Rate of Inflation (1991-2022) and Unemployment Rates in India

- Nishat Armin Choudhury[1]

Abstract: Inflation is defined as an increase in prices that results in a loss of purchasing power over time. The average increase in the price of a basket of specified items and services over time might indicate the rate at which purchasing power falls. Price increases, which are typically expressed as percentages, indicate that a unit of money now buys less than it did previously. Inflation is distinct from deflation, which occurs when prices fall but purchasing power grows. Prices in a nation like India fluctuate owing to a variety of economic and natural variables. This insecurity produces a climate of uncertainty that extends beyond a country's economic prosperity.

The Indian economy has been afflicted by the disease of inflation since the 1950s; nevertheless, the implications of these growing rates became more obvious following the 1991 liberalisation. The country's high inflation rates have been attributed to several causes. Because price stability is the basic aim of any monetary policy, it has a considerable influence on a country's growth and elevation. This is due to a significant decline in the buying power of money. As a result, the rate of inflation is linked to the country's unemployment rate. As a result, the article investigates the link between unemployment and the inflation rate.

Index Terms: Inflation, Unemployment, India, Prices, Rural Wage Rate, GDP, Covid-19

I. Introduction

When the general level of prices rises, each unit of currency purchases fewer goods and services; hence, inflation denotes a loss of purchasing power per unit of money—a loss of real value in the economy's exchange medium and units of account. Inflation has both positive and negative consequences on economies. A typical metric of inflation is the annualised percentage movement in a general price index, often the consumer price index, over time. The study of inflation in India will aid in analysing the trajectory of the country's inflation rates concerning its economic growth. The study will provide light on the country's inflation rates before, during, and after the adoption of economic reforms.

According to August 2022 statistics, India's current inflation rate is 6.7%. (As sourced by World data). And it is well recognised that the impact of inflation on a country's economy is a slowdown. As a result, the unemployment rate rises, people's purchasing power falls, and the credit system becomes more expensive. As everything grows more expensive, the topic of unemployment becomes more relevant to research. As a result, this article has two main goals: to analyse the trend of the rate of inflation from 1991 to 2021 and to examine the trend of inflation concerning unemployment.

[1] Nishat Armin Choudhury is a final year Bachelor's student at St. Joseph's University, Bangalore. Her principal area of study lies in research and analysis in the field of economics, and international relations.

As a result, this study will provide insight into India's inflation rates. The research is interpretive in nature, intending to present a reasonable explanation of the country's high and low rates of inflation, as it is practically impossible to prevent inflationary conditions in a country.

II. Objectives

- ✓ To analyse the trend of the rate of inflation over three decades in India- 1991-2021.
- ✓ To look at the trend of Inflation concerning Unemployment; analysing the pattern of Rural wage rate.

III. Methodology

The current study is based on a descriptive research approach and also reviews other contemporary publications on the subject matter. The secondary sources of information used in this study were gathered from various published papers and reports. The acquired data as well as the current literature were examined.

IV. Review of Literature

Saymeh and Abu Orabi (2013) performed research on the influence of interest rates, inflation rates, and GDP on Jordan's real economic growth rate. The primary purpose of their research was to offer evidence for the many repercussions of changes in real economic growth concerning swings in interest rates, inflation rates, and GDP. Their study demonstrated that interest rates and real growth rates have a lead and lag connection. *Berentsen, Menzio, and Wright (2008)* researched to better understand the link between unemployment and inflation over time. Their findings revealed that not only conceptually, but also quantitatively, monetary considerations may be relevant for labour market outcomes. *Barro (2013)* proposed in his study of Inflation and economic growth pointed that the rate of inflation harms growth and development. Inflation is an uncontrollable factor that can react to growth or other growth-related variables. When some plausible instruments are utilized in the statistical techniques, the predicted impact of inflation on investment and growth is notably negative, according to the empirical analysis.

Shah, Patnaik, and Veronese (2011) undertook a study to determine the best appropriate method of measuring inflation rates in India. They examined extensive price data, household expenditure patterns, and the composition of various price indexes accessible in India for this purpose. They proposed that macroeconomic analysis and policy formulation in India shift away from the WPI and toward the CPI. The researchers also shed light on the challenges that arise as a result of decisions made regarding the assessment of inflation in a country. *Church (2019)* did a study on inflation expectations. This article investigates the extent to which market-based inflation forecasts overshot or undershot real inflation before, during, and after the 2007-09 Great Recession. He pointed out that estimates of inflation expectations overshot actual inflation for short-term maturities while falling short for long-term maturities.

Hanif (2012) shed insight into Pakistan's food inflation status in his paper. He used the Granger, non-causality test to determine the effect of global food inflation on Pakistan's food inflation. He concluded that the Pakistan and World food inflation series are both stationary using the Dickey-Fuller unit root test (1992-2012). In his study, he contended that food inflation hits the poor more than the rich since the poor spend a larger portion of their earnings on food products than the rich. The poor (labour class) were found to be at a disadvantage when food inflation was

compared to wage rises for labour (following the 2008 global commodities price shock). Food Inflation and Volatility in India were undertaken by *Sekhar, Roy, and Bhatt (2018)*. The study looks at the trends and causes of food inflation and volatility in India over the last decade. The findings suggest that both supply- and demand-side factors influence food inflation, albeit supply-side factors tend to have a bigger impact.

The article by *Shahiduzzaman (2012)* takes a pioneering look at measuring core inflation in Bangladesh, focusing on the popular exclusion and trimmed mean approaches. The performance criteria employed in this study demonstrate that the measure of core inflation established in the research has strong money-induced characteristics and can thus be used credibly as a short-term or medium-term direction of monetary policy in Bangladesh. *Munir, Mansur, and Faruoka (2009)* did a study on Inflation and Economic Growth in Malaysia through a Threshold Regression Approach. Using the structural break method, this study indicates that the effect of the rate of inflation on economic growth is not only unfavourable in a high-inflation environment but can also be positive and more substantial in a low-inflation context.

V. Analysis of Inflation Rates (1990-2022)

In India, inflation has always been mild. Since independence, inflation has been benign, except for a few years of significant inflation induced by supply interruptions. The impact of high double-digit inflation in some years is mostly related to supply shocks, notably delays in domestic agricultural output and rises in external oil prices. During the pre-reform era, inflation had risen significantly during the 1960s, owing in part to the two wars in 1962 and 1965, as well as the harvest catastrophe of 1965-66, when agricultural production fell by more than 16%. When it hit 20% in the early 1970s, it became a major source of concern due to a fall in agricultural output and an extraordinary surge in global oil prices.

India From a wide perspective, the pace of inflation is not immediately noticeable. It is the difference in the rate of change in the measured general price index across two time periods. As a consequence, the inflation rate may be computed using several methodologies based on general price index data accessible at various periods. In reality, the inflation rate is calculated using the yearly percentage change in the general price index.

The rate of change in the total price level, computed as the weighted average of individual product and service prices, is defined as inflation. In most cases, weights are applied to indicate the relative importance of the commodities and services included in the overall price index. As a consequence, the general price index shows the whole amount of the price of products and services. In India, there are three types of general price level metrics: wholesale pricing index (WPI), consumer price index (CPI), and implicit GDP deflator.

During the pre-reform period, inflation had risen significantly in the 1960s, due in part to the two wars in 1962 and 1965, as well as the harvest catastrophe of 1965-66, when agricultural production fell by more than 16%. When it hit 20% in the early 1970s, it became a serious source of worry. The following decade had double-digit inflation, with 17.1 per cent in 1979-80 and 18.2 per cent in 1980-81. In 1985-1986, inflation was 4.4%, and in 1990-1991, it was 10.1%. The Indian economy entered a period of economic transformation in 1991. This was mostly due to an imbalance in the Balance of Payments. As a result, the 1990s were dominated by the notion of balancing expansion with economic reforms.

In 1990-91 and 1991-92, inflation rates were 11.2 percent and 13.48 percent, respectively. As a result, the government enacted a flurry of economic reforms, including external, financial, and industrial reforms. It declined significantly (5.4%) over the next decade (1996-2005), as structural improvements began to show fruit. Despite the drought of 2002-03, the appropriate discharge of surplus food grain reserves kept food prices under control.

Table 1: Rate of Inflation 1990-1999

Year	Rate of Inflation (%)
1990	11.2
1991	13.48
1992	9.86
1993	7.28
1994	10.28
1995	9.96
1996	9.43
1997	6.84
1998	13.13
1999	5.7

Table 2: Rate of Inflation 2000-2009

Year	Rate of Inflation (%)
2000	3.83
2001	4.31
2002	3.98
2003	3.86
2004	3.82
2005	4.4
2006	6.7
2007	6.2
2008	9.09
2009	12.31

Table 3: Rate of Inflation 2010-2019

Year	Rate of Inflation (%)
2010	10.53
2011	9.5
2012	10
2013	9.4
2014	5.8
2015	4.9
2016	4.5
2017	3.6
2018	3.43
2019	4.76

After 2003, when the economy began to grow at 7% or greater annual rates, inflation began to climb. In 2009 and 2010, the inflation rate approached double digits as crude oil prices surged. Surprisingly, the 2008 global financial crisis did not affect inflation. Between 2008 and 2013, global oil and metal prices increased by 10.1% year on year. The 2009 drought raised food prices while raising demand for protein-rich foods including eggs, salmon, and milk.

To get the economy back on track, the government implemented a series of fiscal stimulus programmes in 2008 and 2009, increasing the budget deficit and raising prices. However, when the economy slowed and demonetization and GST policies were implemented, inflation began to fall in 2014.

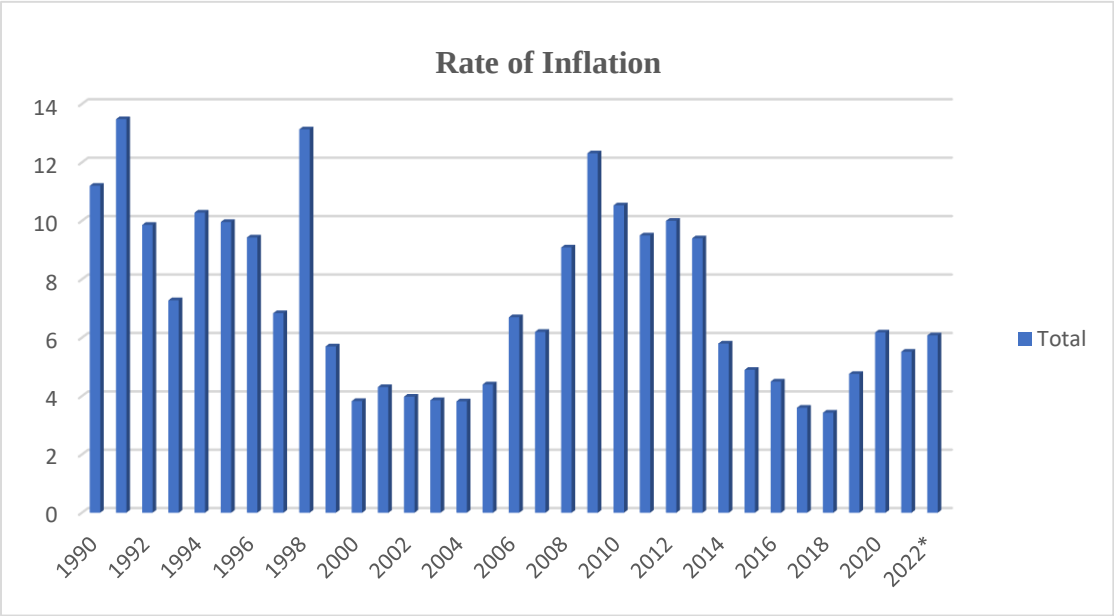
In comparison to previous decades of double-digit inflation and the rate gap, the next decade (2020-2022) is predicted to be rather stable. The table below depicts this can.

Table 4: Rate of Inflation 2020-2022

Year	Rate of Inflation (%)
2020	6.18
2021*	5.52
2022*	6.08

*Indicates the estimate rate of Inflation

Therefore, the rate of inflation from 1991-2022 is illustrated in the chart below.



*Indicates the estimated value of Inflation

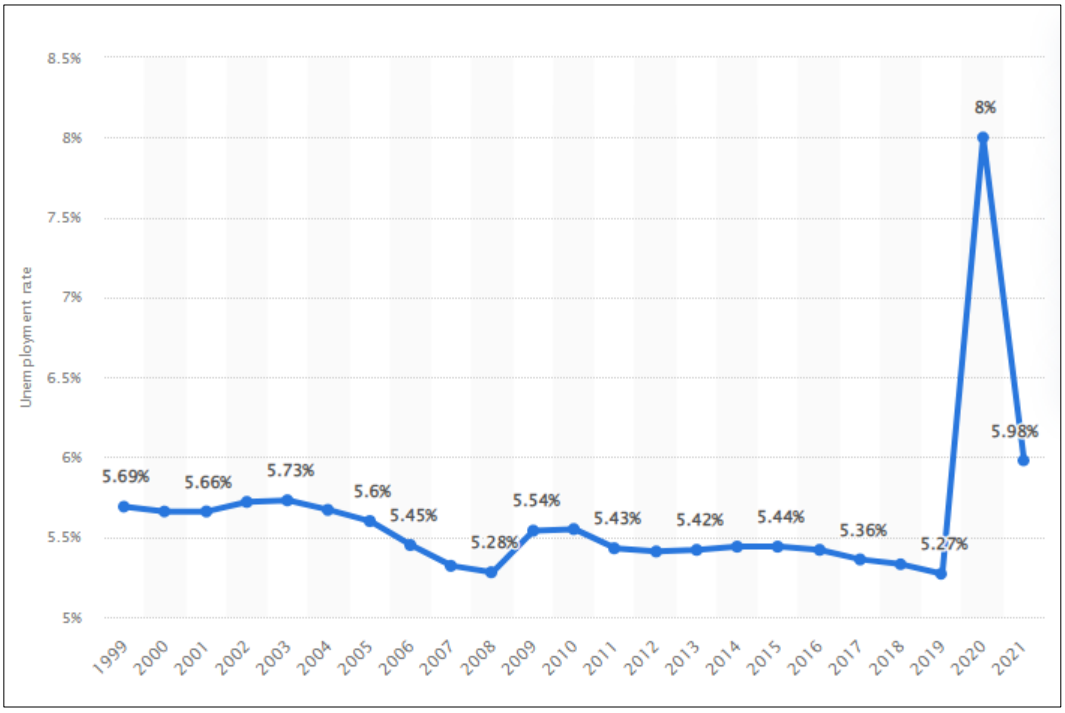
The graph displays the inflation rate in India from 1987 to 2022. The price increase of a specific product basket is used to calculate the inflation rate. This product basket contains goods and services that the average client purchases during the year. Food, clothes, rent, power, telecommunications, recreation, and raw materials (e.g., gas, oil) are among them, as are federal fees and taxes. India's inflation rate in 2020 was around 6.18 per cent higher than the previous year. See the statistics on India's economic growth for further information.

Inflation is the phrase used to describe the progressive reduction in the purchasing power of a currency. As a result, one currency unit now purchases less than it did before the emergence of inflationary pressures in the economy. Unemployment is a word used by economists to describe a scenario in which the number of jobless people who wish to work exceeds the number of available jobs in the labour force. Historically, Inflation and unemployment rates have been inversely related. When one rises, the latter falls, and vice versa. Governments frequently utilise monetary and fiscal policies to keep the economy from overheating or slowing too much.

VI. Unemployment Rates

India's economy is developing quickly. The unemployment situation has significantly improved since it was highlighted as an issue. The unemployment rate is arguably the most well-known labour market statistic, and it is frequently referenced in the media. The unemployment rate is an important measure of labour supply underutilization. It demonstrates an economy's inability to hire people who want to work but are unable to do so despite being available for work and actively looking for jobs.

Figure: Unemployment Rate (1999-2021)

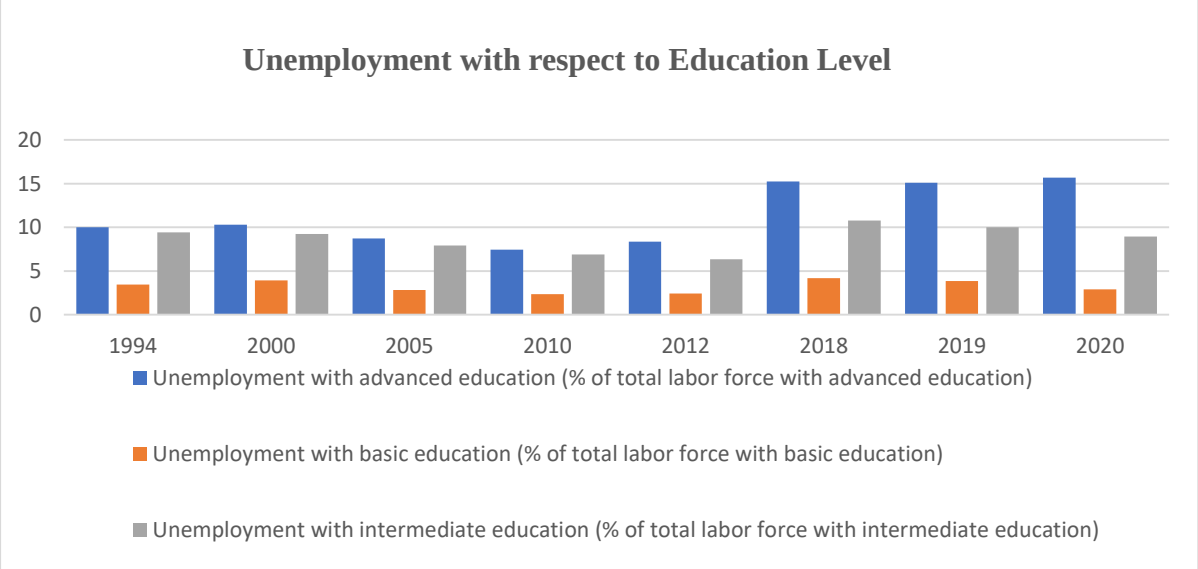


Source: Statista

The graph above displays the unemployment rate in India from 1999 to 2021. As can be seen, the trend peaked in about 2020. The global and national pandemic scenario is one reason for such a development. To understand the correct trend of India's unemployment rate concerning the inflation rate.

There are various explanations behind the country's high unemployment rate. One of the most important factors is a lack of progress or weakness in the educational system. Another major factor in Indian unemployment is a lack of education. Professionals in the capitalist world are highly specialised, but India's educational system does not provide the necessary training and specialisation. As a result, many people who want to work are unable to find jobs due to a lack of skills.

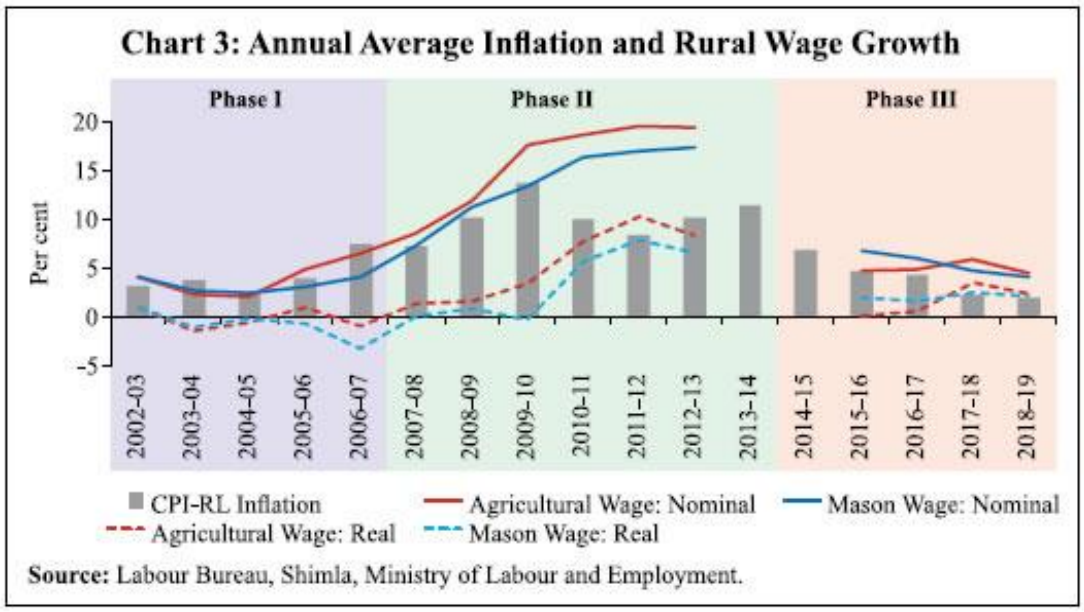
The above factor can be illustrated in the following figure, indicating the level of education and the unemployment rate in India (1994-2020).



According to the graph below, the labour force with higher education has the highest unemployment rate from 1994 to 2020. 2020 has the highest rate, followed by 2019 and 2018. Individuals with a higher degree of education have a higher unemployment rate than those with the lowest level of education. The highest of these is in 2018. According to the data below, the unemployment rate is the lowest when it comes to the share of the workforce with basic education.

In economics, wages are the prices paid to labour for its contribution to the industrial process. As a result, the wage rate meaning is a worker's rate of pay. It is an important topic in human resource research. Two variables regulate it: work productivity and production hours. Wages and unemployment are inversely related.

In recent years, rural wages in India have varied substantially. A period of fast growth in rural wages from 2007-08 to 2012-13 was followed by a period of severe deceleration. Farm salaries dipped into negative territory due to a period of strong inflation from October 2015 to September 2016, before becoming positive but remain low. Given the importance of rural wages in defining the living standards of a sizable portion of the country's population, it's worth looking into the factors underpinning altering rural wage patterns and wage growth that have been subdued in recent years.



Source: Reserve Bank of India

The graph above indicates that nominal wage growth and inflation are tightly related and that an increase (decrease) in nominal wage growth is followed by an increase (decrease) in inflation. Second, phase-wise changes show that pay patterns in agriculture and non-agriculture have moved dramatically. While the first phase saw agricultural and non-agricultural wage growth overlapping, the second phase has seen agricultural wage growth frequently outperform non-agricultural wage growth. This divergence first showed at the end of the first phase. In contrast, during the third phase, non-agricultural wage growth surpassed agricultural wage growth for a while before dropping, matching the trend seen in the first phase.

VII. Findings and Conclusion

India's inflation rate has grown during the last decade. Nonetheless, it has been trending downward since 2010. India's economy, on the other hand, has been performing admirably, with GDP constantly increasing for years and government debt dropping. The fiscal balance in terms of GDP is not looking good, with the state deficit topping 9% of GDP. Furthermore, the rural and urban inflation dynamics exhibit close co-movement, with occasional divergences induced by multiple components - food, fuel, or ex-food and fuel - that are transitory in nature. The trend and cyclical components of urban and rural inflation are found to be comparable. Before COVID-19, both rural and urban inflation showed a progressive decline in persistence (up to 2018).

From a logical standpoint, the link between inflation and unemployment makes sense. When unemployment lowers, demand for labour exceeds supply. Simply, there are many more open vacancies than there are job seekers. When unemployment rises, however, the supply of persons looking for work far outnumbers the need. This is because, even though more people want to work, few employers are hiring. Because unemployment is low (when more people are working), more consumers have extra money to spend, and demand for goods rises. Prices rise when this happens. Buyers purchase fewer things during periods of high unemployment, placing downward pressure on pricing and cutting inflation.

The human consequences of unemployment would be compelling enough to make low unemployment a top public policy priority. Unemployment, on the other hand, has societal and economic consequences. When millions of unemployed but motivated workers are unable to find work, economic resources are squandered. A high-unemployment economy is akin to a company that operates with a functional but underutilised plant. The opportunity cost of unemployment is the output that unemployed workers could have produced.

To summarise, unemployment is more than inflation. This is because it is more feasible to keep people working. Individuals can keep up with inflation as long as they are employed, even if prices rise. Authorities and governments exclude jobless people from the equation by focusing on inflation. As a result, the relationship between the unemployment rate and the amount of inflation is an important trend to analyse. Furthermore, the underdeveloped agricultural sector employs the majority of the country's people. As a result, the trend in rural unemployment rates highlights the observable development of the agricultural sector of the economy.

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