



ECONOMIC GROWTH, INFLATION AND UNEMPLOYMENT IN INDIA

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Abstract

The paper tries to analyse the main components which contribute to the growth of India's gross domestic product (GDP) influenced by the government spending, employment, inflation and domestic consumption. Economically, low unemployment rates are beneficial to economic growth as they increase consumption thus demand. A further important criterion is inflation, which has an impact on the purchasing power of consumers as well as the investment decisions of businesses. A moderate inflation is sign of healthy economic activity but uncontrolled inflation or deflation can cause the economy to become unstable. An inverse relation between the inflation rate and the rate of unemployment exists; an increase in inflation causes a decrease in employment and vice versa.

The paper tries to analyse the effect of economic growth on the unemployment rate in India. Gross Domestic Product (GDP) is considering as an indicator to measure economic growth for this study. In 2020-2021, due to the negative effect of Covid, it had become a major concern for young and people who already possess work experience in their own fields. The factors contributing to India's GDP development is domestic consumption with the country's large and expanding middle class. The growth of financial activities, the creation of new employment and the continuing expansion of the economy are all supported by high level of domestic consumption. The data relating to GDP and unemployment rate, inflation has been collected from secondary sources like the Reserve Bank of India bulletin, the IMF website. The analysis is based GDP, unemployment and Inflation. It has been found that all the economic factors are Inter-linked; a dip in any of these factors may affect a country's performance.

Keywords: *Gross Domestic Product, Unemployment, Economic growth, Inflation.*

Introduction

Inflation and unemployment are primary challenges that affect every economy in the developing countries. Among them, factors which have an influence on the expansion of Gross Domestic Product (GDP), four factors stand out, they are: government expenditure, unemployment, inflation and domestic consumption. Spending by the government is a fundamental instrument for economic management since it enables the state to exert control over development by investing in essential areas such as education, healthcare, and infrastructure, among other important sectors. Through the spending of money in the economy, government spending has the potential to boost demand, create jobs, and improve the standard of living of the general population.

The difficulty here is in striking a balance between expenditure in order to minimize fiscal deficit and inflationary pressure, both of which have potential to hinder long-term growth. Another important factor that determines the state of the economy is the unemployment rate, sometimes known as the unemployment rate. When unemployment is high, consumer spending can decrease, poverty can increase, and social systems can become more stressed, all of above can contribute to low economic development, on the other side, a low unemployment is often reflective of a thriving economy, which involves greater revenues that are available for discretionary expenditure and an increased demand for goods and services, thus economy is affected by inflation in two different ways.



An excessive amount of inflation reduces buying power and might discourage investment contrast to moderate inflation, typically considered as an indication of robust demand. On the other hand deflation, which is a prolonged reduction in prices due to less demand, results in a decrease in economic activity and a rise in lack of employment. As such the controlling of inflation is a primary responsibility for economic policy makers. In final, domestic consumption is an essential driver of GDP development, especially in a country like India with a large population. The demand for products and services is greatly influenced by the purchasing power of consumers, which in turn heavily affected by factors like income levels, cultural features and economic optimism. An increase in domestic consumption leads to the expansion of business activity, the creation of new employment, thus overall economic growth.

The transition in 1991 has put India with the ranks of major global economies, and has also faced issues that need to be controlled in order to maintain and increase GDP growth. The large and diversified population of the country, together with the vast geographical differences, provides possibilities as well as challenges. India's demographic dividend, which is characterized by a youthful and rising workforce, has the possibility for continuous economic progress. On the other side, India's population is becoming younger, at the same time, the gaps that exist in areas like income, education and infrastructure provide enormous difficulties to the process of inclusive growth. To ensure that the advantages of economic progress are evenly distributed and that the the nation's development is equitable, it is essential to address these inequities.

Domestic Consumption and Economic growth

To the India's growing GDP, one of the most important contributors is the country's large and growing middle class, which drives domestic demand. People are having capacity to spend more money on products and services, which in turn fuels economic activity. This occurs when earnings increase and unemployment levels decrease. It is very important for a nation like India, where domestic demand contributes substantially to the GDP growth strategy driven by consumption. In order to maintain high levels of domestic consumption it is necessary to make continuous changes in the distribution of income, the creation of jobs and also easy access to credit. Further, the level of consumer confidence, which is influenced by a variety of factors like inflation, employment prospects and economic stability, is a significant factor in shaping the patterns of consumption that people involve. It is important to ensure that growth reaches to large portion of the population so as to keep domestic consumption at a healthy level result in sustained robust GDP growth.

The Impact of Inflation

Inflation is a double edged sword at the time of the expansion of an economy, with two possible outcomes. Moderate rise in inflation is generally linked with arising economy since it indicates an increase in the demand for goods and services, and inflation which is not under control can be counterproductive. The higher inflation rate will diminish the purchasing power of consumers; it will decrease the actual value of savings and leads to uncertainty for firms, which will finally led to the decrease in investment and thus economic activity. As the Indian economy is sensitivity to supply-side volatilities in global oil prices or deficit in monsoons which influences the agricultural output, makes it particularly difficult to control inflation in India. Both these factors contribute to the difficulty of managing inflation. Through an appropriate monetary policy, the Reserve Bank of India (RBI) plays a significant role in the process of controlling inflation. This includes the setting up of interest rate system and controlling the money supply in the economy. The efficacy of these policies is absolutely



necessary in order to preserve price stability and cultivate an atmosphere that is conducive to the advancement of the economy in a sustainable manner.

Unemployment is another serious problem seeks attention for many years, particularly in India. The main cause of unemployment is increase in the population, lack of essential skills, inadequate economic growth, labour immobility, and job specialization (the right training for right jobs). Unemployment is a condition that occurs when people are jobless. Not only in India but also across the world, providing jobs are becoming a challenge. International Labor Organization (ILO) has downgraded its forecast for international labour market recovery in 2022 citing the global deficit in hours worked globally equivalent to 52 million full-time jobs. Also, ILO report shows global unemployment level will remain above Pre-Covid levels until at least 2023. The estimation of the unemployment level in 2022 is 207 million, compared to 186 million in 2019. The projected global labour force participation rate is to remain at 1.2 percentage points below in 2022 than in 2019.

4. Literature Review

Joseph Stiglitz (2009) expressed that there are many aspects of our society which are not come under the purview of GDP. According to him, it is a crude tool used for defining social health. Dr. Rubee Singh (2018) studied the Indian Economy from 2011-2018 and identified that inflation may differ from economy to economy. According to Ryan Barnes (2021) the interaction between inflation and GDP resembles like a very delicate ballet. An important criterion for stock market investors is annual GDP growth. Most businesses won't be able to improve their earnings if general economic activity is dropping or even at a steady state.

Keynes (2015) expressed rapid gains in national revenue are the result of high aggregate demand, which is brought by increases in government spending. Among its main criticism was that classical economics is flawed that we will all die in the end before economic recovery insisting the government must step in to fix market defects. In addition, it argued that economies are in a constant state of flux, undergoing both expansion and contraction, rather than returning to be in equilibrium. Keynes postulated the fiscal policy should be counter-cyclical, meaning that government spending has to be reduced during economic prosperity and increased during economic recession. Despite Keynes's belief that government spending is an internal to the government, he categorized it as an external variable because of its influence to increase inflation. It held the view that the state should take the lead in averting a downturn by increasing aggregate demand, which would stimulate the economy through a multiplier effect. Keynes established the concept of fiscal stimulus on the premise that more government spending would lead to more business activity and consumption. It states that when the government spends money it raises both aggregate output and revenue.

Chander (2020) represented a monetarist view on the Phillips curve, which showed no trade-off between the unemployment and inflation rate in the long run. He argued any attempt to manage the lack of employment at low levels artificially generally leads to an increase in inflation. Basically, to overcome the situation, the investment and setting up of industrial production is made to assist controlling inflation as well as unemployment.

Loganathan, (2015) in contrast, the central tenet of a Wagnerian theory is that a rise in national wealth causes a rise in government spending. The Wagnerian approach states that when a country's GDP grows, a larger share of the revenue from GDP is utilised for government spending. The correlation between government spending and economic growth has been the subject of a great discussion.



These analyses have shown that higher levels of government spending promote economic growth. But Carter asserted that whenever government spending increases, economic development slows down. The Comparative studies examined the relation between government spending, efficiency and economic growth using a panel analysis of low-income workers in Sub-Saharan Africa. Findings indicate that government spending increases led to faster economic growth in low-income Sub Saharan African states. Also, between 1980 and 2007, researchers in twenty OECD countries attempted to determine whether and how government spending affected unemployment rates. The study concluded that the unemployment rate decreases whenever government spending increases.

In the Indian context, several studies have revisited the Phillips Curve under ever changing economic situations. Dholakia (2019) emphasized the inflation controlling in India, arguing that the Reserve Bank of India's(RBI) adoption of flexible inflation targeting since 2016 has influenced labor market outcomes by stabilizing inflation expectations and enhancing monetary policy credibility. RBI's own bullet in 2021, titled "Is the Phillips Curve in India Dead, Inert and Stirring to Life or Alive and Well?" concluded that the Phillips Curve is still relevant in India, though it has flattened over the past six years due to low and negative output gaps. The curve steepens when the output gap is positive and high, indicating a nonlinear and convex relationship between inflation and unemployment.

Recent empirical studies have further explored this dynamic. Mehta (2024) conducted an analytical study using data from 1991 to 2022, incorporating classic, expectations-augmented, and New Keynesian Phillips Curve models. His findings suggest that while the traditional inverse relationship has weakened, structural reforms, supply issues and inflation expectations continue to shape the inflation-employment interaction in India. The study highlights the need for sophisticated policy strategies that account for supply-side constraints an devolving labour market dynamics.

Dronagiri (2025) offered a comparative analysis of inflation and lack of employment in India and the USA from 2014 to 2023. Her research found that the Phillips Curve remains valid in the short run but is influenced by monetary policy and inflation expectations in the long run. She noted that post-pandemic inflation bursts have steepened the curve temporarily, but empirical comparisons using updated data remain limited.

Methodology

The study employs mixed-methods of quantitative approach. First, a time-series analysis is calculated to observe trends in inflation and employment indicators over the fourteen year period, helps identify structural shifts, seasonal patterns, and policy-induced changes, secondly, a correlation matrix is prepared to examine the statistical relationship among inflation, GDP (Industrial) and employment variables which includes pair wise correlations between CPI, Core CPI and unemployment rate. And finally, a simple linear regression model is applied, with CPI inflation as the independent variable and unemployment rate as the dependent variable. This model tests the objective that inflation significantly influences employment levels and calculated its coefficients, R^2 values, and p-values to assess its statistical significance.

Graphs are used to depict annual trends in GDP, inflation and unemployment rates, highlighting changes happened such as pandemic-induced spikes and post-recovery moderation. The percentage growth rate of GDP in table-1 on local currency is calculated based on the total production and services contributed by all the industries during a fiscal year minus taxes and subsidies and without subtracting depreciation. According to the 2021 calculations of the World Bank, the GDP of India was around US\$ 3173.40billion.



Table 1: Gross Domestic Production of India (In percentage)

Year	GDP	Annual change
2012	5.46	0.22
2013	6.39	0.93
2014	7.41	1.02
2015	8.00	0.59
2016	8.26	0.26
2017	6.80	-1.46
2018	6.45	-0.34
2019	3.74	-2.72
2020	-5.8	-10.33
2021	8.95	15.44
2022	7.6	-1.5
2023	7.2	-0.53
2024	7.1	-0.14
2025	7.6	0.7

Source: IMF data.

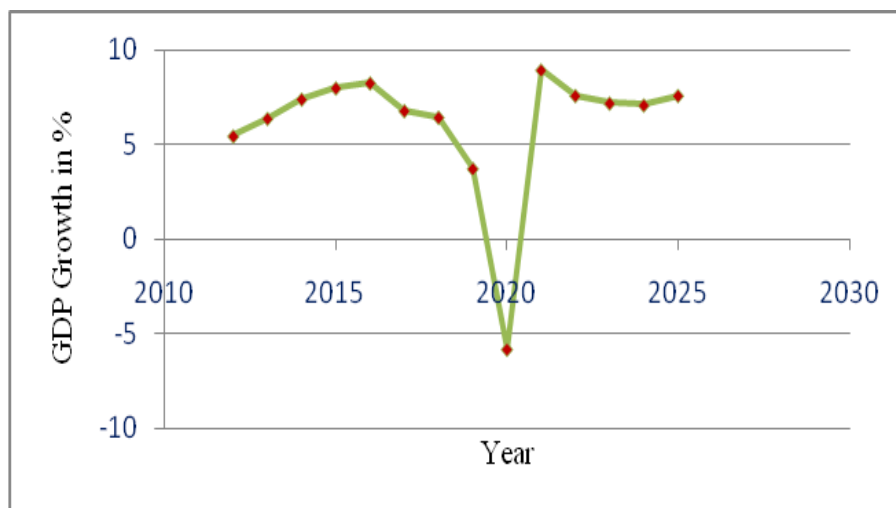


Chart 1: GDP Growth in India 2012-2025; Source: Table 1

Due to a shift in demand, a rise in the interest rate, the government spending and reductions causes a decline in GDP. There is a rise and fall in GDP from the data of 14 years and experiences a decline in GDP in the years 2017, 2018, 2019 and 2020. There is a significant increase in the percentage of GDP after continuous decline for four years, as per the IMF data from the year 2021. The industry and services sector contributed maximum to GDP as well as government savings led to an increase in GDP.

Inflation is an increase in a commodity's price and reduces a consumer's purchasing power, whereas, the value of goods and services produced in a country within a fiscal year is known as national income. GDP plays a major role in the increase in national income of a country and inflation has a major part in economic growth. Inflation leads to an increase in exports and a decrease in imports, when a country starts exporting more goods and services produced within a country during the fiscal year and receives receipts for the export made. Inflation has its own advantages and disadvantages.



The investors invested in foreign trade will be rewarded with a good rate of return. The wholesale price index (WPI) and consumer price index (CPI) is the two key indicators to measure inflation.

The Inflation and national income are influencing each other. Inflation may affect the economic growth of a country through a consistent rise in general prices of goods and services. If a country starts exporting more goods and reduces imports, national income increases when other things remain constant.

The annual CPI inflation in India is shown in table-2. The table reveals India's inflation trajectory during the entire study period including post-pandemic period, a significant moderation in headline CPI.

Table 2: Annual Inflation in India (in percentage)

Year	Inflation	Annual changes
2012	9.48	0.57
2013	10.02	0.54
2014	6.67	-3.35
2015	4.91	-1.76
2016	4.95	0.04
2017	3.33	-1.62
2018	3.94	0.61
2019	3.73	-0.21
2020	6.62	2.89
2021	5.31	-1.49
2022	6.6	2.4
2023	5.4	-1.8
2024	4.6	-1.5
2025	2.1	-5.4

Source: IMF data

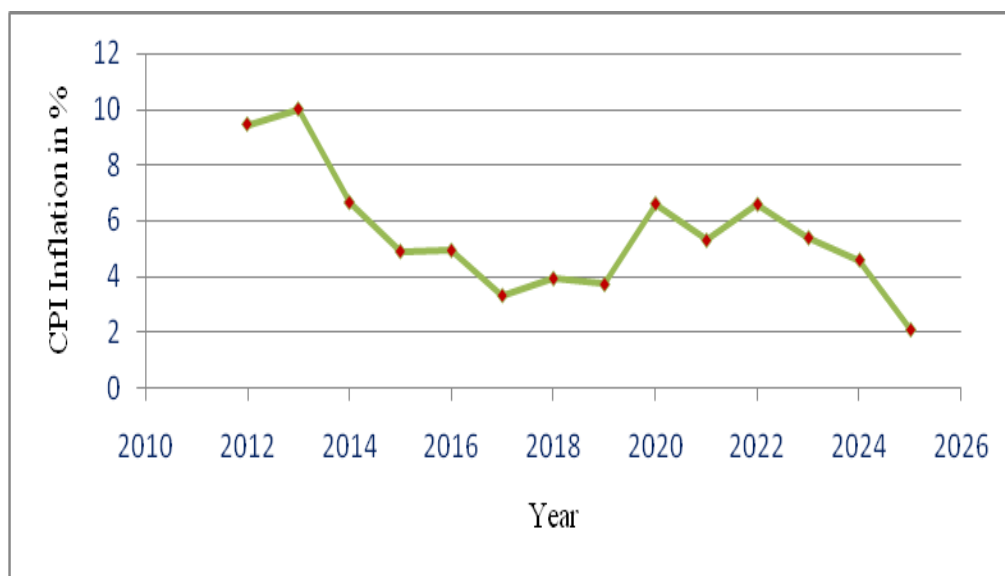


CHART 2: Annual CPI inflation In India 2012-2025; Source: Table 2.



After reaching highest in pandemic period at 6.0% in 2022, pushed by disruptions in global supply chain and higher commodity prices, inflation slowly declined to 4.6% in 2024 and further to 2.1% by mid-2025. This decrease shows the Reserve Bank of India’s calibrated monetary policy interventions, including repo rate adjustments and money supply management. However, core inflation; exclude food and energy, remained steady at 4.08% in early 2025, indicating persistent structural price sensitivity in housing, healthcare and education. While, food inflation exhibited high volatility, with fruit prices rising 14.8% year-on-year, underscoring the vulnerability of agricultural supply chains and the inflationary impact on rural consumption. Graph Interpretation: The Chart 3 graphically shows this trend, indicating a clear downward slope in CPI from 2012 to 2025.

At the same time, the unemployment rate is determined by GDP provided there is a growth in GDP of individual countries; employment and productivity rate of a country increases and as the decline in GDP leads to lack of employment.

Table 3: The Un-Employment Rate in India (In Percentage)

Year	Un-employment rate	Annual change
2012	5.41	-0.01
2013	5.42	0.01
2014	5.44	0.01
2015	5.44	0.00
2016	5.42	-0.01
2017	5.36	-0.07
2018	5.33	-0.03
2019	5.27	-0.06
2020	8.00	2.73
2021	5.98	-2.02
2022	5.3	-1.14
2023	4.9	-0.75
2024	4.9	-
2025	4.9	-

Source: IMF DATA

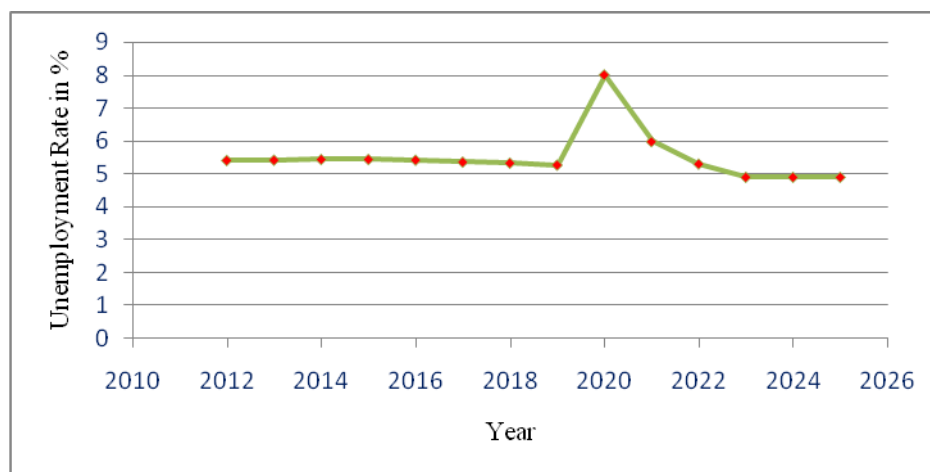


Chart 3: Inflation in India; Source: Table 3.



After the continuous decrease in the unemployment rate in 2012, 2016, 2017, 2018, 2019 and 2021, there was an increase in the unemployment rate in 2020 and this increase caused by the Covid-19 pandemic and subsequent lockdowns. And also unemployment remains constant in 2015 as well as post-pandemic years. Therefore, a 4% increase in GDP leads to a 1% decrease in unemployment. The growth of GDP and the unemployment rate are correlated and the change in GDP will automatically impact the unemployment rate.

Employment rate recovery in India post-COVID has been uneven across different sectors and states. The unemployment rate stood at 8.3% in 2021 gradually declined to 6.1% in 2025, showing partial labour market normalization. This improvement corresponds with a rebound in industrial activity, as demonstrated by IIP (Index of industrial Production) growth reaching 5.0% in January 2025. The manufacturing sector, particularly export-oriented industries like textiles and electronics, contributed significantly to job creation. However, rural employment remained fragile due to inflationary pressures in food and fuel, which eroded real wages and dampened labour demand. Informal sector recovery was slower, with limited access to credit and social protection.

Unemployment in India rose sharply during the pandemic (2020–21), but from 2022 onward, it consistently declined, indicating gradual economic recovery and employment creation up to 2025. The Sector-wise Employment Trends Chart highlights this variance, showing strong gains in product and IT services, while agriculture and retail sectors lag behind.

Table 4: Correlation for Inflation, Employment and Production Growth (2012–2025)

Variable	CPI Inflation	Core Inflation	Unemployment Rate	IIP Growth
CPI Inflation	1.00	0.82	0.33	-0.42
Core Inflation	0.82	1.00	0.27	-0.36
Unemployment Rate	0.33	0.27	1.00	-0.63
IIP Growth	-0.42	-0.36	-0.63	1.00

Source: Calculation from IMF Data.

The correlation matrix results has calculated and shown in the table 4. The table indicate that the relation between CPI and unemployment (0.33) is weak but positive, indicating only inflation does not explain employment trends. The relation of unemployment and IIP (-0.63) shows strong negative correlation, indicating that industrial growth is closely linked to job creation. While CPI and IIP (-0.42) correlation exhibits moderate inverse relationship, possibly reflecting supply-side inflation pressures during low production periods. Whereas, relation between core Inflation and unemployment (0.27) shows a very weak correlation, reinforcing the limited impact of structural inflation on labour markets.

The sector-wise economic performance reveals that the agriculture sector is highly sensitive to food inflation despite increased MNREGA participation, wage stagnation and input cost inflation slowed recovery. The manufacturing sector is gained from government incentives as well as global demand but employment creation is concentrated in urban areas. While the services sector has shown positive trends because of formal sectors like IT, while informal services struggled with inflation in transport and energy.



Conclusion

This study noting the inter-relation of all the indicators utilized for the study, including GDP, unemployment and inflation, and how changes in one factor have an immediate effect on the other factors. Data from a few years are utilized to demonstrate how it changes from one year to the next. It underlines the economic growth should be the primary objective in order to reduce the unemployment in an economy. The study identified a connection between a nation's unemployment rate and its economic growth by the change in the percentage of these factors with regular changes.

Therefore, the strong coordination is needed among various policy makers / ministries that deal with inflation and unemployment in India. Generally, firms use factors to alter prices when inflation occurs and as a result, society's output decreases. The challenge of unemployment in India is affected by the loss of output since unemployed people do not contribute to production. These people do not pay taxes, forcing taxpayers to bear their output costs. The regression calculation made to determine if any link exists between the rate of lack of employment and inflation in India. The analysis backs the objective that there is no significant correlation between the inflation rate and India's unemployment rate. Based on this outcome, it recommends policy options; firstly, the policy makers need to design the economy towards hinterland growth based on native ideas rather than impose donees. Subsequently, the government concentrate on investing in advanced technologies to generate more reliable employment and increase workers' wages efficiently and ensure proper and effective supervision of price instability. Apart from it, removing bottle necks in infrastructure will also lead to employment generation.

The growth in India's gross domestic product (GDP) is a complex economic environment caused by the interplay of government expenditure, unemployment, inflation, and domestic consumption. Each of these factors having their own set of cause and effect, and the ways in which they interact with one another may either intensify or lessen the adversarial consequences they exerted on the economy. As the government's focus is on growth which is both sustainable and inclusive, it is crucial to have clear understanding of the relationships between these factors. The challenges faced by India in its growth stage are to cope with these factors in a way that augment the economic potential of the nation and also satisfying the needs and goals of its population. The country will be able to continue on its road of economic growth, will improve the standard of living of its population and enhance the country's position in the global economy when it moves in this direction.

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Online Resources

1. ILO-https://www.ilo.org/global/about-the-ilo/newsroom/news/WCMS_834117/lang-en/index.htm.
2. RBIbulletin-<https://m.rbi.org.in/scripts/PublicationsView.aspx?id=21035>. &https://www.rbi.org.in/Scripts/BS_ViewBulletin.aspx?Id=21271.
3. IMF- <https://www.imf.org/external/pubs/ft/fandd/basics/32-unemployment.htm#author1>.