

Assignment 2: Behavior of interest rate

Due on Feb 20th, before 3 pm. Submit your work at the BE office.

Attempt all.

Question 1: Use the diagram of demand and supply for bonds to analyze the impacts of the following situations to interest rates in Thai bond market. Provide economics intuitions to support answer.

- a) Investors expect a rise in oil price.
- b) Prices in the bond market become more volatile.
- c) Financial regulation has allowed a new form of bond trading using a new internet platform.
- d) A sudden rise in the volatility of gold price and stock prices
- e) BOT is expected to rise its policy rate soon.
- f) Thai baht is expected to appreciate.
- g) Chinese government has lifted off some capital control measures.

Question 2:

- a) Using both the supply and demand for bonds and liquidity preference frameworks, show how interest rates are affected when the riskiness of bonds rises. Are the results the same in the two frameworks?
- b) An important way in which the central bank decreases the money supply is by selling bonds to the public. Using a supply and demand analysis for bonds, show what effect this action has on interest rates. Is your answer consistent with what you would expect to find with the liquidity preference framework?
- c) If the next chair of the Federal Reserve Board (James Powell) has a reputation for advocating an even slower rate of money growth than the current chair, what will happen to interest rates? Discuss the *possible* resulting situations.

Question 3

Suppose you visit with a financial adviser, and you are considering investing some of your wealth in one of three investment portfolios: stocks, bonds, or commodities. Your financial adviser provides you with the following table, which gives the probabilities of possible returns from each investment:

Stocks		Bonds		Commodities	
Probability	Return	Probability	Return	Probability	Return
0.2	15%	0.4	15%	0.2	20%
0.3	8.3%	0.6	5%	0.25	12%
0.2	10%			0.25	6%
0.3	5%			0.2	5%
					0.10%

- Which investment should you choose to maximize your expected return: stocks, bonds, or commodities?
- If you are risk-averse and have to choose between the stock and the bond investments, which one should you choose? Why?

Question 4: The demand curve and supply curve for one-year discount bonds with a face value of \$1,050 are represented by the following equations:

$$B^d: \text{Price} = -0.8 * \text{Quantity} + 1160$$

$$B^s: \text{Price} = \text{Quantity} + 720$$

Suppose that, as a result of monetary policy actions, the Federal Reserve sells 90 bonds that it holds. Assume that bond demand and money demand are held constant.

- How does the Federal Reserve policy affect the bond supply equation?
- Calculate the effect on the equilibrium interest rate in this market, as a result of the Federal Reserve action.