

## **Learning Demonstration 11 (MS FM)**

### **Behavioral Finance and the Psychology of Financial Decisions [Individual Integrated Case Analysis]**

#### **I. Introduction:**

You were recently hired as an associate consultant by a major consulting firm (*Shefrain Consulting*). This learning demonstration will guide you through several challenges allowing you to demonstrate competencies in understanding the importance of psychology on financial decisions and how to avoid common psychological mistakes in financial decision making. Behavioral Finance covers “individual and group emotion, and behavior in markets. The field brings together specialists in personality, social, cognitive and clinical psychology; psychiatry; organizational behavior; accounting; marketing; sociology; anthropology; behavioral economics; finance and the multidisciplinary study of judgment and decision making”. (Source: Journal of Behavioral Finance). Developed in the 1970s and 1980s by academics including Amos Tversky, Daniel Kahneman, Richard Thayer and Meir Statman, behavioral finance stresses that psychology and emotion prompt investors to behave in ways that are inconsistent with what is considered rational in traditional finance. The 2010 *World Wealth Report* devoted a special ten-page section to behavioral finance, stemming from the conclusion that one of the most profound consequences of the financial crisis has been the increasing prominence of “emotional factors” in the financial decision-making process of large investors.

#### **II. Steps to Completion:**

Over the course of this learning demonstration you will be required to complete a six part deliverable for your new employer, Shefrain Consulting to demonstrate your competence in the important field of Behavioral Finance. In particular, you will be required to demonstrate a high level understanding of *Prospect Theory* and the implications of this theory on traditional financial decision making, understand major biases common in financial decision making and the process of debiasing, demonstrate your knowledge of behavioral finance in the context of a client’s investment decisions and portfolio allocation, understand that behavioral factors impact many important corporate financial decisions, and clearly articulate the important aspects of behavioral finance on your career and the prospects for Shefrain Consulting. Since you are a recent hire of Shefrain Consulting, it is important to make a good impression. Throughout this learning demonstration be sure to always support your arguments with reputable sources, sound logic, and your own unique insights. Professionalism throughout this learning demonstration is expected and required as Shefrain has a large pool of potential junior consultants if your report is deficient. At the conclusion of this learning demonstration, you will be required to submit a final report with six parts addressing each of the hypothetical issues raised throughout this learning demonstration.

## **1. Prospect Theory**

“We really want to help clients make better decisions,” said Stephanie Jones, senior consultant at Shefrain Consulting, LLC, “and if we understand their biases and tendencies in making choices, it helps us be better consultants.”

Stephanie continues, “I noticed you graduated from UMUC and took a class in behavioral finance.”

You respond in the affirmative. “We have a lot of new consultants that are unfamiliar with the core foundations of behavioral economics...” Stephanie’s Samsung Galaxy S6 Edge interrupts her as she ducks around the corner to take a client’s call. When Miss Jones returns, she seems on edge as it’s been a volatile day on Wall Street. She asks you to prepare a ‘white paper’ on Prospect Theory and its behavioral foundations. You agree and head to your corner office to get to work on the ‘white paper’. After a frustrating morning of writing you come across a Dropbox folder with some of your old UMUC notes and resources.

### **Biases and Debiasing**

Relieved to have completed your first assignment, you head out to JoJo’s Tavern for a couple pints with some fellow associate consultants. Your colleagues brief you on some basic office politics and you share some details of your conversation with Miss Jones. The conversation turns to investing as the past several years have been very good financially for your new colleagues. During your conversation, several of your colleagues’ comments seemed to demonstrate commonly known biases in behavioral finance. The most interesting of these are listed below.

- I. “My father was a buy-and-hold investor but I am an active trader. To keep trading costs low, I use an online brokerage firm. I have done well investing in technology companies because I know the industry.”
- II. “I am holding a large position in Omega Corporation with a large unrealized loss. Omega’s stock price declined last year when reported sales and earnings failed to meet analyst expectations. I took advantage of the decline to increase my position.” Omega sales growth has continued to slow over the last year, but I believe the stock is still a good investment.”
- III. “I read a newspaper article reporting that commercial property values in the city have increased 14 percent annually since 2000. According to the article, the average commercial property in the city sold for \$1.5 million last year. This makes me very happy because I just purchased a piece of commercial property last month. There is no doubt that it will be a good investment.”

## 2. Applied Behavioral Finance

Upon your happy return to your small flat on the west side of town, you sleep well after the couple of pints you enjoyed with your friends and the long day at work. You are awoken early by your neighbor's barking dog and you have an opportunity to review the file for your first client of the day. Impressed by your description of *Prospect theory*, Stephanie has rewarded you with your first client. Mrs. Violet Siosan is a 42-year-old lawyer at a prestigious law firm. She needs you to organize her finances.

You jump in your Honda Accord and head to the office, it is raining today, but fortunately your parking space is near to the door as you forgot your umbrella. Violet enters your office shortly after you arrive and you begin to get to know each other. During the interview process, Violet tells you that she has been purchasing short-term, out-of-the-money call and put options. Violet acknowledges these options have a low probability of paying off and that the expected return from her options trading is negative. However, she states that she is attracted by the possibility of high returns when she can exercise in-the-money options. At the same time, you note that Violet has been purchasing low-payoff earthquake insurance on her home, which is located in a low-probability earthquake zone.

Additionally, Violet purchases a new luxury vehicle every two years and takes expensive annual vacations. She has a reputation for paying the entire bill at the upscale restaurants where she dines regularly with her friends. Violet's annual consumption, options trading, and housing expenditures are paid for entirely out of her salary income and half of her modest annual bonus. She deposits the other half of her annual bonus and any other non-salary sources of income into her relatively small retirement account, which excludes her options trading. Violet is reluctant to incur debt and has only a small mortgage on her home, despite the fact that she will soon be made a partner in her firm and will have much higher earnings. Having recently read, *Beyond Markowitz: A comprehensive Wealth Allocation Framework for Individual Investors* which covered some of the key concepts of behavioral finance, such as mental accounting, or an approach people use to organize their financial assets by creating separate compartments for money they've designated for specific purposes. You are concerned that Violet exhibits behavioral biases that interfere with an optimal savings and consumption allocation.

Finally, Violet's retirement portfolio is allocated 50% to money-market securities and 50% to a few speculative stocks that she read about in an investment newsletter. Believing that behavioral finance can aid in identifying deficiencies in modern portfolio theory when applied to real clients in the real world. You observe that Violet's retirement portfolio allocation is consistent with Behavioral Portfolio Theory and not consistent with a mean-variance framework.

### 3. Behavioral Corporate Finance

You notice that the time is getting late and you decide to leave the office for the day, satisfied with your work thus far at Shefrain Consulting. Prior to leaving the office you check your company mailbox for the first time and notice a copy of Fortune magazine with a sticky note marking the page with the following quotation: *“I have never asked to serve on a corporate board, never even hinted at wanting to be on one. And I have never asked to be on a compensation committee. I suspect that the reason I’ve been put on so many is that word gets around that I believe in paying people very, very well... I cannot sit and say to you what the right compensation number is. That’s the judgment call, the business judgment call. That’s what a board of directors does... What I know most of all is that when I see extraordinary effort and results out of a CEO, you can’t pay him enough.”*

Furthermore you notice scribbled on the sticky note a brief note from your CFO indicating that he has been asked to serve on a compensation committee for a large fortune 500 company. Having freshly graduated from UMUC, he asks if you would be willing to brief him on the dynamics of board of directors in the context of recent literature in Behavioral Finance.

#### Applied Behavioral Finance

“Good morning”, you hear Stephanie’s voice from across the room.

“Just had a great jujitsu workout, how are you doing?”

Frustrated by the fact that you have not been to the gym in three weeks, you do not respond.

“Nice work with Violet, your insights were very useful.”

You nod knowingly. Stephanie then asks if you would be willing to make a presentation tomorrow to the managing partners. Shocked and honored by her confidence in you, you quickly agree. “Do you have a particular topic in mind?” you query.

“Indeed”, Stephanie chimes back as she continues, “Given the new economic and market realities prevailing since the 2008 great recession – including employment opportunities for yourself and opportunities for our firm, the managing partners would like you to explain in detail the four (4) most important Behavioral Finance lessons that can be of value to you and our firm going forward. I would like to emphasize *going forward* because the partners would like to know how to apply these lessons for the benefit of the firm and to enhance your career development. Please give your presentation from the perspective of your job; your present job or a job that you envision you may have later on, thanks!” You notice Stephanie’s new Samsung Galaxy S6 Edge lights up as she walks down the hall. Maybe if this presentation goes well, you can reward yourself with a new device.

### **III. Deliverable:**

In order to demonstrate competency in the behavioral finance you are required to complete the following learning demonstration. *Please note this is an individual learning demonstration and not a team or group effort. All relevant UMUC policies- and especially those related to Academic Honesty- will be in full force. So please keep that in mind at all times.* Your completed learning demonstration should be professionally prepared in Times New Roman 12 point font with one inch margins throughout. In addition, to answering each of the issues raised by your hypothetical employment at Shefrain Consulting, please include a one page executive summary of the most important things learned during this assignment. The structure of your final assignment should be as follows.

1. *Executive Summary (one-page)*
2. *White Paper on Prospect Theory*
  - a. Prepare a professional 3-4 page 'white paper', double-space, Times New Roman 12 point font; reference page(s) do not count in the page limit. In your report be sure to include the following topics: 1) Prospect theory vs. expected utility theory, 2) A numeric example demonstrating violations of expected utility theory, 3) Description of the value function, 4) Implications of prospect theory (or behavioral finance) for the Efficient Market Hypothesis, and 5) An example of an anomaly that could be explained by prospect theory.
3. *Bias Identification*
  - a. Select the behavioral finance concept best exhibited in each of your colleagues' three statements at JoJo's bar. Explain how the behavioral finance concept you selected affects her investment decision making. Write your responses to these issues raised by your colleagues. Provide clarity, organization and completeness in your responses. This part should be between 1-2 pages in length.
4. *Behavioral Finance and Investments*
  - a. Complete a report on you observations of your first client, Violet. The report should be 2-3 pages in length, double-space, Times New Roman 12 point font; reference page(s) do not count in the page limit. Your report should include the following: 1) Describe Siosan's utility function. Contrast her utility function with that assumed in traditional finance theory, 2) Discuss what biases Siosan's behavior reflects, 3) Explain how a rational economic individual in traditional finance would behave differently with respect to each bias, and 4) Determine whether your observation about Siosan's retirement portfolio allocation is correct. Justify your response.

5. *Behavioral Corporate Finance*

- a. Prepare a professional 1-2 page memo addressed to the CFO describing the recent behavioral finance literature on the topic on issues related to the Board of Directors, double-space, Times New Roman 12 point font; reference page(s) do not count in the page limit. In your report be sure to include at least 4 recent academic references.

6. *Your Future and Behavioral Finance Post 2008*

- a. Respond to the questions and issues raised by Stephanie in the final part of the learning demonstration with a professional 3-4 page report, double-space, Times New Roman 12 point font; reference page(s) do not count in the page limit. In your report be sure to address all of Stephanie's points.