

International Business and Finance Seminar 1

Junxi Liu
18 Jul 2023

Welcome!

- ▶ I am Junxi Liu, a PhD student at the department of economics.
- ▶ I will be around for all your seminars as well as the study groups.
- ▶ 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

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 - ▶ Main sources of the bank's profits

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 - ▶ 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?

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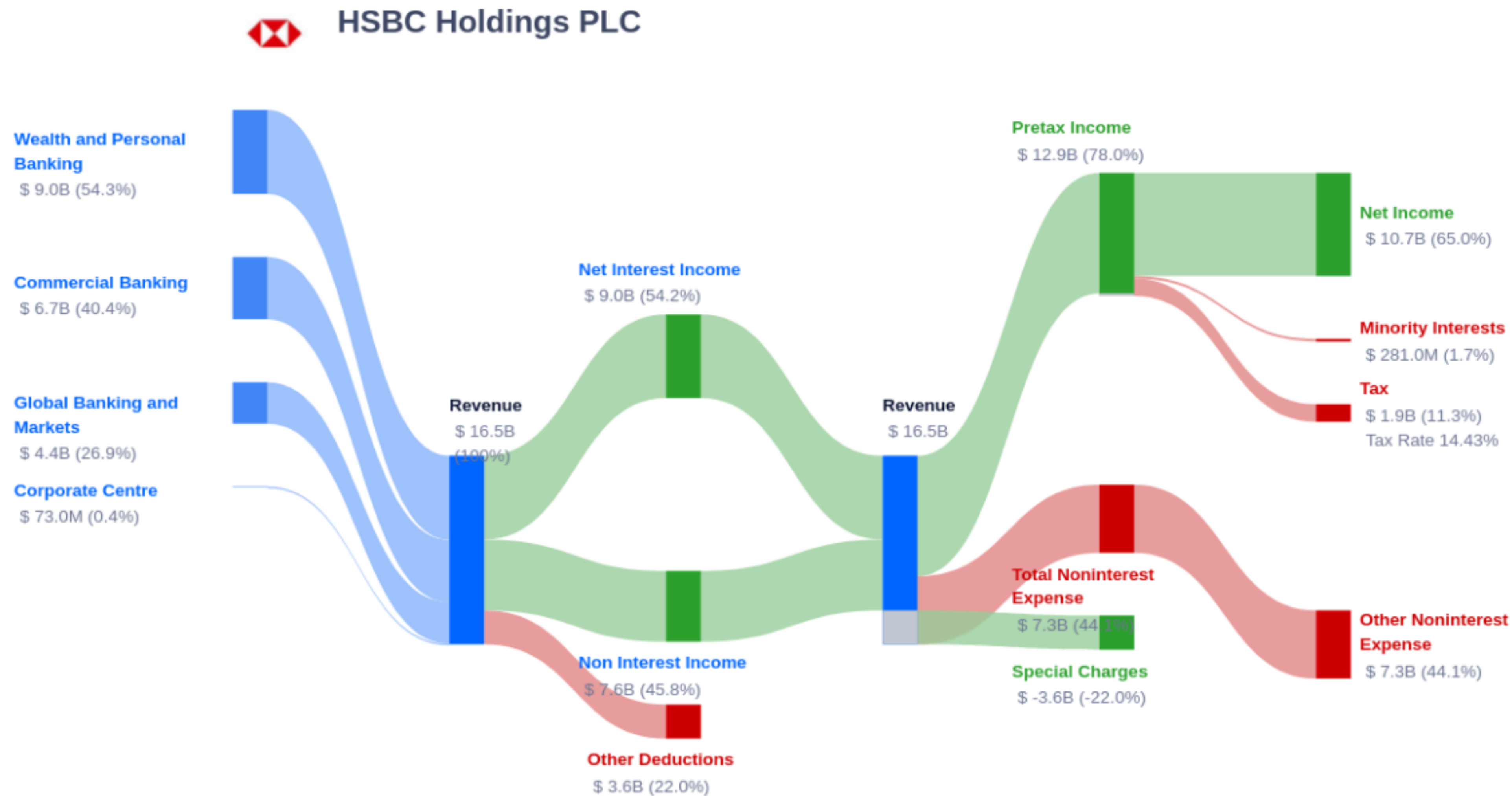
Types of Banks

- ▶ Retail Banks
- ▶ Commercial/Corporate Banks
- ▶ Investment Banks
- ▶ Central Banks

How Banks Make Money

How HSBC Holdings PLC (HSBC) Makes Its Money

Financials Breakdown as of 2023-03-28



How Banks Make Money



Banking
Accounts & services

Borrowing
Short & long-term

Investing
Products & planning

Insurance
Property & family

Wellbeing
Financial health & support

Help
Service & security

Personal Loan

Borrow from £1,000 to £25,000, with an instant decision and quick access to funds

HSBC UK > Loans > **Personal Loan**

Make your plans a reality

Borrow between £1,000 and £25,000 with fixed monthly payments of up to 60 months for loans up to £15,000, or up to 96 months for loans over £15,000.

- ✓ Quick credit decision and instant access to funds (after signed loan agreement is received) for HSBC current account customers
- ✓ Make overpayments free of charge
- ✓ No arrangement fee

Representative APR

For loans between £7,000 and £15,000

6.6% APR Representative

How Banks Make Money



Banking
Accounts & services

Borrowing
Short & long-term

Investing
Products & planning

Insurance
Property & family

Wellbeing
Financial health & support

Help
Service & security

Summary box

Account name

Fixed Rate Cash ISA

What's the interest rate?

This is the interest rate your money will earn:

Term	Balance	Interest rate
30-day deposit window + 12 months	£500+	4.60% AER (4.60% tax free)

We calculate interest daily and credit this at the end of the fixed term.

After the first 30 days, the Fixed Rate Cash ISA will continue for a further 12 months. This means it will stay open for approximately 13 months in total.

Interest starts to accrue as soon as money appears in the ISA. If money is received into the account after the 30 day cooling-off period but before the 70 day transfer-in period, that part of the deposit will receive less than 12 months' interest.

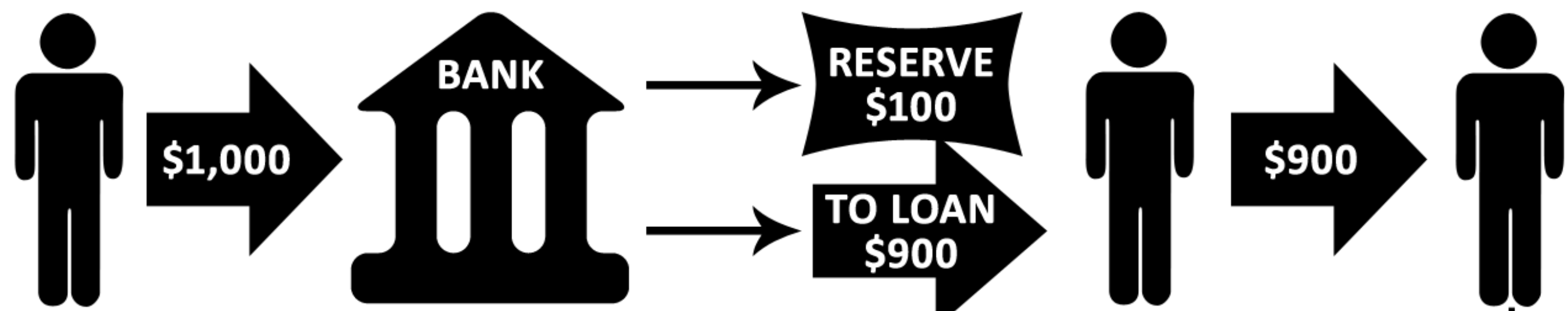
How Banks Make Money

THE BASIC FRACTIONAL RESERVE BANKING CYCLE

1. DEPOSIT

2. LOAN

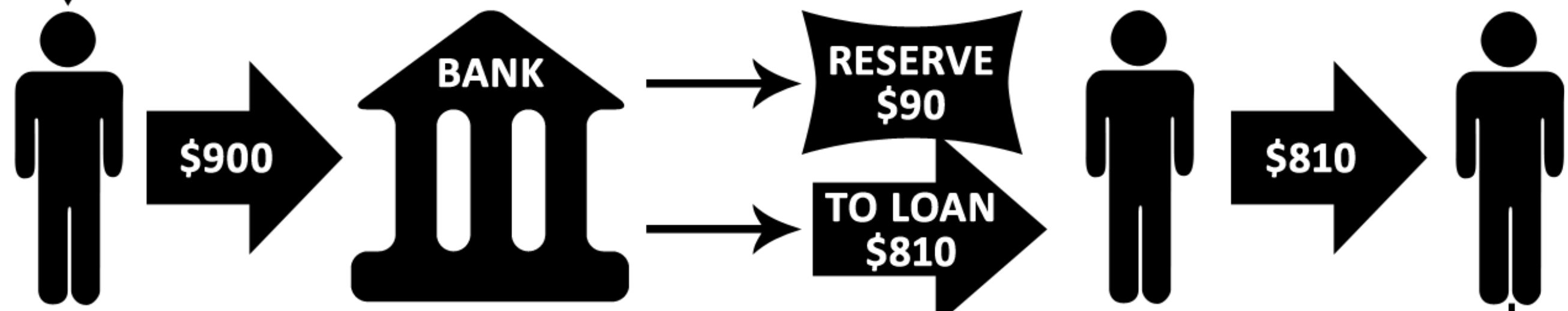
3. SPEND



AT THIS POINT THERE IS \$1,900 IN THE SYSTEM.

THE BANK HAS \$100.

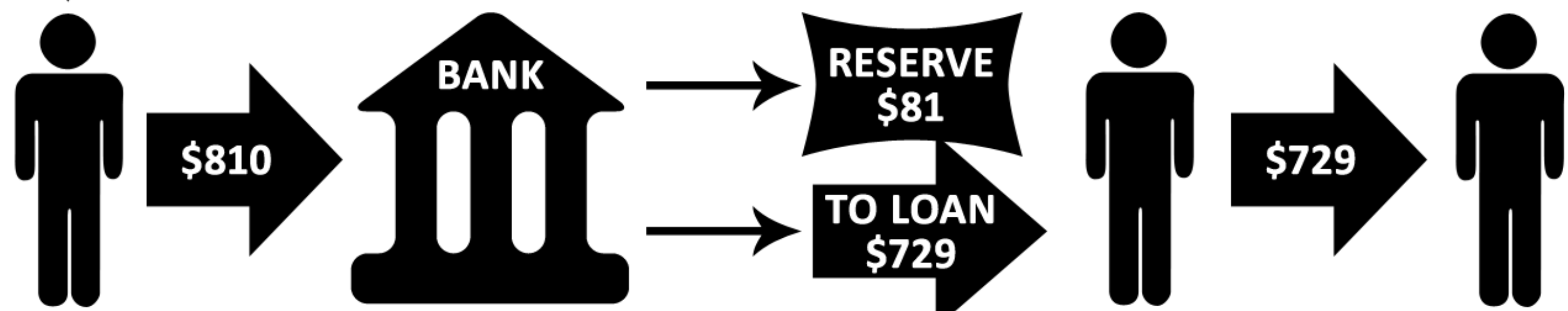
RINSE & REPEAT FROM STEP 1...



AT THIS POINT THERE IS \$2,710 IN THE SYSTEM.

THE BANK HAS \$190.

RINSE & REPEAT FROM STEP 1...



AT THIS POINT THERE IS \$3,439 IN THE SYSTEM.

THE BANK HAS \$271.

- ▶ 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



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

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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.
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5) Which of the following statements is false?

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- 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.
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7) Which of the following are reported as liabilities on a bank's balance sheet?

- A) Reserves
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- C) Loans
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- ▶ 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”.

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- ▶ 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.

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- ▶ 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. $\text{Net Interest Margin} = (\text{IR} - \text{IE}) / \text{Average Earning Assets}$ where: IR=Investment returns IE=Interest expenses

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- ▶ 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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- ▶ 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

Loans 90 million

TOTAL ASSETS 102 million

Deposits 85 million

Bank Capital 17 million

TOTAL Liabilities and Equity 102 million

BANK BETA

Reserves 12 million

Loans 90 million

TOTAL ASSETS 102 million

Deposits 100 million

Bank Capital 2 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 $ROE = 2 \text{ million} / 17 \text{ million} = 0.1176$ or approximately 12%. For Beta, we have $2 \text{ million} / 2 \text{ million} = 1$ 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

Loans 75 million

TOTAL ASSETS 87 million

Deposits 85 million

Bank Capital 2 million

TOTAL Liabilities and Equity 87 million

BANK BETA

Reserves 12 million

Loans 75 million

TOTAL ASSETS 87 million

Deposits 100 million

Bank Capital -13 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.