

FINM3407 - Behavioural Finance**Tutorial 9 Questions - Behavioural Factors and Stock Market Puzzles**

Note: This topic has more questions than can be covered in a 2-hour session. The questions to be covered by your tutor are indicated by an asterisk (*); the rest questions should be viewed as extra practice problems.

In this tutorial, we are going to cover the following topics: Behavioural Factors and Stock Market Puzzles/CFA Questions

There are a few references reading for these relevant topics:

Ackert/Deaves Chapters 14

- **Part One: Behavioural Factors and Stock Market Puzzles**

1*. Differentiate the following terms/concepts:

- a. Certainty equivalent and a gamble
- b. Loss aversion and myopic loss aversion
- c. Speculative price bubble and ex post rational stock price
- d. Greater fool theory and speculation

2*. In a Ponzi scheme, named after Charles Ponzi, investors are paid profits out of money paid by subsequent investors, instead of from revenues generated by a real business operation. Unless an ever-increasing flow of money from investors is available, a Ponzi scheme is doomed to failure. What's the difference between a Ponzi scheme and an asset price bubble?

3*. An individual with cash to invest has two investment choices:

Buy a stock fund which every year either earns 40% or -20% with a 50/50 probability.

Buy a bond fund that every year returns either 5% or 0% also with a 50/50 probability.

Assume that the returns on the two funds are independent and that returns from year to year are also identical. Also, assume an initial portfolio value of \$1. (The answers, however, will be unaffected if you use a different initial portfolio value.)

In addition, suppose the value function is linear and is specified as:

$$v(z) = z \text{ for } z \geq 0 \text{ and } v(z) = -3(-z) \text{ for } z < 0$$

a. Which fund does the investor prefer if he looks at his portfolio (a) once a year; or (b) once every two years?

b. How does your answer to Part (a) help us understand the equity premium puzzle?

4*. What do experimental bubble markets teach us about the likelihood of bubbles in the real world? In what sense does this research have its limitations?

5*. Do you believe that stock prices are too volatile? Be sure to explain what you mean when you say “volatility” and “too much.”

- **Believing Stock Prices are Too Volatile?**
- **Believing Stock Prices are Not Too Volatile?**

6*. A series of questions related to the equity premium puzzle:

How is the equity premium typically calculated?

6-1 Suppose the average real return on equities over the past decade was 8% per annum and the average real return on government bonds was 2% per annum. Calculate the average equity premium over the past decade.

6-2 If in a given year, stocks returned 15% and Treasury bills (risk-free rate) returned 4%, what is the equity premium for that year?

6-3 A researcher believes that rare disasters can explain the equity premium puzzle. He states that if equities can lose 50% of their value with a 2% chance in any given year, this can justify a high equity premium. Using these numbers, what would be the expected loss due to these rare disasters?

6-4 Define the Equity Premium Puzzle

6-5 How do ‘rare disasters’ play into some explanations of the Equity Premium Puzzle?

6-6 Name two popular explanations for the Equity Premium Puzzle.

• **Part Two: CFA Questions**

Ravi King is an advisor with an investment management company that classifies all investors into one of four Behavioral Investor Types (BITs): Passive Preserver (PP), Friendly Follower (FF), Independent Individualist (II), or Active Accumulator (AA). King prepares for a meeting with Amélie Chan, a client who exhibits moderate risk tolerance. King believes that Chan's prior investment choices are consistent with her BIT. In their last meeting one year ago, Chan expressed an interest in owning shares of a small, local startup company that she had heard about from friends. King explained the high level of risk associated with that investment idea, and Chan agreed that he should not buy the shares for her account. King recommended that Chan instead invest in shares of another company, Avimi S.A. The investment management company's data-backed research report suggested that the Avimi shares were undervalued. Chan agreed with King's recommendation, and King bought shares of Avimi for Chan's account. King will meet with Chan tomorrow and present the investment management company's updated research report on Avimi. The report justifies his belief that the shares are now overvalued, and he will recommend that Chan sell her Avimi shares.

1. Determine the BIT most likely to be assigned to Chan. Justify your response.

Determine the BIT most likely to be assigned to Chan.

(circle one)

Passive Preserver	Friendly Follower	Independent Individualist	Active Accumulator
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Justify your response.

2. Determine whether Chan will most likely hold or sell the Avimi shares after meeting with King tomorrow. Justify your response.

Determine the BIT most likely to be assigned to Chan.

(circle one)

Hold	Sell
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Justify your response.

King prepares for a meeting with Lani Mikaele, a client who founded a successful, fast-growing business that has made her wealthy. Unlike many other clients, Mikaele is very involved in the decision-making process with King. She calls King often to suggest purchasing and selling positions, resulting in a higher turnover rate relative to other clients. At a business lunch last year, King recommended that Mikaele purchase shares of Withrow Inc., which has high growth potential but pays no dividends. Following their discussion, Mikaele was enthusiastic about the potential returns, so she followed King's recommendation and bought Withrow shares.

3. Determine the BIT most likely to be assigned to Mikaele. Justify your response.

Determine the BIT (PP, FF, II, AA) most likely to be assigned to Mikaele.

(Circle one)

Passive Preserver	Friendly Follower	Independent Individualist	Active Accumulator
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Justify your response.