

18. Investing 1: What to Do Before You Begin Investing

Introduction

The previous chapters have helped you put personal financial management into perspective. These chapters have taught you about living on a budget, keeping track of where your resources are going, managing your cash and cash equivalents, protecting yourself from loss by owning insurance, and making big-ticket purchases wisely. Now we will begin a discussion on long-term investing.

Please be aware that this course approaches the subject of investments differently than do other textbooks. Most books take an asset-based approach—they talk about stocks, bonds, mutual funds, and other assets. Such assets change over time as new assets are developed and sold. Instead, I take a principle-based approach to discussing investments because the principles will not change over time.

The most critical part of investing is having a plan—an Investment Plan. These chapters in this course on investing all relate to putting together an Investment Plan, often called an investment policy statement. This Investment Plan describes what kind of an investor you are, what your risk and return requirements are, how you will invest, where you will invest, how you will get money to invest, and how you will evaluate your investments. These are all critical areas of the investment process.

Learning about investments is really learning how to answer six important questions:

1. **What are financial markets and how do they operate?** It is important that you learn the basics of financial markets and financial market operations before you begin investing.
2. **What are the major financial instruments or assets, and what are their advantages and disadvantages, i.e., risks?** Learning about financial assets is important since that is what you will be investing in.
3. **What are the asset classes and why are they important?** Asset classes (i.e., stocks, bonds, cash, etc.) have different risk and return characteristics. Understanding asset classes is critical since investment returns are largely the result of an investor's asset allocation, or the allocation of resources between the different asset classes.
4. **What is your asset allocation and how will it change over time?** Your asset allocation is the way you allocate your investment dollars to different asset classes.

- 5. What is your Investment Plan and how will you invest?** Your Investment Plan should include clear objectives, guidelines, and constraints. These factors will influence both how and where you invest and will help you become a better investor.
- 6. How will you build your portfolio and how will you monitor it?** Once you invest, you will follow this process to build, monitor, evaluate, and rebalance your portfolio.

I have divided this course on investments into nine different chapters. Investments 1: Before You Invest discusses principles of successful investing and gives a basic history of asset-class performance over the last 80 years. It will also help you develop your preliminary asset-allocation targets. Investments 2 discusses investment objectives, constraints, and policies needed to prepare an Investment Plan or an Investment Policy Statement. Investments 3 discusses financial markets and how they operate. Investments 4, Investments 5, and Investments 6 delve into a deeper discussion on the major asset classes and financial assets. Investments 7 and Investments 8 discuss how you build your portfolio and how to choose financial assets. Finally, Investments 9 discusses how to monitor and rebalance your portfolio.

Objectives

When you have completed this chapter, you should be able to do the following:

- A. Know what to do before you invest.
- B. Recognize the principles of successful investing.
- C. Understand the major asset classes and their risk and return history.

Properly prepare yourself to invest and understand what you will be investing in before you begin your investment program; these are important keys to success.

Know the Steps to Take Before You Invest

The following are important questions to ask yourself before you start investing:

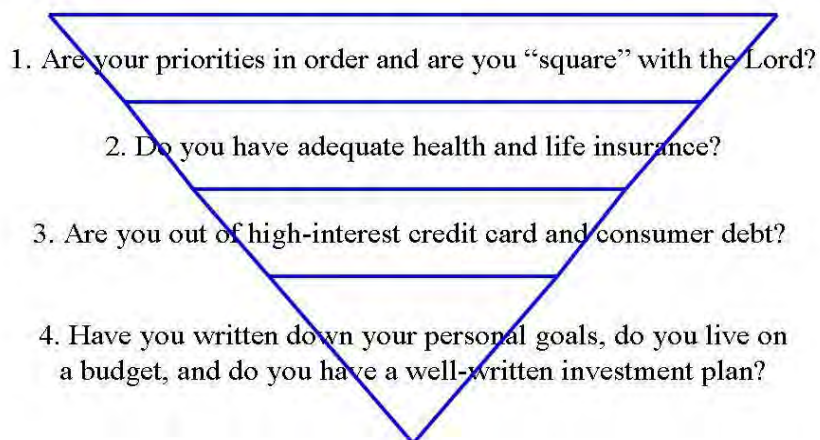
- Is there a priority to paying your bills? Do you consider some of your bills more important than others? Which bill do you consider more important?
- Are there certain products or services you feel you should never do without? Should you have health and life insurance before you begin investing?
- Is there a better use for your money than investing? Are there bills or debts you should pay before beginning your investment program? What should you do about high-interest items such as credit cards and consumer loans? Does it really make sense to earn 8 percent annually on an investment when you are paying 24 percent annually for credit cards and other forms of debt?

- How does investing fit in with your personal vision, goals and budget? Do you have a plan for investing?

As I have worked with families and students, I have developed a helpful framework for teaching investing. I call this framework “the investment hourglass.” This tool helps relate priorities and risks to the goals you want to accomplish.

The investment hourglass is divided into two parts: the top of the hourglass, which represents questions you should consider before you invest, and the bottom of the hourglass, which represents how you should invest. This chapter will focus on the top of the investment hourglass. The hourglass is designed to help you prioritize. Since investing is a means to an end—and not an end in itself—you should base your investment decisions on your priorities and personal goals. If you can agree with each of the statements listed in the top of the hourglass, you are ready to invest (see Chart 1). If you cannot agree with any of these statements, you have important steps to take before you begin investing.

Chart 1. Top of the Investment Hourglass—Before You Invest



Before you even think about investing, you should be sure you’ve paid your bills. First and foremost, your most important priority is being “square” with the Lord, who is your most important creditor. Before you invest, ask yourself if you have paid your tithing, a generous fast offering, and other contributions as you feel inclined.

Your second priority is your family. If something were to go wrong with your health, or if you were to die, who would take care of your family? Make sure you have adequate life insurance and health insurance in place before you begin investing. Disability or death is not a valid excuse to stop providing for the needs of your family.

Your third priority is yourself. Personal responsibility has two parts: the first involves getting out of credit card and consumer debt. When there is no guarantee that you will make a return on your

investments in the stock market, it does not make sense to pay 24 percent interest on credit cards. The second part of personal responsibility involves living by your budget, knowing your personal and family goals, and having an Investment Plan. Figuratively speaking, before you drive to a new location, you must understand where you are, where you want to be, and how to get there. Your budget represents where you are, your goals represent where you want to be, and your Investment Plan represents how to get there.

If you can answer yes to each of the statements from the top of the investment hourglass, you are ready to invest. This hourglass can help you keep your priorities in order: God first, family second, and personal responsibility third.

Recognize the Principles of Successful Investing

Once you are ready to invest, you must recognize that there is not just one right way to invest. There are multiple methods of investing, depending on your budget, your personal goals, and your Investment Plan. The key to successful investing is to understand the principle and know yourself and what you are trying to accomplish.

To understand how most equity investors have done in investing, you must compare their returns to their benchmarks. Each year, DALBAR puts out an annual survey called *Quantitative Analysis of Investor Behavior* (www.dalbar.com), which discusses how the average investor in equities, fixed income, and asset allocation funds has done compared to his or her benchmarks over the past 20 years. Interestingly, most investors have not had very high returns in comparison to their benchmarks (see Tables 1–3).

As the saying goes, “If you do what everyone else does, you will get what everyone else gets.” Based on the DALBAR study, it seems that whatever people are doing regarding investing is not working well for equity investors (see Table 1), fixed income investors (see Table 2), or investors using asset allocation (see Table 3). Is there a better way to help investors achieve higher returns than what they have in the past, perhaps returns closer to the benchmarks? I believe so. Is there one right way to invest? I think not. Likewise, there is not just one right way to teach investing.

I believe the best way to teach investing is to first teach the principles of wise investing. While assets may change, the principles should not. Joseph Smith’s admonition, “I teach them correct principles and they govern themselves,”¹ applies today in this area as well.

If you understand the “correct principles” that relate to successful investing, you will be able to “govern,” or manage, your investment portfolio well. Dallin H. Oaks said:

We live in a complex society, where even the simplest principle can be exquisitely difficult to apply. I admire investors who are determined not to obtain income or investment profits from transactions that add to the sum total of sin and misery in the world. But they will have difficulty finding investments that meet this high standard.

Such complexities make it difficult to prescribe firm rules. We must rely on teaching correct principles, which each member should personally apply to govern his or her own circumstances.²

Table 1. Historical Analysis of Equity Investor's Return (Dalbar 2015-2019)

Year	Investor Period	Investor Returns	Benchmark Returns	Difference
2015	1995–2014	5.2%	9.9%	-4.7%
2016	1996–2015	4.7%	8.2%	-3.5%
2017	1997–2016	4.8%	7.7%	-2.9%
2018	1998–2017	5.3%	7.2%	-1.9%
2019	1999–2018	3.9%	5.6%	-1.7%

Table 2. Historical Analysis of Fixed Income Investor's Return (Dalbar 2015-2019)

Year	Investor Period	Investor* Returns	Benchmark Returns	Difference
2015	1995–2014	0.8%	6.2%	-5.4%
2016	1996–2015	0.5%	5.3%	-4.8%
2017	1997–2016	0.5%	5.0%	-4.5%
2018	1998–2017	0.4%	4.6%	-4.2%
2019	1999–2018	0.2%	4.6%	-4.4%

Table 3. Historical Analysis of Asset Allocation Investor's Return (Dalbar 2015-2018)

Year	Investor Period	Investor Returns*	Benchmark Returns**	Difference
2015	1995–2014	2.5%	8.4%	-5.9%
2016	1996–2015	2.1%	7.0%	-4.9%
2017	1997–2016	2.3%	6.6%	-4.3%
2018	1998–2017	2.6%	6.2%	-3.6%
2019	1999–2018	2.9%	9.7%	-2.3%

* DALBAR 2015– 2019 ** Estimate of 60% equity and 40% fixed income

Whatever you decide to invest in, and whatever phase of investment you are in, it is critical that you adhere to the following ten principles. If you build your portfolio according to these principles, you will be most likely to have a successful portfolio.

1. Know Yourself, your goals, vision and plans. Investing is not an end in itself; rather, it is a means of reaching your personal and family goals. Consequently, you need to know yourself as an investor. You should have well-written and well-thought-out goals; goals are critical because they help you determine what you want to accomplish with your investment program.

You also need to know your budget. A critical part of successful investing is having a well-planned budget; a percentage of your income should be earmarked for savings and investment. You cannot invest without funds, and you should not invest with borrowed money.

You also need to understand your ability to tolerate risk. You want to develop a “sleep-well portfolio”—a portfolio that is planned so that even when investments go wrong, as they often do, you can still sleep well at night.

Beware of overconfidence in your portfolio. One sign of overconfidence is frequent trading. A study found that men trade 45 percent more often than women trade and that men’s annual returns were, on average, 2.7 percent lower than women’s annual returns. The study also found that single men trade 60 percent more often than single women trade and that single men’s annual returns were 1.4 percent lower than single women’s annual returns.³

You must be wary of having overconfidence when trading online as well. The same study showed that the same group of investors beat the market by 1.9 percent before online trading. However, when the same group of investors switched to online trading, the group underperformed by 3.6 percent.⁴ While online trading may appear to give you more control, it can result in lower overall returns if it leads to more frequent, overconfident trading.

3. **Seek, receive and act on the Spirit’s guidance.** This includes seeking diligently through study and prayer, living worthy of the Spirit’s guidance, and then acting on it once it is received. Carlos E. Asay said,

When the Spirit is with us, we can think thoughts we’ve never thought before, we can say words we’ve never said before, we can perform beyond our natural abilities. That power is related to truth, to the scriptures, to the stirring of the Spirit within. And the power won’t come unless we’re actively courting the influence of the Holy Ghost.⁵

3. Understand the key areas of investing and especially risk. Risk is inherent in all investment activities. Some risks include inflation, business, interest-rate, financial, market, political and regulatory, exchange-rate, call, and liquidity risks. The key to managing risk is to understand the different types and to invest at a risk level that is comfortable for you. Often, taking a risk tolerance test will help you discover the level of risk that is right for you. One such test is included in the Learning Tools section of the website [A Risk-Tolerance Test](#) (LT16).

4. Stay Diversified. Diversification is your best defense against risk. Diversification does not mean simply investing in 10 different banks; rather, to be properly diversified, you should invest in different companies, industries, and perhaps even countries that won’t be subject to the same economic factors or risks. Make sure you understand the risks of each of your investments.

Many people review the portfolio returns from various asset classes over the last 10, 20, or 50 years to get an idea of an asset class’s performance history. However, these people

often invest in only one or two single assets instead of in a portfolio of 500 or more stocks and are often disappointed when they do not get the asset class returns they expected. Remember, the returns from asset classes are from portfolios of hundreds of assets—not from individual assets. To see the effects of diversification, see [Historical Return Simulation for Asset Classes](#) (LT23).

5. Make Low-Cost and Tax-Efficient Investments. Watch your investment costs carefully, including costs for transaction fees, management fees, and taxes. Remember that when investing, a dollar saved is worth more than a dollar earned—you have to pay taxes on every new dollar you earn, but every dollar you save is already taxed and can earn interest on income. Be aware that frequent trading incurs significant transaction and tax costs; avoiding this will help you keep your costs low.

Defer or eliminate taxes as much as possible. Mutual funds are required by law to distribute 90 percent of all capital gains, dividends, and interest to their shareholders each year. That means you must pay taxes on the distributions from your mutual funds each tax season, even though you may not have sold a single share. Mutual funds are pass-through accounts for tax purposes, which means that the tax consequences of the mutual fund are paid by the investor, not the mutual fund. The portfolio manager's decisions can have a significant impact on your taxes.

6. Invest for the Long Term. Invest for the long run; this is how you will achieve your goals. There are no “get-rich-quick” schemes that work, and short-term investing is expensive in terms of time, transaction costs, and taxes.

Avoid short-term trading. Short-term trading is expensive and incurs transaction costs and taxes. Be sure to keep at least part of your funds in the market for the long run—taking money out of the market may not only slow your progress but could stop it altogether. A recent study found that those who traded more often, using the turnover ratio as a proxy for trading, had lower returns than those who traded less often and used a buy-and-hold strategy.⁶

7. Use Caution If You Are Investing in Individual Assets. If you must invest in individual assets (which is not necessary for a successful portfolio), do your homework and know what you are investing in and who you are investing with. Learn about the company, its financial statements, its management, its short- and long-term strategies, its domestic and global industry, and its competition. It takes many hours of diligent, careful research to investigate a company thoroughly. Do not take another's word for it: do the research yourself. Of course, finding a great company is not enough—the stock must also be priced right. A great company whose stock is overpriced can still be a lousy investment.

If you do not have time to research individual companies, invest in mutual or index funds that contain many individual assets. If your mutual fund has 10 stocks, you need to know

those 10 stocks well. However, if your mutual fund has 500 or more stocks, you do not need to know those 500 stocks as well because each stock has such a small impact on your total portfolio.

Make sure you invest with mutual fund companies that have a tradition of meeting the needs of their investors. Work with good companies that offer good products. Be careful with your money and invest it wisely.

8. Monitor Portfolio Performance against Benchmarks. Thomas S. Monson stated, “Where performance is measured, performance improves. Where performance is measured and reported, the rate of improvement accelerates.”⁷

How can you know if your investments are doing well if you do not monitor their performance? To understand the performance of your investments, you will need to learn how to use benchmarks. Benchmarks are passively managed portfolios of financial assets that indicate how well your financial assets are performing. Set your portfolio benchmarks and then monitor your portfolio performance on a monthly, quarterly, and annual basis.

If you choose to invest in actively managed mutual funds, compare the assets’ performance against the benchmarks you have set (after taxes). If the return on these assets is consistently lower than the benchmarks, consider investing in no-load (no sales charge), low-fee (low expense ratios) index funds, which are discussed later in this course. The returns on index funds generally match the performance of selected benchmarks more consistently than actively managed funds.

9. Do Not Waste Too Much Time and Energy Trying to Beat the Market. It is difficult, expensive, and time-consuming to try to beat the market gaining returns in excess of the returns on the major asset classes. While it may be possible on a short-term basis, it is difficult to consistently beat the market on a long-term basis. You are competing against hundreds of thousands of professional money managers with much more time and money and access to more databases than you have.

If you want to try to beat the market, try for a short period of time and compare your returns after taxes to your benchmarks. Do not waste too much time and energy because you will be able to match the market return with little or no effort through no-load, low-fee index mutual funds or exchange traded funds (ETFs).

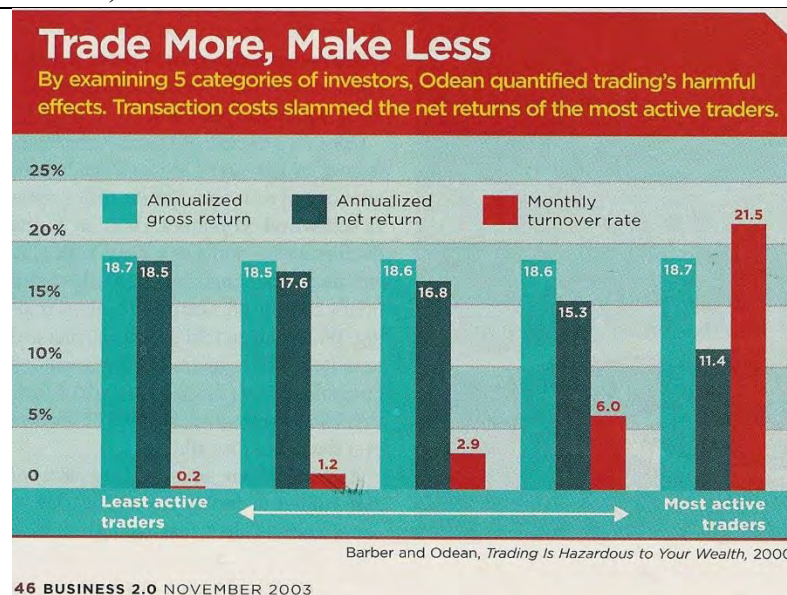
If you feel you must trade actively, try to trade efficiently in terms of taxes. Trade in tax-deferred or tax-eliminated retirement accounts such as a 401(k), Roth IRA, or traditional IRA accounts so your taxes are deferred or eliminated when you take the money out at retirement.

10. Invest Only with High-Quality, Licensed, Reputable People and Institutions.

When you need help, do not be afraid to ask for it. However, be sure to get help from good people whose actions and beliefs are consistent with the principles discussed in this chapter. Good help from qualified, licensed, and experienced financial planners, financial advisors, and brokers may help you with your Investment Plan.

Use the best resources available to help you invest, but be aware of how you pay to use those resources. In addition, make sure your advisors are licensed to counsel you on the broad range of investment assets you are (or should be) considering. Work only with licensed and registered advisors. In some circumstances, fee-only financial planners or advisors may be a better choice than financial planners or advisors that are paid on commission.

Chart 2. Trade More, Make Less



11. Develop a Good Investment Plan and Follow It Closely. Develop a good Investment Plan that is consistent with your goals, your budget, and the principles discussed in this chapter. Follow this plan closely. An Investment Plan is a detailed road map of your investment risk and return, constraints, investment strategy, and reporting and evaluation methodology. For an example of an Investment Plan, see [Investment Plan Example Template](#) (LT05A).

Your Investment Plan should outline the amount of return you are seeking and the risk level you are comfortable with for investments. This plan documents constraints—such as taxes, liquidity, and time horizon—that affect your portfolio. It details which asset classes you will or will not invest in and includes your view on active versus passive management. It lays out your plan for the percentage of gross income you will invest each month, the amount you will invest in each of your chosen asset classes, the

maximum percentage of your assets that you will invest in any single new investment, and the ways your strategy will change as you get older. Finally, your Investment Plan details how often you will rebalance your portfolio and how often you will report the portfolio performance to others.

Think of your Investment Plan as a road map to successful investing. Your plan should be consistent with the principles discussed in this course. If you plan wisely and invest accordingly, you will save yourself from heartache and problems in the future, and you will likely achieve your personal and family goals.

Finding Balance

As you work on understanding and developing your Investment Plan, finding balance among doctrines, principles and application is important in helping you become better investors. We have shared some ideas for principles, although you can find others. Below are a few ideas for doctrines on which the principles are based. As you strive to increase your ability and effectiveness in investing wisely, I recommend you study and ponder the doctrines and principles supporting this application.

<u>Principles</u>	<u>Doctrines</u>
Know yourself, your goals, vision and budget	Identity
Seek, receive and act on the Spirit's guidance	Obedience
Understand risk – there is lots of it	Stewardship
Stay diversified	Accountability
Invest low-cost and tax efficiently	Stewardship
Invest long-term	Stewardship
Know what you invest in	Accountability
Monitor performance versus benchmarks	Accountability
Don't waste time trying to beat the market	Stewardship
Invest with good people and firms	Stewardship
Develop a good Investment Plan (IPS) and follow it	Stewardship

Obedience to Consecration

From the principles and doctrines, we can see that we are not just working on being wise with our liquid assets, which is an application. From a higher perspective, or increased vision,

We are children of a Creator (identity), striving to live worthy of the Spirit (obedience), striving to understand ourselves and our risk tolerance (agency), and learning to understand financial markets and instruments (accountability). We are developing our investing talents carefully (stewardship), so we can invest our resources carefully and wisely (agency), to earn the return we are expecting (stewardship), and accomplish our personal missions and individual and family vision and goals.

Understand the Major Asset Classes

Investment is similar to an amusement park. At an amusement park, people go on rides that appeal to them; likewise, in the area of investment, people invest in areas that suit them. High-risk investments are similar to a roller-coaster ride—they require a stronger stomach, but the thrill and returns are generally much greater than with other investments. Low-risk investments are similar to the merry-go-round—while fun, they may be too sedate for some investors. The key is to find out which investment “rides” you like based on your age, your goals, your budget, and, for some, your medical history.

Asset classes are broad categories of investments with specific and similar risk and return characteristics. Asset classes are distinguished by the unique characteristics of particular groups of securities, including the type of financial instrument, market capitalization, maturity, and geographic location. There are three major asset classes most investors should include in their portfolios: cash and cash equivalents, fixed-income investments (bonds), and equities (stocks). Each asset class has its own risks and benefits—the more familiar you become with each type of asset class, the stronger your overall investment portfolio will become.

Cash and Cash Equivalents

The main goal of cash and cash-equivalent investments is to preserve capital. Cash investments include certificates of deposit, money market funds, Treasury bills, and short-maturity commercial papers (see the chapter on Cash Management). Cash investments offer a fixed rate of return, most checking and savings accounts are insured by the Federal Deposit Insurance Corporation (FDIC), and Treasury securities are backed by the taxing ability of the U.S. government. Short-term, interest-bearing investments include Treasury bills, U.S. savings bonds (loans to the U.S. government), and commercial paper (loans to corporations).

Some of the benefits of cash and cash-equivalent investments include their liquidity and their generally stable principal. These investments are low-risk because the borrowers have good credit and the loans are for short periods of time. They are especially good investments for money you plan to use in less than five years or money for your emergency fund.

However, the risk of cash investments is that they are unlikely to keep up with inflation and taxes. This makes them less attractive options for medium-term or long-term investments (longer than five years). Use cash investments for the purpose of your emergency fund, to maintain liquidity and to diversify your portfolio, but realize that this asset class will do little to improve your portfolio’s overall performance.

Fixed-Income Investments (Bonds)

The main goal of fixed-income investments is to provide income and to earn returns in excess of inflation. There are two main categories of fixed-income assets: taxable bonds and tax-free bonds. Taxable bonds include U.S. Treasury bonds, corporate bonds, and U.S. government agency issues such as Fannie Mae (Federal National Mortgage Association or FNMA) and Freddie Mac (Federal Home Loan Mortgage Corporation or FHLMC). Tax-free bonds include

revenue bonds or general-obligation bonds and may be issued by state or local governments. Such bonds are generally exempt from federal taxes and may be exempt from state taxes as well. Bond mutual funds which hold these assets enjoy the same tax advantages.

There are several different types of fixed-income investment assets, including short-term bond funds, intermediate bond funds, and bond mutual funds.

Short-term bond funds invest in bonds that mature in less than five years, making them less vulnerable to interest-rate risk than long-term bonds. Although the return on these investments is not as attractive, they are generally considered to be appropriate for anyone who needs a dependable stream of income from interest or dividends.

Intermediate-term bond funds have an average maturity of 3 to 10 years; another option is long-term bond funds, which have an average maturity of 10 or more years. These long-term bonds are much more vulnerable to interest-rate volatility because the principal is at risk for a longer period of time.

Bond mutual funds allow you to buy and sell bonds before they mature; therefore, there are tax implications for investors (see **Chapter 20: Bond Basics**). Investing in a bond fund means you are buying a share of many different bonds in a changing portfolio rather than purchasing a single bond.

Income from fixed-income bond funds fluctuates as mutual fund investors buy and sell bonds. The market value of the fixed-income bond funds changes depending on whether investors are selling bonds at a loss or a gain, and length of maturity also affects the income. Looking at the average maturity of the bonds in your bond fund will provide a clearer picture of the volatility of that fund regarding interest-rate fluctuations. The longer the average maturity of the bonds, the more dramatically the principal will gain or lose value as the interest rates change.

The benefit of fixed-income assets is that they offer a greater potential return than cash investments, though they do involve greater risk. Fixed-income assets are a good diversification tool for a long-term stock portfolio because bonds generally behave differently than stocks do. Other risks of fixed-income assets are that the returns have historically been lower than the returns on stocks and that fixed-income assets are susceptible to interest-rate changes and other risks.

Generally, fixed-income assets often do not provide enough growth to beat inflation over long periods of time—therefore, they are not good long-term investments by themselves but should be part of an overall diversified portfolio.

Stocks or Equities

The main goal of stock investment is to provide growth and to earn returns in excess of inflation. Historically, the stock market has been the only investment that has consistently outpaced

inflation. For the past 85 years, large-capitalization stocks have earned slightly less than 10% per year, while small-capitalization stocks have earned slightly more (see Table 4). When you buy a share of stock, you are buying ownership in a business's earnings and assets. You therefore receive a proportionate share of the profits through dividends and benefits that stem from increases in the company's share price. Mature companies are typically a better source of dividends, since rapidly growing companies often prefer to invest profits.

Equity asset classes are mainly classified by three factors: market capitalization, type of company, and geographic location.

Market capitalization is one way of measuring the size of a company. It is calculated by multiplying the market price of the stock by the number of shares or the number of ownership pieces outstanding. Market capitalization is used to separate companies into specific ranges of company size and to determine certain classes of companies, including large-capitalization (large-cap) companies, middle-capitalization (mid-cap) companies, and small-capitalization (small-cap) companies.

Large-cap stocks are generally defined as stocks from companies with a market capitalization that is greater than U.S. \$10 billion (this amount is smaller for international companies). Large-cap stocks generally come from large, well-established companies that have a history of good sales and earnings as well as a notable market share. Although large-cap stocks have traditionally been synonymous with dividend-paying companies, this classification is no longer standard. Nevertheless, large-cap stocks do generally entail mature corporations with long track records and a steady growth of dividends.

Companies that offer mid-cap stocks have a capitalization that is roughly between U.S. \$2 billion and U.S. \$10 billion. These stocks tend to grow faster than large-cap stocks and are generally less volatile than small-cap stocks. Mid-cap stocks generally perform in a similar manner to the small-cap asset classes. For asset allocation purposes, mid-cap stocks are not generally considered a major asset class.

Companies that offer small-cap stocks generally have a market capitalization of less than U.S. \$2 billion. They are small (or sometimes newer) U.S. and global companies that are still developing, so they have a smaller market share than their large-cap counterparts. Small-cap companies are subject to greater volatility in stock price and tend to fail more frequently than larger companies; however, they are generally expected to grow faster than larger companies.

Type of company: Within the large-, mid-, and small-capitalization stock categories, there are two separate types of stocks, growth stocks and value stocks. Growth stocks are offered by companies whose earnings are expected to grow much more rapidly than the market. Value stocks are inexpensive stocks, at least in terms of low price earnings and low price-to-book value ratios when compared to their peers. These terms are explained in **Chapter 21. Stock Basics** of this course.

Location: International stocks are stocks whose primary listing is outside the United States. Global stocks are stocks that are either international or in the United States. Regional stocks are stocks from a specific region, such as Europe or Asia. Emerging market stocks are stocks from countries that are not considered developed. International investments involve additional risk, such as differences in financial accounting standards, currency fluctuations, political instability, foreign taxes and regulations, and the potential for illiquid markets.

Table 4. Asset Class Summary

Asset Class Summary 2019 MBA 620/Fin418/Fin200 Financial Planning (2/22/19)											
Asset Classes:	Cash and Cash Equivalents Taxable or Tax-free		Fixed Income Taxable or Tax-free				Equity				
	CDs, MMA, MMMFs	Government Bills/Funds	Short-term Bonds/Funds	Intermediate Bonds/Funds	Long-term Bonds/Funds	Intl./Global International/Global Funds	Small Cap/Funds	Mid Cap/Funds	Large Cap/Funds	International/Global Funds	Emerging Markets/Funds
Description:	Short-term interest bearing investments from banks, mutual fund companies and public companies	Short-term interest bearing investments of the government, agencies, and municipalities	Bonds/funds which invest in short-term instruments with a maturity of < 5 years and can be either taxable or tax-free	Bonds/funds which invest in intermediate-term instruments with a maturity of 3 - 10 years and can be either taxable or tax-free	Bonds/funds which invest in long-term instruments with a maturity of 10 - 30 years and can be either taxable or tax-free	All maturity bonds/funds which invest in bonds of companies domiciled outside the US. Global includes both international and US bonds.	US stocks with a market capitalization less than \$3 bn.	US stocks with a market capitalization of between \$2 and \$10bn, considered the up and coming companies	US stocks with a market capitalization of >\$10 bn, considered the blue chip and larger companies	All capitalization stocks that are domiciled outside the US. Global includes both international and US stocks	All capitalization stocks that are domiciled in countries not considered Developed by the World Bank/IMF
Includes:	CDs, money market funds, commercial paper and funds which invest in these	Bonds and funds of Treasury bills, US Savings bonds, municipal bonds, etc.	Bonds and funds of short-term US Treasuries, US Savings, corporate, municipal and agency bonds	Bonds and funds of intermediate-term US Treasuries, US Savings, corporate, municipal and agency bonds	Bonds and Funds of long-term US Treasuries, US Savings, corporate, municipal, agency and junk bonds	Bonds and Funds of all maturity international companies	Small cap value, growth, blend, and funds that invest in these types.	Intermediate cap value, growth, blend, and funds that invest in these types.	Large cap value, growth, blend, and funds that invest in these types.	All capitalization stocks and funds that invest in these types	All capitalization stocks and funds that invest in these types
Key Advantages	Good for liquidity and stability of principle	Good for liquidity and stability of principle	Provides income and returns generally in excess of inflation	Provides income and returns generally in excess of inflation	Provides income and returns generally in excess of inflation	Provides income and returns generally in excess of inflation	These stocks are generally smaller, less followed, and tend to grow faster than larger stocks	These stocks are generally larger than small-cap and smaller than large-cap, somewhere in between	Least risky of all equities. These stocks are generally larger, better run, and less volatile	Returns can be enhanced through investing across borders—correlations are not as strong	Returns generally enhanced through investing across small country borders—lower correlations
Key Risks	Low returns, and little risk of losing principal since the bondholders have good credit and loans are for a short period.	Low returns and little risk of losing principal since the government can always print new money. More risk with agencies and municipalities	Lower returns and little risk of losing principle from non-government bonds as terms are generally short	Lower returns and risk of losing principle from non-government bonds as terms are still somewhat short	Interest rate and other risks as bond's principle is not fixed as bond price fluctuates with interest rates	Interest rate and other risks as bond's principle is not fixed as bond price fluctuates with interest rates	Because these stocks are generally smaller and less well-capitalized, they are considerably more risky than larger-cap stocks	Risk is generally between small and large-cap stocks	These are considered the least risky of all equities, although risks remain, particularly with individual stocks	Much risk can be diversified away due to investing across borders; however, still risky as subject to different risks	These tend to be among the riskiest of asset classes due to currency, interest rate and other domestic risks
Taxes:	Interest is fully taxable and capital gains at preferential rates	Interest from Treasuries state tax-free, muni's Federal tax free, and muni's from your state are both state and federal tax-free	Interest from Treasuries state tax-free and muni's Federal tax free. Other interest is taxable at ordinary rates	Interest from Treasuries state tax-free and muni's Federal tax free. Other interest is taxable at ordinary rates	Interest from Treasuries state tax-free and muni's Federal tax free. Other interest is taxable at ordinary rates	International/global bonds are generally fully taxable, sometimes taxed both internationally and domestically	Fully taxable, with dividends and long-term capital gains at preferential rates	Fully taxable, with dividends and long-term capital gains at preferential rates	Fully taxable, with dividends and long-term capital gains at preferential rates	Fully taxable, with dividends and long-term capital gains at preferential rates	Fully taxable, with dividends and long-term capital gains at preferential rates
Returns & Risk: (ending 2018)					4.3%		12.7%		12.7%	2.4%	2.0%
10 Year Return		0.3%			14.1%		18.9%		13.6%	18.5%	22.7%
10 year Risk		0.2%			7.0%		10.3%		8.9%	6.9%	8.0%
25 Year Return		2.4%			11.6%		20.1%		14.4%	16.0%	22.4%
25 year Risk		0.6%									
How to Invest:	Banks, brokerage, mutual fund companies	www.treasurydirect.gov, banks, brokerage mutual fund companies	Banks, brokerage, or mutual fund companies	Banks, brokerage, or mutual fund companies	Banks, brokerage, or mutual fund companies	Banks, brokerage, or mutual fund companies	Banks, brokerage, or mutual fund companies	Banks, brokerage, or mutual fund companies	Banks, brokerage, or mutual fund companies	Banks, brokerage, or mutual fund companies	Banks, brokerage, or mutual fund companies

Stock mutual funds are funds that own stock in specific groups or types of companies. When you invest in a stock mutual fund, you are investing in multiple companies; this group of companies changes over time, depending on the fund manager. You are responsible for paying taxes on all distributions from the mutual fund, and these distributions are taxed at your level, not at the fund level. Mutual funds are generally delineated by investment objective and may include any of the asset classes discussed earlier.

The benefit of stocks is that they offer the highest potential return of any of the major asset classes. Growth stocks and value stocks tend to perform well in alternating cycles, so it makes sense to own some of both. Stocks are good for long-term investing: as mentioned earlier, this is

the only major asset class that has consistently beaten inflation over the long term.

The risks of investing with stocks are that they offer less stability of principal than other asset classes and that they are subject to short-term price fluctuations. These factors make stocks a big risk for short-term investments. If you are investing for less than five years, only invest a small portion of your money, if any, in stocks.

Stocks consistently yield the highest return of any asset class over long periods, but they also have the highest risk. Nevertheless, even though stocks can be volatile in the short-term, they continue to deliver returns that far surpass taxes and inflation over time. Through broad diversification, you can reduce some of the risks of this asset class and still receive the benefits of stock investment. For a summary of the major asset classes, see Table 4.

Understand the Risks and Benefits of the Major Asset Classes

Investing entails risk, which means different things to different investors. Risk could mean the possibility of losing all your money. It could also mean the possibility of losing principal. Risk could also entail the possibility of not achieving a specific holding-period return.

Risk is measured in many different ways. In the past, the main risk of investing was considered “default risk,” or the risk that a company would not be able to pay back an investment due to default or bankruptcy. Government securities were considered risk-free investments because investors knew the government could always print money.

In more recent years, analysts began to use variance, or standard deviation, to better measure risk; using this measurement, they found that even government securities are risky. This measure of risk is not concerned with the possibility of default but with the volatility of the investments—the risk that the investment’s return may be lower than expected. Currently, investors also use a metric known as “beta,” which measures the way a specific stock moves in relation to a specific market or benchmark.

Generally, most investors prefer to use variance or beta to measure risk. Both are measures of how volatile a stock is—how much it moves both up and down. In the case of beta, risk is also measured by how much the stock moves in comparison to a specific benchmark. A lower variance indicates that the price does not move very much. A higher variance indicates that the price moves a lot in comparison to the benchmark. A beta higher than one indicates that the stock is more volatile than the market; a beta less than one indicates that the stock is less volatile than the market; a beta of exactly one indicates that a stock moves with the market. When you look at a stock’s returns, you should always look at the variance of the stock as well. Generally, higher returns carry higher risks because investors must be compensated for taking on additional risk.

There are a few important concepts you should understand related to risk:

- Investment risk is the probability of not achieving some specific return objective.

- The risk-free rate is the rate of return that will definitely be obtained.
- The risk premium is the difference between the expected return and the risk-free rate.
- Risk aversion is the reluctance of an investor to accept risk.

Note that there is a difference between investing and gambling. Investors are willing to assume risk because they expect to earn a risk premium when they invest; in other words, the odds are in the investor's favor because there is a favorable risk-return trade-off. Gamblers are different from investors in that they are willing to assume risk even when there is no prospect of a risk premium—in other words, the odds are not in the gambler's favor because there is no favorable risk-return trade-off.

Return on Investment

The return on an investment is the change in value of a financial asset or portfolio over a specific period of time; the return includes any interest, dividends, or distributions that were added to the asset or portfolio during that period of time.

The return on an investment measures how much your asset or portfolio has grown over a specific holding period. Once you have calculated your return, you can compare your asset or portfolio's performance to benchmarks. If you do not calculate your return for each of your assets, you will not be able to tell how well you are doing in your investing.

To calculate your investment return, subtract the investment's beginning price from the investment's ending price and then add the resulting amount to any dividends or distributions you received. Divide this amount by your beginning price. Calculating your return is important because your return is a measure of how much your asset or portfolio is worth. Your holding period return (HPR) is calculated as follows:

$$\text{HPR} = (\text{ending price} - \text{beginning price} + \text{dividends} + \text{distributions}) / \text{beginning price}$$

In this calculation, include all dividends and distributions received, including dividends and distributions that were reinvested into the portfolio. This "holding-period return" can be annualized to reflect the total amount of return over a year, depending on the holding period of the asset.

To calculate after-tax returns, you would deduct the taxes to be paid from your dividend and distribution amounts; you would include in your calculation only the amount of dividends you would get to keep after taxes.

History of Asset Class Returns

It is important to understand how the various asset classes have performed historically. Remember that an asset class is a group of financial assets with similar risk and return characteristics. From a historical analysis, we can learn much about a particular asset class (see Chart 2).

I believe it is important to study history, including the history of investments and investment returns. Some have questioned the importance of learning an asset class's performance history because they reason that the future will not be like the past. Gordon B. Hinckley stated the following regarding this notion, "All of us need to be reminded of the past. It is from history that we gain knowledge which can save us from repeating mistakes and on which we can build for the future."⁸

Chart 3. Asset Class Returns

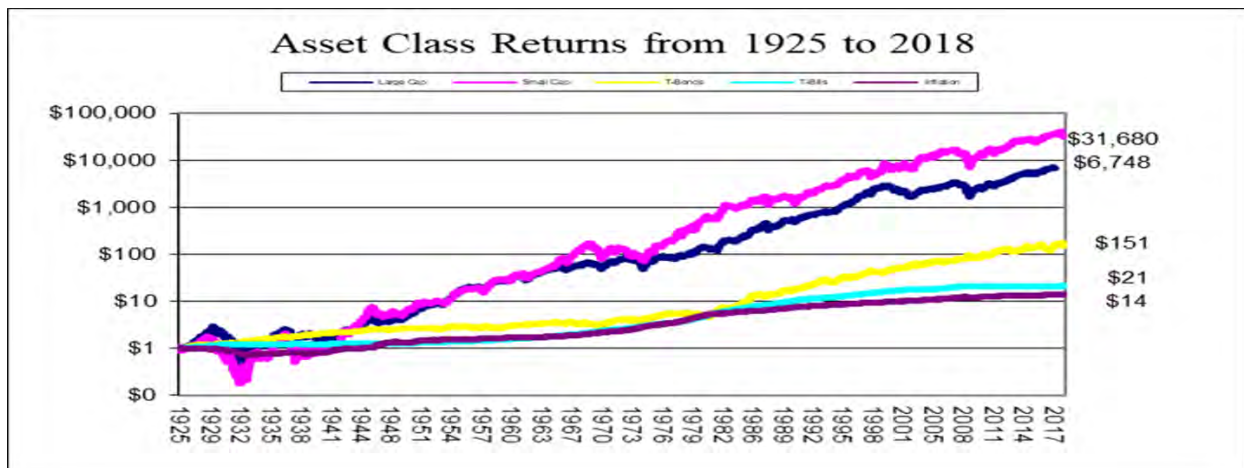
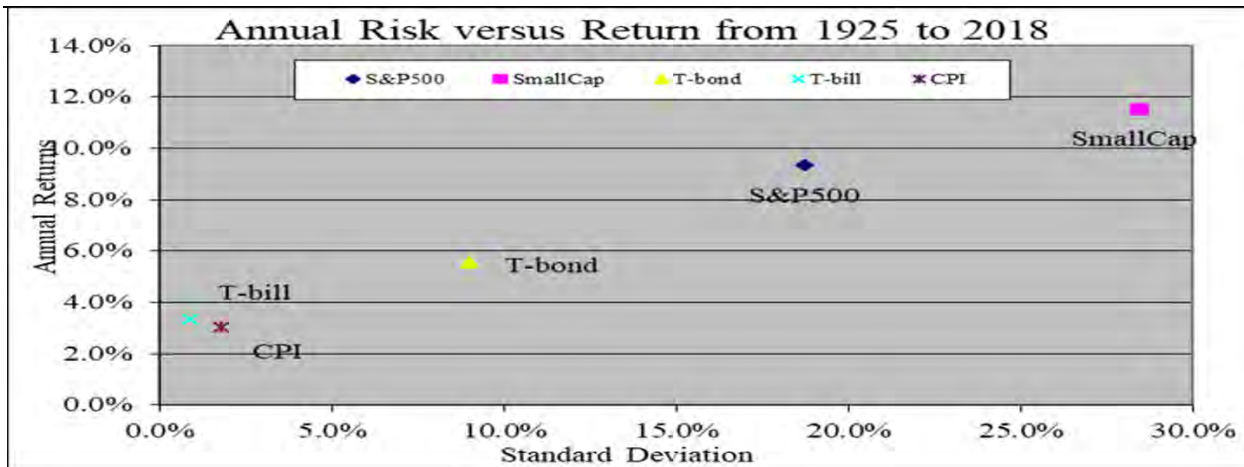


Chart 4. Annual Risk versus Return



What have been the characteristics of risk and return historically? Chart 4 and Table 4 show that from 1926 to 2018, large-cap stocks (as represented by the S&P 500) have yielded a return of over 9.0 percent per year and have a standard deviation of about 19 percent. Small-cap stocks have yielded a return of above 11.0 percent per year and have a standard deviation of approximately 29 percent. T-bonds have yielded a return of roughly 5.5 percent per year and have a standard deviation of 9.0 percent. T-bills have yielded a return of 3.3 percent per year and

have a standard deviation of about 0.9 percent. As a reference point, inflation over this same period has been 3.0% per year with a standard deviation of 1.8%. Note that while different asset classes have different risk and return relationships, there is generally a positive relationship between risk and return (see Chart 3).

Chart 5. S&P 500 1 Year Annual Returns

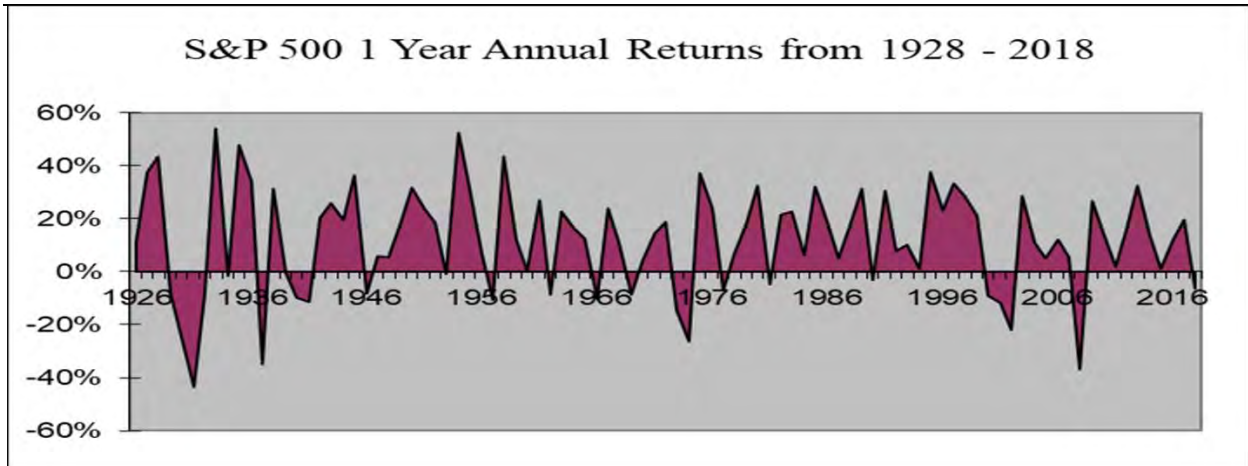


Chart 5, which shows the S&P 500 annual return since 1925, shows that the annual return appears to be very volatile—there are many years of high returns and many years of negative returns. However, looking at the return in terms of 5-year periods instead of 1-year periods shows that there are only a few major periods of time that show a negative return (see Chart 6). If you follow the return trend over a 10-year period, you will likewise see that there have been very few times when the 10-year return was not positive (see Chart 7).

We will now look at risk, or standard deviation. Table 4 shows the geometric return and the standard deviation for each of the major asset classes. As you look at the large-cap return and risk, note that over 5, 10, 25, 50, 75, and 90 years, the return was volatile, yet over longer periods has been around 9 to 10 percent. The standard deviation has ranged from approximately 15 percent to 19 percent.

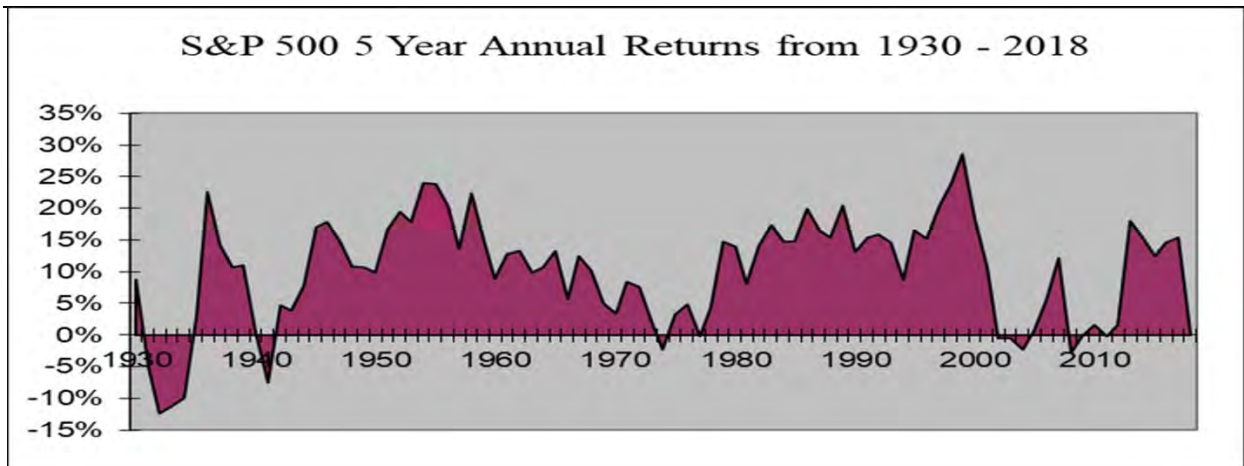
If you look at small-cap returns over the same periods of time, you will see that same volatility, particularly in recent years. Though over longer periods the return has been between 10 to 13 percent, notice that the risk levels of small-cap returns (the standard deviation) are between 20 percent and 30 percent.

If you look at fixed-income investments (T-bonds), you will see that they have, on average over longer periods, yielded a return ranging from 5 percent to 9 percent; the variance for T-bonds during this time period was between 8 percent and 12 percent.

If you look at T-bills on the chart, you will see that they have yielded a range of approximately 0.1 to 5 percent interest over the various periods of time; T-bills have had a standard deviation of

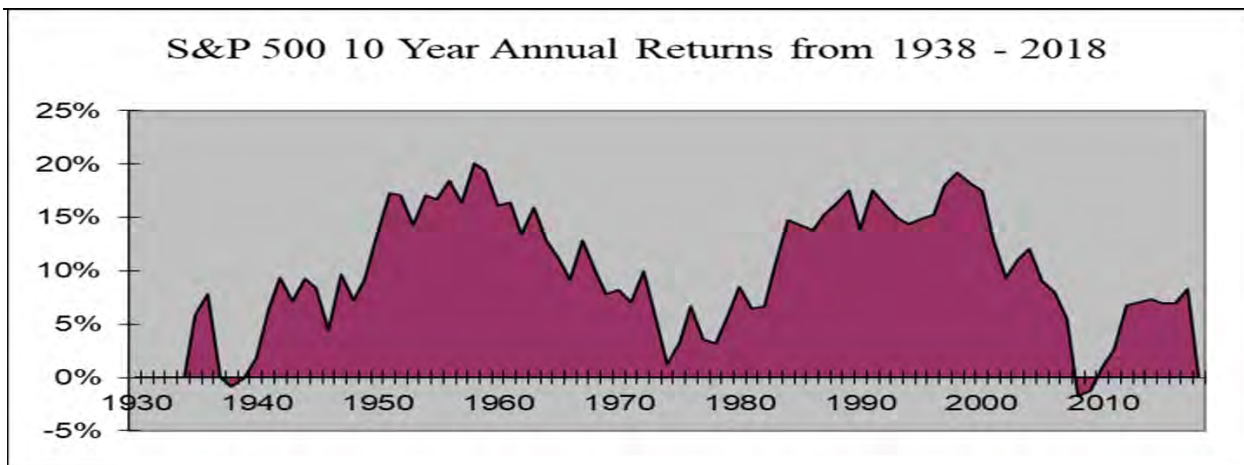
between 0.1 and 0.9 percent.

Chart 6. Five-Year Annual Returns



Inflation (as measured by the CPI) has been between 1.5 and 4.1 percent with a standard deviation of between 0.5 and 1.9 percent.

Chart 7. 10-Year Annual Returns



Summary

There are several steps you should take before you invest. Remember the top half of the investment hourglass: God comes first, then family, then personal responsibility and accountability, and then investments. There is no better way to start investing than to have your priorities in order.

This principles-based approach to investing will not change over time because the principles of good investing do not change. These important investing principles, if followed, will result in a

quality Investment Plan and lead to a successful investment portfolio. The principles are the following:

1. Know yourself.
2. Understand risk.
3. Stay diversified.
4. Make low-cost and tax-efficient investments.
5. Invest for the long run.
6. Use caution if you must invest in individual assets.
7. Monitor portfolio performance against benchmarks.
8. Don't waste too much time and energy trying to beat the market.
9. Invest only with people and institutions that are high-quality, licensed, and reputable.
10. Develop a good Investment Plan and follow it closely.

Table 4. Geometric Return and Risk over Specific Time Periods

Total Returns For the Periods Ending December 31, 2018							
	1 Year	5 Years	10 Years	25 Years	50 Years	75 Years	90 Years
S&P500							
Compound Return	-6.2%	7.6%	12.7%	8.9%	9.7%	11.2%	9.3%
Standard Deviation	14.7%	10.9%	13.6%	14.4%	15.0%	14.2%	18.7%
SmallCap							
Compound Return	-12.2%	3.5%	12.7%	10.3%	11.0%	13.6%	11.5%
Standard Deviation	18.5%	15.2%	18.9%	20.1%	21.2%	19.9%	28.5%
T-bond							
Compound Return	11.6%	6.2%	4.3%	7.0%	8.0%	5.8%	5.5%
Standard Deviation	21.7%	15.2%	14.1%	11.6%	11.3%	9.6%	9.0%
T-bill							
Compound Return	1.9%	0.6%	0.3%	2.4%	4.7%	3.9%	3.3%
Standard Deviation	0.1%	0.2%	0.2%	0.6%	1.0%	0.9%	0.9%
EAFE (International)							
Compound Return	25.6%	8.4%	2.4%	6.9%			
Standard Deviation	4.3%	11.7%	18.5%	16.0%			
Emerging Markets							
Compound Return	37.8%	4.7%	2.0%	8.0%			
Standard Deviation	6.7%	12.3%	22.7%	22.4%			
REITs							
Compound Return	5.1%	9.3%	7.4%				
Standard Deviation	6.8%	15.0%	39.1%				
CPI							
Compound Return	2.1%	1.5%	1.8%	2.2%	4.0%	3.6%	3.0%
Standard Deviation	0.0%	0.8%	1.0%	1.1%	1.3%	1.5%	1.8%

Source: Ibbotson Associates for large cap, small cap, T bond, T bill and Inflation up to 2014 with Bloomberg for 2015 and beyond, and Morgan Stanley Capital International for the remainder, 2015 and beyond.

In order to invest successfully, you must understand the risks and benefits of each of the major asset classes.

Asset classes broadly categorize investments with specific and similar risk and return characteristics. Asset classes are categorized by the characteristics that are unique to particular groups of securities, such as type of financial instrument, market capitalization, maturity, and geographic location. The major asset classes are cash and cash equivalents, fixed-income investments (bonds), and equities (stocks).

From Table 4, we note several important aspects of successful investing. First, each asset class has different return and risk characteristics, which should be accounted for when building your portfolio. As a general rule, the higher the return, the higher the risk. When you build your portfolio, you are not just trying to plan for a higher return but for a lower risk as well. Third, while stocks are volatile on a monthly basis, over time the bad periods are offset by the good periods. Generally, the longer the time period, the greater the likelihood of positive returns. Finally, if you want your portfolio to grow faster than taxes and inflation, you should consider making stocks an important part of your portfolio.

Assignments

Financial Plan Assignments

This section on investing is different from previous sections. Instead of vision and goals, these things are included (well mostly) in your Investment Plan, which we have prepared a template ([Investment Plan Example Template](#) (LT5A)). We then encourage you to change it to fit your situation. Because of the number of different and important parts to this Investment plan, we have chosen to give you more guidance.

Understanding yourself is a critical part of investing. It is important that you understand both your personal view of investing as well as your family view of investing—how you were brought up. Review the questions on investing from [Family - Key Questions on Money and Relationships](#) (LT21). Reviewing your past can help you gain important insights about the events that shaped your views on money.

Review the top of the investment hourglass. Where are you on the top of the hourglass? Determine where you are and determine the steps you must take before you begin investing.

When you have answered these questions, you are ready to start creating your Investment Plan.

First, copy the sample Investment Plan template found in [Investment Plan Example Template](#) (LT5A). While you do not need to know the entire plan today, it is important that you read through it. For this course, you will complete this entire Plan.

Second, complete the introduction to the Investment Plan and add the information on yourself and your spouse if you are married, including your names and ages.

Third, complete the introductions to each of the four sections. In the introduction to Section I, add the different accounts you will use. It is acceptable to include all the listed accounts as you may use many of them during your lifetime. In addition, you must determine two separate time stages for this Investment Plan. Generally, these time stages equate to your time before retirement as Stage 1 and time in retirement as Stage 2. Add this information.

Fourth, take a risk-tolerance test such as [A Risk-Tolerance Test](#) (LT16) or any number of tests available on the Internet. This will help you understand what kind of investor you are. After taking your risk-tolerance test, fill out the type of investor you are in Section I.B. (we should do this in class to help you).

Fifth, using your risk-tolerance test results, develop equity targets, bond targets, and other targets for Stages 1 and 2 in Section III.C.1. and III.C.2. Start first with the general rule of thumb of your age in bonds, then use the results of your risk-tolerance test to adjust those allocations. If you have questions, consult the notes for adjustments to the general rule of thumb at the end of [A Risk-Tolerance Test](#) (LT16). Later, you will return to this section to determine your allocations within the stock and bond asset classes.

Learning Tools

The following Learning Tools may be helpful to you as you prepare your Personal Financial Plan:

[A Risk-Tolerance Test](#) (LT16)

This document is a simple risk tolerance test to help you determine a suitable level of risk for your investments. It has eight questions, and it explains how each question can help you understand your tolerance for risk. It also gives a few recommendations for asset-allocation targets, based on your answers.

[Family - Key Questions on Money and Relationships](#) (LT21).

This document asks nine simple questions regarding how your views on money were shaped. The answers to these questions can help you gain important insights about the events that shaped your views on money.

Review Materials

Terminology Review

Asset allocation. This is the process of managing risk in your investment portfolio. Asset allocation is the process of allocating assets between various asset classes. It determines the risk of the portfolio and is the percentage allocated to each of the different asset classes.

Asset classes. Asset classes are broad categories of investments with specific (and similar) risk and return characteristics. Asset classes are distinguished by characteristics specific to particular groups of securities, such as type of financial instrument, market capitalization, maturity, geographic location, etc. The major asset classes are cash and cash equivalents, fixed income, and equities.

Blend stocks. These are stock that are a part of both value and growth.

Cash and Cash Equivalents. Cash and cash equivalents is an asset class whose major goal is liquidity and to preserve capital. Cash includes CDs, money market funds, T-bills, and commercial paper, etc. It also includes short-term interest-bearing investments such

as treasury bills and savings bonds, loans to the U.S. government, commercial paper, and loans to corporations. It is a good investment asset class for money you plan to use in less than 3-5 years and don't want to take risks. It is less attractive as medium-to-long-term investments (> 5 years) as returns on cash and cash equivalents are unlikely to keep up with inflation.

DALBAR. DALBAR is a private company that does research on investor returns. It puts out an annual survey in a book titled "Quantitative Analysis of Investor Behavior." It discusses how average equity fund investors have done versus benchmarks over the past 20 years in the equity, fixed income, and balanced categories.

Day trading. The process where someone with limited experience and minimal investment tools in the market trades on a daily basis with an expectation to outperform institutions with significant experience and tools. It is not investing, rather it is speculating.

Diversification. Diversification is the process of allocating your assets so they are not concentrated in a single asset class. It is "not putting all your eggs in one basket". Having a diversified portfolio in many different asset classes is your key defense against risk

Emerging Market stocks and emerging market mutual funds. These are stocks or mutual funds of companies that trade in the countries not considered developed by the IMF. These are often smaller companies in smaller markets. International investments involve additional risks, which include differences in financial accounting standards, currency fluctuations, political instability, foreign taxes and regulations, and the potential for illiquid markets.

Equities (or Stocks). Equities are an asset class that provides growth and earns returns in excess of inflation. Over longer periods of time, the stock market historically has been the only major asset class to consistently outpace inflation. Equity ownership is ownership in a business' earnings and assets. Equity asset classes are delineated by market capitalization (which is shares outstanding multiplied by the stock's current market price), type of company (growth versus value), and geographic area. The benchmarks for equity asset classes can be generally defined as capitalization: Large, mid, and small; type: Growth, blend, and value; or geographic area: US, international, global and emerging markets. Equities have offered the highest return of the major asset classes historically and have been a good investment for long-term investing—they have consistently beat inflation over the long-term. However, they offer less stability of principal than other asset classes, and are subject to short-term price fluctuations (very risky for short-term investments).

Financial assets/instruments. These are different types of securities that are sold in financial markets.

Financial markets. Markets in which financial securities or assets are bought and sold.

Fixed Income. Fixed income is an asset class that attempts to provide income and to earn returns in excess of inflation. There are two different types of fixed income assets: Taxable bonds. Taxable bonds include U.S. Treasuries, corporate bonds and agency issues (bonds issued by U.S. government agencies, like Ginnie Mae). Tax-free bonds include revenue or general obligation bonds issued by local or state governments and

agencies. Such bonds are generally free from federal and state taxes. Fixed income includes short-term bonds/bond funds, intermediate-term bonds/bond funds, and long-term bonds/junk bonds/bond funds issued by governments or corporations. Fixed income offers greater returns than cash, but with greater risk. It offers good diversification tool when holding a long-term stock portfolio, as bonds move differently than stocks. However, returns have been historically lower than stocks, they are very susceptible to interest rate and other risks, and generally, fixed income assets alone are not good long-term investments because they don't provide enough growth to beat inflation over long periods of time.

Global stocks and global stock mutual funds. These are stocks or mutual funds of companies that contain a mixture of U.S. and foreign or international holdings. International investments involve additional risks, which include differences in financial accounting standards, currency fluctuations, political instability, foreign taxes and regulations, and the potential for illiquid markets.

Growth stocks. These are fast-track companies whose earnings are expected to grow very rapidly. Frequently these are companies developing new technologies or new ways of doing things.

International stocks and international mutual funds. These are stocks or mutual funds of companies based entirely outside the U.S. These can be of any size (small-cap, large-cap), any type (value, growth) and from any part of the world outside the US. International investments involve additional risks, which include differences in financial accounting standards, currency fluctuations, political instability, foreign taxes and regulations, and the potential for illiquid markets.

Large-cap (capitalization) stocks. Large caps are stocks with a market capitalization greater than roughly \$10 billion in the US, and smaller capitalizations for international companies. These are the generally the largest, most well established companies in the US, with a history of sales and earnings as well as notable market share. These are generally mature corporations with a long track record of steady growth and dividends.

Market capitalization. It is one measure of the size of a company. It is calculated by multiplying the market price of the stock by the number of shares (i.e. ownership pieces) outstanding. The greater the capitalization, the larger the company. Market capitalization is used to weight companies in various benchmarks and to determine certain classes of companies, i.e. large-cap, mid-cap, small-cap, etc.

Mid-cap or mid-capitalization stocks. These are stocks with capitalization between roughly \$2 billion and \$10 billion. These stocks tend to grow faster than big cap companies, and are generally less volatile than small cap companies. Mid-caps generally perform similar to the small-cap asset class. For asset-allocation purposes, mid-caps are generally not considered a major asset class.

Risk. Risk is the possibility of having a return different from what was expected, whether it is losing all your money, losing principle, or not achieving a specific rate of return. There are many different types of risk including: inflation, business, interest rate, financial, market, political and regulatory, exchange rate, call, and liquidity risk.

Small-cap or small capitalization stocks. Small-cap stocks are companies with a market

capitalization less than \$2 billion. These are smaller, sometimes newer, US and global companies that are still developing and may have a smaller market share than their large-cap counterparts.

Taxable bonds. Taxable bonds include U.S. Treasuries, corporate bonds and agency issues (bonds issued by U.S. government agencies, like Ginnie Mae).

Tax-free bonds. Tax-free bonds include revenue or general obligation bonds issued by local or state governments and agencies. Such bonds are generally free from federal and state taxes.

Value stocks. These are inexpensive (in terms of low PE and low P/BV ratios), companies that have potential for good long-term return through both appreciation and dividends.

Review Questions

1. What is the most critical part of investing?
2. What are the 10 principles of successful investing?
3. What are asset classes? What are the three major asset classes?
4. What is the difference between investors and gamblers?
5. What is the main goal of cash and cash-equivalent investments? Fixed-income investments? Equities?

Case Studies

Case Study 1

Data

Bill wants to know how much he will need to save at the end of each year to have \$1 million in savings when he retires in 30 years.

Calculations

Assuming Bill can earn an 8.5 percent return on his investment, how much must he save each year?

Application

What assets would you recommend Bill use to save?

Case Study 1 Answers

Calculations

Set your calculator to 1 payment per year (annual).

$N = 30$, $I = 8.5\%$, $PV = 0$, $FV = \$1,000,000$

Solve for Bill's annual payment.

Bill would need to save \$8,050.58 annually to reach his goal.

Recommendations

Bill could use any number of investment assets, including stocks, bonds, cash, mutual funds, etc. Since Bill is just starting out, I would encourage him to consider the use of inexpensive, no-load index mutual funds as investment assets.

Excel Financial Calculator (LT12)		
The Payment is -\$904.01		
Present Value = PV		
Years/Periods* = N		30.00
Payments/Year = P/Yr		12
(Compounding: Ann. = 1, Mon. = 12, Qrtly. = 4)		
Annual Interest = I _{real}		6.50%
Ann. Nom. Rate = I _{nom}		6.50%
Ann. Inflation = I _{infl}		
12 Period Rate =		0.54%
Future Value = FV		\$1,000,000
Payments = PMT		(\$904.01)

Case Study 2

Data

Last year Kim purchased 100 shares of MSAM Corporation for \$40 per share. Over the past 12 months, MSAM's price has gone up to \$45 per share, and she received a dividend of \$1 per share.

Calculations

What was Kim's total rate of return on her investment in the MSAM stock?

Case Study 2 Answer

Calculations

This can be solved either on a total portfolio basis or on a

per share basis.

Total Portfolio

$$((\$45 \times 100 - \$40 \times 100) + 1 \times 100) / \$40 \times 100 = ?$$

Kim's total rate of return is 15%.

Per-share basis

$$((\$45 - \$40) + 1) / \$40 = ?$$

Kim's total rate of return is 15%.

Excel Financial Calculator (LT12)		
The Interest Rate is 15.00%		
Present Value = PV		(\$40)
Years/Periods* = N		1.00
Payments/Year = P/Yr		1
(Compounding: Ann. = 1, Mon. = 12, Qrtly. = 4)		
Annual Interest = I _{real}		15.00%
Ann. Nom. Rate = I _{nom}		15.00%
Ann. Inflation = I _{infl}		
1 Period Rate =		15.00%
Future Value = FV		\$45
Payments = PMT		\$1.00

Case Study 3

Data

Kim's investment in MSAM stock was so successful that she decided to hold it for five more years. Remember, she purchased 100 shares for \$40 per share. Unfortunately, the price of MSAM stock has not risen any further—in fact, it is back to where it was when she purchased it. The good news is that she earned \$1 per share for five years.

Calculations

What was Kim's annualized total rate of return?

Application

Compared to a bank account earning 2.25% over this same period, how did Kim's stock do?

Case Study 3 Answers

Calculations

Kim's annualized rate of return is her return for the total period, annualized, or taking the geometric return.

Kim's total return for the five-year period is:

$$((\$40 \times 100 - \$40 \times 100) + 5 \times 100) / (\$40 \times 100) = 12.5\%$$

Taking that return and annualizing for five years gives the following annual

returns:

$$\text{Geometric return} = (1 + .125)^{(1/5)} = 2.38\%$$

$$\text{Average return} = 12.5\% / 5 = 2.5\%$$

Using either method, Kim's stock performed better than the bank account.

Excel Financial Calculator (LT12)	
The Interest Rate is 2.50%	
Present Value = PV	(\$40)
Years/Periods* = N	5.00
Payments/Year = P/Yr	1
(Compounding: Ann. = 1, Mon. = 12, Qrtly. = 4)	
Annual Interest = I _{real}	2.50%
Ann. Nom. Rate = I _{nom}	2.50%
Ann. Inflation = I _{infl}	
1 Period Rate =	2.50%
Future Value = FV	\$40
Payments = PMT	\$1.00

Case Study 4

Data

Sam recently purchased a bond with a 10-year maturity for \$1,000, which pays annual interest of \$100.

Calculations

What interest rate is Sam receiving?

If interest rates for 10-year bonds today are 5 percent, how much can Sam sell his bond for today?

How much could he sell the bond for tomorrow if interest rates move up to 12 percent?

Applications

Based on your calculations, what is the relationship

between interest rates and the value between bonds?

Case Study 4 Answers

Calculations

The bond's current yield is $\$100/\$1000 = 10\%$.

At 5% Sam can sell his bond for:

N = 10, I = 5%, PMT = 100, FV = 1,000, solve PV?

\$1,386.07

At 12% Sam can sell his bond for:

N = 10, I = 12%, PMT = 100, FV = 1,000, solve PV?

\$887.00

This implies a negative relationship between bond prices and interest rates. In other words, as interest rates increase, bond prices fall, and when interest rates decrease, bond prices rise.

Excel Financial Calculator (LT12)		Excel Financial Calculator (LT12)	
The Present Value is -\$1,386.09		The Present Value is -\$887.00	
Present Value = PV	(\$1,386)	Present Value = PV	(\$887)
Years/Periods* = N	10.00	Years/Periods* = N	10.00
Payments/Year = P/Yr	1	Payments/Year = P/Yr	1
(Compounding: Ann. = 1, Mon. = 12, Qrtly. = 4)		(Compounding: Ann. = 1, Mon. = 12, Qrtly. = 4)	
Annual Interest = I _{real}	5.00%	Annual Interest = I _{real}	12.00%
Ann. Nom. Rate = I _{nom}	5.00%	Ann. Nom. Rate = I _{nom}	12.00%
Ann. Inflation = I _{infl}		Ann. Inflation = I _{infl}	
1 Period Rate =	5.00%	1 Period Rate =	12.00%
Future Value = FV	\$1,000	Future Value = FV	\$1,000
Payments = PMT	\$100.00	Payments = PMT	\$100.00

Case Study 5

Data

Ryan is 35 years old and took the Risk Tolerance Test from [A Risk-Tolerance Test \(LT16\)](#). He determined that he was “moderate” in terms of risk.

Application

Based on the rule of thumb for his age in bonds, which of the following most likely represents Ryan’s preferred asset allocation (assume his emergency fund is included in cash and bonds)?

- Portfolio A: 35% cash, 40% large-cap, 25% bonds
- Portfolio B: 25% cash, 35% large-cap, 25% small-cap, 15% international
- Portfolio C: 10% cash, 25% bonds, 50% large-cap, 15% small-cap
- Portfolio D: 15% bonds, 30% large-cap, 30% small-cap, 25% international

Case Study 5 Answer

Ryan’s preferred allocation would likely be Portfolio C.

Portfolio A has too much exposure to cash and bonds.

Portfolio B has too large an allocation to international and small-cap (40 percent), which involves much more than a moderate risk exposure.

Portfolio C is more consistent with Ryan’s risk-tolerance level: 35 percent in bonds and cash and some (limited) exposure to small-caps.

Portfolio D has too little exposure to bonds and cash and too much small-cap and international.

Case Study 6

Data

Assume the same information from Case Study 5 but change Ryan’s Risk Tolerance Test result to “aggressive.”

Application

A. Based on the same rule of thumb, which of the following most likely represents Ryan’s asset allocation?

- Portfolio A: 35% cash, 40% large-cap, 25% bonds
- Portfolio B: 25% cash, 35% large-cap, 25% small-cap, 15% international
- Portfolio C: 10% cash, 25% bonds, 50% large-cap, 15% small-cap
- Portfolio D: 15% bonds, 30% large-cap, 30% small-cap, 25% international

B. What would his allocation be if his results were “very aggressive”?

Case Study 6 Answer

A. The preferred allocation for “aggressive” would be Portfolio B.

Portfolio A has too much exposure to cash for his risk level.

Portfolio B is consistent with Ryan’s risk-tolerance level; it has a larger allocation to international and small-cap (40 percent) and a lesser allocation to bonds and cash.

Portfolio C has too much (35 percent) in bonds and cash and likely not enough of

the riskier assets.

Portfolio D has too little exposure to bonds and cash, and likely too much small-cap and international.

B. The preferred allocation for “very aggressive” would be Portfolio D.

Portfolio D has less exposure to bonds and cash and much more small-cap and international (55 percent), which is consistent with a “very aggressive” risk-taker.

¹ *Presidency of The Church of Jesus Christ of Latter-day Saints*, 6 vols., [1965–75], 3:54.

² “Brother’s Keeper,” *Ensign*, Nov. 1986, 20.

³ Carla Fried, “The Problem with Your Investment Approach,” *Business 2.0*, Nov. 2003, 146.

⁴ Carla Freid, “The Problem with Your Investment Approach,” *Business 2.0*, Nov. 2003, 146.

⁵ Carlos E. Asay, “Scriptures and Sunday Classes,” *Ensign*, January 1986.

⁶ Chart 2; Carla Fried, “The Problem with Your Investment Approach,” *Business 2.0*, Nov. 2003, 146.

⁷ In James R. Moss, “Sheep, Shepherds, and Shepherders,” *New Era*, June 1977, 20.

⁸ “Reach with a Rescuing Hand,” *New Era*, Jul. 1997, 4.