

## Assignments

### Financial Plan Assignments

Open your copy of [Learning Tool 5A: Investment Plan Example](#). Make sure you understand the terminology related to investment plans. I will discuss many aspects of this plan in upcoming sections.

First, you will not have only one portfolio for your investments; you will likely have many portfolios, all of which are important parts of your Investment Plan. Review your goals and objectives. What are you trying to accomplish individually and as a family through investing? With your investments, what are you trying to accomplish? Think through your general investment guidelines in Section IIA for both Stage 1 and Stage 2, and fill in those sections.

Using **Learning Tool 27: Expected Return Simulation and Benchmarks**, input your stocks and bond allocations from your work you have done in the second on **Investments 1: Before You Invest**. You will now need to add some additional asset classes.

There are four different asset classes for equities or stocks that I have data for. Large-cap stocks are the largest and biggest companies, generally with market capitalization (or shares outstanding multiplied by share price) of over \$10 billion dollars.

Small-cap stocks have market capitalization generally between \$250 million and \$2 billion dollars. International stocks are those registered on exchanges outside the United States. And emerging markets are stocks of companies listed outside the U.S. and outside the major developed markets.

In bonds and cash, there are two different asset classes. Treasury bonds are long-term government securities, which are government debt with maturities generally one year or more. Treasury bills are government debt with maturities less than one year.

Real Estate Investment Trusts (REITs) are neither stocks nor bonds but have components of both. Using the dropdown boxes in **Learning Tool 27**, try to come up with a preliminary target asset allocation. This is not your final target but just a preliminary pass.

Second, determine your investment constraints. When will you need money from your investments and why? Now is a good time to think about these needs. Fill out the constraints on Section II.B.1-4. on liquidity, time horizon, taxes, and unique needs. Your average and marginal tax rates should also be added and will come from your section on Tax Planning.

Finally, determine your policies. I recommend you make a first pass at your policies and then refine them as you learn more about investments. Major policies include:

**III.A.1. Acceptable asset classes:** Decide now what you will invest in and what you will not invest in. I recommend against asset classes where you have no discernible advantage.

**III.A.2. Total assets:** What is the maximum amount you will invest in any single asset? Remember the principle of diversification.

**III.A.3. Short selling or buying on margin:** Decide if you will use debt to invest. I recommend against it. Do not invest with borrowed money.

**III.A.4 Unacceptable asset classes:** What asset classes will you not invest in? Make the decision now. I recommend against foreign currencies, options, futures, derivatives, and collectibles and other

**III.B.1-2. Investment benchmarks:** Determine your investment benchmarks for each of your asset classes. I strongly recommend a minimum of four asset classes, so you will have at least four investment benchmarks. Suggestions for benchmarks for the various asset classes can be found in **Learning Tool 27**.

**III.C.1-2. Asset allocation strategy:** Determine your target and minimum and maximum allocations for your two different stages.

**III.D.1. Investment strategy:** Determine how you will invest. Will it be mutual funds or individual stocks? I strongly recommend mutual funds, at least initially, when your assets are few.

**III.E. Funding strategy:** Determine your funding strategy. How will you save money for investing and saving? What is your goal to save each week or each month? How will you keep your priorities in order?

**III.F.1. New investments strategy:** What is the maximum amount you will invest in new investments? I recommend not investing more than 5 to 10 percent in any new investment (except for broad-based mutual funds with more than 50+ assets).

**III.F.2. Investments in company stock:** Think about the maximum you will have in your retirement fund in investments of your company's stock. I recommend no more than about 10 percent due to diversification concerns.

**III.F.3. Unlisted investments:** Finally, what is the maximum amount you will include in unlisted investments, i.e., investments that are not listed on a recognized stock exchange? While I recommend you not invest in assets that are not listed, it is your choice.

## Learning Tools

The following Learning Tools may also be helpful as you prepare your personal Investment Plan:

## **5. Investment Plan Example**

After reading Section 18, you are encouraged to copy this Investment Plan and change the investment goals, objectives, allocations, and other areas to make them consistent with your personal goals, objectives, return and risk requirements, asset allocation targets, and other investing parameters.

## **23. Return Simulation for Asset Classes**

This spreadsheet helps you see the impact of various investment strategies as well as the volatility of different asset classes. It also shows you the historical impact of different asset-allocation decisions.

## **26. After-Tax, Equivalent Taxable Yield, and After-Inflation Returns**

This spreadsheet calculates the after-tax, equivalent taxable yield, and after-inflation returns on various assets.

## **27. Expected Return Simulation and Benchmarks**

This spreadsheet shows a historical perspective on returns and standard deviation (risk) for the major asset classes over the last 1, 5, 10, 25, 50, 75, and 80 years. It also includes the recommended benchmarks for some of the major asset classes.

## **Review Materials**

### **Review Questions**

1. How are your financial goals related to your personal goals?
2. What is the difference between a goal and a wish?
3. What is an Investment Plan? Why is it important?
4. What are the four categories of an Investment Plan?
5. What is an investment benchmark? How do they help an investor? What is the consequence of not having a benchmark to follow?

## **Case Studies**

### **Case Study 1**

#### Data

Last year Anne sold short (this is another term for short selling) 400 shares of stock at \$90 per share. Six months later the stock fell to \$45 per share and she covered her short, i.e., she bought back shares to replace the shares she sold short. Over the six-month period, the company paid out two dividends of \$1.50 per share. Her total commission cost for buying and selling the shares came to \$125.

Calculations

- A. Determine Anne's profit or loss from this transaction.
- B. What would her profit or loss have been if the stock had rallied to \$250 per share and she had to cover her shares sold short?

**Case Study 1 Answers**

- A. Profits are made on short selling as the market price of a stock goes down. In this example, the stock fell to \$45 per share. To determine Anne's profit or loss, use the following calculation:

Total value of the shares sold short at \$90 * 400	\$36,000 credit
Repurchase cost of the shares (\$45 * 400)	<u>-\$18,000</u> purchase

This is the purchase cost to cover the shares she borrowed and sold.	
Gross Profit	\$18,000
Dividends (2 * \$1.50 x 400)	-\$1,200

Since Anne sold these shares, she must pay back the dividends the owners would have received if they didn't lend her the stock.

This is your commission cost	<u>-\$125</u> commissions
Net profit	\$16,675

This is Anne's profit if the stock price declined from \$90 to \$45 after she sold the shares short and covered the shares at \$45.

- B. Profits are made on short selling as the market price goes down. In this example, the stock's price went up to \$250 per share. To determine Anne's loss, use the following equation:

This is the sale of the shares at \$90 (* 400)	\$36,000 credit
Purchase cost to cover borrowing (\$250)	<u>-\$100,000</u> purchase
Net profit	-\$64,000 loss
Dividends (2 * \$1.50 x 400)	-\$1,200 dividends

Since Anne sold these shares, she must pay back the dividend.

<u>Commissions</u>	<u>-\$125</u> commissions
Net profit	-\$65,325 net profit

This is Anne's loss if the stock price increased from \$90 to \$250 and she was forced to cover the shares at \$250.

**Case Study 2**

Data

Bill is one of the 8,400 Utah victims of the 12DailyPro Internet fraud, where investors

were supposed to receive a 12 percent return per day without any products or services.

Application

- A. What advice would you give to Bill regarding purchasing products of this type in the future?
- B. Which principles of investing did this fraud violate?

**Case Study 2 Answers**

- A. 12DailyPro was a Ponzi scheme, where new investors' money was the "return" to investors who got into the scheme before later investors. Investors had no idea how the firm made money but were only concerned that they made money. It seemed too good to be true, and it truly was.
- B. 12DailyPro violated two main principles: (1) Principle 6: Know what you invest in and who you invest with and (2) Principle 9: Invest only with high-quality individuals and institutions.

**Case Study 3**

Data

Kim just purchased 1,000 shares of NS corporation at \$15 per share, and 50 percent was purchased on margin (i.e., she borrowed 50 percent to buy the shares). She held the shares for six months and sold them. Interest on her margin loan was 12 percent annually.

Calculations

- A. Assuming the price increased to \$30 per share and Kim sold the shares, what is the total profit of her investment after paying back the loan with interest? Profit = total revenues – total expenses. Assume the money she invested is part of her expenses.
- B. Assuming the price decreased to \$5 per share and she sold the shares, what is the total value of her investment after paying back the loan with interest?
- C. Generally, should an individual buy on margin?

**Case Study 3 Answers**

- A. Kim's purchase at \$30 \$30,000 ( $\$30 * 1,000$  shares)
  - Interest           –450 ( $((6 \text{ months} / 12 \text{ months}) * 12\% * \$7,500)$ )
  - Loan amount   –7,500 (She borrowed 7,500.)
  - Her personal money –7,500 (She put up 7,500 of her money.)
  - Her profit is \$14,550
- B. Kim's purchase at \$5 \$5,000 ( $\$5 * 1,000$  shares)

## Investments 2: Creating a Personal Investment Plan

---

Interest             $-450$  ((6 months /12 months) \* 12% \* \$7,500)  
Loan amount    $-7,500$  (She borrowed 7,500.)  
Her personal money  $-7,500$  (She put up 7,500 of her money.)  
Her profit  $-\$10,450$

C. No. Buying on margin is a bad idea and should be avoided at all costs.