THOMAS ADEWUNMI UNIVERSITY, OKO, KWARA STATE
Faculty of Management and Social Sciences
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RAIN SEMESTER LECTURE NOTE **2023/2024 Session**

COURSE INFO:

Course code:	**ECO 204**
Course title:	**Introductory Macroeconomics II**
Credit unit:	**2**

LECTURER INFO:

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TOPIC 1: EQUILIBRIUM LEVEL OF NATIONAL INCOME AND MULTIPLIER

Course Description: This course note explores the equilibrium level of national income and the concept of the multiplier, which are crucial in understanding the macroeconomic balance and the effects of changes in spending on overall economic activity. It covers the Keynesian Cross model, the multiplier effect, and their practical applications.

Objectives:

- Understand the concept and significance of the equilibrium level of national income.
- Learn about the multiplier effect and its economic implications.
- Apply the models to real-world economic scenarios.
- Interpret the results of equilibrium and multiplier calculations.

Course Outline:

1. Introduction to Equilibrium Level of National Income
    - Definition and Purpose
    - Key Concepts and Assumptions
2. The Keynesian Cross Model
    - Components and Equations
    - Derivation of Equilibrium Level of National Income
    - Graphical Representation
3. The Multiplier Effect
    - Definition and Purpose
    - Derivation and Equation
    - Implications and Examples
4. Practical Applications
    - Policy Implications
    - Real-World Examples
5. Criticisms and Limitations
    - Assumptions and Simplifications
    - Potential Limitations in Real-World Applications

Detailed Course Notes:

1. Introduction to Equilibrium Level of National Income

Definition and Purpose: The equilibrium level of national income is the point where aggregate demand (AD) equals aggregate supply (AS). It represents the level of income where planned spending equals actual output, resulting in a stable economic state.

Key Concepts and Assumptions:

- **Closed Economy**: Initially assume no international trade.
- **Fixed Prices**: Prices are constant in the short run.
- **No Government Intervention**: No taxes or government spending at first.

2. The Keynesian Cross Model

Components and Equations:

- **Aggregate Demand (AD)**: Total spending in the economy, $AD = C + I$
- **Consumption Function (C)**: $C = a + bY$
  - a: Autonomous consumption
  - b: Marginal propensity to consume (MPC)
  - Y: National income

Derivation of Equilibrium Level of National Income:

The equilibrium condition is:

$$Y = AD$$

$$Y = a + bY + I$$

Solving for Y:

$$Y - bY = a + I$$

$$Y(1 - b) = a + I$$

$$Y = \frac{a+I}{1-b}$$

Graphical Representation:

The equilibrium is illustrated using the Keynesian Cross diagram, where the 45-degree line (representing $Y = AD$) intersects with the aggregate demand line ($AD = a + bY + I$).

3. The Multiplier Effect

Definition and Purpose: The multiplier effect measures the change in national income resulting from an initial change in autonomous spending. It illustrates the amplified impact of spending changes on the overall economy.

Derivation and Equation:

- **Marginal Propensity to Consume (MPC)**: Fraction of additional income spent on consumption.
- **Multiplier (k)**: $k = \frac{1}{1-MPC}$

If autonomous spending changes by ΔA, the change in national income ΔY is:

$$\Delta Y = k \cdot \Delta A$$
$$\Delta Y = \frac{1}{1-MPC} \cdot \Delta A$$

Implications and Examples:

- A higher MPC results in a larger multiplier, indicating a greater impact on national income from changes in spending.
- Example: If MPC is 0.8 and investment increases by $100 million, the change in national income is:

  $$k = \frac{1}{1-0.8} = 5$$
  $$\Delta Y = 5 \cdot 100 = 500 \text{ million}$$

4. Practical Applications

Policy Implications: Understanding the multiplier effect helps policymakers gauge the potential impact of fiscal policies like government spending and tax cuts.

Real-World Examples:

- Economic Stimulus: Governments use the multiplier effect to predict the impact of stimulus packages on national income.
- Recessions: During economic downturns, increased government spending can leverage the multiplier to boost economic activity.

5. Criticisms and Limitations

Assumptions and Simplifications:

- The closed economy assumption excludes international trade effects.
- Fixed prices assumption may not hold in the long run.
- Ignores government intervention initially, which is unrealistic in most economies.

Potential Limitations in Real-World Applications:

- Supply-side constraints can limit the effectiveness of the multiplier.
- Inflationary pressures can erode the real impact of increased spending.

- Variations in MPC across different income groups and economic contexts.

Recommended Readings:

- "Macroeconomics" by Olivier Blanchard and David R. Johnson
- "Principles of Economics" by N. Gregory Mankiw
- "Economics" by Paul A. Samuelson and William D. Nordhaus

TOPIC 2: THEORIES OF CONSUMPTION

Course Description:

This course note covers the various theories of consumption, which are crucial for understanding how households decide to spend their income. It explores different models that explain consumption patterns, including the Keynesian Consumption Function, the Life-Cycle Hypothesis, the Permanent Income Hypothesis, and the Relative Income Hypothesis.

Objectives:

- Understand the concept and importance of consumption in macroeconomics.
- Learn different theories of consumption and their implications.
- Analyze the mathematical formulations and assumptions of each theory.
- Evaluate the criticisms and practical applications of consumption theories.

Course Outline:

1. Introduction to Consumption Theories
    - Definition and Importance
    - Overview of Major Theories
2. The Keynesian Consumption Function
    - Assumptions
    - Core Propositions
    - Equation and Model
    - Criticisms
    - Practical Application
3. The Life-Cycle Hypothesis
    - Assumptions
    - Core Propositions
    - Equation and Model
    - Criticisms
    - Practical Application
4. The Permanent Income Hypothesis
    - Assumptions

- Core Propositions
- Equation and Model
- Criticisms
- Practical Application

5. The Relative Income Hypothesis
    - Assumptions
    - Core Propositions
    - Equation and Model
    - Criticisms
    - Practical Application
6. Comparison of Consumption Theories
    - Strengths and Weaknesses
    - Empirical Evidence
    - Policy Implications

Detailed Course Notes:

1. Introduction to Consumption Theories

Definition and Importance:

Consumption theories explore how individuals and households decide to spend their income on goods and services. Consumption is a major component of aggregate demand, influencing economic growth, inflation, and employment levels.

Overview of Major Theories:

- **Keynesian Consumption Function**
- **Life-Cycle Hypothesis (LCH)**
- **Permanent Income Hypothesis (PIH)**
- **Relative Income Hypothesis (RIH)**

2. The Keynesian Consumption Function

Assumptions:

- Consumption is primarily a function of current disposable income.
- Marginal propensity to consume (MPC) is constant but less than one.

Core Propositions:

- Consumption increases as disposable income increases.
- There is a stable relationship between income and consumption.

Equation and Model:

$C = a + bY_d$

Where:

- C is consumption.
- a is autonomous consumption (consumption when income is zero).
- b is the marginal propensity to consume (MPC).
- Y_d is disposable income.

Criticisms:

- Overemphasis on current income without considering future income expectations.
- Does not account for wealth effects or interest rates.

Practical Application:

Used in Keynesian economic models to predict consumption behavior and design fiscal policies.

3. The Life-Cycle Hypothesis (LCH)

Assumptions:

- Individuals plan their consumption and savings behavior over their lifetime.
- Consumption depends on lifetime income, not just current income.

Core Propositions:

- Individuals save during their working years and dissave during retirement.
- Consumption smoothing: individuals aim to maintain a stable consumption level throughout their lives.

Equation and Model:

$$C = \frac{1}{T}\left(W + \sum_{t=1}^{T} Y_t\right)$$

Where:

- C is consumption.
- T is the number of periods (lifetime).
- W is initial wealth.
- Y_t is income in each period t.

Criticisms:

- Assumes perfect foresight and rational behavior.
- Ignores liquidity constraints and uncertainty.

Practical Application:

Provides insights into savings behavior and retirement planning.

4. The Permanent Income Hypothesis (PIH)

Assumptions:

- Individuals base consumption on expected lifetime income (permanent income) rather than current income.
- Consumption is less sensitive to short-term income fluctuations.

Core Propositions:

- Consumption depends on permanent income, which is the average income expected over time.
- Transitory income changes have a minimal impact on consumption.

Equation and Model:

$C_t = \alpha Y_t^P$

Where:

- C_t is consumption in period t.
- Y_t^P is permanent income in period t.
- α is a constant reflecting the proportion of permanent income spent on consumption.

Criticisms:

- Assumes individuals have perfect information about their future income.
- Does not account for credit constraints or precautionary savings.

Practical Application:

Used to analyze the effects of tax changes and temporary income variations on consumption.

5. The Relative Income Hypothesis (RIH)

Assumptions:

- Individuals' consumption is influenced by their income relative to others (social comparisons).
- Consumption patterns are affected by past consumption levels.

Core Propositions:

- Consumption depends on relative income rather than absolute income.
- Demonstrates a "keeping up with the Joneses" effect.

Equation and Model:

$C = \alpha Y + \beta Y_R$

Where:

- C is consumption.
- Y is current income.
- Y_R is relative income.
- α and β are constants.

Criticisms:

- Difficult to quantify relative income effects.
- Social and psychological factors are challenging to model.

Practical Application:

Explains consumer behavior in different socioeconomic contexts and the impact of income inequality on consumption.

6. Comparison of Consumption Theories

Strengths and Weaknesses:

- Keynesian: Simple, but too dependent on current income.
- LCH: Comprehensive, but assumes rational planning.
- PIH: Considers future income, but assumes perfect foresight.
- RIH: Accounts for social influences, but difficult to quantify.

Empirical Evidence:

- Varies by theory and context; generally supports the notion that both current and future income expectations influence consumption.

Policy Implications:

- Consumption theories guide fiscal and monetary policies aimed at stabilizing and stimulating the economy.

Recommended Readings:

- Mankiw, N. G. (2019). *Macroeconomics*. Worth Publishers.
- Romer, D. (2012). *Advanced Macroeconomics*. McGraw-Hill Education.
- Friedman, M. (1957). *A Theory of the Consumption Function*. Princeton University Press.

TOPIC 3: DEMAND AND SUPPLY OF MONEY

Course Description:

This course note explores the concepts of the demand and supply of money, which are fundamental to understanding monetary policy and its impact on the economy. It covers the determinants of money demand and supply, the role of central banks, and the equilibrium in the money market.

Objectives:

- Understand the concept and significance of the demand and supply of money.
- Learn the determinants of money demand and money supply.
- Analyze the role of central banks in controlling the money supply.
- Evaluate the equilibrium in the money market and its implications for interest rates and economic activity.

Course Outline:

1. Introduction to Money
    - Definition and Functions of Money
    - Types of Money
2. Demand for Money
    - Concept and Importance
    - Theories of Money Demand
        - The Quantity Theory of Money
        - Keynesian Theory of Money Demand
        - Baumol-Tobin Model
        - Friedman's Modern Quantity Theory
    - Determinants of Money Demand
3. Supply of Money
    - Concept and Importance
    - Role of Central Banks
    - Tools of Monetary Policy
        - Open Market Operations
        - Discount Rate

        - Reserve Requirements
    - Money Multiplier and the Creation of Money
4. Equilibrium in the Money Market
    - Money Market Equilibrium
    - Interest Rates and Money Market
    - Shifts in Money Demand and Supply
    - Implications for Monetary Policy
5. Case Studies and Real-World Applications
    - Historical Examples of Monetary Policy
    - Recent Trends in Central Banking and Money Supply Control

Detailed Course Notes:

1. Introduction to Money

Definition and Functions of Money:

- **Money**: Anything that is widely accepted in exchange for goods and services or for the repayment of debts.
- **Functions**:
    - Medium of Exchange
    - Unit of Account
    - Store of Value
    - Standard of Deferred Payment

Types of Money:

- **Commodity Money**: Money that has intrinsic value (e.g., gold, silver).
- **Fiat Money**: Money that has value because of government decree (e.g., paper currency).
- **Bank Money**: Money created by commercial banks through the lending process.

2. Demand for Money

Concept and Importance:

The demand for money refers to the desire to hold cash or bank deposits rather than investing in assets that offer a return. It is crucial for understanding liquidity preferences and the functioning of monetary policy.

Theories of Money Demand:

The Quantity Theory of Money:

MV=PYMV = PYMV=PY Where:

- MMM = Money supply
- VVV = Velocity of money
- PPP = Price level
- YYY = Real output

Keynesian Theory of Money Demand:

- **Transaction Motive**: Money needed for day-to-day transactions.
- **Precautionary Motive**: Money held for unexpected expenses.
- **Speculative Motive**: Money held to take advantage of future investment opportunities.

Baumol-Tobin Model:

- Explains the trade-off between holding money and the interest income forgone from holding bonds.

Friedman's Modern Quantity Theory:

- Emphasizes the role of permanent income rather than current income in determining money demand.

Determinants of Money Demand:

- Interest Rates
- Income Levels
- Price Levels
- Financial Innovations

3. Supply of Money

Concept and Importance:

The money supply is the total amount of monetary assets available in an economy at a specific time, crucial for controlling inflation and stabilizing the economy.

Role of Central Banks:

- Central banks control the money supply through monetary policy to achieve macroeconomic objectives such as controlling inflation, managing employment levels, and stabilizing the financial system.

Tools of Monetary Policy:

Open Market Operations:

- Buying and selling government securities to influence the level of bank reserves and the money supply.

Discount Rate:

- The interest rate charged by central banks on loans to commercial banks.

Reserve Requirements:

- The minimum reserves each bank must hold to customer deposits and notes.

Money Multiplier and the Creation of Money:

Money Multiplier=1Reserve Ratio\text{Money Multiplier} = \frac{1}{\text{Reserve Ratio}}Money Multiplier=Reserve Ratio1

- Describes how an initial deposit can lead to a greater final increase in the total money supply.

4. Equilibrium in the Money Market

Money Market Equilibrium:

- Achieved when money demand equals money supply at the prevailing interest rate.

Interest Rates and Money Market:

- Interest rates adjust to equilibrate the demand for and supply of money.

Shifts in Money Demand and Supply:

- Factors causing shifts include changes in income, price levels, financial innovations, and central bank policies.

Implications for Monetary Policy:

- Central banks adjust the money supply to influence interest rates, control inflation, and stabilize the economy.

5. Case Studies and Real-World Applications

Historical Examples of Monetary Policy:

- The Great Depression
- The 2008 Financial Crisis

Recent Trends in Central Banking and Money Supply Control:

- Quantitative Easing

- Negative Interest Rates

Recommended Readings:

- Mankiw, N. G. (2019). *Macroeconomics*. Worth Publishers.
- Mishkin, F. S. (2018). *The Economics of Money, Banking, and Financial Markets*. Pearson.
- Friedman, M., & Schwartz, A. J. (1963). *A Monetary History of the United States, 1867-1960*. Princeton University Press.

TOPIC 4: AGGREGATE DEMAND AND SUPPLY WITH INFLATIONARY AND DEFLATIONARY GAP ANALYSIS

Course Description:

This course note delves into the concepts of aggregate demand (AD) and aggregate supply (AS), their determinants, and their implications for economic equilibrium. It also explores the concepts of inflationary and deflationary gaps and how they relate to the economy's output and price levels.

Objectives:

- Understand the concepts of aggregate demand and aggregate supply.
- Identify the determinants of AD and AS.
- Analyze economic equilibrium using the AD-AS model.
- Explore inflationary and deflationary gaps and their implications for the economy.
- Examine the role of fiscal and monetary policies in addressing these gaps.

Course Outline:

1. Introduction to Aggregate Demand and Aggregate Supply
    - Definition and Components of Aggregate Demand
    - Definition and Types of Aggregate Supply
2. The Aggregate Demand Curve
    - Derivation of the AD Curve
    - Factors Shifting the AD Curve
3. The Aggregate Supply Curve
    - Short-Run Aggregate Supply (SRAS)
    - Long-Run Aggregate Supply (LRAS)
    - Factors Shifting the SRAS and LRAS Curves
4. Macroeconomic Equilibrium
    - Equilibrium in the AD-AS Model
    - Short-Run and Long-Run Equilibrium
5. Inflationary and Deflationary Gaps
    - Definition and Analysis of Inflationary Gaps
    - Definition and Analysis of Deflationary Gaps

    - Causes and Consequences of These Gaps
6. Policy Interventions
    - Fiscal Policy Measures
    - Monetary Policy Measures
    - Case Studies and Real-World Applications

Detailed Course Notes:

1. Introduction to Aggregate Demand and Aggregate Supply

Definition and Components of Aggregate Demand:

- **Aggregate Demand (AD)**: The total quantity of goods and services demanded across all levels of an economy at a particular price level and in a given period.
    - Components:
        - Consumption (C)
        - Investment (I)
        - Government Spending (G)
        - Net Exports (NX) (Exports - Imports)

Definition and Types of Aggregate Supply:

- **Aggregate Supply (AS)**: The total quantity of goods and services that producers in an economy are willing and able to supply at a given overall price level in a given period.
    - **Short-Run Aggregate Supply (SRAS)**: The relationship between the quantity of goods and services firms are willing to produce and the price level, holding all else constant in the short run.
    - **Long-Run Aggregate Supply (LRAS)**: The relationship between the quantity of goods and services firms are willing to produce and the price level in the long run, where prices and wages are flexible.

2. The Aggregate Demand Curve

Derivation of the AD Curve:

- The AD curve shows the relationship between the overall price level and the quantity of goods and services demanded.
    - **Downward Slope Reasons**:
        - Wealth Effect
        - Interest Rate Effect

        - Exchange Rate Effect

Factors Shifting the AD Curve:

- Changes in Consumption
- Changes in Investment
- Changes in Government Spending
- Changes in Net Exports

3. The Aggregate Supply Curve

Short-Run Aggregate Supply (SRAS):

- The SRAS curve is upward sloping because nominal wages are sticky in the short run.
    - Factors affecting SRAS:
        - Input Prices
        - Productivity
        - Legal-Institutional Environment

Long-Run Aggregate Supply (LRAS):

- The LRAS curve is vertical at the full-employment level of output.
    - Factors affecting LRAS:
        - Resource Availability
        - Technology
        - Government Policies

4. Macroeconomic Equilibrium

Equilibrium in the AD-AS Model:

- **Short-Run Equilibrium**: Occurs where the AD curve intersects the SRAS curve.
- **Long-Run Equilibrium**: Occurs where the AD curve intersects the LRAS curve, indicating full employment.

Short-Run and Long-Run Equilibrium:

- Short-run equilibrium can result in inflationary or deflationary gaps.
- Long-run equilibrium adjusts as SRAS shifts to meet LRAS.

5. Inflationary and Deflationary Gaps

Definition and Analysis of Inflationary Gaps:

- **Inflationary Gap**: Occurs when aggregate demand exceeds aggregate supply at the full-employment level of output.
    - Results in upward pressure on prices (inflation).
    - Can be visualized as AD curve intersecting SRAS to the right of LRAS.

Definition and Analysis of Deflationary Gaps:

- **Deflationary Gap**: Occurs when aggregate demand is less than aggregate supply at the full-employment level of output.
    - Results in downward pressure on prices (deflation).
    - Can be visualized as AD curve intersecting SRAS to the left of LRAS.

Causes and Consequences of These Gaps:

- **Inflationary Gap Causes**:
    - Excessive consumer spending
    - Increased government spending
    - Surge in investments
    - Increased net exports
    - **Consequences**: Demand-pull inflation, overheating economy
- **Deflationary Gap Causes**:
    - Reduced consumer confidence
    - Decreased government spending
    - Decline in investments
    - Decreased net exports
    - **Consequences**: Unemployment, recession, downward price pressure

6. Policy Interventions

Fiscal Policy Measures:

- Government spending and tax policies to influence aggregate demand.
    - **Expansionary Fiscal Policy**: Increased government spending or decreased taxes to close a deflationary gap.
    - **Contractionary Fiscal Policy**: Decreased government spending or increased taxes to close an inflationary gap.

Monetary Policy Measures:

- Central bank actions to control the money supply and interest rates.
    - **Expansionary Monetary Policy**: Lowering interest rates or increasing money supply to stimulate demand.
    - **Contractionary Monetary Policy**: Raising interest rates or decreasing money supply to reduce demand.

Case Studies and Real-World Applications:

- Historical Examples of Policy Responses to Gaps
- Analysis of Recent Monetary and Fiscal Policies in Different Economies

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Recommended Readings:

- Mankiw, N. G. (2019). *Macroeconomics*. Worth Publishers.
- Blanchard, O. (2017). *Macroeconomics*. Pearson.
- Krugman, P., & Wells, R. (2018). *Macroeconomics*. Worth Publishers.

TOPIC 5: INTRODUCTION TO THE IS-LM MODEL

Course Description:

This course note introduces the IS-LM model, a fundamental macroeconomic tool used to analyze the interaction between the real economy (goods market) and the monetary economy (money market). It covers the derivation of the IS and LM curves, their determinants, and the equilibrium analysis within this framework.

Objectives:

- Understand the concepts and purpose of the IS-LM model.
- Learn how to derive the IS and LM curves.
- Analyze the interaction between the goods and money markets.
- Examine the effects of fiscal and monetary policies within the IS-LM framework.
- Apply the IS-LM model to real-world economic scenarios.

Course Outline:

1. Introduction to the IS-LM Model
    - Definition and Purpose
    - Historical Context and Development
2. The IS Curve
    - Derivation of the IS Curve
    - Factors Shifting the IS Curve
    - Interpretation of the IS Curve
3. The LM Curve
    - Derivation of the LM Curve
    - Factors Shifting the LM Curve
    - Interpretation of the LM Curve
4. Equilibrium in the IS-LM Model
    - Intersection of IS and LM Curves
    - Determination of Equilibrium Interest Rates and Output
5. Fiscal and Monetary Policies in the IS-LM Framework
    - Effects of Fiscal Policy

- Effects of Monetary Policy
- Policy Mix and Macroeconomic Outcomes

6. Real-World Applications and Case Studies
    - Historical Examples
    - Analysis of Recent Economic Policies

Detailed Course Notes:

1. Introduction to the IS-LM Model

Definition and Purpose:

- **IS-LM Model**: A macroeconomic model that represents the interaction between the goods market (Investment-Savings, IS) and the money market (Liquidity Preference-Money Supply, LM).
    - **Purpose**: To analyze the effects of fiscal and monetary policies on aggregate output (GDP) and interest rates.

Historical Context and Development:

- Developed by John Hicks and Alvin Hansen, building on Keynesian economics.
- Provides a framework for understanding short-run economic fluctuations.

2. The IS Curve

Derivation of the IS Curve:

- IS Curve: Represents equilibrium in the goods market, where investment equals savings.
    - Key Equation: $Y = C(Y - T) + I(r) + G + NX$
        - Y: National income/output
        - C: Consumption
        - T: Taxes
        - I: Investment
        - r: Interest rate
        - G: Government spending
        - NX: Net exports

Factors Shifting the IS Curve:

- **Fiscal Policy**: Changes in government spending (G) and taxes (T).
- **Investment Changes**: Variations in business confidence and investment.
- **External Factors**: Changes in net exports (NX).

Interpretation of the IS Curve:

- Downward sloping: Higher interest rates lead to lower investment and thus lower aggregate demand and output.

3. The LM Curve

Derivation of the LM Curve:

- **LM Curve**: Represents equilibrium in the money market, where money demand equals money supply.
  - **Key Equation**: $M/P = L(Y, r)$
    - M: Nominal money supply
    - P: Price level
    - L: Liquidity preference (money demand)

Factors Shifting the LM Curve:

- **Monetary Policy**: Changes in the money supply (M).
- **Price Level Changes**: Variations in the price level (P).

Interpretation of the LM Curve:

- Upward sloping: Higher levels of income increase the demand for money, leading to higher interest rates.

4. Equilibrium in the IS-LM Model

Intersection of IS and LM Curves:

- **Equilibrium Point**: Where the IS curve intersects the LM curve, determining the equilibrium levels of output (Y) and interest rates (r).

Determination of Equilibrium Interest Rates and Output:

- The intersection point represents the simultaneous equilibrium in both the goods and money markets.

5. Fiscal and Monetary Policies in the IS-LM Framework

Effects of Fiscal Policy:

- **Expansionary Fiscal Policy**: Increases in government spending (G) or decreases in taxes (T) shift the IS curve to the right, increasing output and interest rates.
- **Contractionary Fiscal Policy**: Decreases in government spending (G) or increases in taxes (T) shift the IS curve to the left, decreasing output and interest rates.

Effects of Monetary Policy:

- **Expansionary Monetary Policy**: Increases in the money supply (M) shift the LM curve to the right, decreasing interest rates and increasing output.
- **Contractionary Monetary Policy**: Decreases in the money supply (M) shift the LM curve to the left, increasing interest rates and decreasing output.

Policy Mix and Macroeconomic Outcomes:

- The combined effects of fiscal and monetary policies can be analyzed using the IS-LM model to determine the overall impact on the economy.

6. Real-World Applications and Case Studies

Historical Examples:

- Analysis of the Great Depression and New Deal policies.
- Examination of post-2008 financial crisis policies.

Analysis of Recent Economic Policies:

- Evaluation of recent fiscal and monetary policies in response to economic recessions or booms.

Recommended Readings:

- Mankiw, N. G. (2019). *Macroeconomics*. Worth Publishers.
- Blanchard, O. (2017). *Macroeconomics*. Pearson.
- Krugman, P., & Wells, R. (2018). *Macroeconomics*. Worth Publishers.