



Financial Literacy with Mr. 401(k)  
Winter Term 2024 - 2025  
January 27, 2025

# Exploring Bitcoin

## **Class 17: Banking and Traditional Financial System Basics**





# Monday Money Matter\$

The U.S. government is deciding TikTok's future due to concerns over national security and data privacy. President Trump is speaking with parties about a possible deal, with a decision expected in 30 days.

- **Potential Buyers:** Software company Oracle and U.S. investors may take control of TikTok's operations, while its Chinese owner, ByteDance, could keep a partial stake.
- **National Security:** Oracle would manage U.S. user data and security to address concerns about Chinese government interference.
- **Why It Matters:** TikTok is used by 170 million Americans, and the U.S. government wants to ensure user data stays safe.

The negotiations are ongoing, and no final deal has been reached.

Source: Reuters; <https://www.reuters.com/markets/deals/white-house-talks-have-oracle-us-investors-take-over-tiktok-npr-reports-2025-01-25/>; Reference Date: January 26, 2025.

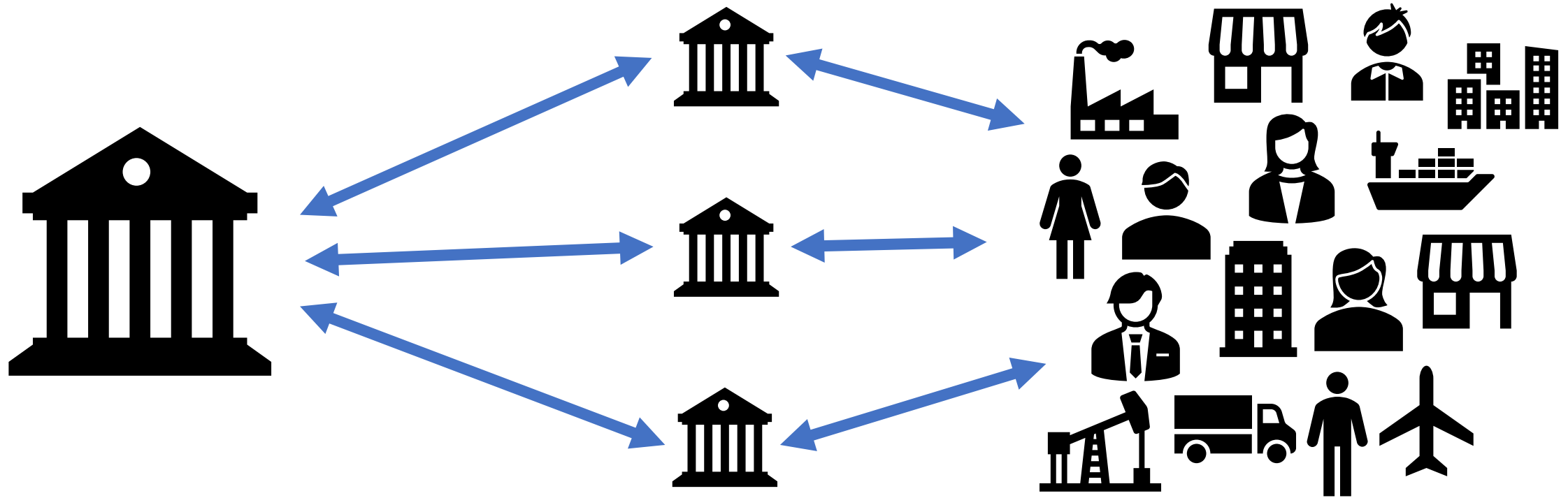




**A regulated financial  
institution that accepts  
deposits and makes loans**

**Bank**

# U.S. Banking System Simplified



# U.S. Federal Reserve

Monetary policy & banking  
system regulator. The  
“Banker’s” Bank.

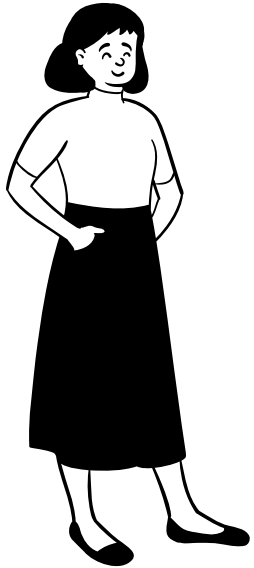
# Commercial Banks

Offer financial products & services to customers & work with the U.S. Federal Reserve

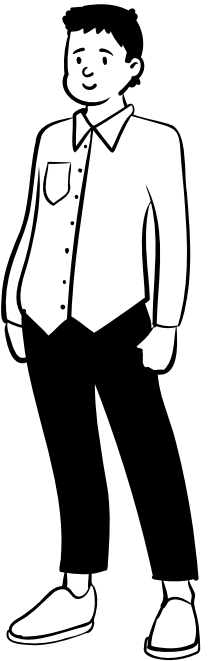
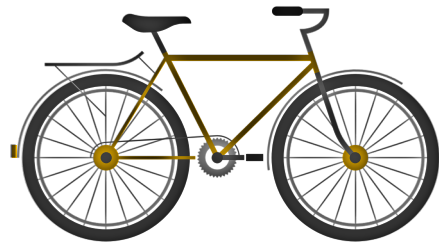
## Bank Customers

People, Corporations, and Governments work with commercial banks

# John Buys Jane's Bicycle for \$500 Cash

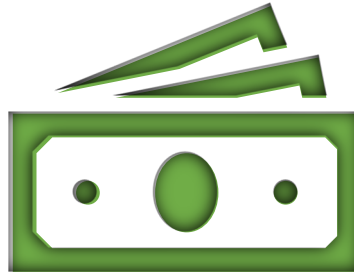


Jane



John

# Jane Deposits the Cash at Her Bank



# Jane Deposits the Cash at Her Bank



Assets		Liabilities
Cash	-\$500	
Bank Account	+\$500	
Total Change	\$0	

# Jane Deposits the Cash at Her Bank



Assets		Liabilities
Cash	-\$500	
Bank Account	+\$500	
Total Change	\$0	

Assets		Liabilities	
Cash	+\$500	Customer Deposits	+\$500
Total Change	\$500	Total Change	\$500





# *Class Discussion*

*Why might  
people deposit  
money in a  
bank?*

# Common Bank Products



## Auto Loan

Borrow money to finance a vehicle purchase



## Checking Account

Demand deposit account that typically **does not** earn interest



## Credit Cards

Finance purchases where credit card is accepted



## ATM / Debit Cards

Spend from checking account & make ATM cash withdrawals



## Home Mortgage

Borrow money to finance a home purchase



## Savings Account

Time deposits account that typically earns interest



**Banks Literally  
Create Money  
Out of Thin Air**

**It's Like  
Magic**

**Let's see how...**





# HOW BANKS WORK



[Launch Video](#)



# *Class Discussion*

*Why might  
people borrow  
money from a  
bank?*

# A Bank Lends Money to John





# A Bank Lends Money to John



Assets		Liabilities	
Loans	+\$10,000	Customer Deposits	+\$10,000
Total Change	\$10,000		\$10,000

# A Bank Lends Money to John



Assets		Liabilities	
Loans	+\$10,000	Customer Deposits	+\$10,000
Total Change	\$10,000		\$10,000

Assets		Liabilities	
Bank Account	+\$10,000	Bank Loan	+\$10,000
Total Change	\$10,000		\$10,000

# How Fractional Reserve Banking Expands the Supply of Money



Bank Assets		Bank Liabilities	
Cash	\$500	Jane's Deposit	\$500
Total	\$500	Total	\$500

Jane deposits \$500 of  
cash to the Bank



# How Fractional Reserve Banking Expands the Supply of Money



Bank Assets		Bank Liabilities	
Cash	\$450	Jane's Deposit	\$500
<b>Bank Reserves</b>	<b>\$50</b>	<b>John's Deposit</b>	<b>\$450</b>
Loan to John	\$450		
<b>Total</b>	<b>\$950</b>	<b>Total</b>	<b>\$950</b>

The Bank keeps \$50 of Jane's deposit in bank reserves and lends \$450 to John

# How Fractional Reserve Banking Expands the Supply of Money



Bank Assets		Bank Liabilities	
Cash	\$450	Jane's Deposit	\$500
<b>Bank Reserves</b>	<b>\$95</b>	John's Deposit	\$450
Loan to John	\$450	<b>Janet's Deposit</b>	<b>\$405</b>
<b>Loan to Janet</b>	<b>\$405</b>		
<b>Total</b>	<b>\$1400</b>	<b>Total</b>	<b>\$1400</b>

The Bank adds \$45 of John's deposit to bank reserves and lends \$405 to Janet

# How Fractional Reserve Banking Expands the Supply of Money



Bank Assets		Bank Liabilities	
Cash	\$450	Jane's Deposit	\$500
<b>Bank Reserves</b>	<b>\$135.50</b>	John's Deposit	\$450
Loan to John	\$450	Janet's Deposit	\$405
Loan to Janet	\$405	<b>Jim's Deposit</b>	<b>\$364.50</b>
<b>Loan to Jim</b>	<b>\$364.50</b>		
<b>Total</b>	<b>\$1,805</b>	<b>Total</b>	<b>\$1,805</b>

The Bank adds \$40.50 of Janet's deposit to bank reserves and lends \$364.50 to Jim



# Creating and Destroying Money

When banks lend money, they create new money that never existed before.

When bank loans are repaid or defaulted on, money is destroyed.



# Factors Influencing Bank Lending



## A Willing Borrower

Banks need borrowers to request credit. No credit requests = No new loans.



## Credit Worthiness

How likely is the borrower to repay the loan? Does the borrower have sufficient income?



## Interest Rates & Loan Yields

How much money can the bank make on the loan? Are there better alternatives for the bank to make money elsewhere?

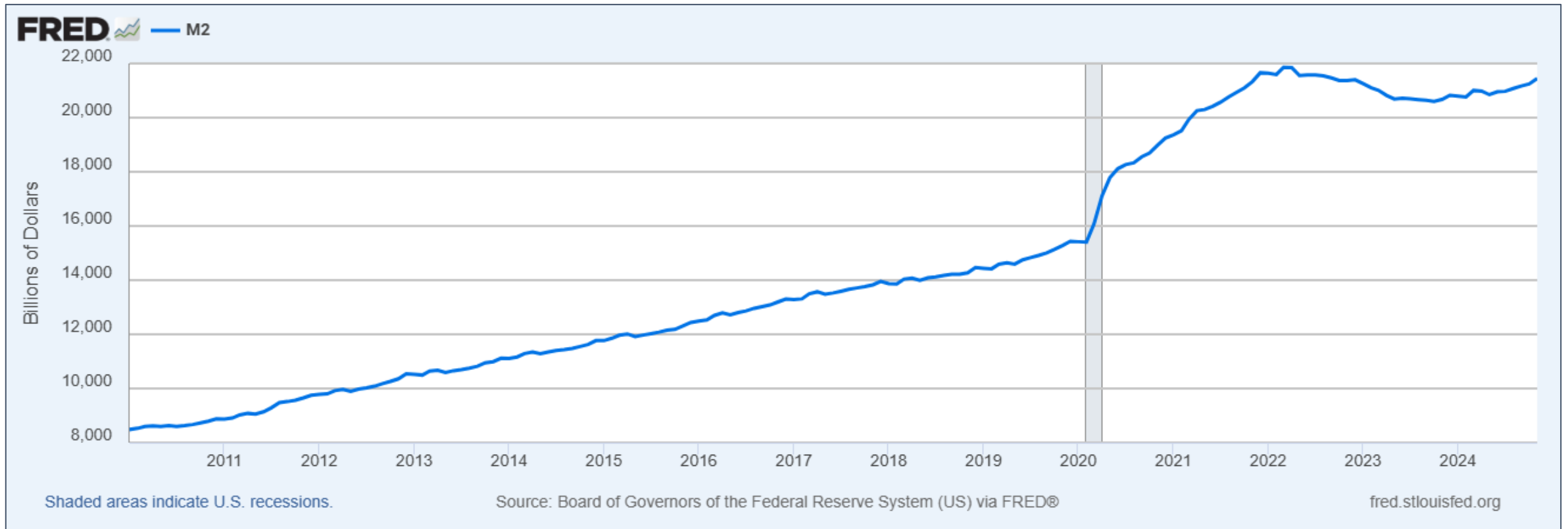


## Capital Requirements

Can the loan be made subject to capital requirements and regulatory constraints?

# The U.S. Money Supply

Since 2010, the U.S. Money Supply has **increased by 250%**



M2 is a measure of how much **“ready-to-use” money is available in the economy**. M2 is a category of money that includes all the cash people have on hand, the money in their checking and savings accounts, and other types of accounts that are easy to turn into cash.





# *Class Discussion*

*What do you  
think the  
money supply  
has grown so  
much since  
2010?*





## *Class Discussion*

*What do you think might happen if the money supply grows too quickly?*



# Three Key Takeaways

1. Functions of Banks: Banks are institutions that hold customer money and make loans.
2. Bank Lending: Banks lend money to credit-worthy borrowers, subject to reserve and capital requirements.
3. Money Supply: New bank loans increases the supply of money in an economy.





## Where to Learn More

- [How Bank Accounts Work for Kids](#) by Lucia Caldera via Kids' Money
- [Banking 101: Understanding How Banks Work](#) by Kate Rockwood
- Video: [In Plain English, Making Sense of the Federal Reserve Video](#) from the Federal Reserve Bank of St. Louis