EC 370	**Name:** ____________________
Xiang LI (GE)	
Participation 9 (Chapter 9 and 14)	**UO ID:** ____________________

INSTRUCTIONS: Answer the following questions. Write legibly, take a high quality scan of your responses, compile all pages into one pdf, and upload only one pdf document to Canvas by **11:59pm (PDT), Sunday, June 7**.

QUESTION 1: Liquidity Management

The bank is required to keep 10% of deposits as reserves. Initial balance sheet is as follows. (Unit: millions)

Assets	**Liabilities+Capital**
Reserves: \$10 million	Deposits: \$100 million
Securities: \$10 million	Borrowings: \$0 million
Loans: \$90 million	Capital: \$10 million

Instruction: To complete the following balance sheets, do ***NOT*** *show* ***changes*** *of values for each item. Instead, you should write* ***levels*** *of updated values for each item. For example, an item starts with value \$100. If you think its value decreases by \$10, write down \$90* ***instead of*** *-\$10; if you think its value increases by \$10, write down \$110,* ***instead of*** *+\$10; if you think its value isn't changed, write down \$100*

(1) How much excess reserves does this bank hold?

(2) Suppose a deposit outflow of \$10 million occurs. Update the balance sheet.

Assets	**Liabilities+Capital**
Reserves	Deposits
Securities	Borrowings
Loans	Capital

(3) After deposit outflow occurs, does this bank meet the 10% required reserve requirement? If so, how much excess reserves does this bank hold?

(4) In order to meet the requirement, this bank decides to borrow fed funds from other banks in the fed funds market. Update the balance sheet. What is cost of option?

Assets	**Liabilities+Capital**
Reserves	Deposits
Securities	Borrowings
Loans	Capital

(5) In order to meet the requirement, this bank decides to borrow discount loans from the Fed. Update the balance sheet. What is cost of option?

Assets	**Liabilities+Capital**
Reserves	Deposits
Securities	Borrowings
Loans	Capital

(6) In order to meet the requirement, this bank decides to sell some of its securities. Update the balance sheet. What is cost of option?

Assets	**Liabilities+Capital**
Reserves	Deposits
Securities	Borrowings
Loans	Capital

(7) In order to meet the requirement, this bank decides to reduce loans. Update the balance sheet. What is cost of option?

Assets	**Liabilities+Capital**
Reserves	Deposits
Securities	Borrowings
Loans	Capital

QUESTION 2: Capital Adequacy Management

The initial balance sheet is as follows. High Capital Bank has a ratio of capital to assets of 10%, while Low Capital Bank has a ratio of 4%

Assets	Liabilities	Assets	Liabilities
Reserves: $10 million Securities: $0 million Loans: $90 million	Deposits: $90 million Borrowings: $0 million Capital: $10 million	Reserves: $10 million Securities: $0 million Loans: $90 million	Deposits: $96 million Borrowings: $0 million Capital: $4 million

(1) $5 million of housing loans become worthless. Update the balance sheet.

Instruction: To complete the following balance sheets, do ***NOT*** *show* ***changes*** *of values for each item. Instead, you should write* ***levels*** *of updated values for each item. For example, an item starts with value $100. If you think its value decreases by $10, write down $90* ***instead of*** *-$10; if you think its value increases by $10, write down $110,* ***instead of*** *+$10; if you think its value isn't changed, write down $100*

High Capital Bank		**Low Capital Bank**	
Assets	**Liabilities**	**Assets**	**Liabilities**
Reserves	Deposits	Reserves	Deposits
Securities	Borrowings	Securities	Borrowings
Loans	Capital	Loans	Capital

(2) which bank becomes insolvent?

QUESTION 3

Instruction: To complete this balance sheets, show the ***changes*** *of values for each item. For example, if you think the value of an item decreased by $10, write down -$10. If you think the value of an item increases by $10, write down +$10. If you think the value of an item isn't changed, leave it blank*

(1) Suppose the Fed purchases $100 million of bonds from banking system, update the balance sheet.

Banking System	
Assets	**Liabilities+Capital**
Reserves Securities Loans	Deposits Borrowings Capital

Federal Reserve System	
Assets	**Liabilities**
Securities	Currency in circulation
Loans to financial institutions	Reserves

(2): Suppose the Fed conducts an open market sale of $100 million of bonds to banking system, update the balance sheet.

Banking System	
Assets	**Liabilities+Capital**
Reserves	Deposits
Securities	Borrowings
Loans	Capital

Federal Reserve System	
Assets	**Liabilities**
Securities	Currency in circulation
Loans to financial institutions	Reserves

(3) Suppose the Fed makes a $100 million loan to the banking system, update the balance sheet.

Banking System	
Assets	**Liabilities+Capital**
Reserves	Deposits
Securities	Borrowings
Loans	Capital

Federal Reserve System	
Assets	**Liabilities**
Securities	Currency in circulation
Loans to financial institutions	Reserves

(4) Suppose First National Bank pays off the $100 million loan to the Fed, update the balance sheet.

Banking System	
Assets	**Liabilities+Capital**
Reserves	Deposits
Securities	Borrowings
Loans	Capital

Federal Reserve System	
Assets	**Liabilities**
Securities	Currency in circulation
Loans to financial institutions	Reserves