Assignments

Financial Plan Assignments

Continue to work on your Investment Plan. As you do, it your assignment is to review the history of stocks over the past 5, 10, 25, 50, and 75 years. How have stocks performed overall? What do stocks add to a portfolio? What disadvantages do stocks have? How can you minimize the disadvantages of stocks, while at the same time enjoying the advantages stocks offer? While stocks may be risky in the short term, they deliver higher risk-adjusted returns in the long term. Consider the following concepts:

Benchmarks: What are the major benchmarks or indexes that correspond with stocks? (See Possible Benchmarks for Investment Plans (LT15)). It is likely you will include stocks in your diversified portfolio, so it is important that you select the major benchmarks you will follow to help you understand how stocks perform.

Generally, investors consider stocks more risky than bonds. What do they mean by that? To see graphically the volatility of stocks versus other asset classes, open Historical Return Simulation for Asset Classes (LT23). Go to the *Asset Class Data* tab and use the light-blue drop-down boxes to select your asset classes (or you can just use the asset classes listed). Use the dark-blue drop-down boxes to select your time period. Then go to the *Charts* tab. Push the *F9* button to see the impact of standard deviation.

This worksheet builds random portfolios with the expected return and standard deviation of the period and asset class chosen. It then assumes that each asset class builds 10 different portfolios, and those portfolios are run for 20 years. The differences between the 10 different portfolios are shown in the same colored lines. The more the colored lines move together, i.e., the more each of the random portfolios move together, the less risky or less volatile the asset class. The more the same colored lines diverge, the more risky or more volatile the asset class. Now compare the portfolios for large-capitalization stocks, small-capitalization stocks, and international stocks. You may get a sense for the volatility in this asset class.

While stocks are generally more volatile (or risky) than bonds, their returns are higher to compensate for this additional risk. To see what the returns have been for various types of stocks, go to Expected Return Simulation and Benchmarks (LT27). Go to the tab labeled *Returns and Risk*. Look for the 1-, 5-, 10-, 25-, 50-, 75- and 85-year returns for large-capitalization, small-capitalization, international, and emerging-market stocks. How have these assets performed compared with bonds or inflation? You might also look at the return and risk history of Real Estate Investment Trusts, or REITs, which have characteristics of both equities and bonds.

Now that you have reviewed the historical asset class performance, estimate your expected return for your Plan for Stage 1 and Stage 2. This process involves three steps:

1. Determine your asset-allocation targets.
2. Using those targets, use historical estimates over specific time periods to get a recommendation for your expected return.

3. Adjust the historical data to take into account current market conditions and expectations.

First, to get your asset-allocation targets, start with your stocks, bonds, and other asset class allocations determined earlier in Section III.C.1 and III.C.2. For most individuals, your initial emergency fund allocation will be to Treasury Bonds, completing your bond allocation. The more difficult allocation is to divide up your equity or stock allocations. It is important to recognize risk in building your portfolio. Your bond allocations are generally the least risky. Within stocks, the large-cap stocks add the next level of risk and are generally the least risky of all equities. Next in order of risk come small-cap stocks, international stocks, and emerging-market stocks, all of which have much more risk than large-cap stocks. I generally recommend that investors have over half or more of their stock allocations in large-cap stocks because they are the least risky of all stocks or equities. Conservative and very conservative investors may have two-thirds to three-quarters of their equity allocation in these large-cap stocks. Realize that your allocation will differ in comparison to other investors depending on your age, risk tolerance, and investment experiences.

Finally, there are asset classes that are neither bonds nor equities but have some characteristics of both. Real Estate Investment Trusts (REITs) fall under this category and may be useful to include in your allocation. I include these as "Other Asset Classes."

I strongly recommend you have a minimum of four asset classes, consistent with building your investment portfolio. I generally recommend investors include more asset classes than four, with the riskier asset classes (i.e., small-cap and emerging-market stocks) limited in their allocations to between 5 percent and 15 percent. Determine your asset allocation targets for Stage 1 (now) and Stage 2 (retirement) and include these targets in Section III.B.1 and III.B.2.

Second, you need to get an idea of how that allocation would have done using historical data and your proposed asset allocation. To determine this historical return, use Expected Return Simulation and Benchmarks (LT27) and include this as Exhibit 1. Using the light-blue drop-down boxes, include the asset classes you are interested in. Using the dark-blue drop-down boxes, include the time periods over which you are interested. Finally, using the green boxes, type in your allocation targets for each asset class, making sure the totals add up to 100 percent. For example, a period of 80 means you are using the last 80 years of data ending in 2007 and calculating the geometric return for that asset class. Note that your choice of time periods will have a significant effect on the historical data. I generally recommend that investors use the longest time period available.

After you have entered your allocations and time periods, **LT27** will give you a weighted return using historical data. I encourage you to change the time periods (look at 1, 5, 10, 50, and 80 years to see what impact that has on your weighted returns). Determine your weighted return for Stages 1 and 2, your periods before and during retirement.

Finally, adjust the expected returns from **LT27** to account for current market conditions. I strongly recommend that if your weighted return is greater than 8 percent from the historical returns, use an expected return of less than 8 percent (6.5-7.5 percent). I also recommend that your expected return for Stage 2, or retirement, be less than your expected return on Stage 1.

Determine your expected return and enter these into your Plan in Sections I.A.1 and I.A.2. Print off Exhibit 1 from **LT27.**

To calculate risk, instead of using standard deviation, beta, or other measure of risk, we have simplified the plan to state that we accept the risk of our weighted benchmarks. Copy your allocations from Section III.B.1 and II.B.2 to the sections on risk in Section I.B.1 and I.B.2.