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MACRO ECONOMICS II

By

Mr. Ravinder Sharma

Assistant Professor

Teerthanker Mahaveer College of Law & Legal Studies

Teerthanker Mahaveer University, Moradabad, Uttar Pradesh



MACROECONOMICS 1

1 message

Ravinder Sharma <ravinder.law@tmu.ac.in>
To: Ravinder Sharma <ravinder.law@tmu.ac.in>

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UNIT 1
CLASSICAL ECONOMICS.

What is Classical Economics?

Classical economics is known as classical political economics. Classical economics refers to the school of thought of economics that originated in the late 18th and early 19th centuries, especially in Britain. It focused on economic growth and economic freedom, advocating laissez-faire ideas and belief in free competition.

The classical economic theory propagated the countries to move from the monarch rule to a capitalistic democracy factored with self-regulation.

Understanding the Working of Classical Economics

In general, it is believed that 'The Wealth of Nations' by Adam Smith published in 1776 marked the beginning of classical economics. The underlying argument in Smith's book was that the national income of the kingdom was the basis for calculating its wealth and not the gold in the treasury. This revenue, in turn, was based on the work of its inhabitants, efficiently coordinated by the division of labour and the use of capital reserves, favoured by one of the classical economists.

The classical economists were pragmatic liberals in terms of economic policy promoting market freedom, while they saw the state play a role in providing for the common good.

Smith admitted that there were ways in which the market is not the safest way to serve the common interest, and he took it as a given that those who are better able to afford them would bear the higher proportion of the costs serving the common good. He always warned of the dangers of monopoly and emphasized the importance of competition.

Believers in classical economics were not unified in their views or market understanding, although there were common themes in most classical literature. Majority of them favoured free trade and competition among workers and businesses. Classical economists wanted to move away from a class-based social structure in support of meritocracies.

Uses of Classical Economics

The revelations made under this school of economics focused free trade, and a theory called the 'invisible hand' being the highlight at the beginning stages of domestic and international supply and demand.

The theory states that the double and competing forces of both the demand-side and supply-side move the market to achieve equilibrium between the price and production equilibrium. Smith's studies helped support domestic trade and led to more productive and reasonable pricing in the product markets based on supply and demand.

The Fall of Classical Economics

By the 1880s and 1890s, Adam Smith's classical economics had significantly evolved and changed. But its essence remained intact. By this time, a German philosopher named Karl Marx had gained limelight for his works that criticized the classical school's policy prescriptions. Marxian economics did, however, make very few enduring contributions to economic

AS WE KNOW THAT ACCORDING TO CLASSICAL ECONOMICS DEMAND FOR LABOUR DEPENDS ON MARGINAL PHYSICAL PRODUCTIVITY OF LABOUR .

BUT AS THE DEMAND FOR LABOUR INCREASES THE MARGINAL PHYSICAL PRODUCTIVITY DECREASES.

ACCORDING TO CLASSICAL ECONOMICS DEMAND FOR LABOUR IS RELATED WITH REAL WAGES . AS REAL WAGES DECREASES DEMAND FOR LABOUR INCREASES.

TWO MAIN COMPONENTS OF CLASSICAL THEORY :

- 1 . SAYS LAW.
- 2. FLEXIBILITY IN WAGE AND PRICE DETERMINATION.

1. CLASSICAL THEORY AND ITS RELATION WITH SAYS LAW

ACCORDING TO CLASSICAL ECONOMIST THERE ALWAYS EXIST FULL EMPLOYMENT IN THE ECONOMY . CLASSICAL THEORY IS BASED ON SAYS LAW OF MARKET .

THE BELIEF OF CLASSICAL THEORY REGARDING THE EXISTENCE OF FULL EMPLOYMENT IN THE ECONOMY IS BASED ON SAYS LAW OF MARKET PUT FORWARD BY A FRENCH ECONOMIST, J.B.SAY. ACCORDING TO SAYS LAW , "SUPPLY CREATES ITS OWN DEMAND " .

AGGREGATE DEMAND AND SUPPLY

AGGREGATE DEMAND IS THE TOTAL DESIRED QUANTITY OF GOODS AND SERVICES THAT ARE BOUGHT BY CONSUMER HOUSE HOLDS, PRIVATE INVESTORS, GOVERNMENT AND FOREIGNERS AT EACH POSSIBLE PRICE LEVEL.

AGGREGATE SUPPLY SHOWS THE VARIOUS AMOUNTS OF AGGREGATE OUTPUT WHICH THE PRODUCERS IN THE ECONOMY ARE WILLING TO PRODUCE AND SELL.

IN TWO SECTOR ECONOMY AD= CONSUMPTION + INVESTMENT.

What is Investment Multiplier?

The term Investment Multiplier is an important contribution made by Prof. J.M. Keynes. Keynes felt that an initial rise in investment multiplies overall income by a large factor. The relationship between an initial increase in investment and the subsequent rise in total revenue is expressed by the multiplier. In reality, it has been seen that when investments are increased by a particular amount, the change in income does not only reflect the initial investment's value but also increases by several times. In other words, a multiple of a change in investment equals a change in income. A multiplier explains how many times an increase in investment causes an increase in national income.

Hence, Multiplier (k) is the ratio of an increase in national income (ΔY) due to an increase in investment (ΔI).

Assume that an extra ₹5,000 crores of investment (ΔI) in an economy result in extra ₹20,000 crores of income (ΔY). In this scenario, multiplier (k) will have the value:

$$= 4$$

It indicates that a single increase in investment resulted in a 4 times increase in income.

Multiplier and MPC

MPC and multiplier value are directly related to one another. The value of the multiplier increases with an increase in MPC, and vice versa. The concept of multiplier was developed based on the view that the expense of one person is another person's income. The increase in investment raises the income of the people, a portion of which is used by people for consumption. The value of MPC; however, determines how much of the new income is to be spent on consumption. People will spend a large portion of their increased income on consumption in the case of higher MPC. The multiplier's value will be higher in such a situation. However, people will spend a smaller percentage of their increased income on consumption when the MPC is low. It means that the MPC determines the value of multiplier.

Algebraic relationship between Multiplier and MPC

0

The following method can be used to derive the algebraic relationship between Multiplier and MPC. We already know that:

$$Y = C + I$$

This means that any change in income (ΔY) will therefore equal ($\Delta C + \Delta I$).

$$\Delta Y = \Delta C + \Delta I$$

Dividing both sides by ΔY :

OR

Multiplier (k) in terms of MPS

Also, $1 - MPC = MPS$

So,

Multiplier is directly related to MPC and inversely related to MPS

The multiplier's value is based on the marginal propensity to consume. In other words, when MPC is higher, multiplier (k) is higher, and vice versa. On the contrary, the higher the MPS, the lower will be the multiplier value and vice versa. It can be clearly understood with the help of the following table:

MPC	MPS
(1-MPC)	
0	1
0.60	0.40
0.67	0.33
0.72	0.28
1	0

The above table clearly shows that the multiplier has a direct relationship with MPC and an inverse relationship with MPS.

Maximum value of the Multiplier

From the above table, it can be seen that when the MPC value is 1, the multiplier can have a maximum value of infinite. $MPC = 1$ shows that the economy has decided to spend the entire increased income and has decided to retain not even a small part of its increased income. Consumption expenditures will continue to rise, and the multiplier's value will be infinite.

Proof:

When $MPC = 1$, then:

$$k = \infty$$

Minimum value of the Multiplier

From the above table, it can be seen that when the MPC value is zero, the multiplier's minimum value is one. When the MPC value is zero, the economy has decided to save all additional income and has made no consumption expenditures. Hence, there will be no further growth in income. As a result, $\Delta Y = \Delta I$, or the overall rise in income (ΔY) will equal the total increase in investment (ΔI). In this case, the multiplier's value is 1.

Proof:

When MPC = 0, then:

$k = 1$

Working of Multiplier

The principle of One person's expenditure equals another person's income explains how multiplier works. When you make an additional investment, your income rises many times faster than your investment. This can be understood with the help of an example:

AGGREGATE SUPPLY

AGGREGATE SUPPLY CURVE IS DIFFERENT IN DIFFERENT ECONOMIC THINKINGS.

IN CLASSICAL ECONOMICS IT IS VERTICAL IN SHAPE AS THEY ASSUME FULL EMPLOYMENT IN THE ECONOMY SO CHANGE IN RESOURCES ONLY RESULT IN INCREASES IN PRICE LEVEL.

IN KEYNESIAN ECONOMY IT IS HORIZONTAL IN NATURE BECAUSE HE ASSUMED ECONOMY IN DEPRESSION SO INCREASES IN RESOURCES RESULTS IN INCREASES IN OUTPUT LEVEL BUT PRICE REMAINS SAME.

Consider that a ₹200 crore (ΔI) additional investment is made to build a road. This additional investment will result in an additional ₹200 crores in revenue in the first round.

If MPC is taken to be 0.80, then those receiving this increased income will spend ₹160 crores, or 80% of ₹200 crores, on consumption, and the remaining amount will be saved. The second round will increase the revenue by ₹160 crores.

In the next round, 80% of the extra income of ₹160 crores, or ₹128 crores, will be spent on consumption, with the remaining amount saved.

The multiplier process will continue, and every round's consumer expenditure will be equal to 0.80 times the extra income earned in the previous round.

To better understand this process, consider the table given below:

It can be concluded that an initial investment of ₹200 crores has resulted in a total increase of ₹1,000 crores in income.

Thus, the multiplier will be,

$k = 5$

Diagrammatic Presentation of Multiplier

The AD and AS approach can also be used to graphically represent the multiplier. In the above graph, the X-axis represents income, and the Y-axis represents Aggregate Demand. Assume that the initial equilibrium is established at point E, where the AD curve and AS curve intersect. OY is the equilibrium level of income. Assume that investment rises by ΔI , causing the new Aggregate Demand curve (AD1) to cross the Aggregate Supply curve (AS) at point 'F'. As a result, OY1 is the new equilibrium level of income. Due

What is the Rational Expectations Theory?

Rational expectations theory posits that individuals form expectations about the future based on all available information and analyze it rationally.

It suggests that people make predictions and decisions by considering the economic environment, market conditions, and their own experiences.

According to Robert Lucas, individuals are forward-looking and adjust their behaviour in response to anticipated future events.

Implications of Rational Expectations:

Rational expectations have significant implications for macroeconomic policy and economic outcomes.

It challenges traditional Keynesian theories that assume individuals have limited foresight or base decisions on outdated information.

The theory suggests that government policies, such as fiscal and monetary measures, may not have the desired impact if they are predictable and people have rational expectations about their consequences.

Efficient Market Hypothesis:

The rational expectations theory is closely related to the efficient market hypothesis (EMH).

EMH posits that financial markets quickly and accurately reflect all available information, making it impossible to consistently outperform the market by trading on public information.

Lucas's rational expectations theory provides a foundation for the EMH, suggesting that individuals incorporate all relevant information into their expectations, leading to efficient market outcomes.

Robert Lucas

Robert Emerson Lucas Jr. was born on September 15, 1937, in Yakima, Washington, USA.

He received his education at the University of Chicago, where he later became a professor.

Lucas was awarded the Nobel Prize in Economic Sciences in 1995 for his work on macroeconomic theory and rational expectations.

Rational Expectations Theory Criticisms and Limitations

While rational expectations theory has been influential, it has faced some criticisms and limitations.

Critics argue that individuals may have bounded rationality and limited access to information, making their expectations less than fully rational.

Additionally, the theory assumes that individuals have complete knowledge of the underlying economic model, which may not always be realistic.

Rational Expectations Theory: Policy Implications

The rational expectations theory has influenced policymakers to consider the impact of expectations on economic outcomes.

It emphasizes the importance of transparency, credibility, and clear communication of policy decisions to avoid unexpected effects on market behaviour.

Conclusion:

Robert Lucas's rational expectations theory is a way economists understand economic decision-making. By recognizing the forward-looking behaviour of individuals and their ability to form rational expectations, this theory has challenged traditional economic models and influenced policy formulation.

GROWTH AND DEVELOPMENT

Economic growth can be defined as an increase in the value of goods and services produced in an economy over a period of time. This value calculation is done in terms of % increase in GDP or Gross Domestic Product.

Economic growth is calculated in real terms where the effects of variation in the value of goods and services due to inflation distortion are also accounted

Factors influencing Economic Growth

1. Human resources – this is a major factor that is responsible for boosting the economic growth of a country. The rate of increase in the skills and capabilities of a workforce ultimately increases the economic growth of a country.
2. Infrastructure development- Improvements and increased investment in physical capital such as roadways, machinery, and factories will increase the efficiency of economic output by reducing the cost.
3. Planned utilization of natural resources – Proper use of available natural resources like mineral deposits helps boost the productivity of the economy.
4. Population growth – An increase in the growth of the population will result in the availability of more human resources which in turn will increase the output in terms of quantity. This is also an important factor that influences economic growth.
5. Advancement in technology – Improvement in technology will affect the economic growth of a country positively. The application of advanced technology will result in increased productivity of labor and economic growth will advance at a lower cost.

What is Economic Development?

The term economic development can be explained as the process by which the economic well-being and quality of life of a nation, community, or particular region are improved according to predefined goals and objectives.

Economic development is a combination of market productivity and the welfare values of the nation.

Factors Affecting Economic development

1. Infrastructural improvement – Development in the infrastructure improves the quality of life of people. Therefore, an increase in the rate of infrastructural development will result in the economic development of a nation.
2. Education – Improvement in literacy and technical knowledge will result in a better understanding of the usage of different equipment. This will increase labor productivity and in turn, will result in the economic development of a nation.
3. Increase in the capital – Increase in capital formation will result in more productive output in an economy and this will affect the economic development positively.

For more economics-related articles and preparation articles, visit the links given in the table below:

Difference between Economic Growth & Development

The major differences between economic growth and development are stated below:

Economic growth Economic development

Increase in market output results in economic growth Economic development can be measured in terms of welfare values and market output

It is a quantitative concept It is a qualitative concept

Economic growth is uni-dimensional Economic development is multidimensional

This is one of the major concern of developed countries This is a major concern of developing countries

Economic growth is independent of the development Economic development can only happen if economic growth takes place.

Indicators of Economic growth

Real GDP

Real per capita income Indicators of economic development

Human Development Index

Physical Quality of Life Index

Net Economic Welfare (NEW)

HARROD AND DOMAR MODEL

Harrod Domar Model of Economic Growth Introduction

The Harrod-Domar model, proposed by Sir Roy Harrod and Evsey Domar in the middle of the 20th century, still appears to capture valuable insight into the dynamism of economic growth, mainly in developing countries. At the core of this model is an expression showing the relationship between savings, investment, and economic growth. The model had been based on the assertion that an economy's rate of growth primarily depends on the level of savings and investment. The Harrod-Domar growth model focuses on the interaction between savings, investment, and economic growth in a nation.

It assumes, for the short run, that this capital-output ratio is fixed or, equivalently, that each unit of output requires a given amount of capital. This assumption focuses attention on the short-term effects of changes in the savings and investment rates on the economic growth rate.

The overall contribution of the Harrod-Domar model is to provide basic insight into how, through policy interventions by way of savings and investment, economic development and growth could be fostered within economies where capital accumulation becomes a constraint.

Harrod Domar Model of Economic Growth Components

In the Harrod-Domar model, three leading determinants are savings, investment, and capital-output ratio. Its simplicity lends value to it as a point of departure for analysis; its assumptions and limitations must, however, be factored in by policymakers and economists applying those insights to real-world economic scenarios.

Savings (S)

Savings refer to that part of income that is not spent by the households, businesses, and the government in the current period but decided to be put aside and invested. It is an important part of the Harrod-Domar model. It refers to funds available for investment in capital goods. Therefore, if the savings rate is higher, then more money will be available to invest; hence, capital accumulation and, subsequently, economic growth. Thus, according to this model, policies that encourage savings through tax incentives or financial education will likely make an important contribution to stimulating economic development.

Investment (I)

Investment refers to expenditure on goods that increase the productive capacity of the economy, including factories, machines, infrastructure, and technology. Again, based on the Harrod-Domar model, investment is the channel by which savings are translated into economic growth. It assumes that the entire amount saved is invested outright, meaning that the rate of savings directly affects the level of investment. The higher the rate of investment, the greater the capital stock, which will increase an economy's production capacity by a greater amount over time.

Capital-Output Ratio (K)

It is the quantity of capital, including machinery and equipment, which has to be implemented to generate an additional unit of output in the form of goods or services. In the Harrod-Domar model, this ratio is assumed to stay constant within the short run. A lower K depicts that the economy is able to produce more outputs with less capital, hence high in productivity. On the contrary, a higher K would connote an implication of low productivity and greater intensity of capital in a production process. The understanding of the K ratio is of vital importance to the policymakers, as it projects the efficiency of capital structure and how well it goes on to drive economic growth.

Economic Growth Rate (g)

The growth rate, g , in the Harrod-Domar model, is a function holding a particular relationship between savings, investment, and capital output ratio. In this model, the growth rate of the output, g , turns out to be equal to the savings rate, S , divided by the capital output ratio, K . This relation implies that an increase in the savings rate or an increase in the efficiency of investment will lead to higher economic growth. Again, the simplicity of the model assumes that changes in these variables Arguably, translate linearly into economic growth, net of technological progress or institutional quality.

Limitations and Assumptions

Despite its usefulness in providing a basic framework for understanding the drivers of economic growth, the Harrod-Domar model has several limitations. Large assumptions, like a fixed capital-output ratio, may not be valid in reality, where technological progress or productivity changes can alter production efficiency over time. In addition, human capital development, institutional quality, and technological innovation, currently major determinants of growth, are not accounted for by the model. These factors call for more sophisticated models as economies grow in complexity.

Harrod Domar Model of Economic Growth

ASSUMPTIONS

The Harrod-Domar model is a contribution by Sir Roy Harrod and Evsey Domar that gives the theoretical framework for understanding the determinants of economic growth in developing economies. The core of the model lies in its analysis of how the rate of economic growth is related to saving and investment. It postulates that economic development depends upon the accumulation of capital through savings and investment, which are important for the expansion of productive capacity and long-term prosperity.

Fixed Capital-Output Ratio

The fundamental assumption of the Harrod-Domar model is that, in the short run, there exists a fixed capital-output ratio. In other words, a constant additional quantum of capital has always to be used to produce an additional unit of output, and this ratio remains constant, whatever be the changes in other economic variables. It simplifies the analysis by focusing on the immediate impact of changes in savings and investment on economic growth rates, independent of possible variations in production efficiency over time due to technological progress or changes in productivity.

Full Employment

Another assumption that is associated with the Harrod-Domar model is that of full employment in the economy. This means all available resources, including labor and capital, are fully used up in production. Full employment will ensure that any increase in investment due to higher savings will lead to output growth and not be instantly doused by idle resources. In reality, however, economies are plagued by unemployment and underemployment, which restricts the scope and applicability of the model the moment the labour markets become overly dominant in dictating the economic outcome.

Savings–Investment Identity

The model assumes a direct relationship between savings and investment, captured by the identity of savings and investment, $S = I$. The assumption is that all savings in the economy move into investment to pay for capital goods. This simplifies the analysis by being

limited only to the aggregate level of savings and investment, independent of things like the allocation of these savings into different sectors of the economy or the efficiency in the investment that generates productive returns.

Stability of Income and Consumption

The Harrod-Domar model assumes the stability of income and consumption within the economy over time. Such a supposition makes the analysis easier, since it singles out the effect that changes in savings and investment have on economic growth, not taking into account alterations in consumption patterns or personal distribution of income, which influences general economic stability. Indeed, the levels of income and consumption will vary in the presence of phenomena like business cycles, government policies, and the external shock that may influence the effectiveness of the savings and investment policies in setting up sustained economic growth.

Homogeneous Capital

Finally, this model assumes *ex ante* that all capital goods are homogeneous and interchangeable in their contribution to production. That is, it enables a simplified analysis of capital accumulation and how it impacts economic growth, without considering differences in the quality, durability, or technological sophistication of capital goods. In practice, differences in capital quality or technological innovation can have a very big effect on the dynamics of productivity and economic growth, and thus on the effectiveness of policies aimed at encouraging capital accumulation.

Harrod Domar Model of Economic Growth Critics

The Harrod-Domar model of economic growth, despite its foundational contributions to development economics, has faced criticism and scrutiny from various perspectives. Here are some of the key criticisms:

Fixed Capital-Output Ratio Assumption

One of the primary criticisms of the Harrod-Domar model is its assumption of a fixed capital-output ratio in the short run. This assumption implies that the amount of capital required to produce each additional unit of output remains constant regardless of changes in other economic factors. In reality, technological progress, changes in productivity, and shifts in production techniques can alter the capital-output ratio over time. Critics argue that this assumption oversimplifies the complexities of economic growth dynamics, leading to inaccuracies in predicting the effects of investment on output levels.

Neglect of Technological Progress

Another significant critique is the model's neglect of technological progress as a driver of economic growth. Harrod-Domar model is mainly concerned with the accumulation of physical capital (machineries, infrastructure, etc.) from savings and investments. Technological development and innovation, nevertheless, contribute strongly towards raising productivity, increasing efficiency, and stimulating sustained economic growth. Ignoring the role of technological change limits the model's ability to explain sustained economic development beyond the initial stages of capital accumulation.

Unrealistic Full Employment Assumption

The assumption of full employment in the Harrod-Domar model has been criticized for its unrealistic portrayal of labor market conditions. Full employment means that all the resources, including labor, are utilized to their maximum capacity in production. Economies in the real world rarely realize full employment because they face unemployment and underemployment based on structural mismatches, skills mismatches, and cyclical factors. The model's failure to account for these complexities undermines its applicability to real-world economic scenarios where labor market dynamics significantly influence economic outcomes.

Simplistic Savings-Investment Identity

Critics argue that the model's emphasis on the savings-investment identity ($S = I$) oversimplifies the relationship between savings, investment, and economic growth. While savings are indeed necessary to finance investment in capital goods, the effectiveness of investment in stimulating economic growth depends on factors such as the efficiency of capital allocation, institutional quality, and the quality of governance. Omitting these factors can result in ill-advised policy suggestions that only aim to raise savings rates without considering the wider economic issues.

Lack of Consideration for Income Distribution and Inequality

The Harrod-Domar model usually rests on the presumption of stable income levels and uniform capital, bypassing the effects of income distribution from economic growth and capital accumulation. In fact, unequal distribution of income and variation in the access to capital tend to strengthen social disparities and restrain sustainable development. The argument has been put forth that an effective grasp of the dynamics of income distribution should be acquired for crafting inclusive growth models that take everyone along with it and yield long-term economic stability.

Conclusion

In the final analysis, the Harrod-Domar model shows that for economic growth, it is savings and investment which are of paramount importance in promotion and raising the economic growth. Unless they raise their rate of savings and channel them into productive investments, economies will attain higher outputs and incomes over time. However, this model also has its shortcomings—for instance, assumptions of fixed capital output ratios and negating technological progress. Despite all these limitations, the Harrod-Domar model very much continues to be one of the fundamental ideas in understanding the causes of economic growth

SOLOW MODEL.

The Solow growth model deals with the long-run economic growth and development. Of course, one of the important elements of economic growth is saving and investment. Therefore, an increase in the rate of saving and investment will raise the capital stock and, consequently, the full-employment national income and product. The Solow growth model is an important framework in economics. Developed by Robert Solow in the 1950s, it explained long-term economic growth based on neoclassical economics. Its core is the role of capital accumulation, progress in technology, and growth in population as factors that explain the economy of a country. Contrary to previous models, he introduced the concept of a steady state, where an economy reaches an equilibrium point in output per capita over

time. The model remains to this day influential for both policymakers and economists in understanding the factors that drive sustainable economic development.

Effect of population growth in Solow model of economic growth

Solow Model of Economic Growth

The Solow model of economic growth serves as the most basic framework for understanding the way that economies are able to manage sustained growth over long time periods. Incorporated within this model is the idea that there is a relationship between economic output and capital accumulation, population growth, and technological progress. It postulates that economies grow initially as they are accumulating capital but that this growth rate slows down because of diminishing returns to capital. In the long run, economies converge to steady-state equilibriums, supporting a stable growth rate, which is mostly driven by the growth in productivity due to technological improvements. Policies can stimulate higher rates of savings and investment, accumulating more capital and hence leading to higher levels of output in the long run. In addition to that, technologies are attendant upon investments in education, research, and development. That may give impetus to long-term economic growth beyond the constraints of capital and labor inputs. The main insights gained from the Solow model underpin the mechanisms underpinning economic growth and form a basis for policy strategies meant to achieve long-term prosperity.

Solow Model of Economic Growth Equation

The Solow model of economic growth can be summarized with the following key equations:

Production Function

$$Y=F(K,L)$$

oY: Output or GDP

oK: Capital stock

oL: Labor (or sometimes labor force)

The production function F typically exhibits constant returns to scale, meaning doubling both K and L doubles Y.

Per Worker Production Function

Assuming constant population growth and constant labor force participation, we can express the production function per worker as:

$$y=f(k)$$

oy=Y/L: Output per worker

ok=K/L: Capital per worker

of: A function that shows how output per worker depends on capital per worker

Capital Accumulation

The change in capital stock over time is given by the investment (savings) minus depreciation:

$$\dot{K}=sY-\text{change in capital}$$

oK': Change in capital stock ($dKdt$)

os: Savings rate

o δ : Depreciation rate of capital

Steady-State Condition

In the long run, the capital stock per worker k^* and output per worker y^* remain constant, satisfying the condition:

Factors Affecting Economic Growth

INTRODUCTION

Economic growth is a shift in an economy's production of products and services, either increasing or decreasing in value. It must be measured because decisions and policies made by the public and commercial sectors need to have a foundation. Growth is correlated with all significant parts of the economy, including tax receipts, interest rates, inflation and expectations, employment, foreign trade, and so forth.

Without tracking growth, both public and private behavior are irrational. For instance, the growth and inflation rates affect investment decisions. Because of this, India's Central Statistics Office (CSO), currently known as the National Statistical Office, forecasts growth rates weeks before the Union Budget is announced. This allows for the logical forecasting of revenues and expenses, which in turn affects decisions made by the private sector.

ECONOMIC GROWTH: FACTORS AFFECTING ECONOMIC GROWTH

Political, social, and cultural influences, among others, all have an impact on economic growth, which is a highly complicated phenomenon. These components are listed below:

Economic variables

Natural Resources

- The most significant factor determining the growth of an economy is its access to natural resources.

- Natural resources include things like land area, good soil, abundant forests, a healthy river system, mineral and oil resources, a good climate, and so on.

- Natural resource wealth is essential for economic expansion. A nation without sufficient natural resources might find it difficult to advance quickly.

Capital Formation

- A country's productive capacity and worker efficiency are increased through capital formation, which is the process by which a community invests its savings in capital goods like buildings, machinery, and other assets. This process also ensures a greater flow of products and services throughout a nation.

Technological Advancement

- Research into the application of novel and improved manufacturing techniques, or the enhancement of current techniques, is the main component of technological growth.

- Technology advancement can occasionally increase the availability of natural resources. But generally speaking, technical advancement boosts productivity.

Entrepreneurship

- The capacity to spot fresh investment opportunities is a prerequisite for entrepreneurship, as is the desire to take calculated risks and finance emerging and expanding company entities.

Human Resource Development

- The rate of economic growth depends heavily on the population's quality.

- Therefore, it is vitally beneficial to invest in human capital through social, medical, and educational programs.

Population Growth

- Population growth expands the market for products and services, which leads to a rise in the labor supply. Therefore, more labor generates more output, which a bigger market can consume.

- As a result of this procedure, output, income, and employment keep growing, and economic growth gets better.

Social Overheads

- Another significant factor influencing economic growth is the availability of social overheads such as schools, universities, technical institutions, medical colleges, hospitals, and public health facilities.

- These facilities promote the health, productivity, and responsibility of the working people.

NON-ECONOMIC FACTORS

Political Factors

- Economic development in the modern era depends on political stability and effective governance.

- Faster economic growth is achieved by having a stable, powerful, and effective government, as well as by having honest leadership, transparent policies, and effective implementation of those policies.

Psychological and social influences

- As education develops and cultures change from one civilization to another, social elements such as social attitudes, social values, and social institutions change.

- The rise of new entrepreneurs is a result of modern philosophy, beliefs, and attitudes that lead to new discoveries and breakthroughs.

Education

- Education is now largely recognized as the main tool for development. Countries with widespread access to education have made more advancements.

- The desire to improve oneself materially

- Economic development requires the desire for material advancement, which is a crucial condition.

- Societies that prioritize self-gratification, self-sacrifice, and faith in fate limit risk and enterprise, which results in a stagnant economy.

ADOPTING MEASURES TO ENSURE ECONOMIC GROWTH

- When a country's population is growing faster than its total output is growing, economic growth is possible.
- To accomplish economic growth, a nation's human resources must be large enough and possess the requisite knowledge and skills.
- Natural resource utilization and exploitation depend on human resource skills and talents, the technology employed, and the availability of funding. A nation's economy advances when it has a highly educated workforce and a wealth of natural resources.
- Capital formation raises the amount of capital available per worker, thus increasing the capital-to-labor ratio. As a result, labor productivity increases, resulting in higher output and economic expansion.
- With less resources available, production can be increased thanks to technological innovation. Countries that have worked on technology development expand more quickly than nations that haven't given it as much attention. The development of an economy also depends on the choice of the right technology.
- The social and political environment of a nation has a significant impact on its economic development.
- Customs, traditions, attitudes, and beliefs are examples of social elements that all have a big impact on how fast an economy grows.
- For instance, a community with traditional beliefs and superstitions is reluctant to adapt modern lifestyles. Achieving becomes challenging under this circumstance.
- In addition, political aspects like government involvement in policy development and implementation have a big impact on economic growth.

CONCLUSION

A nation's national income and employment levels benefit from sustained economic expansion, which raises living standards. Additionally, it significantly contributes to improving government finances by raising tax collections. A nation's economy can flourish if its strengths and limitations are correctly identified.