International Business and Finance Seminar 1

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Welcome!

- I am Junxi Liu, a second year MRes/PhD student at the department of economics.
- I will be around for all your seminars as well as the study groups in week 3.
- During week 1 and 2, Farzad/Ernil will be around for the study groups, which is the best way for you to resolve any questions and issues; during week 3
- Contact information: junxi.liu.1@warwick.ac.uk
- Class materials: junxiliu.com, then click "Warwick Summer School"
- I will need to take attendance, and I usually do so via asking you refresher questions — don't feel pressured and totally fine if you fail to answer them

Banking

- Consider yourself a manager of a bank right now. What would you worry about?
  - Where's the money
  - How to make profits
  - Is money safe
  - Who are you doing business with
  - ...
- Some key concepts
  - Types of banks
  - What is a balance sheet, and what does it consist of?
  - Main sources of the bank's profits
  - What is reserve, and how does it play a role in "creating" money?

SVB

- Seeking higher investment returns from its burgeoning deposits, SVB had dramatically increased its holdings of long-term securities since 2021
- The market value of these bonds decreased significantly through 2022 and into 2023 as the Federal Reserve raised interest rates to curb an inflation surge, causing unrealized losses on the portfolio.
- Higher interest rates also raised borrowing costs throughout the economy and some Silicon Valley Bank clients started pulling money out to meet their liquidity needs. To raise cash to pay withdrawals by its depositors, SVB announced on Wednesday, March 8 that it had sold over US$21 billion worth of securities, borrowed $15 billion, and would hold an emergency sale of some of its treasury stock to raise $2.25 billion. The announcement, coupled with warnings from prominent Silicon Valley investors, caused a bank run as customers withdrew funds totaling $42 billion by the following day, Thursday.

Silicon Valley Bank

svb Silicon Valley Bank

Headquarters in Santa Clara

Multiple Choice Questions

1) Which of the following are reported as assets on a bank's balance sheet?

A) Borrowings

✅ B) Reserves

C) Savings deposits

D) Bank capital

E) Only A and B of the above

2) In general, banks make profits by selling _______ liabilities and buying _______ assets.

A) long-term; shorter-term

✅ B) short-term; longer-term

C) illiquid; liquid

D) risky; risk-free

Multiple Choice Questions

3) Which of the following statements is true?
   A) A bank's assets are its sources of funds.
   B) A bank's liabilities are its use of funds.
✅ C) A bank's balance sheet shows that total assets equal total liabilities plus equity capital.
   D) All of the above are true.

4) Which of the following statements is true?
✅ A) A bank's assets are its uses of funds.
   B) A bank's assets are its sources of funds.
   C) A bank's liabilities are its use of funds.
   D) Only B and C of the above are true.

5) Which of the following statements is false?
   A) A bank's assets are its uses of funds.
   B) A bank issues liabilities to acquire funds.
   C) A bank's assets provide the bank with income.
✅ D) Bank capital is an asset on the bank balance sheet.

Multiple Choice Questions

6) A bank's balance sheet
A) shows that total assets equal total liabilities plus equity capital.
B) lists sources and uses of bank funds.
C) indicates whether or not the bank is profitable.
D) does all of the above.
✅ E) does only A and B of the above.

7) Which of the following are reported as liabilities on a bank's balance sheet?
A) Reserves
✅ B) Checkable deposits
C) Loans
D) Deposits with other banks

8) Which of the following are reported as liabilities on a bank's balance sheet?
✅ A) Discount loans
B) Cash items in the process of collection
C) State government securities
D) All of the above
E) Only B and C of the above

Analytical Questions

- 1) Some Central banks do not pay interest on required reserves. Some bankers see this as a tax on their business. Can you explain why?

- If bankers are forced to keep part of their deposits as reserves, they are losing the opportunity to earn interest on these reserves. If the central bank does not pay interest to banks, the latter can interpret this as a "tax", since the lost earnings are "money left on the table".

Analytical Questions

- 2) Define these concepts for banks: Return On Assets (ROA), Return On Equity (ROE), and Net Interest Margin (NIM). What do they show?
- Return on assets (ROA) is a metric that indicates a company's or bank's profitability in relation to its total assets. ROA can be used by management, analysts, and investors to determine whether a company/bank uses its assets efficiently to generate a profit. You can calculate ROA by dividing the net income by the total assets of the company/bank.
- Return on equity (ROE) is the measure of a company's or bank's net income divided by its shareholders' equity. ROE is a gauge of a corporation's profitability and how efficiently it generates those profits. The higher the ROE, the better a company is at converting its equity financing into profits. To calculate ROE, divide net income by the value of shareholders' equity.
- Net interest margin (NIM) is a measurement comparing the net interest income a financial firm generates from credit products like loans and mortgages, with the outgoing interest it pays holders of savings accounts and certificates of deposit (CDs). Expressed as a percentage, the NIM is a profitability indicator that approximates the likelihood of a bank or investment firm thriving over the long haul. This metric helps prospective investors determine whether or not to invest in a given financial services firm by providing visibility into the profitability of their interest income versus their interest expenses. Net Interest Margin = (IR −IE) / Average Earning Assets where: IR=Investment returns IE=Interest expenses

Analytical Questions

- 3) The source of bank operating income has changed over the years. Discuss.
- A bank's operating income consists of interest income mainly, but over the years, banks have managed to diversify toward non-interest income. The components of non-interest income are deposit and transaction fees, insufficient funds fees, annual fees, monthly account service charge fees, and dormant account fees. This non-interest income fee is important to sustain the banks and reap higher margins. Recent regulations have been put in place to limit the trading and proprietary activities of banks with the assumption that non-traditional activities always increase the systemic risk of banks. This view is still subject to open debate.

Analytical Questions

- 4) How is Net Interest Margin (NIM) a good measure of bank performance? Bank management performance?
- NIM is a difference between interest income and expenses over bank assets. If a bank maintains a high-interest spread, i.e., it earns a relatively high interest on assets and pays lower interest on deposits and other liabilities, the bank's operating income increases. This is the main source of a bank's net income. Thus, the bank has the right policy to achieve goals and we can conclude that the management is performing well.
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Analytical Questions

- 5) ROA and ROE are considered performance evaluation tools for banks. Do they always move in the same direction? How does an increase in capital affect them?
- The ROA and ROE may move in the same direction. If a bank's net income increases, this will increase the ROA and ROE. However, there may be situations where an increase in capital may not affect both rates; for example, a bank may decide to increase equity capital for security reasons or for regulatory requirements. If at the same time, the net income remains the same, this action will affect ROE (decline), but will not have any effect on ROA.

Analytical Questions

6) Assume that the following banks have the same net amount of 2 million, but they are different due to the capital structure:

BANK ALFA

Reserves 12 million	Deposits 85 million
Loans 90 million	Bank Capital 17 million
TOTAL ASSETS 102 million	TOTAL Liabilities and Equity 102 million

BANK BETA

Reserves 12 million	Deposits 100 million
Loans 90 million	Bank Capital 2 million
TOTAL ASSETS 102 million	TOTAL Liabilities and Equity 102 million

Which Bank is more attractive for shareholders? Which bank is riskier in case of loan depreciation at 15 million? Show your calculations to support your suggestions.

Analytical Questions

For shareholders, the ROE is the main coefficient. Thus, in the case of Alfa, the ROE = 2 million/17 million = 0.1176 or approximately 12%. For Beta, we have 2 million/2 million = 1 or 100%. Here Beta is the more attractive bank.

Let us assume that the deposit outflow is 15 million. We have the following balance sheets for each bank:

BANK ALFA

Reserves 12 million	Deposits 85 million
Loans 75 million	Bank Capital 2 million
TOTAL ASSETS 87 million	TOTAL Liabilities and Equity 87 million

BANK BETA

Reserves 12 million	Deposits 100 million
Loans 75 million	Bank Capital -13 million
TOTAL ASSETS 87 million	TOTAL Liabilities and Equity 87 million

As we see when the loan depreciation occurs, Beta has a negative capital, which means that this is too risky; the supervisory authorities may introduce bank license issues or other restrictions. We can conclude that in terms of return, bank shareholders are better off if the bank's equity capital is lower, however, in case of deposit outflow or loan quality deterioration higher capital level is preferred.