

About The Book

This innovative text offers an introduction to money, banking, and financial markets, with a special emphasis on the importance of confidence and trust in the macroeconomic system. It also presents the theory of endogenous money creation, in contrast to the standard money multiplier and fractional reserve explanation found in other textbooks. The U.S. economy and financial institutions are used to explain the theoretical and practical framework, with international examples weaved in throughout the text. It covers key topics including monetary policy, fiscal policy, accounting principles, credit creation, central banks, and government treasuries. Additionally, the book considers the international economy, including exchange rates, the Eurozone, Chinese monetary policy, and reserve currencies.

Taking a broad look at the financial system, it also looks at banking regulation, cryptocurrencies, real estate, and the oil and gold commodity markets. Students are supported with chapter objectives, key terms, and problems. A test bank is available for instructors.

This is an accessible introductory textbook for courses on money and banking, macroeconomics, monetary policy, and financial markets.

About The Authors:

Dale K. Cline
Sandeep Mazumder

Dale K. Cline is a CPA in public practice, a CMA, a business owner, and an investor. He holds an undergraduate degree from Lenoir-Rhyne College and an MBA from Wake Forest University. While he has a wealth of business knowledge gained through his client advisory role, he learned much of what he knows about the economy through hands-on experience. Most recently, navigating his real estate investment and development business through the Great Recession provided him with unique insight into the way the banking system and the economy respond to stress. Viewing the meltdown from the dual perspectives of a CPA and a market participant prompted him to embark on a study of the lesser understood intricacies of the economy that culminated with the writing of this book.

Sandeep Mazumder received his BA in Economics from St. Catharine's College at Cambridge University. He earned his MA and PhD in Economics from Johns Hopkins University. His research and teaching interests include macroeconomics, monetary economics, international monetary economics, and time-series econometrics. Sandeep has focused much of his research on U.S. inflation dynamics and the Phillips Curve, and has published in journals such as the *Brookings Papers on Economic Activity*, *Macroeconomic Dynamics*, and the *Journal of Money, Credit and Banking*. He was a Professor in the Department of Economics at Wake Forest University for 12 years, where he also served as Department Chair for several years. Since 2021 he has been the William E. Crenshaw Dean of the Hankamer School of Business at Baylor University. In addition, he also is an Associate Editor of the *Journal of Macroeconomics*, a position he has held for several years.

Contents: Topics Covered

Part 1: How the economy works: nuts and bolts

- Confidence, monetary policy, and fiscal policy
- Basic accounting and financial statements
- Relationship of the Federal Reserve Bank and the U.S. Treasury Department
- The truth behind money creation
- Money, banking, and the real economy
- Global monetary linkage
- Monetary sterilization in China
- World reserve currency

Part 2: Related topics

- Real estate
- Oil
- Gold
- Cryptocurrencies

Chapter One: Confidence, Monetary Policy, and Fiscal Policy

POWERPOINT SLIDE

4

Different ways to view the economy

Macroeconomics and Microeconomics are two different ways to look at the economy.

- Macroeconomics: looks at the economy as a whole
The study of the economy as a whole, with a focus on aggregate changes in unemployment, growth, and inflation.
- Microeconomics: zooms in on particular markets or industries
The study of individuals, firms, and market behavior with regard to decision making and the allocation of resources.

POWERPOINT SLIDE

5

The Three Pillars of Macroeconomics

Macroeconomics can be looked at as 3 pillars that work together to form the bedrock of the national economy. They unite to optimize economic growth, stabilize inflation, and fight unemployment.

6

Pillar 1: Confidence

- Confidence is the most important of the three pillars because it sets the tone for the economy.
- Confidence fuels business innovation, as well as the economy.
- Economic confidence is crucial when facing economic adversity (example: Apple, Inc.).

7

Pillar 2: Monetary Policy

- Monetary Policy: The process of adjusting the supply of money, the availability of credit, and the cost of borrowing.
- The Federal Reserve Bank is in charge of the implementation of the Monetary Policy.
- Decision makers use data to determine when to implement two separate actions to create balance in the economy:
 - Actions that stimulate economic activity (example: encouraging expansion of credit)
 - Actions that slow economic growth (example: discouraging borrowing money)

8

Pillar 3: Fiscal policy

- Fiscal Policy: The use of government spending and taxation to influence the macroeconomy.
- Fiscal policy allows the government to implement changes that will influence demand, inflation, and GDP.
- Primary goal of fiscal policy - control government spending levels and set tax rates in a proper balance in order to serve the private economy.
- Fiscal policy is controlled by the government and carried out by laws passed through congress.

Confidence in the economy goes hand-in-hand with balance - it is crucial for Monetary and Fiscal Policies to work together to create a balanced economy.

POWERPOINT SLIDE

9

Gross Domestic Product (GDP)

What is GDP? The market value of all final goods and services produced within a country in a given period of time.

GDP is the building block to understanding the economy because it measures the economic health of nations.

Key factors when calculating GDP:

- Only newly processed goods count towards GDP
- Services done in a household are not counted as GDP
- GDP often includes the imputed value of certain services
- Some transactions are missed in calculating GDP (example: illegal transactions)

Chapter Two: Basic Accounting and Financial Statements

POWERPOINT SLIDE

2 An Overview of Accounting

Accounting: The process of recording financial transactions.

Accounting provides the framework that allows each and every economic transaction to be expressed in a systematic way. It enables people to record transactions and measure assets, liabilities, and capital.

- Liabilities + Capital = Assets

3 An understanding of accounting is required to understand the economy and the way the banking system operates.

Accounting was created by Franciscan friar Luca Pacioli, and is based on a system called double-entry bookkeeping

- Double-entry bookkeeping: a system of accounting where every entry requires a corresponding and opposite entry, where the double entries are referred to as debits and credits.

POWERPOINT SLIDE

4 Debits and Credits

Balance Sheet transactions are described by credits and debits.

- Debits are recorded on the left side of each entry and can be described as funds that are coming into a household, firm, or organization.
- Credits are recorded on the right side of each entry, and can be described as outgoing funds, obligations, or equity.

Transactions must be in balance- meaning that the total debits must be equal to the total credits.

5 TABLE → Generic Company: Debits and Credits

6 Two primary rules of accounting:

1. Accounts must be in balance
2. Every single transaction must generate one credit and one debit

Accounts are categorized as debit and credit accounts.

- Debit accounts include assets and expenses
- Credit accounts include liabilities, revenue, and capital

7 What are T-accounts? An informal table used by accountants to visualize transactions that are formalized with journal entries in double-entry bookkeeping.

- T-accounts easily maintain activity for each account and are used to help visualize the entries.

POWERPOINT SLIDE

8 Ultimate Goal of Accounting

The ultimate goal of accounting is to produce a set of financial statements that include income statements and balance sheets, which provides a picture of the company's overall financial position at the end of the reporting period.

- Income Statement: reports the revenues and expenses for a firm over a given period of time.
- Balance Sheet: reports a company's assets, liabilities, and equity for a specific point in time.

Accounting for private sector businesses focuses on reporting financial activity and, often, disclosing financial position for purposes of budgetary planning or shareholder reporting.

For a governmental entity, there is no profit motive. Thus, reporting takes a different approach – disclosing performance from the perspective of the fiscal responsibility.

9 EXAMPLE → ABC Company: Income Statement and Balance Sheet

10 EXAMPLE → USA Bank: Income Statement and Balance Sheet

POWERPOINT SLIDE

11 Three Main Functions of Money

Money: an asset that is accepted as a medium of exchange, acts as a store of value, and as a unit of account. Money is valuable because it is accepted as a means of payment.

Historically, we have seen two types of money:

1. Commodity Money: money with intrinsic value
2. Fiat Money: paper money without intrinsic value

12 Money fulfills three main functions:

1. Money must act as a medium of exchange.
2. Money acts as a store of value.
3. Money must act as a unit of account that enables us to compare different prices.

Chapter Three: Relationship of the Federal Reserve Bank and the U.S. Treasury Department

POWERPOINT SLIDE

2

The purpose of the Federal Reserve ("The Fed")

The Federal Reserve: the central bank of the United States, the bank to the commercial banking system, and the banker of last resort.

- The Fed is the bank to the banks.
- The Central Bank: a national bank that provides financial and banking services for its country's government and commercial banking system - conducts monetary policy by manipulating the supply of money.
- An independent institution that typically works hand-in-hand with the government and was created by the Federal Reserve Act of 1913.
- The Fed is comprised of 12 regional banks and 25 branches.
- Led by the Board of Governors – seven (7) people that are nominated by the president and confirmed by the senate. Each board member serves in this position for 14 years.
 - The Board of Governors has many different jobs, but the most important of these is overseeing the Federal Open Market Committee (FOMC) - the most crucial because the FOMC is what allows the Board to carry out its monetary policy, seeking to bring about stable levels of employment and moderate inflation.

3

POWERPOINT SLIDE

4

The U.S. Treasury Department

The U.S. Treasury Department is the department of the U.S. government that is responsible for managing government accounts, collecting tax revenue, overseeing issuance of debt and paying bills.

- Created by congress in 1789 with the purpose of managing the country's money.
- Many branches of the Treasury department, including the Internal Revenue Service (IRS) – the collection agency for the Treasury. The money collected goes to paying the government's bills.

POWERPOINT SLIDE

5

The Relationship between The Fed and The Treasury

The Fed and The Treasury work together to carry out their respective duties to promote economic health.

- The Fed serves as the government's bank.
- The Treasury manages the government's money

Since the Fed is a non-profit organization, all of the funds are returned to the Treasury's account at the Fed, then disbursements are made from the Treasury's account to different government funded programs.

POWERPOINT SLIDE

6

Where does money come from?

Money originates from the U.S. Bureau of Engraving and Printing (branch of Treasury) - the department charged with printing paper money for delivery to the Federal Reserve.

The U.S. Mint (branch of Treasury)- the department that has authority over coins.

7

After the creation of money, the Fed purchases the money from the treasury.

- The purchase credits the Treasury's account at the Fed - counted as an asset, which is a debit on the account entry.
- The Fed sells the money to regional Federal Reserve banks - counted as a credit on the account.
- Banks carry the currency as assets on their balance sheets

The Fed makes a profit by selling the money to Regional Federal Reserve banks at face value – the profit is called Seigniorage.

8

All profit made from the sale of currency is returned to the Treasury - benefits the U.S. citizens because it may eventually reduce taxes.

The start and end of the value system of money starts and ends with the government.

- Money is simply a representation of liabilities of our government.
- The defined value is based on what the government promises to honor during the exchange process.
- The U.S. government will only accept U.S. money in payments for taxes.

POWERPOINT SLIDE

9

Deficits and Debts

While debt and deficits are related, they are defined as different terms:

- National Debt - the total amount of money that a country's government has borrowed.
- Government Deficit- a shortfall in a government's income compared with its spending over a given period of time. A deficit adds to the national debt.
 - Short term debts are financed through the sale of Treasury Bills.
 - Long terms debts are financed through the sale of Treasury Bonds.

POWERPOINT SLIDE

10

Government Bonds

Government Bond: a form of security sold by the government, which is often called a fixed income security because it earns a fixed interest every year for the duration of the bond.

Government bonds are issued to raise money for government operations.

The price of government bonds has to do with Future value and present value.

- Future value - the value of an asset at a specific future date.
- Present value -the current value of a future sum of money or stream of payments, based on a specific rate of return.

11

How is a bond price calculated?

$$\text{Bond Price} = \frac{C}{(1+R)} + \frac{C}{(1+R)^2} + \frac{C}{(1+R)^3} + \dots + \frac{C}{(1+R)^{29}} + \frac{C+F}{(1+R)^{30}}$$

The Fed is involved in bond purchases.

- It will purchase treasury securities in times of low economic confidence.
- The purchase of bonds causes both benefits and drawbacks to citizens.
- Once economic confidence is restored, neutrality returns to the equation.

12

The economy becomes wealthier when GDP rates are higher than the growth rate of debt.

It is crucial to pay attention to the efficiency of the government's spending – it will lead us to economic health or economic destruction

Wise spending will improve the ratio of debt to GDP - this process returns the economy to an equilibrium (the main goal).

Chapter Four: The Truth Behind Money Creation

POWERPOINT SLIDE

2

Bank for International Settlements (BIS)

The BIS provides oversight and regulation, which is vital due to “the bank’s” influence on the economy in large countries.

- Created in 1930 to advise and regulate economic matters.
- Allows nations to discuss and coordinate to ensure the health of the global economy.

Bank Regulation - the laws and rules that govern the way the banks operate.

POWERPOINT SLIDE

3

Bank Reserve Requirements

The bank supports financial transactions - provides the method for transactions to occur by way of checks or electronic fund transfers.

- Transactions depend on the bank making the correct accounting entries when funds are deducted from one account and transferred to another account.

4

Bank Reserves - the cash that banks have in their vaults, plus the balances in their account at the central bank.

Reserve Requirement - directs the commercial banking system to maintain a certain percentage of deposits in cash.

- Reserves are roughly equivalent to 10% of total deposits that are cash on hand and deposits at the Fed.
- Reserves were originally created to prevent a run on the bank but now primarily serve to ensure ample cash is available to support daily bank operations.

POWERPOINT SLIDE

5

The Business of Banking

The bank serves three primary functions:

1. The bank acts as a depository.
It accepts deposits from customers for safe keeping, provides cash back to customers upon demand, and enables easy transactions for goods and services by swiping cards, writing checks, and entering payment information into computers.
2. Banks supply credit to customers.
The bank lends funds to those seeking to borrow and profits from the interest and fees that are associated with the loans.
3. Banks help manage risks - problem of asymmetric information.

6

Asymmetric Information - the situation where two parties to a transaction have different pieces of information available.

- Adverse selection may occur - where two parties prior to a transaction observe different information about a quality of the product or service.
- Moral hazard may occur - where one party to a transaction operates in a manner that is counter to what the other party would desire after the transaction occurs.

POWERPOINT SLIDE

7

Two Kinds of Money

1. Base Money - the total amount of bank notes and coins

$$B = C + R \quad (B = \text{Base}, C = \text{Currency in circulation}, R = \text{Bank reserves})$$

2. Bank Money – the money created inside the private sector; exists in the form of credit which is issued when banks make loans.

POWERPOINT SLIDE

8

Money supply (M1)

Money supply - the sum of currency in circulation and bank deposits.

M1 refers to the measure of money supply.

M2 refers to the measure of money supply that includes savings and other small-time deposits.

$$M = C + D \quad (M = \text{money supply}, C = \text{currency in circulation}, D = \text{demand deposits held by commercial banks})$$

POWERPOINT SLIDE

- 9 Fractional Reserve Banking
- Fractional Reserve Banking - the theory of how banks expand money supply by loaning out a portion of bank reserves.
- The commercial bank creates money through the process of making loans from other customers' deposits.
- 10 TABLE → Fractional Reserve Lending
- 11 TABLE → Fractional Reserve Lending
- 12 Money Multiplier - the number that describes how much money is created by banks assuming fractional reserve lending.
- The ratio of the money supply to monetary base is $M = mB$ (M = Money Supply, m = Money multiplier, B = Base)
- Fractional Reserve Banking is not an accurate representation of how banks actually operate money in the modern economy. (Contrary to the money multiplier theory, banks do not lend out money that customers deposit.)

POWERPOINT SLIDE

- 13 The credit creation theory of money
- The theory that describes how banks can create money simply by issuing new loans that are not based on customer deposits.
- The bank loans out bank money. Cash never changes hands during this loan (an electronic fund transfer created with accounting entries).
- 14 How is money created?
1. A customer applies for a loan and meets the banks requirements for approval.
 2. The bank extends a credit to the customers deposit account and a debit to a loan receivable account.
 3. A customer new deposit account is created serving as a liability of the bank for the loan.
 4. When the loan is paid back, the deposit that was created when the loan originated is extinguished - completing the cycle of money creation.
- 15 EXAMPLE → Balance Sheet

POWERPOINT SLIDE

- 16 Restrictions on money creation
- Banks will limit themselves according to profits. Loans will be made if they are expected to result in profit, but they will not be made if it seems too risky.
 - The behavior of households and businesses will constrain money supply. The repayment of loans will reduce money supply.
 - Banks must adhere to capital regulations which determine how much they may lend relative to their overall capital base.
 - Banks can lend reserves. Reserves held on deposit at the Fed are liabilities of the central bank, because they are owed back individual banks who deposited them.

POWERPOINT SLIDE

- 17 Role of the central bank
- The central bank controls the pool of reserve funds.
- Reserves are functions of loans, and the central bank supplies reserves as needed to allow the banking system to meet aggregate reserve requirements.
- 18 FIGURE 4.3 → A Picture of the Banking System
- 19 Understanding the central bank's balance sheet:
- The liabilities of the central bank are made up of reserve accounts attributed to individual banks, the government's deposit account, and currency in circulation.
 - Government bonds make up the asset side of the balance sheet.

The FOMC conducts open market operations to expand or contract the reserve pool in circulation.

- Open Market Operations - the process of the central bank expanding or contracting the reserve pool through the purchase and sale of government bonds.
- The end result of the open market operations is that the banking system has a larger pool of reserves which will be shifted around as needed to meet aggregate reserve requirements.

Chapter Five: Money, Banking, and the Real Economy

POWERPOINT SLIDE

2

Benchmarks and Targets

The Fed Funds Rate

- The interest rate that the FOMC decides that lending institutions charge to borrow reserves from each other.
- The benchmark rate that the ability to lend money is based upon.

The Fed uses the demand in the reserve market to control the benchmark rate.

3

The Fed implements its target rate by using open market operations to nudge the rate towards its target and looks at the reserve pool for overall implementation.

- If the reserve pool is too small, the demand from banks pushes the interest rate up.
- If the reserve pool is too large, rates shift down due to a decreased demand for borrowing.

Target Rate - a rate at which the system will achieve the ideal balance to encourage moderate inflation.

4

FIGURE 5.1 → Supply and Demand of Federal Funds

POWERPOINT SLIDE

5

Term Structure of Interest Rates

Interest rates such as, the 3-month bond rate, the 10-year bond rate, and the mortgage rate, are all linked by the term structure of interest rates.

Term Structure of Interest Rates - the relationship between interest rates of different maturities.

- Shows correlation in how a short-term rate is related to longer-term rates

$$R_n(Yr1) = 1/N[R_1(t) + ER_1(t + 1) + \dots + ER_1(t + N - 1)] + Premium_n$$

- Graphed by plotting the Yield Curve - a graphical representation of yields on bonds of similar type but different maturities.

POWERPOINT SLIDE

6

Interest on reserves

The Federal Reserve must pay interest to commercial banks on excess reserve balances - establishes a lower bound on the federal funds rate, which helps the Fed fine tune its target.

By paying interest on reserves, the Fed is converting excess reserves into income producing assets for the banks.

7

Quantitative Easing program – assisted in implementation of this interest payment.

- Quantitative Easing (QE) - a type of unconventional monetary policy whereby the central bank buys longer-term securities using open market operations in order to raise money supply and stimulate lending and investment.
- Gives the Federal Reserve the ability to control the federal funds rate.
- QE is an asset swap in which the Fed provides liquid reserves to banks in exchange for less-liquid securities.

The Fed uses the federal funds rate as a base rate upon which other lending rates are built, which allows the Fed to maintain economic equilibrium.

POWERPOINT SLIDE

8

Inflation

Inflation - the percentage change in aggregate prices from one time period to the next.

Friedman's idea of inflation (partially correct)

- Too much money will create inflation, and too little money may cause deflation.
- Quantity theory of money - theory that shows that changes in money supply feed through to change in prices

$$MV = PY \quad (M = \text{Money Supply}, V = \text{The Velocity of Money}, P = \text{The Price Level}, Y = \text{GDP})$$

- 9 In reality, Inflation is caused by:
- the demand for new loans that leads to increases in the money supply
 - confidence

Inflation is not a function of money supply, but more a reaction to economic confidence and demand.

The Phillips Curve - a representation of inflation; a theory stating that inflation is negatively related to cyclical unemployment.

- 10 Inflation is crucial for the health of the economy and growth in GDP. However, over-inflation can cause a decline of GDP and a loss of confidence.

A stable inflation rate is proven to be the most ideal for a thriving economy. The key to inflation is stability and balance and the catalyst is confidence.

POWERPOINT SLIDE

- 11 Economic Indicators

The labor force impact:

- The labor market and confidence are the heartbeat of the economy.
- If the labor force participation rate decreases, the economy decreases as well.

Measures of economic interest:

- Velocity - impacts and gauges the overall health of the economy; generally, velocity is evidentiary of the turnover rate of each dollar in the economy.
- Capacity Utilization - an indicator of efficiency representing the amount of output being produced relative to the total output possible at a given cost of production.

POWERPOINT SLIDE

- 12 Asset bubbles

Asset bubble - a dramatic surge in prices not in keeping with the asset's true underlying value.

Artificially created values are unsustainable in the long-term and prices will correct. Borrowers cannot support the higher loan payments and the falling collateral values are insufficient to meet bank loan to value ratios, causing banks to call loans. This causes economic downfall.

Chapter Six: Global Monetary Linkage

POWERPOINT SLIDE

2

Exchange rates

Foreign exchange - the market where buyers and sellers trade currencies.

Exchange rate - the price of one currency in terms of another.

- Calculated using domestic currency to purchase an equivalent amount of foreign currency.

Appreciation and depreciation assist in understanding the equivalency of the currencies.

- Appreciation - dollars have gained more value than the other type of currency.
- Depreciation - dollars have lost value against the other type of currency.

3

The interest parity condition is what makes the exchange rate work.

- Interest parity condition - the equation that solves for the market's equilibrium exchange rate.

$$R_{US} = R_{UK} + (X^e - X)/X$$

- A shift in confidence will impact the interest party condition.

4

FIGURE 6.1 → The Foreign Exchange Market

5

FIGURE 6.2 → Increase in Domestic Interest Rate Effect on Exchange Rate

6

FIGURE 6.3 → Increase in Foreign Interest Rate Effect on Exchange Rate

POWERPOINT SLIDE

7

Purchasing power parity (PPP)

Purchasing power parity - an indicator of movement in foreign exchange rates.

- The theory that tells us that the exchange rate is the ratio of prices in one country relative to another.

$$X = P_{US}/P_M$$

8

- Purchasing power parity - returns trading values back to equilibrium, which is known as arbitrage. Arbitrage has the ability to bring the economy back into equilibrium. Arbitrage - trading occurs between markets when a good or service is priced differently; the trades bring prices into parity.

Many economists believe that PPP may not be useful at predicting exchange rates at specific moments in time but can provide a more useful longer-term benchmark of where the true value of currency should lie.

POWERPOINT SLIDE

9

Trading for profit

Currency trades, or currency swaps, are typically executed in pairs and are accomplished through contractual agreements and derivatives.

- The buyer is simultaneously buying one currency and selling another.
- Profit is realized when the trader sells the currency that has a falling value and gains a currency that has a rising value.

The most common players in this type of trade are banks. By using reserves, which would otherwise be non-income producing assets, to play the currency trading game, they have the potential to use the bank's own capital to bring in profits.

10

Government policies can impact this and drive the market in unpredictable directions, adding risk to trading for profit.

Additional players in this trading game include businesses. They are attempting to avoid loss from an excessive negative currency movement. Businesses that want different end goals of trading for profit will work together to end up mutually benefitting from the trade.

Forward Exchange Contracts:

- Forward Exchange Contracts - an agreement to buy or sell currency at an agreed upon future date for a predetermined exchange rate.

POWERPOINT SLIDE

11 The Eurozone

Eurozone - a subset of European Union countries that share the same currency, the Euro, and have a shared monetary policy.

- Comprised of 19 European countries with the purpose of creating a trading block of countries unified by a common new currency, the euro, to increase trade with each other and with the entire world.

Identified flaw in The Eurozone - the European central bank never implemented a unified fiscal policy (when some countries outperform others).

12 Optimum Currency Areas (OCA)

- Eurozone members do not have the ability to issue their own currency, which leads to debt.
- Because of this, the theory of optimum currency areas (OCA) is often applied to the eurozone
- Optimum Currency Areas - a specific area, usually geographic, where a single currency would provide the greatest economic benefit to member nations.

POWERPOINT SLIDE

13 Global Economy

Each country is part of the global economy. Everything one country does impacts the others, especially economically – it is crucial to be aware of interconnectedness of our world.

One economic decision has the potential to impact the global economy.

Confidence is key in the global economy.

Chapter Seven: Monetary Sterilization in China

POWERPOINT SLIDE

2

Currency Sterilization

Currency sterilization - the practice of intervening in foreign exchange markets to fix the exchange rate and prevent growth in the supply of money.

China implements this practice of currency sterilization, which impacts the world economy and could eventually lead to damage in China itself.

The practice gives China an undue advantage with regards to trade and impacts the global economy due to the size of China.

3

Comparative advantage and foreign competition

Comparative advantage - country's ability to produce a good or service at a lower opportunity cost than the countries it trades with.

International trade often operates this way. It is less about the country with the lowest absolute cost but more about the country with the lowest comparative cost. Both countries that partake in this international trade practice end up with benefits

POWERPOINT SLIDE

4

The steps of Currency Sterilization

Step 1 – Intervention → Central banks purchase foreign currency from the commercial banking system, paying for it by issuing new reserves, resulting in an increase in the domestic monetary base.

Step 2 – Sterilization → Governments employ tactics to adjust the newly issued reserves in order to change the base money value.

5 - 6

EXAMPLE → Currency Sterilization

7

Capital Controls

- Capital Controls - measures taken by the government, central bank, or other regulatory institutions to limit the flow of foreign capital into and out of the domestic economy.

China sterilizes currency with the purpose of maintaining its competitive manufacturing advantage by artificially fixing the relative exchange rate of its currency to the U.S. currency and preventing inflation in the Chinese economy.

8

China's process of sterilization impacts the global economy in a negative way.

By preventing a natural rate of appreciation, China has caused a great trade imbalance, resulting in predictions of banking crises

POWERPOINT SLIDE

9

The Impossible Trinity

The impossible trinity states that it is impossible for a country to have monetary policy autonomy, a fixed exchange rate, and free capital flows all at the same time.

If a country wants to maintain a fixed exchange rate and allow the free flow of capital:

- The country will only be able to use monetary policy to offset changes in the supply and demand for currency in the exchange market,
- The country cannot change their interest rate to react to other macroeconomic shocks, such as a fall in spending.

10

FIGURE 7.2 → The Impossible Trinity

POWERPOINT SLIDE

11

Shadow Banks

Shadow banking - lending and other financial services conducted by institutions that are not regulated or under conditions that are unregulated.

Shadow banks are a secondary banking system, and they operate in the shadow of the commercial banks.

Shadow banking imposes high rates:

- Operates without any regulatory system.
- Severe punishment for default.
- Facilitate the lending of funds between two parties in an unregulated manner.

Chapter Eight: World Reserve Currency

POWERPOINT SLIDE

2

Reserve Currency

Reserve currency - a currency that is held in large quantities by other central banks of the world as a part of their holdings of foreign exchange reserves.

Reserve currencies are accepted as a medium for settlement of international debts.

To be a reserve currency it must follow two rules:

1. The reserve currency must have a stable long-term value.
2. The reserve currency must be readily available as a supply of money and securities in that currency.

The U.S. Dollar - An Accepted form of Reserve Currency

- U.S. currency is seen as strong, stable, and confident (after WW2).

3

Advantages of the U.S Dollar Being A Reserve Currency

- Reduced concern about the inherent exchange rate risk faced by other countries in the currency conversion process.
- Ability to make policy decisions from purely domestic perspectives.

Reserve Currency System - international monetary system where countries fix their exchange rate against the reserve country's currency

Disadvantages of the U.S Dollar Being A Reserve Currency

- Lowers bond yields (many argue that the lower borrowing costs serve as an incentive for the government to perpetuate its appetite for deficit spending).
- The continual running of the trade deficit is a downside because imports into the U.S. are outpacing exports.

Trade deficit - the situation where a country's value of imports exceeds its value of exports.

4

The U.S. Dollar should remain the reserve currency if:

- The dollar maintains availability.
- The dollar continues to grow and/or remains stable.
- The U.S. remains a net importer, running a trade deficit.

POWERPOINT SLIDE

5

The gold standard

The gold standard - a global system where countries fix their currency values to the price of gold.

Bretton Woods Agreement:

- A collective global foreign exchange regime that lasted from 1945-1973
- Countries defined their currency values to the U.S. Dollar
- A gold exchange standard, which is a hybrid of the reserve currency system and a gold standard

Chapter Nine: Real Estate

POWERPOINT SLIDE

3

Real estate in the economy

Real Estate - property consisting of land and buildings.

Real estate represents 20% of the value of all assets in the U.S. Real estate is the largest asset in value that most people own.

POWERPOINT SLIDE

4

Valuing real estate investments

Investors should always consider the following when exploring interest in a property acquisition:

- Net Operating Income (primary) - the total income generated from owning a property minus its associated operating expenses.
 - Defines cash flow after payment of all annual operating expenses.
- Interest Rate (secondary)- determines the overall return on the investment.

5

EXAMPLE → Cap Rate Formula

6

Methods to value real estate:

- The Income Capitalization Approach
 - Capitalization of Income – a type of real estate appraisal method that estimates the value of a property based on the current operating income the property generates.
 - Determines the value based upon how much rent will be produced.
 - Most common approach because it extrapolates a future market value from the current net operating income.
 - Uses the capitalization rate (the ratio of net operating income to the value of a property) to develop a market sale price for the property.

Capitalization Rate = Annual operating income (NOI) / value of property (cost)

7

- The Discounted Cash Flow Approach
 - Discounted Cash Flows - an appraisal method that determines the value of real estate today based on projections of how much income it will generate in the future.
 - Calculated by developing projected cash flow data followed by discounting the future expected operating income back to the present to determine the current value.

POWERPOINT SLIDE

8

Tax in Real Estate

Taxes do not determine market value for a particular property. Taxes do impact net profit.

Depreciation - the reduction in value of real estate over time due to wear and tear.

- A tax deduction applied to allocate the cost of wear and tear over a property's useful life.

9

Two types of tax in regards to rental properties:

- Net Taxable Income from operating income property is generally subject to income tax at ordinary tax rates.
- Capital Gains Tax - tax applicable to any gain realized on properties when they are sold. Generally, tax is levied at a lower rate than the tax on ordinary income.

Investors pay professionals to handle the taxes of real estate properties.

POWERPOINT SLIDE

10

Real Estate Investment Trust

Real Estate Investment Trust - a company that owns, operates, or finances income-generating real estate.

- Influenced the growth of the real estate industry.

POWERPOINT SLIDE

11

The Replacement Rate

Replacement Rate - Number of people that must be born to replace the number of people that died.

- Current replacement rate = 2.1 (estimated)
- Replacement rate is a key economic indicator

Chapter Ten: Oil

POWERPOINT SLIDE

2

Gas prices

The cost of energy impacts all areas of economic life, making it critical to understand how oil prices work.

Five (5) main components to the price of fuel:

- Cost of crude oil (mainly responsible for the swinging price)
- Cost of refinement plus related profits
- Cost of distribution and marketing plus related profits
- Cost of storage
- Taxes

3

Supply and demand impact gas prices.

- Price elasticity of demand - the variation in demand for a good service as a result of a change in price of that same good or service.
- Price elasticity of supply - a measure of the responsiveness of the quantity of a good or service supplied as a result of a change in the price of that same good or service.

Supply and demand curves for oil are relatively inelastic.

4

FIGURE 10.3 → Elasticity of Demand

5

FIGURE 10.4 → Elasticity of Demand and a Change in Supply

POWERPOINT SLIDE

6

Derivatives

Derivatives - a financial security whose return is derived from another asset

Futures contract - a type of derivative where a buyer and a seller agree to trade at a predetermined future date at a predetermined future price.

POWERPOINT SLIDE

7

Peak Oil

Peak Oil - the point at which an oil well or oil field reaches its maximum rate of production.

Oil is a non-renewable resource. There is pressure for society to begin to look for new ways to produce energy.

Chapter Eleven: Gold

POWERPOINT SLIDE

2

Commodity Money

Commodity Money - money that has intrinsic value, such as gold.

Society deems commodity money valuable creating a perception of stability.

Society must separate feelings from facts about gold.

Gold is often thought as a safe haven during times of economic uncertainty.

POWERPOINT SLIDE

3

Value and confidence of gold

Gold trades primarily on fear rather than any economic fundamentals.

- When economic troubles arise and confidence is eroded, gold becomes a safe haven for those who believe that it is stable.
- Gold is not a true investment because there is no income return from gold.

POWERPOINT SLIDE

4

Fiat Currency

Fiat currency - money without intrinsic value, namely paper money.

The gold standard – return to fixing prices of domestic currencies in terms of a specified amount of gold.

POWERPOINT SLIDE

5

Speculative attack

Speculative attack- when speculators attack the currency of a country trying to maintain a fixed exchange rate

If the country does not hold enough foreign currency reserves, they may fail to preserve the fixed exchange rate.

6

FIGURE 11.2 → Fixing the Exchange Rate after Suspected Devaluation

7

FIGURE 11.3 → Speculative Attack on a Fixed Exchange Rate

Chapter Twelve: Cryptocurrencies

POWERPOINT SLIDE

2

Cryptocurrency

Cryptocurrency - a form of digital asset which is based on a network that is distributed across a large number of computers and is secured by cryptography.

Cryptocurrency is issued or mined by players all over the world who compete to find a very complex solution to a computer generated mathematical problem.

The first computer to solve the problem is designated as the computer to open the next block in the blockchain – it is awarded a predetermined amount of digital currency.

POWERPOINT SLIDE

3

Blockchain

Blockchain - a system in which a record of transactions made in cryptocurrency are maintained across computers which are linked to each other in a peer-to-peer network

Digital resources are traded through blockchain - acts as a permanent ledger that records all digital currency transactions.

POWERPOINT SLIDE

4

Is cryptocurrency money?

Cryptocurrency may sometimes function as money but there are inherent limitations.

Cryptocurrencies are a form of asset - prices appear to exhibit bubble-like tendencies.

Cryptocurrency is only accepted as payment by some companies, which diminishes its value. The value of cryptocurrency highly fluctuates on a daily basis.

POWERPOINT SLIDE

5

Cryptocurrency in the future

The growth of cryptocurrency is obstacle-driven.

Adding a new digital element to the currency circulating throughout the economy enhances the existing network that is currently in place.

A new digital currency would improve transaction speed, efficiency throughout global banking systems, and replace much of the physical cash used today.

Currently available cryptocurrencies are assets, purchased by exchanging other assets, not issued by a sovereign body. They do not increase the money supply.

A government issued cryptocurrency could increase the money supply, subject to monetary policy and the Fed funds rate, but it would expand the functionality of digital currency in the economy.