

# **Money Creation**



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### **Fractional Reserve System**

## The Goldsmiths

- Stored gold and gave a receipt
- Receipts used as money by public
- Made loans by issuing receipts
- Characteristics:
  - Banks create money through lending
  - Banks are subject to "panics"

### **Fractional Reserve System**

### Balance sheet

- •Assets = Liabilities + Net Worth
- Both sides balance
- Necessary transactions
  - Create a bank
  - Accept deposits
  - Lend excess reserves

### <u>Transaction #1</u> Vault cash: cash held by the bank

<b>Creating a Bank</b> Balance Sheet 1: Wahoo Bank			
Assets	Liabilities and Net Worth		
Cash	\$250,000	Stock Shares	\$250,000

### Transaction #2

# Acquiring property and equipment

Acquiring Property and Equipment Balance Sheet 2: Wahoo Bank			
Assets Liabilities and Net Worth			
Cash	\$10,000	Stock Shares	\$250,000
Property	240,000		

# Transaction #3

- **Commercial bank functions**
- Accepting deposits
- Making loans



### Transaction #4

# Depositing reserves in a Federal Reserve bank

### Required reserves

### Reserve ratio

#### Commercial bank's Required reserves

Reserve ratio

#### Commercial bank's Checkable-deposit liabilities

Type of Deposit	Current Requirement	Statutory Limits		
Checkable deposits:				
\$0-\$10.7 Million	0%	3%		
\$10.7-\$55.2 Million	3	3		
Over \$55.2 Million	10	8-14		
Noncheckable nonpersonal				
savings and time deposits	0	0-9		

- The Fed can establish and vary the reserve ratio within limits set by Congress
- Required reserves help the Fed control lending abilities of commercial banks

### Transaction #4

# Assume the bank deposits all cash on reserve at the Fed

Depositing Reserves at the Fed Balance Sheet 4: Wahoo Bank			
Assets Liabilities and Net Worth			
Cash Reserves	\$0 110,000	Checkable Deposits	\$100,000
Property	240,000	Stock Shares	250,000

- Excess reserves
  - Actual reserves required reserves
- Required reserves
  - Checkable deposits x reserve ratio
- Example:
  - Checkable deposits \$100,000
  - Reserve ratio 20%

# Transaction #5

# Clearing a check

 \$50,000 check reduces reserves and checkable deposits

Clearing a Check			
Balance Sheet 5: Wahoo Bank			
Assets	Liabilities and Net Worth		
Reserves Property	<mark>\$60,000</mark> 240,000	Checkable Deposits Stock Shares	<mark>\$50,000</mark> 250,000

### **Money Creating Transactions**

### Transaction #6a

# Granting a loan

### \$50,000 loan deposited to checking

When a Loan is Negotiated Balance Sheet 6a: Wahoo Bank			
Assets Liabilities and Net Worth			
Reserves Loans Property	\$60,000 50,000 240,000	Checkable Deposits Stock Shares	<mark>\$100,000</mark> 250,000

### **Money Creating Transactions**

### Transaction #6b

# Using the loan

\$50,000 loan cashed

After a Check is Drawn on the Loan Balance Sheet 6b: Wahoo Bank			
Assets Liabilities and Net Worth			et Worth
Reserves Loans Property	eserves \$10,000 Checkable ans 50,000 Deposits \$50,0 operty 240,000 Stock Shares 250,0		<b>\$50,000</b> 250,000
A single bank can only lend an amount equal to its preloan excess reserves			

## **Money Creating Transactions**

### Transaction #7

# Bank buys government securities from a dealer

## Deposits payment into checking

Buying Government Securities Balance Sheet 7: Wahoo Bank			
Assets Liabilities and Net Worth			let Worth
Reserves	\$60,000	Checkable	
Securities	50,000	Deposits	\$100,000
Property	240,000	Stock Shares	250,000

# New money is created

### Profits, Liquidity, and the Fed Funds Market

- Conflicting goals
- Earn profit
  - Make loans to earn interest
  - Buy securities to earn interest
- Maintain liquidity
- Alternative?

Overnight bank loans

### **The Monetary Multiplier**

