What is monetary economics?

Monetary economics :analyzes the relationship between real and nominal variables.

Real variables	Nominal variables
Real GDP	Nominal interest rate
Real interest rate	Nominal wages
Real wages	Nominal exchange rate
Real exchange rate	Inflation
Unemployment	Money supply

What is Monetary Policy?

Monetary policy is an economic policy that manages the size and growth rate of the money supply in an economy. It is a powerful tool to regulate macroeconomic variables such as inflation and unemployment.

Objectives of Monetary Policy

The primary objectives of monetary policies are the management of inflation or unemployment, and maintenance of currency exchange rates.

1. Inflation

Monetary policies can target inflation levels. A low level of inflation is considered to be healthy for the economy

2. Unemployment

Monetary policies can influence the level of unemployment in the economy. For example, an expansionary monetary policy generally decreases unemployment because the higher money supply stimulates business activities that lead to the expansion of the job market.

3. Currency exchange rates

Using its fiscal authority, a central bank can regulate the exchange rates between domestic and foreign currencies. For example, the central bank may increase the money supply by issuing more currency. In such a case, the domestic currency becomes cheaper relative to its foreign counterparts.

Q: What are the transmission mechanisms of monetary policy (nominal interest rate changes)?

Households (substitution, income, wealth, cash-flow)

Expectations

Firms (financing costs / expectations)

Exchange rates I Financial (financial accelerator / credit channel)

And possibly other channels.

In addition: unconventional monetary policy

Types of Monetary Policies

What Are the Two Types of Monetary Policy?

Broadly speaking, monetary policies can be categorized as either expansionary or contractionary:

1-Expansionary Monetary Policy

If a country is facing high unemployment due to a slowdown or a recession, the monetary authority can opt for an expansionary policy aimed at increasing economic growth and expanding economic activity.

2-Contractionary Monetary Policy

A contractionary monetary policy increases interest rates in order to slow the growth of the money supply and bring down inflation.

This can slow economic growth and even increase unemployment but is often seen as necessary to cool down the economy and keep prices in check.

Tools of Monetary Policy

Central banks use various tools to implement monetary policies. The widely utilized policy tools include:

1. Interest rate adjustment

A central bank can influence interest rates by changing the discount rate. The discount rate (base rate) is an interest rate charged by a central bank to banks for short-term loans. For example, if a central bank increases the discount rate, the cost of borrowing for the banks increases. Subsequently, the banks will increase the interest rate they charge their customers. Thus, the cost of borrowing in the economy will increase, and the money supply will decrease.

2. Change reserve requirements

Central banks usually set up the minimum amount of reserves that must be held by a commercial bank. By changing the required amount, the central bank can influence the money supply in the economy. If monetary authorities increase the required reserve amount, commercial banks find less money available to lend to their clients and thus, money supply decreases.

Commercial banks can't use the reserves to make loans or fund investments into new businesses. Since it constitutes a lost opportunity for the commercial banks, central banks pay them interest on the reserves. The interest is known as IOR or IORR (interest on reserves or interest on required reserves).

3. Open market operations

The central bank can either purchase or sell securities issued by the government to affect the money supply. For example, central banks can purchase government bonds. As a result, banks will obtain more money to increase the lending and money supply in the economy.

4-**Unconventional monetary policy** has also gained popularity in recent times. During periods of extreme economic turmoil, such as the financial crisis of 2008, the U.S. Fed loaded its balance sheet with trillions of dollars in treasury notes and mortgage-backed securities (MBS), introducing new lending and asset-purchase programs that combined aspects of discount lending, open market operations, and QE. Monetary authorities of other leading economies across the globe followed suit.

5-**Central banks have a powerful tool in their ability to shape market expectations by their public announcements about possible future policies.** Central bank statements and policy announcements move markets, and investors who guess right about what the central banks will do can profit handsomely.

Fiscal Policy:

What Is Fiscal Policy?

Fiscal policy refers to the use of government spending and tax policies to influence economic conditions, specially macroeconomic conditions, including aggregate demand for goods and services, employment, inflation, and economic growth.

The government has two levers when setting fiscal policy:

1. Change the level and composition of taxation, and/or
2. Change the level of spending in various sectors of the economy.

What are the tools of fiscal policy?

There are two key tools of the fiscal policy:

1-Taxation: Funds in the form of direct and indirect taxes, capital gains from investment, etc, help the government function. Taxes affect the consumer's income and changes in consumption lead to changes in real gross domestic product (GDP).

2-Government spending: It includes welfare programmes, government salaries, subsidies, infrastructure, etc. Government spending has the power to raise or lower real GDP, hence it is included as a fiscal policy tool.

Fiscal policy objectives

Some of the key objectives of fiscal policy are :

- economic stability.
- price stability.
- full employment.
- optimum allocation of resources.
- accelerating the rate of economic development.
- encouraging investment.
- capital formation and growth.

There are three main types of fiscal policy:

1. **Neutral:** This type of policy is usually undertaken when an economy is in equilibrium. In this instance, government spending is fully funded by tax revenue, which has a neutral effect on the level of economic activity.
2. **Expansionary:** This type of policy is usually undertaken during recessions to increase the level of economic activity. In this instance, the government spends more money than it collects in taxes.
3. **Contractionary:** This type of policy is undertaken to pay down government debt and to cap inflation. In this case, government spending is lower than tax revenue.

In times of recession, Keynesian economics suggests that increasing government spending and decreasing tax rates is the best way to stimulate aggregate demand. Keynesians argue that this approach should be used in times of recession or low economic activity as an essential tool for building the foundation for strong economic growth and working towards full employment. In theory, the resulting deficit would be paid for by an expanded economy during the boom that would follow.

In times of economic boom, Keynesian theory posits that removing spending from the economy will reduce levels of aggregate demand and contract the economy, thus stabilizing prices when inflation is too high.

Types of fiscal policy:

Expansionary Versus Contractionary Fiscal Policy

When the economy is producing less than potential output, expansionary fiscal policy can be used to employ idle resources and boost output.

- Expansionary Policies: Policies that try to increase the output of the economy
- Contractionary Policies: Policies that try to decrease the output of the economy

Expansionary Policies:

• During a contraction or recession, the government can do two things:

1. Decrease Taxes

2-Increase Spending

Contractionary Policies:

-During a period of excessive inflation (during a period of expansion), the government can do two things:

1. Increase Taxes.

2-Decrease Spending.

What is the importance of fiscal policy?

1-Fiscal policy is a crucial part of the economic framework. It plays a key role in elevating the rate of capital formation, both in the public and private sectors.

2-The fiscal policy helps mobilize resources for financing projects.
3-Fiscal policy aims to minimize income and wealth inequalities.
4-A prudent fiscal policy stabilizes price and helps control inflation.
5-Fiscal policy planning gives the larger piece balance of payment.

Fiscal vs. Monetary policy

Fiscal policy	Monetary policy
Change in government spending and tax rates	Change in interest rates/money supply
Set by the government	Set by central bank
No specific target	Target inflation
Side effect on government budget/borrowing	Side effect on exchange rate and housing market
Strong political dimension to change tax rate	Mostly independent from the political process

Economic Growth:

Economic growth depends on many factors. Main among those factors is adherence to:

1- The rule of law. 2- Protection of property rights.

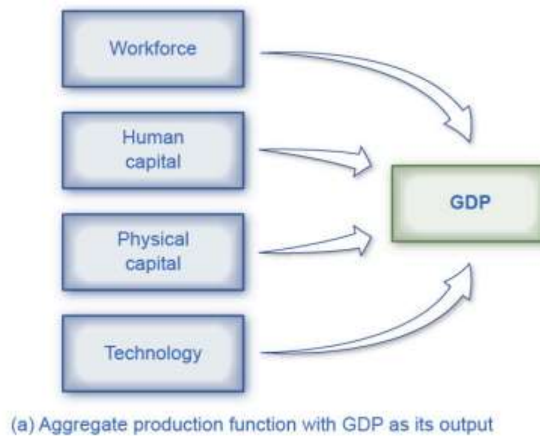
3- Contractual rights.

Laws must be: 1- clear, 2- public, 3- fair, 4- enforced, and 5- equally applicable to all members of society.

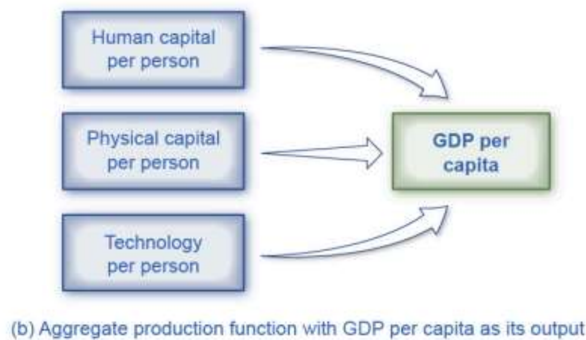
- **Sources of Economic Growth: The Aggregate Production Function**

To analyze the sources of economic growth, it is useful to think about a production function, which is the technical relationship by which economic inputs like labor, machinery, and raw materials are turned into outputs like goods and services that consumers use. A microeconomic production function describes a firm's or perhaps an industry's inputs and outputs.

In macroeconomics, we call the connection from inputs to outputs for the entire economy an aggregate production function. Components of the Aggregate Production Function include:



(a) Aggregate production function with GDP as its output



(b) Aggregate production function with GDP per capita as its output

FIGURE 7.2 Aggregate Production Functions An aggregate production function shows what goes into producing the output for an overall economy. (a) This aggregate production function has GDP as its output. (b) This aggregate production function has GDP per capita as its output. Because we calculate it on a per-person basis, we already figure the labor input into the other factors and we do not need to list it separately.

Benefits:

- 1-Increase in goods available for consumption.
- 2-Facilities income redistribution.
- 3-Increasing in general standard of living .
- 4-Improvement in welfare.
- 5-improvement in education/health social services.
- 6-Potential for benefits to environment from increased efficiency.

Costs:

- Economic growth can bring with it costs:
  - Not all income distributed equally.
  - Wealth often in the hands of a few.
  - 'Trickle down' does not always seem to work in practice.
  - Corruption may reduce redistribution effects.
  - Growth funded in part by spending on weapons which do not benefit the population as a whole.

Economic Growth vs. Economic Development

Economic Growth	Economic Development
Definition	
It refers to the increase in the monetary growth of a nation in a particular period	It refers to the overall development of the quality of life in a nation, which includes economic growth.
Span of Concept	
It is a narrower concept than that of economic development	It is a broader concept than that of economic growth.
Scope	
It is a uni-dimensional approach that	It is a multi-dimensional approach that

deals with the economic growth of a nation.	looks into the income as well as the quality of life of a nation.
Term	
Short-term process	Long-term process
Measurement	
Quantitative	Both quantitative and qualitative
Applicable to	
Developed economies	Developing economies
Government Support	
It is an automatic process that may or may not require intervention from the government	It requires intervention from the government as all the developmental policies are formed by the government
Kind of changes expected	
Quantitative changes	Quantitative as well as qualitative changes
Examples	
GDP, GNP	HDI, per capita Income, industrial development