

# Penn State Sokolov-Miller Family Financial and Life Skills Center

## Glossary of Basic Financial Terms

**Annual percentage rate (APR)** – the interest rate charged, expressed as a percent per year, for the use of credit

**Assets** – possessions that have economic value (some of which may provide an economic and/or financial return)

**ATM** – automated teller machine; an ATM allows bank customers to deposit and withdraw money without the direct assistance of a bank employee.

**Bank** – a company chartered by state or federal government to offer numerous financial services, such as checking and savings accounts, loans and safe-deposit boxes; the Federal Deposit Insurance Corporation (FDIC) insures accounts in federally chartered banks and most state-chartered banks.

**Bond** – a certificate of indebtedness issued by a government or a company, promising to repay borrowed funds to the lender at a fixed rate of interest and at predetermined intervals

**Borrower** – an individual, business or government that has received and used something belonging to somebody else, with the intention of returning or repaying it - often with interest in the case of borrowed Money

**Budget** – a plan to manage income, spending and saving

**Capital gains** – a profit realized from the sale of property, stocks or other investments

**Cash** – money in the form of paper currency or coins

**Cashier's check** – a form of check bought for a specific amount and paid to a person or firm named on the check. People pay a fee for a cashier's check. A cashier's check cannot bounce because full payment is needed prior to a cashier's check being issued.

**Certificate of deposit (CD)** – a certificate issued by a bank to a person depositing money in an account for a specified period of time. A penalty is charged for early withdrawal from most CD accounts.

**Check** – a written order to a financial institution directing the financial institution to pay a stated amount of money, as instructed, from the customer's Account

**Checking account** – a financial account into which people deposit money and from which they withdraw money by writing checks or using debit or ATM cards

**Compound interest** – a situation in which interest is earned on previously earned interest in such a way that earnings accumulate more rapidly over time

**Credit** – borrowing to buy something with the promise to make payment at a later time

**Credit card** – a small, specially coded plastic card issued by a bank, business, etc., authorizing the cardholder to purchase goods and services on credit. Credit cards allow users to borrow funds (that must be repaid) that the user does not currently have.

**Credit report** – a written record collected by a credit agency that tracks a borrower's credit payments, whether or not these

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payments are made on a timely basis, and how long the borrower has had various credit accounts.

**Credit union** – not-for-profit cooperatives of members with some type of common bond (e.g., employer) that provide a wide array of financial services, often at a lower cost than commercial banks

**Debit card** – a small, specially coded plastic card issued by a bank; allows the cardholder to transfer funds electronically and immediately from his or her checking account, as if the cardholder were writing a check to pay for a purchase. A debit card is different from a credit card in that debit card users are limited to accessing only the available balances in their deposit accounts. Credit cards allow users to borrow funds that must be repaid.

**Diversify** – to invest in a variety of financial assets, such as stocks, bonds, money market accounts, etc., in order to reduce the overall risk of financial investment

**Dividend** – a payment of apportion of a company's net profits which is periodically made to stockholders

**Expenses** – payments for goods and services

**FICO score** – a mathematical model that assesses a person's reliability in repaying borrowed funds

**Finance charges** – the interest paid on unpaid credit balances

**Financial institutions** – intermediaries that help channel funds from savers to borrowers

**Financial literacy** – basic financial knowledge, including an understanding of banks and the banking system, financial markets, credit and credit cards, and tax laws, as well as the ability to apply this knowledge in making decisions on how to spend, earn, or save money today to build wealth for tomorrow

**Fixed expenses** – expenses that are the same every month

**Grace period** – the amount of time one has to pay a line of credit before there is a finance charge

**Human capital** – the knowledge, skills, abilities and talents that people acquire through experience, training and education that help workers produce goods and services and help determine their income-producing capacity

**Income** – earnings that result from providing resources in the market place

**Inflation risk** – the chance that the rate of inflation will exceed the rate of return on an investment; also, the risk that future earnings will have reduced purchasing power because of an increase in average prices

**Installment plan** – a closed-end loan for a specific product such as furniture or appliances

**Interest** – the price associated with using someone else's money. Banks pay savers interest to encourage them to make deposits. Banks charge interest to borrowers, who pay this interest as a cost of using someone else's money. In general, banks earn profits when the interest payments made on loans are

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larger than the interest used to attract savers to make deposits.

**Lender** – one who lends; may be an individual, a business or a government

**Liabilities** – things that are owed; financial obligations that must be paid. Debt is a common household liability.

**Liquidity** – the ease with which a financial asset can be turned into cash.

**Liquidity risk** – the chance that an investor will find it difficult to turn an investment into cash (by trying to sell a house, for example, in a real estate market that is slow)

**Long-term goal** – a goal that a person or organization plans to achieve more than five years in the future

**Medium-term goal** – a goal that a person or organization plans to achieve in one to five years

**Minimum payment** – the smallest amount a person is required to pay in a given month on an open-ended credit account

**Money market account** – an interest-bearing account that offers limited check-writing privileges. Deposits may be added at any time; some money market accounts limit the withdrawals depositors may make without paying a penalty. Money market accounts are low-risk investments that serve as a cross between saving and checking accounts. Money market accounts offered within the banking system are known as money market deposit accounts. Money market accounts offered by mutual funds are known as money market mutual funds.

**Money order** – a form of payment that a person can buy for a specific amount and sign over to the person or firm named on the money order. People must pay a fee to obtain a money order. A money order cannot bounce because full payment is needed before the money order is issued.

**Mutual fund** – a pool of funds used by a financial services company to purchase a variety of stocks, bonds or money market instruments. A mutual fund provides diversification and is professionally managed by investment professionals.

**Net income** – the amount of income left after taxes have been paid

**Net worth** – a person's assets, or what a person owns, minus a person's liabilities, or what a person owes

**Open-ended credit** – a form of credit that allows a person to borrow funds to make purchases for which there is no predetermined repayment period

**Opportunity cost** – the highest-valued alternative that is given up when a choice is made not regularly

**Productive resources** – factors used to produce a good or service (natural resources or land, human resources, human capital and capital goods)

**Problem-solving model** – also known as the PACED model; the five steps of decision-making: identify the problem, list the alternatives, list the criteria upon which the decision will be based, evaluate the alternatives using the criteria, make a decision

# **Penn State Sokolov-Miller Family Financial and Life Skills Center**

## **Glossary of Basic Financial Terms**

**Rate of return** – earnings from a financial investment, stated as a percentage of the amount invested; usually calculated on an annual basis

**Return** – earnings from an investment, usually expressed as an annual percentage rate

**Revolving credit** – an open-ended account with a limit to how much can be borrowed but no time limit for repayment

**Risk** – the chance of experiencing a financial loss

**Rule of 72** – offers a simple way to determine how long it will take for a principal value to double in size. Divide the annual expected interest rate into 72 to know the approximate number of years it will take for the principal to double.

**Saving** – income not spent on current consumption or taxes

**Savings account** – an interest-bearing deposit account at a banking establishment that is not typically used for transactions and has no maturity date

**Scarcity** – the condition that arises whenever limited resources are insufficient to provide for peoples' basically unlimited wants

**Short-term goal** – a goal that a person or organization plans to achieve in less than one year

**Smart card** – a plastic card, usually about the size of a credit card, which has been embedded with a microchip that manages

and processes information. Because of the chip, the card can handle multiple applications such as personal identification, banking, and use in pay phones. The cards make it easy to carry data. They provide high data security and offer great convenience to users.

**Spending** – using income for current consumption

**Stocks** – shares of ownership in a corporation

**Taxes** – required payments to government

**Trade-off** – that which is given up to get something

**Traveler's check** – a form of check that can be used to obtain cash; the buyer of the traveler's check pays a specific dollar amount to acquire these checks, which are issued in standardized packets by a traveler's check issuer. The checks are written to a person or firm and signed by the person writing the check. Often these come with protection against loss or theft. Traveler's check issuers usually charge a fee when they sell these instruments.

**Variable expenses** – expenses that may change from week to week or from month to month

# Glossary of Investment Terminology

Prepared for the Community First Foundation

## Basic Terms

**Stock:** A type of security that indicates *ownership* in a company and represents a claim on that company's earnings and assets.

**Bond:** A debt instrument in which an investor *loans* money to an entity (e.g Governments or Corporations) that borrows the funds for a specific period of time at a specified interest rate.

**Fixed Income:** A type of investing for which real return rates or periodic income is received in regular intervals at a reasonably predictable level. The most typical fixed income security is the bond.

**Portfolio:** A collection of stocks and/or bonds. Portfolios are held directly by investors and/or managed by financial professionals.

**Investment Manager:** A financial professional or team of professionals hired to oversee the selection of investments within a portfolio. The terms 'Fund Manager' or simply 'Manager' will also be used.

**Futures:** An exchange-traded transaction that provides for the sale or purchase of a specific amount of a financial instrument, currency or commodity at a given price, at a designated time in the future.

**Diversification:** Refers to the distribution of assets among a variety of asset classes / investments, for example, geographic regions, instruments, investment styles and strategies, and sectors to reduce the risk characteristics of a portfolio.

**Comparison Benchmark:** A standard by which the performance of a security, fund, or other asset can be measured against. Typically an unmanaged basket of stocks or bonds, an '**index**' portfolio, is used for comparison.

## Basic Terms Continued...

**Rate of Return:** Measure indicating investment performance, including appreciation (or depreciation), realized gains (or losses), and income.

Gross Rates of Return: The rate of return before the deduction of investment management fees.

Net Rates of Return: The rate of return after the deduction of investment management fees.

**Annualized Return:** The constant rate of return that, compounded annually, would yield the same overall return for a multi-year period as the actual return observed. Annualized return is the preferred quoted return rate for multi-year periods.

**Price-to-Book Ratio:** A measure used to compare a stock's market value to its net asset value, or book value. It can be calculated by dividing the current market price of a stock by the current book value per share. This ratio gives an investor an idea of how much they are paying for the stock relative to the company's underlying assets.

$$P / B = \frac{\text{Stock Price}}{\text{Total Asset} - \text{Intangible Assets} - \text{Liabilities}}$$

**Price-to-Earnings Ratio:** A measure of a company's price per share as compared to its earnings per share. The P/E ratio shows how much an investor would be paying for every \$1 of earnings. For example, a company with a P/E of 20 would be paying \$20 for every \$1 of earnings.

$$P / E = \frac{\text{Stock Price}}{\text{Earnings per share}}$$

	Return
2002	-22.1
2003	28.7
2004	10.9
2005	4.9
2006	15.8
Cumulative Return	35.0
Annualized Return	6.2

## Basic Terms Continued...

**Risk:** In the investment world risk is broadly defined as not meeting a stated overall investing objective. More narrowly defined risk can be thought of as the chance that an investment's actual return will be different than expected. This naturally includes the possibility of losing some or all of the original investment.

A fundamental idea in finance is the relationship between risk and return. The greater the amount of risk that an investor is willing to take on, the greater the potential return. The reason for this is that investors need to be compensated for taking on additional risk.

Investment Risk is typically measured with the statistical concept of 'standard deviation'. This concept is further explained later in the glossary.

**Liquidity:** The concept of liquidity refers to how quickly an investment can be converted back into spending cash without affecting the investment's price. Most stocks and bonds can be sold for cash settlement in 3 business days.

**Hedge Fund:** Pools of capital that can invest with few restrictions as to asset classes, investment strategies and leverage. Hedge funds are typically not registered with the SEC, and are primarily sold to institutional and qualified investors. Risk, strategies, and styles can vary widely. The technique of hedging means to reduce risk. Hedge funds can be in the form of a single-manager fund or multi-manager fund of hedge funds (FOHF).



## Style-Based Investing

**Style:** The investment approach an investor, fund manager, or other party utilizes to make investment selections for a portfolio. Style can be a useful tool for classifying portfolios (or baskets) of stocks and bonds.

For Equities, a company's size (market capitalization) and whether the company is considered Growth or Value determine a stock's style. International stocks are typically broken down into Developed and Emerging Markets. Samples can be seen below and will be further defined later in the glossary.

Maturity and Quality are factors most commonly used when determining the Style of a bond.

	Domestic		
	Value	Core	Growth
Large Cap	Russell 1000 Value	Russell 1000	Russell 1000 Growth
Mid Cap	Russell Mid Cap Value	Russell Mid Cap	Russell Mid Cap Growth
Small Cap	Russell 2000 Value	Russell 2000	Russell 2000 Growth

Fixed Income	
Quality	Maturity

International Stocks	
Developed	Emerging Markets

## Style-Based Investing –Capitalization and Value versus Growth

### Investing by Capitalization

**Market Capitalization ( or Market Cap):** The total dollar market value of all of a company's outstanding shares. Market capitalization is calculated by multiplying the number of a company's outstanding shares by the current market price per share. Market Capitalization's can be classified as either Large, Mid, or Small.

**Large Cap:** Companies classified as "Large Cap" have market capitalization's in excess of \$10 billion. Companies such as Wal-Mart, Coca-Cola, and IBM currently fall within this category.

Large Cap stocks are considered to be relatively stable and secure.

**Mid Cap:** "Mid Cap" companies have market capitalization's between the \$2 - \$10 billion range. Companies classified as Mid Cap include Amazon, Bed Bath & Beyond, and Express Scripts.

Mid Cap stocks are generally considered to be more volatile than larger capitalization stocks.

**Small Cap:** Companies with total market capitalization's below \$2 billion are considered "Small Cap". Examples include Pediatrix, Oceaneering, and Varian.

Typically, these are companies early in their lifecycles and have significantly shorter track records.

### Investing by Value or Growth

**Value Investing:** An investment strategy for picking stocks that trade for less than their intrinsic value, with intrinsic value being defined as the perceived value of the company.

The value investor considers fundamentals more important than market factors for determining a stock's price. Typically, value investors select stocks with lower-than-average price-to-book and price-to-earnings ratios as well as high dividend yields. The value investor is conscious not to 'pay too much' for a stock.

**Growth Investing:** An investment strategy that selects stocks which are expected to grow earnings at a higher rate than the overall market. A growth investor may look to find stocks within growth industries (for example Information Technology or Biotech etc...). The investor in a growth strategy is not usually concerned with the price paid for an investment.

## Benchmarks – Russell Equity Indices

**Russell Indices:** The Russell Equity indices are built from a universe of 3,000 stocks and divided between value and growth. Some individual stocks may be split between the growth and value indices where appropriate, but their total representation will always equal 100% of their total market capitalization. All Russell indices are capitalization weighted unless otherwise noted and are rebalanced each year on June 30th. *Please Note: Fees and expenses involved in trading stock are not taken into account when determining index performance.*

### Broad-Market Indices

**Russell 3000:** The Russell 3000 index measures the performance of the 3,000 largest U.S. companies based upon total market capitalization, which also represents 98% of the investable U.S. Equity market. The composition of all other Russell indices can be related to the Russell 3000.

**Russell 1000:** The Russell 1000 Index is a large cap equity index consisting of the largest 1,000 stocks in the Russell 3000 Index.

**Russell Midcap:** The Russell Midcap includes the smallest 800 stocks in the Russell 1000 Index.

**Russell 2500:** The Russell 2500 Index is a small to mid cap equity index consisting of the smallest 2,500 stocks in the Russell 3000 Index.

**Russell 2000:** The Russell 2000 Index is a small cap equity index consisting of the smallest 2,000 stocks in the Russell 3000 Index.

MEGA CAP	Russell 3000	Russell 1000 90% of the Russell 3000	Russell Top 200 62% of the Russell 3000	Russell Top 50 37% of the Russell 3000
LARGE CAP				
MID CAP			Russell Midcap 28% of the Russell 3000	Russell 2500 20% of the Russell 3000
SMALL CAP		Russell 2000 10% of the Russell 3000		

## Benchmarks – Russell Equity Indices Continued

### Stylized Russell Indices

#### All Cap Indices

**Russell 3000 Growth:** Contains those Russell 3000 securities with a greater-than-average growth orientation. Companies in this index tend to exhibit higher price-to-book and price-earnings ratios, lower dividend yields and higher forecasted growth values than the Value universe.

**Russell 3000 Value:** Contains those Russell 3000 securities with a less-than-average growth orientation. Securities in this index generally have low price-to-book and price-earnings ratios, higher dividend yields and lower forecasted growth values than more growth-oriented securities in the Russell 3000 Growth index.

#### Large Cap Indices

**Russell 1000 Growth:** Contains those Russell 1000 securities with a greater-than-average growth orientation. Companies in this index tend to exhibit higher price-to-book and price-earnings ratios, lower dividend yields and higher forecasted growth values than the Value universe.

**Russell 1000 Value:** Contains those Russell 1000 securities with a less-than-average growth orientation. Securities in this index generally have low price-to-book and price-earnings ratios, higher dividend yields and lower forecasted growth values than more growth-oriented securities in the Russell 1000 Growth index.

#### Mid Cap Indices

**Russell Midcap Growth:** Contains those Russell Midcap securities with a greater-than-average growth orientation. Companies in this index tend to exhibit higher price-to-book and price-earnings ratios, lower dividend yields and higher forecasted growth values than the Value universe.

**Russell Midcap Value:** Contains those Russell Midcap securities with a less-than-average growth orientation. Securities in this index generally have low price-to-book and price-earnings ratios, higher dividend yields and lower forecasted growth values than those in the Russell Midcap Growth index.

#### Small Cap Indices

**Russell 2000 Growth:** Contains those Russell 2000 securities with a greater-than-average growth orientation. Companies in this index tend to exhibit higher price-to-book and price-earnings ratios, lower dividend yields and higher forecasted growth values than the Value universe.

**Russell 2000 Value:** Contains those Russell 2000 securities with a less-than-average growth orientation. Securities in this index generally have low price-to-book and price-earnings ratios, higher dividend yields and lower forecasted growth values than more growth oriented securities in the Russell 2000 Growth Index.

## Additional Benchmarks

### Equity Indices

**S&P 500:** Covers 500 industrial, utility, transportation, and financial companies of the U.S. markets. It is a capitalization-weighted index calculated on a total return basis with dividends reinvested. *Note: Fees and expenses involved in trading stock are not taken into account when determining index performance.*

The S&P 500 is a capitalization-weighted index which means its individual components are weighted according to their market capitalization, so in essence the larger cap components of the S&P 500 carry a larger percentage weighting.

Standard and Poor's does provide performance data on an equal-weighted S&P 500. This index has the same constituents as the capitalization weighted S&P 500, but each company in the index is allocated a fixed weight of 0.20%, rebalanced quarterly.

Similarly to the Russell Investment Group, Standard and Poor's also has built several other indices designed to reflect the U.S. equity markets. The previously mentioned S&P 500, the S&P MidCap 400 (which represents the Mid Cap range of companies) and the S&P SmallCap 600 (which represents the small cap spectrum of companies) combine to form the S&P 1500. Additionally, the S&P MidCap 400 and S&P SmallCap 600 are combined to create the S&P 1000 index.

### Fixed Income Indices

**Barclays Government/Credit Bond:** Composed of all publicly issued, fixed rate, non-convertible domestic debt in three major classifications: industrial, utility, and financial. All issues have at least one year to maturity, or an outstanding par value of at least \$100m for U.S. Government issues and \$50m for corporate issues. All corporate issues have a minimum rating of Baa by Moody's or BBB by Standard & Poor's.

**Barclays Aggregate Bond Index:** Composed of all bonds in the Government/Credit Bond Index plus all fixed securities issued and backed by mortgage pools of GNMA's, FHLMC's, FNMA's, Graduated Payment Mortgages, but not Graduated Equity Mortgages. All mortgage backed securities must have a principal value of \$50 million. Rebalanced on a monthly basis by market capitalization.

**Barclays Intermediate Government/Corporate Bond Index:** A subset of the Barclays Government/Corporate Bond Index covering issues with maturities up to 10 years.

**90-Day T-Bill Index:** Un-weighted average of weekly auction offering rates of 90-Day U.S. Treasury Bills.

## Additional Benchmarks

### International Equity Indices

***Morgan Stanley Capital International All Country World Free Index excluding the United States (MSCI ACWIxUS):*** A market capitalization weighted index composed of companies representative of the market of 48 Developed and Emerging Market countries in the Americas, Europe/Middle East, and Asia/Pacific Regions. The index is calculated without dividends or with gross dividends reinvested, in both US Dollar and Local currencies. The MSCI ACWIxUS Free Index excludes closed markets and those share in otherwise free markets which are not purchasable by foreigners. Countries include: Argentina, Australia, Austria, Belgium, Brazil, Canada, Chile, China (Free), Colombia, Czech Republic, Denmark, Egypt, Finland, France, Germany, Greece, Hong Kong, Hungary, India, Indonesia, Ireland, Israel, Italy, Japan, Jordan, Korea, Malaysia, Mexico (Free), Morocco, Netherlands, New Zealand, Norway, Pakistan, Peru, Philippines (Free), Poland, Portugal, Russia, Singapore (Free), South Africa, Spain, Sweden, Switzerland, Taiwan, Thailand, Turkey, United Kingdom and Venezuela.

***MSCI EAFE (Morgan Stanley Capital International Europe, Australasia and Far East):*** An arithmetic, market value-weighted average of the performance of over 900 securities listed on the stock exchanges of the following EAFE (Europe, Australasia, and Far East) countries: Austria, Belgium, Denmark, Finland, France, Hong Kong, Ireland, Italy, Japan, Malaysia, Netherlands, New Zealand. The index is calculated on a total return basis, with dividends reduced by foreign taxes.

***MSCI Emerging Markets:*** The Emerging Markets Index is a float-adjusted market capitalization index. It consists of indices in 26 emerging economies: Argentina, Brazil, Chile, China, Colombia, Czech Republic, Egypt, Hungary, India, Indonesia, Israel, Jordan, Korea, Malaysia, Mexico, Morocco, Pakistan, Peru, Philippines, Poland, Russia, South Africa, Taiwan, Thailand, Turkey and Venezuela.

**Emerging Market:** A nation that is making advancements toward a more developed economy, as evidenced by liquidity in local markets and the existence of some form of market exchange and regulatory body. Emerging markets generally do not have the strict standards in accounting and securities regulation as developed economies, but typically will have their own currencies and financial infrastructure.

Emerging Markets are attractive to investors for their higher reward potential due to their potentially faster economic growth. However, investments in Emerging Markets can come with greater risks due to possible social, governmental, and economic instabilities.

## Fixed Income Terms

**Duration:** A measure of the sensitivity of the price of an investment to a change in interest rates.

For example, if the duration of a bond (or portfolio) is 5 Years, one can assume that as interest rates decrease by 1%, the price of the bond (or portfolio) will increase by 5%. Duration, however, cannot be used as an appropriate measure of price responsiveness when the interest rates rise or fall by more than 1%.

The greater the duration, the greater the interest-rate risk or greater potential reward for bonds.

**Maturity:** The amount of time until the principal amount of a bond is repaid, or the end of life for an investment.

**Bond Quality:** A rating given to bonds that indicates their respective issuer's credit worthiness. The three primary ratings agencies are Standard & Poor's, Moody's, and Fitch. The ratings agency rates the bond issuer on financial strength and/or its ability to repay the bond's principal and interest.

For example, Standard & Poor's will issue ratings found on the schedule below:

AAA	High Grade	BB+ to BB-	Non Investment Grade / Speculative
AA+ to AA-	Upper / Medium Grade	B+ to B-	Highly Speculative
A+ to A-	Medium Grade	CCC+ to CCC-	Extremely Speculative or In Default
BBB+ to BBB-	Lower / Medium Grade	D	In Default

## Fixed Income Terms

**Yield:** Current indicated annual income (dividend or coupon) divided by the current price, stated as a percentage.

**Yield to Maturity:** The rate of return on a bond expected if the bond is held until maturity.

**Coupon:** The interest rate stated on a bond at the time it is issued. Typically, interest payments are made semi-annually.

Example: A \$1,000 bond with a 10% coupon will pay \$100 in interest annually.

**Bond Laddering:** A portfolio management strategy that applies the basic concept of purchasing multiple bonds, each with different maturity dates, in order to achieve diversification.

Desirable outcomes of bond laddering include the following:

- Decrease interest rate risk by holding both short-term and long-term bonds
- Decrease re-investment risk, since, as one bond in the ladder matures, the proceeds are re-invested

**Yield Curve:** A graphical representation of the various interest rates on a specific day of bonds having equal quality, but different maturities. The most common yield curve compares U.S. Treasuries. Economists and investors alike use the U.S. Treasury yield curve to make assumptions about overall economic conditions potential changes.



## Fixed Income Securities – U.S. Government and Agency Securities

**U.S. Treasury Notes:** A marketable U.S. government debt security with a fixed interest rate and a maturity between one and 10 years. Treasury notes can be bought either directly from the U.S. government or through a bank. Treasury Notes make interest payments semi-annually.

**U.S. Treasury Bonds:** A marketable, fixed-interest U.S. government debt security with a maturity of more than 10 years. Treasury bonds make interest payments semi-annually.

**Treasury Inflation-Protected Securities (TIPS):** A special type of Treasury note (or bond) that offers protection from inflation. An inflation-indexed security pays interest every six months and pays the principal when the security matures. The difference is that the coupon payments and underlying principal are automatically increased to compensate for inflation as measured by the consumer price index (CPI)

**Treasury STRIPS:** An acronym for 'separate trading of registered interest and principal securities'. Treasury STRIPS are fixed-income securities sold at a significant discount to face value and offer no interest payments because they mature at full face value. (i.e. zero-coupon bond).

**Agency Debentures:** Debt issued by a Federal Agency or a government-sponsored enterprise (GSE) for financing purposes. These types of debentures are not backed by collateral, but by the integrity and credit worthiness of the issuer. Agency debentures issued by a Federal Agency, such as the Tennessee Valley Authority, are backed by the full faith and credit of the U.S Government. Agency debentures issued by a GSE are backed only by that GSE's ability to pay.

## Fixed Income Securities – Corporate Securities

**Debentures:** Unsecured debt obligation, issued against the general credit of a corporation, rather than against a specific asset.

**Medium-Term Note (MTN):** A corporate note continuously offered by a company to investors through a dealer. Investors can choose from differing maturities, ranging from nine months to 30 years.

**Capital Securities:** A security issued by a corporation that generally has a \$25 par value (although some are issued with a \$1,000 par value) and offers investors a combination of the features of corporate bonds and preferred stock. These securities provide the benefits of attractive yields, fixed monthly, quarterly or semiannual income, investment time frames that are generally predictable (20-49 years, although some are perpetual), liquidity and investment-grade credit quality (in most cases).

**Trust Preferred Securities:** A security similar to debentures and preferred stock that is generally longer term, has early redemption features, makes quarterly fixed interest payments, and matures at face value.

**Yankee Bond:** A bond denominated in U.S. dollars that is publicly issued in the U.S. by foreign banks and corporations. According to the Securities Act of 1933, these bonds must first be registered with the Securities and Exchange Commission (SEC) before they can be sold. Yankee bonds are often issued in tranches and each offering can be as large as \$1 billion.

## Fixed Income Securities – Corporate Securities

**Eurodollar Securities:** A U.S.-dollar denominated bond issued by an overseas company and held in a foreign institution outside both the U.S. and the issuer's home nation. Eurodollar bonds are an important source of capital for multinational companies and foreign governments.

**Floating Rate Notes:** A note with a variable interest rate. The adjustments to the interest rate are usually made every six months and are tied to a certain money-market index. Floating Rate Notes protect investors against a rise in interest rates, but also carry lower yields than fixed notes of the same maturity. A Floating Rate Notes is also known as a "floater".

**Structured Notes:** A debt obligation that also contains an embedded derivative component (such as an option contract) with characteristics that adjust the security's risk/return profile. The return performance of a structured note will track that of the underlying debt obligation and the derivative embedded within it.

**Private Placements:** Raising of capital via private rather than public placement. The result is the sale of securities to a relatively small number of investors. Investors involved in private placements are usually large banks, mutual funds, insurance companies, and pension funds.

**Bank Loans:** A securitization of a loan made by a bank to a borrower. Typically these loans are made to below investment grade companies, have floating interest rates, and are private placements.

**144(a) Securities:** A securitization of a loan made by a bank to a borrower. Typically these loans are made to below investment grade companies, have floating interest rates, and are private placements.

## Fixed Income Securities – Structured Securities

**Mortgage Backed Securities:** A debt instrument whose cash flow depends on the payment characteristics of an underlying pool of mortgage loans.

**Pass-Through Securities:** A pool of fixed-income securities backed by a package of assets. A intermediary collects the monthly payments from issuers, and, after deducting a fee, remits or passes them through to the holders of the pass-through security. The most common type of pass-through is a mortgage-backed security, where homeowners' payments pass from the original bank through an agency (or investment bank) to investors.

**Collateralized Mortgage Obligation (CMO):** A type of mortgage-backed security that creates separate pools of pass-through rates for different classes of bondholders with varying maturities, called tranches. The repayments from the pool of pass-through securities are used to retire the bonds in the order specified by the bonds' prospectus.

**Interest Only Strips (IO):** The interest portion of mortgage, Treasury or bond payments, which is separated and sold individually from the principal portion of those same payments. The periodic payments of several bonds can be "stripped" to form synthetic zero-coupon bonds. Also, an Interest Only Strip might be part of a larger collateralized mortgage obligation (CMO), asset-backed security (ABS) or collateralized debt obligation (CDO) structure.

## Fixed Income Securities – Structured Securities

**Principal Only Strips (PO):** A type of fixed-income security where the holder is only entitled to receive regular cash flows that are derived from incoming principal repayments on an underlying loan pool. The loan is often a pool of mortgages in the form of a mortgage-backed security (MBS). This security is created by splitting a mortgage-backed security into its interest and principal payments. The principal payments create a string of cash flows which are sold at a discount to investors. These investors will receive the principal portions of the monthly mortgage payments from the underlying pool of loans.

**Inverse Floaters:** A bond or other type of debt whose coupon rate has an inverse relationship to short-term interest rates. With an inverse floater, as interest rates rise, the coupon rate falls. When short-term interest rates fall, an inverse floater holder benefits in two ways: (1) the bond appreciates in price and (2) the yield increases.

**Asset Backed Securities (ABS):** A pool of fixed-income securities backed by a package of assets. A intermediary collects the monthly payments from issuers, and, after deducting a fee, remits or passes them through to the holders of the pass-through security. The most common type of pass-through is a mortgage-backed security, where homeowners' payments pass from the original bank through an agency (or investment bank) to investors.

**Commercial Mortgage Backed Securities (CMBS):** A type of mortgage-backed security that is secured by the loan on a commercial property such as office space, retail properties, industrial facilities, multifamily housing, and hotels . A Commercial Mortgage Backed Security can provide liquidity to real estate investors and to commercial lenders.

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## Fixed Income Securities – Other Interest Bearing Securities

**Municipal Bond:** A debt security issued by a state, municipality or county to finance its capital expenditures. Municipal bonds are exempt from federal taxes and from most state and local taxes, especially if you live in the state in which the bond is issued.

**Preferred Stock:** Capital claim on a company's assets, considered a quasi-fixed income investment, ranking below all debt in the capital structure but above all common equity. Typically pays a fixed dividend, but nonpayment is not an event of default. Depending on the particular security, the company may or may not be required to "catch up" on all dividend payments once payments resume.

**Adjustable Rate Preferred Stock:** A type of preferred stock where the dividends issued will vary with a benchmark, most often a T-bill rate. The value of the dividend from the preferred share is set by a predetermined formula to move with rates, and because of this flexibility preferred prices are often more stable than fixed-rate preferred stocks.

**Convertible Preferred Stock:** Preferred stock that includes an option for the holder to convert the preferred shares into a fixed number of common shares, usually anytime after a predetermined date. Most convertible preferred stock is exchanged at the request of the shareholder, but sometimes there is a provision that allows the company (or issuer) to force conversion. The value of convertible common stock is ultimately based on the performance of the common stock.

## Fixed Income Securities – Short Term Investments

**Cash:** In investing terms cash is defined as short-term obligations, usually ninety days or less, that provide a return in the form of interest payments and can be readily sold without principal risk.

**U.S. Treasury Bills:** A short-term non-coupon-bearing discount bonds issued by the U.S. Government. .

**Agency Discount Notes:** A short-term debt obligation issued at a discount to par by a government-sponsored agency.

**Certificates of Deposit (CDs):** A savings certificate entitling the bearer to receive interest. A CD bears a maturity date, a specified interest rate and can be issued in any denomination.

**Bankers' Acceptances:** A short-term credit investment created by a non-financial firm and guaranteed by a bank.

**Commercial Paper:** An unsecured, short-term debt instrument issued by a corporation to meet short-term financing needs. Maturities on commercial paper rarely exceed 270 days and the debt is issued at a discount which reflects prevailing market interest rates.

**Asset-backed Commercial Paper:** A form of commercial paper backed by physical assets, for example a property or a piece of equipment.



## Fixed Income Securities – Short Term Investments

**Money Market Funds:** Funds which invest in short-term debt obligations such as Treasury bills, certificates of deposit and commercial paper.

**Short-term Investment Funds:** Funds comprised of low-risk investments with the goal of protecting capital and providing a modest return.

**Repurchase Agreements:** A contract in which the seller of securities, such as Treasury bills, agrees to buy them back at a specified time and price. This transaction is also known as a “repo” or “buyback”.

## Fixed Income Securities - Other

**Fixed Income Commingled Funds:** A fixed income mutual fund which includes assets from several accounts, pooled together, to reduce management and administrative costs.

**Fixed Income Mutual Fund:** An open-ended fund operated by an investment company which raises capital from shareholders and invests in various debt instruments in accordance with a stated set of objectives.

**Reverse Repurchase Agreements:** Also known as a “reverse repo”. A purchase of securities with an agreement to resell them at a specific time in the future.

**Fixed Income Futures:** A standardized, transferable, exchange-traded contract requiring the delivery of a debt instrument on a specified future date.

**Fixed Income Options:** The right, but not the obligation, to buy or sell a specific amount of a given fixed income security, at a specified price during a specified period of time.

**Fixed Income Swap Agreements:** The exchange of one fixed income asset or liability for a similar asset or liability for the purpose of lengthening or shortening maturities, or raising or lowering coupon rates, in order to maximize revenue or minimize financing costs.

## Equity Securities

**Common Stock:** A security representing ownership in a corporation. Holders of common stock exercise control by electing a board of directors and voting on corporate policy. Common stockholders are the last to receive payment in the event of the liquidation of a company's assets.

**Convertible Notes and Bonds:** Notes or bonds which may be converted into a predetermined amount of a company's equity at certain times throughout its life, usually at the discretion of the bondholder. As convertible notes and bonds have the value-added component of being convertible they tend to offer a lower rate of return.

**Convertible Preferred Stock:** Preferred stock which includes the option for the holder to convert the preferred shares into a fixed number of common shares. Most convertible preferred stock is exchanged at the request of the shareholder, but there may be a provision which allows the issuer to force conversion.

**American Depositary Receipts (ADRs):** A negotiable certificate issued by a U.S. bank representing a specified number of shares in a foreign stock that is traded on a U.S. exchange.

**Stocks of Non-U.S. Companies:** The common stock representing ownership in corporations which are based outside of the United States. International and globally-based companies held in a portfolio help to reduce the impact of local (U.S.) market downturns.

## Equity Securities

**Mutual Funds:** Investment vehicles made up of a pool of funds collected from many investors for the purpose of investing in securities markets. A mutual fund is operated by a money manager and is designed to match the investment objectives of its investors. Mutual funds help to give investors access to a professionally managed, diversified portfolio of assets which would be more difficult to create on a stand-alone basis.

**REITs:** Real Estate Investment Trusts invest in real estate directly, either through properties or mortgages, and are traded on the major exchanges. Certain REITs will invest in a specific area of the real estate market (for example: condominiums, shopping malls) or in one specific region, state or country. Generally, investing in REITs is a means of participation in the real estate markets.

## Portfolio Analysis

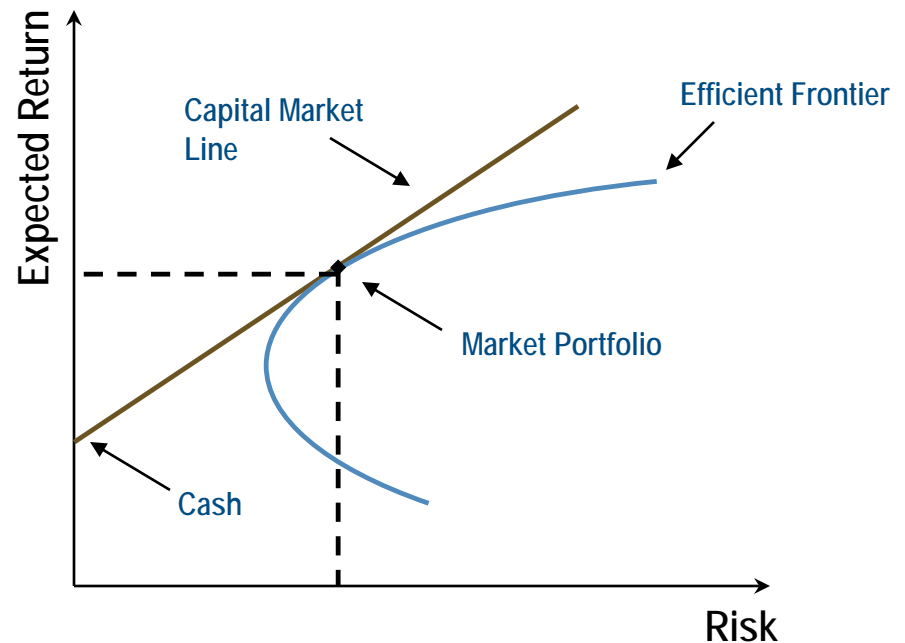
**Modern Portfolio Theory (MPT):** A theory on how risk-averse investors can construct portfolios to optimize or maximize expected return based on a given level of market risk. Modern Portfolio Theory emphasizes that for each higher level of return there is a higher level of risk.

MPT defines states risk comes in two forms: systemic risk and un-systemic risk.

*Systemic Risk:* Defined as market risks that cannot be diversified away.

Examples being interest rate changes, recessions, terrorism.

*Un-Systemic Risk:* Risk posed by individual stocks that can be diversified away. Examples being mergers, bankruptcy, management turnover.



**Capital Asset Pricing Model (CAPM):** A model used to describe the relationship between the expected return of an asset and its associated risk.

The CAPM model suggests that the expected rate of return on a stock (portfolio) equals the rate on a risk-free security plus a "risk" premium.

## Portfolio Analysis – Statistical Measures

**Alpha:** A mathematical value indicating an investment's excess return relative to a benchmark.

A positive alpha indicates that a selected portfolio has produced returns above the expected level of risk, whereas a negative alpha indicates that the selected portfolio has underperformed given the level of risk.

Alpha is calculated as the average of the excess return of the investment over beta, then multiplied by the benchmark return.

$$\alpha = \text{average of excess return} - \text{beta} \times \text{benchmark return}$$

**Beta:** A measure of a stock (or portfolio)'s volatility ("risk") in relation to the rest of the market.

An investment with a beta greater than 1.0 is considered more volatile than the market, while an investment with a beta less than 1.0 is less volatile than the market.

Beta is calculated by dividing the covariance between the investment's return and the benchmark's return by the variance of the benchmark's return.

$$\beta = \frac{\text{Covariance of the manager and the benchmark}}{\text{Variance of the benchmark}}$$

## Portfolio Analysis – Risk Measures

**Volatility:** A statistical measure of the dispersion of returns for a given security or market index. Volatility can either be measured by using the standard deviation or variance between returns from that same security or market index. Commonly, the higher the volatility, the riskier the security.

**Standard deviation:** The measure of the volatility (“risk”) of an investment’s returns around its mean.

Or simply put, how far apart are the investment manager’s returns from its average return.

$$\sigma = \sqrt{\frac{\sum (x_i - m)^2}{n-1}}$$

	Return ( $x_i$ )	( $x_i - m$ )	( $x_i - m$ ) <sup>2</sup>
1999	10.0	(10.0 – 9.5) = 0.5	(0.5) <sup>2</sup> = 0.3
2000	9.5	(9.5 – 9.5) = 0.0	(0.0) <sup>2</sup> = 0.0
2001	5.0	(5.0 – 9.5) = -4.5	(-4.5) <sup>2</sup> = 20.3
2002	8.5	(8.5 – 9.5) = -1.0	(-1.0) <sup>2</sup> = 1.0
2003	14.0	(14.0 – 9.5) = 4.5	(4.5) <sup>2</sup> = 20.3
2004	11.5	(11.5 – 9.5) = 2.0	(2.0) <sup>2</sup> = 4.0
2005	8.0	(8.0 – 9.5) = -1.5	(-1.5) <sup>2</sup> = 2.3
Avg. =	9.5		
	Sum of Differences		= 48.2
	Average of Difference		= 6.9
	Square Root of Average		= 2.8

## Portfolio Analysis – The Sharpe Ratio and The Information Ratio

**Sharpe Ratio:** is a risk-adjusted measure developed by Nobel Laureate William Sharpe. It is calculated by dividing a portfolio's excess return (portfolio return minus a "risk-free" rate) by the portfolio's standard deviation.

The higher the Sharpe Ratio, the better the portfolio's historical risk adjusted performance. Sharpe ratio can be thought of as a 'portfolios miles per gallon rating'.

$$S = \frac{Rp - Rf}{\sigma}$$

Where:

Rp = Portfolio Rate of Return  
Rf = Risk-Free Rate of Return  
 $\sigma$  = Portfolio Standard Deviation

**Information Ratio:** An efficiency measure calculated by dividing the excess rate of return by the standard deviation of the excess return (tracking error).

The information ratio is most useful for measuring the performance of an active manager against an appropriate benchmark and can be used as a guide to choosing active managers within a universe of similar asset/style managers. A higher Information Ratio is better.

$$IR = \frac{[AnnRtn(p_1...p_n) - AnnRtn(b_1...b_n)]}{AnnStdDev(e_1...e_n)}$$

Where:

$p_1...p_n$  = Portfolio Return Stream  
 $b_1...b_n$  = Benchmark Return Stream  
 $e_1...e_n$  =  $p_1 - b_1, \dots, p_n - b_n$



## Portfolio Analysis – Statistical Measures

**Batting Average:** The batting average measure's the investment's (or manager's) ability to meet or beat the market consistently. It can be calculated by taking the number of periods the investment beats (or meets) the benchmark by the total number of periods in the series.

$$\text{BattingAverage} = \frac{\text{Number of Periods Beat (or Met) the benchmark}}{\text{Number of Total Periods}}$$

**R-Squared:** A measure of how closely the investment's returns matches the benchmark against it is compared. A R-Squared of 100 means that 100% of an investment's movements are explained by the movements in the respective benchmark. A lower R-Squared, for instance 20, indicates that very little of an investment's returns can be explained by movements in the benchmark.

**Up Capture Ratio:** A measure of the investment's performance in up markets relative to a specific benchmark. An Up Capture ratio of 120 indicates that the investment has outperformed the benchmark by 20% when the benchmark rises.

**Down Capture Ratio:** The converse of the Up Capture ratio, the Down Capture ratio measures the performance of an investment relative to the benchmark in down markets. A Down Capture ratio of 70 means that the investment declined only 70% as much as the benchmark in declining market environments.

## Important Graystone Consulting Disclosures

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Investment Products: Not FDIC Insured • No Bank Guarantee • May Lose Value
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