**TCHE 303 – MONEY AND BANKING**

**TUTORIAL ASSIGNMENT 3**

1. Explain why you would be more or less willing to buy a share of Microsoft stock in the following situations:
   1. Your wealth falls.
   2. You expect the stock to appreciate in value.
   3. The bond market becomes more liquid.
   4. You expect gold to appreciate in value.
   5. Prices in the bond market become more volatile.
2. Explain why you would be more or less willing to buy a house under the following circumstances:
   1. You just inherited $100,000. -> You may be more willing to buy a house because you have a windfall of cash that you can use for a down payment or to purchase a property outright.
   2. Real estate commissions fall from 6% of the sales price to 5% of the sales price. -> You may be more willing to buy a house because the cost of buying or selling a house is lower, which may make the transaction more attractive.
   3. You expect Microsoft stock to double in value next year. -> You may be less willing to buy a house because you may prefer to invest in the stock market instead of real estate to potentially earn higher returns.
   4. Prices in the stock market become more volatile. -> you may be more willing to buy a house because real estate is generally considered a more stable investment than the stock market during times of volatility.
   5. You expect housing prices to fall. -> you may be less willing to buy a house because you may anticipate a decrease in the value of the property over time, which could result in a loss if you decide to sell the property later.
3. Explain why you would be more or less willing to buy gold under the following circumstances:
   1. Gold again becomes acceptable as a medium of exchange.
   2. Prices in the gold market become more volatile.
   3. You expect inflation to rise, and gold prices tend to move with the aggregate price level. -> you may be more willing to buy gold as a hedge against inflation. Gold is often viewed as a store of value during times of inflation because it is a tangible asset that tends to hold its value over time.
   4. You expect interest rates to rise -> you may be less willing to buy gold because rising interest rates may make other investments, such as bonds or bank deposits, more attractive due to their potential for higher yields.
4. Explain why you would be more or less willing to buy long-term Microsoft bonds under the following circumstances:
   1. Trading in these bonds increases, making them easier to sell.=> **buy bonds, greater liquidity**
   2. You expect a bear market in stocks (stock prices are expected to decline)=> buy bonds.
   3. Brokerage commissions on stocks fall=> buy stock.
   4. You expect interest rates to rise=> bond price declines, do not buy.
   5. Brokerage commissions on bonds fall.=> buy bond
5. What would happen to the demand for Picaso paintings if the stock market undergoes a boom? Why?

* **Stock market booms => increase in wealth because gain more profit from stock market => purchase high value assets like P paintings (wealth effect).**

1. Predict the supply and/or demand change in the market for long term Treasury bonds after the following events occur. Draw supply and demand curves in the bond market before and after the change, describe impact on quantity and prices of bonds.
   1. The economy comes out of recession and resumes strong growth. -> **Demand (people seek safe assets) and supply decrease (economy grows, raise tax fees, but not issues bond to borrow from public to refund budget deficit), bond rice decreases (interest rate is expected to rise because to prevent inflation from economy growth)**
   2. Corporate bonds and stocks become more risky -> **Demand increase**
   3. Government borrows more to finance its rising deficits -> **Supply increase**
2. Draw a supply and demand graph in the market for money, with interest rate on the vertical axis and the quantity of money on the horizontal axis. Describe how each of the following will affect demand or supply of money and the resulting interest rates:
   1. Incomes decrease in recession => **Money demand decreases => lower interest rate**
   2. Price level rises (higher inflation) => **Money demand increases, higher interest rate**
   3. The Federal reserve increases money supply => **Money supply increases, lower interest rate**
3. “The more risk-averse people are, the more likely they are to diversify.” Is this statement true, false, or uncertain? Explain your answer. => **True. Diversifying investment, reduce the overall risk in the portfolio + reduce the impacts of any adverse events affecting a particular investment + reduce the volatility of the portfolio, avoid significant swings in returns.**
4. “No one who is risk-averse will ever buy a security that has a lower expected return, more risk, and less liquidity than another security.” Is this statement true, false, or uncertain? Explain your answer. => **Risk-averse individuals typically aim to maximize their expected return while minimizing risk and ensuring a certain level of liquidity in their investments.**
5. 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? => **Bond supply increases, bond price decreases, interest rate increases. This effect aligns with the liquidity preference framework, where changes in the supply and demand for money impact interest rates (money supply decreases, interest rate rises)**
6. Will there be an effect on interest rates if brokerage commissions on stocks fall? Explain your answer. => **Brokerage commissions on stock falls, demand for stock rises, demand for bonds declines, bond prices falls, interest rate increases.**
7. What will happen in the bond market if the government imposes a limit on the amount of daily transactions? Which characteristic of an asset would be affected?=> **Limit daily transactions (lower the efficiency of the bond market, wider bid-ask spreads, misallocation of capital) -> reduce liquidity, increase price volatility**
8. How might a sudden increase in people’s expectations of future real estate prices affect interest rates? => **Demand for real estate increases, demand for bonds decreases, bond price decreases, interest rate increases *or expected inflation increases, lower the demand for bond,* bond price decreases, interest rate increases**
9. Suppose that many big corporations decide not to issue bonds, since it is now too costly to comply with new financial market regulations. Can you describe the expected effect on interest rates? => **Not issuing bonds -> bond supply decreases, bond price decreases, interest rate increases**
10. Why should a rise in the price level (but not in expected inflation) cause interest rates to rise when the nominal money supply is fixed? **=> If the nominal money supply is fixed, *an increase in the price level reduces the purchasing power* of each unit of currency. *With a fixed amount of money* in circulation, the *increased demand for money* due to the higher prices creates a shortage of money. As a result, lenders and investors *increase interest rates to divide* the limited supply of money among borrowers.**
11. What effect will a sudden increase in the volatility of gold prices have on interest rates? => **Gold price become more volatile -> market uncertain -> people seek safe asset => demand for gold increase, demand for bonds decrease, bond price decreases, interest rate increase**
12. Explain what effect a large federal deficit should have on interest rates. => **Large budget deficit -> supply for bonds increases -**> **bond price decreases -> interest rate increases**
13. In the aftermath of the global economic crisis that started to take hold in 2008, U.S. government budget deficits increased dramatically, yet interest rates on U.S. Treasury debt fell sharply and stayed low for quite some time. Does this make sense? Why or why not? ***Ở điều kiện lý tưởng, khi BD tăng -> S bond tăng, P giảm dẫn tới i giảm … nhưng tác động mạnh hơn đến từ sự điều chỉnh MS tăng lên (monetary policy) -> i giảm đồng thời recession (businesses and individuals giảm demand borrowings and investment activities) cũng dẫn tới giảm i mạnh mẽ.***
14. Using both the supply and demand for bonds and liquidity preference frameworks, show what the effect is on interest rates when **the riskiness of bonds rises**. Are the results the same in the two frameworks? ***D bond giảm P giảm i tăng --- D tiền tăng, i tăng***
15. Using both the liquidity preference framework and the supply and demand for bonds framework, show why interest rates are pro-cyclical (rising when the economy is expanding and falling during recessions). => **Economy expansion -> more investment in stock, real estate to earn more than fixed income from bonds -> interest rate increases, vice versa. Economy expansion -> wealthier -> money demand increases, interest rate increases, vice versa.**
16. The prime minister announces in a press conference that he will fight the higher inflation rate with a new anti-inflation program. Predict what will happen to interest rates if the public believes him. => **Higher interest rate (tighter monetary policy), demand for bonds increases to have fixed income in the future with low expected inflation rate**
17. The chairman of the Fed announces that interest rates will rise sharply next year, and the market believes him. What will happen to today’s interest rate on AT&T bonds, such as the 8s of 2022? -> **People will expect interest rate to rise, E.R on bonds falls, demand for bonds falls, bond price falls, interest rate rises.**
18. Predict what will happen to interest rates if the public suddenly expects a large increase in stock prices. => **Stock price increases, demand for stocks increases, demand for bonds falls, bond prices fall, interest rate rises.**
19. Predict what will happen to interest rates if prices in the bond market become more volatile. => **Bond prices become more volatile, demand for bonds decreases, bond prices decreases, interest rate rises.**
20. If the next governor of the central bank has a reputation for advocating an even slower rate of money growth than the current governor, what will happen to interest rates? Discuss the possible resulting situations. ***Opposite with the case of higher money growth* Slower money growth will lead to a liquidity​ effect, which will raise interest​ rates; however, the lower​ income, price​ level, and inflation will tend to lower interest rates.**
21. Would fiscal policymakers ever have reason to worry about potentially inflationary conditions? Why or why not? -> **inflation -> controlled by increase in interest rate - pay higher interest payments for the borrowers -> investment declines -> economic activities falls**
22. Why should a rise in the price level (but not in expected inflation) cause interest rates to rise when the nominal money supply is fixed? ***Price level rises, purchasing power (fixed money supply can purchase smaller quantity of goods) declines, demand for money rises, interest rate rises***
23. M1 money growth in the U.S. was about 15% in 2011 and 2012, and 10% in 2013. Over the same time period, the yield on 3-month Treasury bills was close to 0%. Given these high rates of money growth, why did interest rates stay so low, rather than increase? What does this say about the income, price-level, and expected-inflation effects? ***Money growth drops, i decreases due to 3 effects which are weaker than liquidity effect.***
24. Suppose you are in charge of the financial department of your company and you have to decide whether to borrow short or long term. Checking the news, you realize that the government is about to **engage in a major infrastructure plan in the near future.** Predict what will happen to interest rates. Will you advise borrowing short or long term? ***=> gov expansion, money demand increases, i rises => borrowing long term***
25. Suppose that people in France decide to permanently increase their savings rate. Predict what will happen to the French bond market in the future. Can France expect higher or lower domestic interest rates? **Demand for bond increases, price increases => *i decreases =>> French could expect lower domestic interest rates.***