed. In the event of liquidation, preferred shares have a particular face value.
- Must be paid first before common shareholder.

Derivatives:

- Real assets = tangible items
- Financial assets = pieces of paper describing legal claims.
 - Can be further subdivided into primary and derivative assets.
 - Primary asset = (primitive asset) a security that was originally sold by a business or government to raise money, and a primary asset represents a claim on the assets of the issuer. Thus, stocks and bonds.
 - 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.
 - Future
 - Options

Future contracts = an agreement made today regarding the terms of a trade that will take place later.

- Financial futures = the underlying asset is intangible, usually stocks, bonds, currencies, or money market instruments.
- Commodity futures = the underlying asset is a real asset, typically either an agricultural product (such as cattle or wheat) or a natural resource product (such as gold or oil).

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. = Stock options – to buy or sell shares of stock.

- Call option = an option that gives the owner the right, but not the obligation, to buy an asset.
- Put option = an option that gives the owner the right, but not the obligation, to sell an asset.
- Option premium = the price you pay to buy an option
- Strike price = the price specified in an option contract at which the underlying asset can be bought (for a call option) or sold (for a put option). = Striking price = Exercise price
- Options Vs. Futures:
 - The purchaser of a futures contract is obligated to buy the underlying asset at the specified price (and the seller of a futures contract is obligated to sell). The owner of a call option is not obligated to buy, but has the right.
 - When you buy a futures contract, you pay no money (and you receive none if you sell). But, if you buy an option contract, you pay the premium; if you sell an option contract, you receive the premium.
- Option contracts have the potential for large gains and losses.
 - 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
 - For Buyers and Sellers: gains and losses are limited.

CHAPTER 5 – Mutual Funds

Mutual fund = if you do not wish to actively buy and sell individual securities on your own, you can invest in stocks, bonds, or other financial assets through this.

- Means of combining or pooling the funds of a large group of investors.
- The buy and sell decisions for the resulting pool is made by a fund manager, who is compensated for the service.
- Form of financial intermediary, because they provide indirect access to financial markets for individual investors.
- Consumer products, they have been created and marketed to the public in ways that are intended to promote buyer appeal.
- Defined benefit plans are being replaced by “defined contribution” plans. With this plan your employer will contribute money each pay period to a retirement account on your behalf, but you have to select where the fund go.

Advantages:

- Diversification = When you invest in a mutual fund, you are investing in a portfolio, basket, of securities. Holding a diversified (or thousands) of securities helps you reduce risk.
- Professional Management = professional money managers make investment decisions for mutual funds. The mutual fund manager makes the decision of when to add or remove particular securities from the mutual fund. You do not have to make these crucial decisions.
- Minimum initial investment = most mutual funds have a minimum initial purchase of \$2,500, but some are as low as \$1,000. After this purchase, subsequent purchases are sometimes as low as \$50.

Drawbacks:

As with any type of investment, there are some drawbacks associated with mutual funds.

- Risk = the value of your mutual fund investment, unlike a bank deposit, could fall and be worth less than your initial investment.
 - No government or private agency guarantees the value of a mutual fund.
 - Some investors think there is a cost to diversification.
- Costs = investing in mutual funds entails fees and expenses that do not usually accrue when purchasing individual securities directly.

Investment company = a business that specializes in pooling funds from individual investors and investing them.

- Specializes in managing financial assets for individual investors.
- All mutual funds are investment companies, but not vice versa.

Open-End fund = an investment company that stands ready to buy and sell shares at any time.

- When an investor wishes to buy open-end fund shares, the fund simply issues them and then invests the money received.
- When someone wishes to sell open-end fund shares, the fund sells some of its assets and uses the cash to redeem the shares.
- The number of shares outstanding fluctuates over time.
- More popular
- Mutual fund actually only refers to an open-end fund.

Closed-End fund = an investment company with a fixed number of shares that are bought and sold only in the open stock market.

- The number of shares is fixed and never changes
- If you want to buy shares you must buy them from another investor
- The fund itself does not buy or sell shares.
- Listed on stock exchanges too, and are bought and sold the same way.

Net Asset value (NAV) = the value of assets less liabilities held by a mutual fund, divided by the # of shares outstanding.

- Shares in an open-end fund are always worth their net asset value
- Net asset value of a mutual fund will change essentially every day simply because the value of the assets held by the fund fluctuates.
- Price you receive for shares you sell in an open-end fund is the NAV.

Mutual fund = simply a corporation.

- Owned by shareholders, they elect a board of directors; responsible for hiring a manager to oversee the fund's operations.
- Every fund is a separate company owned by its shareholders.
- Most of them are created by banks or by investment advisory firms
- Investment advisory firms are also called mutual fund companies. = Discount brokerages, and other financial services.
- In Canada, banks, insurance companies, and investment advisory firms, offer different mutual funds. Ex: Largest provider is RBC Asset Management Inc.
- Investment advisory firms = create mutual funds, simply because they wish to manage them to earn fees.
- As shares are sold, the money received is invested, if the fund is a success, a large amount of money will be attracted and RBC would benefit from the fee it earns.
- IF not a success, the board can vote to liquidate it and return shareholders' money or merge it with another fund.

- The directors of a mutual fund in a particular family, acting on behalf of the fund shareholders, could vote to fire the investment advisory firm and hire a different one.
- Unhappy shareholders generally “vote with their feet” – sell their shares and invest elsewhere.

Taxation of Investment Companies

- As long as an investment company meets certain rules set by the Canada Revenue Agency, it is treated as a “flow-through entity” for tax purposes.
- A mutual fund does not pay taxes on its investment income.
- Fund passes through all realized investment income to fund shareholders, who they pay taxes.

Mutual funds are required by law to produce a document known as a prospectus

- Must be supplied to any investor wishing to purchase shares.
- Must also provide an annual report to their shareholders.
- Contain financial statements along with specific information concerning the fund’s expenses, gains and losses, holdings, objectives, and management.

Mutual Fund Costs and Fees

4 Types of expenses/fees associated with buying and owning mutual fund shares:

- Sales charges or “loads”
 - Front-end loads are charges levied on purchases
 - When you purchase shares in a load fund, you pay a price in excess of the NAV, called the offering price.
 - The difference between the offering price and the NAV is the load.
 - Share in no-load funds are sold at NAV.
 - Expressed as a percentage of the offering price, not the NAV.
 - Back-end loads are charges levied on redemptions
 - These loads are often called deferred sales and abbreviated DSC.
- Special Fees:
 - Annual RRSP, RRIF, or RESP trustee fee
 - Account set-up fee
 - Short-term trading fee
 - Processing fees
- Management fees
 - Usually range from 0.25% to 1.00% of the funds total assets each year.
 - Usually based on fund size and/or performance
- Trading costs
 - Not reported directly
 - Funds must report “turnover”, which is related to the amount of trading
 - Calculated as the lesser of total purchases or sales during a year divided by average daily assets
 - Turnover of 1, has sold off its entire portfolio and replaced it once during the year.
 - The higher the turnover, the more trading has occurred in the fund
 - The more trading, the higher the trading costs

Expense Reporting

- Mutual funds are required to report expenses in a fairly standardized way in their prospectus.
 - Shareholder transaction expenses – loads and deferred sales charges
 - Fund operating expenses – management and 12b-1 fees, legal, accounting, and reporting costs, director fees.
- Funds report a hypothetical example showing total expenses paid by investors per \$10,000 invested.

Why pay loads and fees?

- You may want a fund to run by a particular manager. All such funds are load funds
- Loads and fees for specialized funds tend to be higher, because there is little competition among them.

Short-Term Funds

- Collectively known as money market mutual funds (MMMFs) = mutual funds specializing in money market instruments
 - Maintain a \$1.00 NAV to make them resemble bank accounts
 - No guarantee that the NAV will be \$.100 or more
 - Under \$1.00 = “breaking the buck”
 - Crash of 2008, “broke the buck”
- Most banks offer what are called “money market” deposit accounts, or MMDAs, which are like MMMFs.
 - A bank deposit and offers CDIC protection

Long-Term Funds

- There are many different types of long-term funds = funds that invest in long-term securities.
- The investment objective of the fund is the major determinant of the fund type.
- Some stock funds trade off capital appreciation and dividend income:
 - Capital appreciation = maximum capital appreciation
 - Growth = also seek maximum capital appreciation, but tend to invest in larger, more established companies
 - Growth and income = part of the focus is on dividend-paying companies
 - Equity Income = focus exclusively on stocks with relatively high dividend yields, maximizing the current income on the portfolio
- Some stock funds focus on companies in a particular size range
 - Small company = “small” refers to the total market value of the stock – small capitalization
 - Mid-Cap = specialize in stocks that are too small to be in the index but too large to be considered small stocks
 - Large-Cap = invest in companies with larger market values
- Some stock fund invest internationally
 - Global = substantial holdings but maintain significant investments in domestic stocks
 - International = like global funds, but focus on non-Canadian equities
 - Region
 - Country
 - Emerging markets
- Sector funds specialize in specific sectors of the economy, such as
 - Biotechnology
 - Internet
 - Energy
- Other fund types include:
 - Index funds = simply hold the stocks that make up a particular index in the same relative proportions as the index. Most important are S&P/TSX funds.
 - Social conscience, or “green” funds = new creation, invest only in companies whose products, policies, or politics are viewed as socially desirable.
 - “Sin” funds (tobacco, liquor, gaming)
 - Tax-managed funds = generally managed without regard to tax liabilities of fund owners.

Bond Funds

- Bond funds may be distinguished by their

- Maturity range = short, 2 years & long, 25-30 years
- Credit quality = Canadian government bonds have no default risk, junk bonds have risk
- Bond type = specialize in particular types of fixed-income instruments, like mortgages
- Issuing country = some buy only domestic, but some buy foreign.
- Bond fund types include:
 - Short-term and intermediate-term funds = specific maturity range. Short, less than 5 years & intermediate, less than 10 years.
 - General funds = credit quality applies here
 - High-yield funds = low-credit quality issues, higher yields because of greater risks. Volatile.
 - Mortgage funds
 - World funds
 - Insured funds
- Funds that do not invest exclusively in either stocks or bonds are often called “blended” or “hybrid” funds.
 - Balanced funds = maintain a relatively fixed split between stocks and bonds. Safe, high-quality investments
 - Asset allocation funds = Extended version of balanced fund, and flexible portfolio fund.
 - Convertible funds = can be swapped for a fixed # of shares of stock at the option of the bondholder.
 - Income Funds = generates dividend and coupon income on its investments.
- Target Date Funds (Lifecycle Funds)
 - The asset allocation chosen by target date funds is based on the anticipated retirement date of the investors holding the fund.
- Style box = way of visually representing a fund’s investment focus by placing the fund into one of the nine boxed.

Mutual Fund Performance

- Very closely tracked by a # of organizations
- Financial publications of all types periodically provide mutual fund data.
- The Wall Street Journal is particularly timely print source.
- While looking at historical returns, the riskiness of the various fund categories should also be considered.
- Whether historical performance is useful in predicting future performance is a subject of ongoing debate.
- Some of the poorest-performing funds are those with very high costs.

Closed Funds

- Fund will no longer sell shares to new investors
- The # of shares in a closed fund can still fluctuate as existing owners buy and sell.
- When a fund grows rapidly, the fund manager may feel that the incoming cash is more than the fund can invest profitably.
- Funds that close often reopen at a later date.

Closed-End Fund

- Fixed # of shares
- Shares are traded on stock exchanges
- Sell at a discount relative to their NAV. – substantial, fluctuates
- The discount phenomenon remains largely unexplained.

Exchange Traded Funds, ETFs

- Basically an index fund = a collective investment scheme (mutual fund or exchange-traded fund) that aims to replicate the movements of an index of a specific financial market, or a set of rules of ownership that are held constant, regardless of market conditions.
- When a potential ETF sponsor files a plan with the Securities and Exchange Commission (SEC) to create an ETF.
- Trades like a closed-end fund
- A well-known ETF is the “Standard and Poor’s Depository Receipt” or SPDR. = spider = mimics the S&P 500 index.
- Dow Jones = Diamond

Leveraged ETFs

- Potentially dangerous, ETF growth area is in leveraged ETFs.
 - The fund managers of a leveraged ETF create a portfolio designed to provide a return that tracks the underlying index.
 - But, by also using derivative contracts, the managers can magnify, or leverage, the return on the underlying.
 - The Fund Manager can also use derivatives to generate returns opposite of the index return.
 - Leveraged funds are designed to have twice the return on an index, say the S&P 500.
- Levered ETFs seem to track their underlying indexes on a short-term basis.
- However, over longer periods of time, the performance declines:
 - Answer lies in average Vs. geometric returns
 - Geometric returns are lower than arithmetic returns
 - Volatility fuels the difference
 - Returns from any leveraged funds will be less than expected.

Exchange Traded Notes, ETNS

- Introduced in mid-2006 by Barclays Bank
- To investors, ETNs look like ETFS.
 - Unsecured debt – they do have default risk
 - Provide investors with exposure to commodities, but without the leveraged risk of futures contracts.

Hedge Funds

- Collect pools of money from investors
- Generally required to register with the SEC.
 - Not required to maintain any particular degree of diversification or liquidity.
 - Hedge fund managers have considerably more freedom to follow various investment strategies, or styles.
- Investing in hedge funds is not suitable for all investors
 - Hedge funds accept only “qualified” (or accredited) investors
 - To be considered, you need to fulfill one of these conditions:
 - You must be an institution or an individual investor with a net worth of about a million dollars
 - You must have a recurring annual income of over \$200,000.

Hedge Fund Fees

- Most common fee structure is 2/20.
 - Short way to say that the manager charges an annual 2% management fee and retains 20% of the hedge fund profits.

- To prevent the fund from being manipulated by its managers, many fee structures include hurdles for the manager to meet.
 - High-water mark
 - When a hedge fund fee structure includes a high-water mark, the manager will receive performance fees only when the fund value is higher than its previous highest value.
- Why do hedge fund investors willingly pay high fees?
 - Returns earned are high enough to provide a reasonable return
 - Principle of diversification is the reason why people want to invest in a hedge fund than a market index fund.

Common Hedge Fund Investment Styles

- Market Neutral = Goal: offset risk with opposite positions in pairs of securities
 - These hedge funds are also called long-short funds
 - Resulting portfolio makes money regardless of how the overall market performs.
 - Hence the name “market neutral”
 - Expected volatility: low.
- Arbitrage = Goal: identify a mispricing in relationships between securities that theoretically should not exist.
 - These hedge fund managers look at pricing relationships for securities offered by the same company, or for investments across time or countries.
 - Expected Volatility: low
- Distressed Securities = Goal: Buy securities that are being offered at deep discounts resulting from company-specific or sector-wide distress.
 - For Example, a manager of distressed securities fund might buy securities of firms facing bankruptcy.
 - Expected Volatility: low to moderate
- Macro = Goal: These hedge fund managers attempt to profit from change in global economies brought about by governmental policies that affect interest rates, currencies, or commodity prices.
 - Macro fund managers often use leverage and derivative securities to increase the impact of market moves.
 - Expected Volatility: High
- Short Selling = Goal: Managers of a pure short hedge fund only short sell.
 - These managers use leverage through the use of margin.
 - Expected Volatility: High
- Market Timing = Goal: Managers of these hedge funds attempt to identify trends in particular sectors or overall global markets.
 - These managers often take concentrated positions and generally use leverage to increase the fund’s exposure to predicted movements.
 - Expected Volatility: High

Fund of Funds = these investment companies invest in hedge funds. There is an additional, and significant, layer of fees heaped onto the already hefty hedge fund fees.

Registered Retirement Savings Plan (RRSP) =

- Every year people invest in this as part of their long-term investment portfolios
- Investors can open an RRSP account and contribute throughout the year
- All contributions are tax deductible; thus, investors can use their contributions to these plans to reduce their income taxes.
- As long as their savings stay in the plan, investors do not pay tax. Once they withdraw their money, they do pay tax.
- Can be invested in stocks, bonds, and mutual funds

- Canadian investors choose mutual funds as the most popular RRSP investment option.

Income Trusts

- Started in 1985 with gas and Oil Company trusts, popular.
- Canadian mutual funds have started to invest heavily in income trusts.
- Are created as asset-holding entities by companies.
- A trust creates units and offers these units to the public in exchange for money.
- Income trusts distribute their earnings as cash flows to the unit holders.
- Cash distributions are taxed differently from dividends
- Income Trusts pay little or no corporate tax, and distribute the majority of their earnings to their unit holders.
- This increased demand causes the unit prices to increase further. More and more companies applied to be restructured, as income trusts.

CHAPTER 6 – The Stock Market

Private Equity = used in the rapidly growing area of equity financing for nonpublic companies

Banks are generally not interested in making loans to start-up companies, especially ones:

- With no assets (other than an idea)
- Run by fledgling (inexperienced) entrepreneurs with no track record
- Firms with this profile search for venture capital (VC), an important part of the private equity markets.

Private equity also includes:

- Middle-market firms
- Large leveraged buyouts

The Structure of Private Equity Funds

- Private Equity Funds and Hedge Funds are two types of investment companies. Both
 - Are set up as limited partnerships
 - Pool money from investors
 - Invest this money on behalf of these investors
 - Have built-in constraints to prevent managers from taking excessive compensation.

Types of Private Equity Funds: Venture Capital

- Venture Capital refers to financing new, often high-risk, start-ups.
- Individual venture capitalists invest their own money.
- Venture capital firms pool funds from various sources, like
 - Individuals
 - Pension funds
 - Insurance companies
 - Large corporations
 - University endowments
- Venture capitalists know that many new companies will fail
- The companies that succeed can provide enormous profits.
- To limit their risk:
 - They provide financing in stages
 - Actively help run the company
- At each stage, enough money is invested to reach the next stage.

- Ground-floor financing
- Mezzanine Level financing
- At each stage, the value of the founder's stake grows and the probability of success rises
- If a start-up succeeds:
 - The big payoff frequently comes when the company is sold to another company or goes public.
 - Investment bankers are often involved in the process.

Middle Market

- Many small, regional private equity funds concentrate their investments on these companies.
 - Ongoing concerns (not start-ups)
 - Known performance history
 - Typically, small and family owned and operated
- Reasons middle market companies seek more capital
 - Expansion beyond their existing region
 - Founder wants to "cash out"
- A private equity fund might purchase a portion of the business so that others can now manage the company.

Leveraged Buyouts

- Taking the company private: when a company (or someone else) purchases all the shares of the company held by the public at large.
- Cost of going private is often high
 - A manager or investor who wants to take a company private probably needs to borrow a significant amount of money
 - Taking a company private is called a leveraged buyout (LBO)
- LBO market activity levels depend on credit markets.

Selling Securities to the Public

- The primary market = the market where investors purchase newly issued securities
 - Initial Public Offering (IPO) = occurs when a company offers stock for sale to the public for the first time.
 - Seasoned equity offering (SEO) = if a company already has public shares, an SEO occurs when a company raises more equity.
 - General cash offer = an issue of securities offered for sale to the general public on a cash basis.
 - Rights offer = a public issue of securities in which securities are first offered to existing shareholders (rights offering).
 - Investment banking firm = a firm specializing in arranging financing for companies.
 - Underwrite = to assume the risk of buying newly issued securities from a company and reselling them to investors
 - Underwriter spread = compensation to the underwriter, determined by the difference between the underwriter's buying price and offering price.
 - Syndicate = a group of underwriters formed to share the risk and to help sell an issue.
 - Firm commitment underwriting = the type of underwriting in which the underwriter buys the entire issue, assuming full financial responsibility for any unsold shares.
 - Best efforts underwriting = the type of underwriting in which the underwriter sells as much of the issue as possible, but can return any unsold shares to the issuer without financial responsibility.
 - Dutch auction underwriting = the type of underwriting in which the offer price is set based on competitive bidding by investors. Also known as a uniform price auction.

- The secondary market = the market where investors trade previously issued securities. An investor can trade:
 - Directly with other investors
 - Indirectly through a broker who arranges transactions for others
 - Directly with a dealer who buys and sells securities from inventory.

The Primary Market for Common Stock

- An IPO (and an SEO) involves several steps:
 - Company appoints an investment banking firm to arrange financing
 - Investment banker designs the stock issue and arranges for fixed commitment or best effort underwriting.
 - Company prepares a prospectus and submits it to the SEC for approval. Investment banked circulates preliminary prospectus. (Red herring)
 - Upon obtaining approval, company finalizes prospectus.
 - Underwriters place announcements (tombstones) in newspapers and begin selling shares.
 - Ontario Securities Commission (OSC) = the provincial regulatory agency charged with regulating Toronto Stock Exchange listed securities and the companies.

The Secondary Market for Common Stock

- The goal of a secondary market is to match investors wishing to buy stocks with investors wishing to sell stocks.
- Dealer = a trader who buys and sells securities from inventory
- Broker = an intermediary who arranges security transactions among investors.
- Common stock trading typically occurs on either an organized stock exchange or a trading network.
- Important concepts:
 - The bid price:
 - The price dealers pay investors
 - The price investors receive from dealers
 - The ask price:
 - The price dealers receive from investors
 - The price investors pay dealers
- The difference between the bid and ask prices is called the bid-ask spread, or simply the spread.

The New York Stock Exchange:

- NYSE, popularly known as the Big Board.
- Merged with Euronext to form NYSE Euronext, the world's largest exchange.

Toronto Stock Exchange:

- A computerized exchange
- Started in 1861, with 18 securities and 14 member firms.
- IN 1977, they introduced the world's first Computer Assisted Trading System (CATS) and closed its trading floor to become the largest electronic North American Exchange.

TMX Group and TSX Venture Exchange

- The Toronto Stock Exchange, with Canadian exchange restructuring in 1999, became the major stock exchange for trading senior equities.
- Canadian derivatives trading were transferred to the Montreal Exchange.
- The Vancouver and Alberta Exchanges merged to become the Canadian Venture Exchange (CDNX).

- Later the TSX purchased the CDNX and called it the TSX Venture Exchange
- In 2008, changed name to TMX Group.
- According to the market capitalization, the TSX group is the 3rd largest exchange in North America, and the 7th largest in the world.
- As of 2009, there are 3,640 listed issuers in TSX and TSXV (Toronto Venture Exchange), and the TMX group is 2nd in the world for # of listed issuers.
 - There are 281 international issuers, and 302 new listings.

Stock Market Order Types

Order Type	Buy	Sell
Market order	Buy at best price available for immediate execution.	Sell at best price available for immediate execution.
Limit order	Buy at best price available, but not more than the preset limit price. Forgo purchase if limit is not met.	Sell at best price available, but not less than the preset limit price. Forgo sale if limit is not met.
Stop order	Convert to a market order to buy when the stock price crosses the stop price from below.	Convert to a market order to sell when the stock price crosses the stop price from above. Also known as a "stop-loss."
Stop-limit order	Convert to a limit order to buy when the stock price crosses the stop price from below.	Convert to a limit order to sell when the stock price crosses the stop price from above.

NASDAQ

- The "NASDAQ" is derived from the acronym NASDAQ, which stands for National Association of Securities Dealers Automated Quotations system.
- Is now a proper name in its own right
- Introduced in 1971, the NASDAQ market is a computer network of securities dealers who disseminate timely security price quotes to NASDAQ subscribers.
- The NASDAQ has more companies listed than the NYSE.
- On most days, volume on the NASDAQ exceeds the NYSE volume.

Third and Fourth Market

- The third market = is an off-exchange market for securities listed on an organized exchange.
- The fourth market = is for exchange-listed securities in which investors trade directly with one another, usually through a computer network.
- For dually listed stocks = regional exchanges also attract substantial trading volume.
- 4 differences between the stock indexes:
 - The market covered
 - The types of stocks included
 - How many stocks are included
 - How the index is calculated

There are 2 major types of stock market index:

- Price-weighted = stock market index in which stocks are held in proportion to their share price – higher priced stocks receive higher weights (DJIA)
- Value-weighted = stock market index in which stocks are held in proportion to their total company market value – companies with larger market values have higher weights (S&P 500, S&P/TSX Composite)

Stock Market Information

- The most widely followed barometer of day-to-day stock market activity is the Dow Jones Industrial Average (DJIA), or "Dow" for short.
- DJIA is an index of the stock prices of 30 large companies representative of American industry.
- Stocks that do not trade during a time period cause index staleness over that time period.