

Phillips Curve Unemployment And Inflation In Context Of Indian Economy

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ABSTRACT

The present research study reveals the existence of the Phillips curve approach in the Indian economy context. To illustrate the Phillips curve researchers have considered two variables viz... Unemployment Rates and Inflation Rates in the context Indian Economy.

Secondary information was obtained from the annual data collected from various sources. The study was based on secondary data for the decade from 2009-10 to 2018-19.

Results were obtained by using the statistical tests such as Averages, Percentage methods, Trend analysis, Correlation Coefficient etc.

The results interpret that there is an inverse relationship between Unemployment and Inflation in the Indian Economy Context.

Thus it is confirmed from the research study that there is existence of Phillips Curve in the Indian Economy.

Keywords: *Phillips Curve, Unemployment rate, Inflation rate, Indian Context, Variables, Factor Relationship, Economy etc.*

1. INTRODUCTION:

The present research study examines the relationship between unemployment rates and inflation rates in context of Indian economy. Indian economy has the highest inflation rates among emerging economies in the world.

Since independence India's economy is facing one of the severe problems i.e. unemployment. In the past 73 years, as per the collected data, the Indian economies unemployment rate is one of the debatable questions among the people.

Reports indicate that the unemployment rate of Indian economy is at 3.43% in the year 2018-19 which is reducing slowly but still quite high compared with other emerging economies.

According to the Indian government reports, in September 2018 Indian economy had 31 million people unemployed in the country and more employment opportunities are required to be generated and created for handling the situation. Indian Government is trying hard to overcome this problem.

In each and every five year plan, Indian Government has introduced new policy for creating new employment opportunities like Make in India, Made in India, Skill India etc. The root of this problem is 'Jobless Youth' in the Indian economy. Thus the question is arising that is there any relationship between unemployment and inflation.

Phillips investigation: Phillips curve found that there is an inverse relationship between unemployment rates and inflation rates i.e. inflation increases as unemployment decreases and vice versa. So it proves that there is the existence of the Phillips Curve in the context of India.

Challenges of unemployment rate in Indian context: The rapidly increasing population is the main reason behind increasing unemployment rate and on the other hand shortfall of skilled

manpower, low capital, inefficient allocation of resources and inefficient business and market proximity are unemployment problems in Indian context.

Challenges of inflation rate in Indian context: High level of inflation rate, inflationary gap, huge supply of money, corruption, decreasing productivity and less export whereas excess import these are significant challenges of inflation in the Indian context.

2. REVIEW OF LITERATURE:

The literatures reviewed for present research study are-

Estimation of Phillips Curve, Lipsa Ray. This research study reconsiders the existence of the Phillips curve in the Indian context. In this study researcher took variables like inflation and output gap.

Study on Unemployment and Inflation in India, M. Thiruneelakandan & Ullamudaiyar. The objective of this research paper was to study the trends of unemployment and inflation rate in India and analyse the tradeoff between unemployment and inflation in Indian economy.

Understanding Inflation in India Laurence, Ball Anusha Chari & Prachi Mishra. This research paper examined the trend of inflation in India. Researcher has explained Phillips curve in which the inflation rates are dependent on slow-moving averages and deviation of output from trends.

Empirical Study of Phillips Curve, Manoj Kumar & D. C. Vashist. Inflation and unemployment are two significant variables in macroeconomics. This study founds that past study has mixed evidence about the shape of the Phillips curve

Phillips curve relationship in an emerging economy, Harendra Kumar, Garima Wahi and Muneesh Kapur. This research paper reexamined the issue of determinants of inflation with the help of Phillips curve framework and made key contributions in existing studies.

3. RESEARCH METHODOLOGY:

A. Research Objectives:

- a) To study the concept of Phillips Curve & its existence in economies.
- b) To find out the existence of the Phillips Curve in the context of Indian economy.
- c) To measure the relationship between unemployment rate and inflation rate in the context of Indian economy.

B. Hypothesis:

H₀: There is an existence of a relationship between unemployment rate and inflation rate in context of India.

H₁: There is no existence of a relationship between unemployment and inflation rate in context of India.

C. Scope of Research:

The scope of present research study was the last decade i.e. 10 years of unemployment and inflation data from 2009-10 to 2018-19.

D. Data Collection Methods:

a) Type of Data:

Secondary data has been collected and used for the present research study.

b) Sources of Data:

Secondary data was collected from the internet, books, journals, articles, publications and various printed material.

c) Tools for Data Analysis:

Averages, Percentages, Line Chart and Correlation Coefficient was used for analysis of collected data and hypothesis testing.

d) Duration:

The present study covered a time span of a decade i.e. from year 2009-10 to 2018-19.

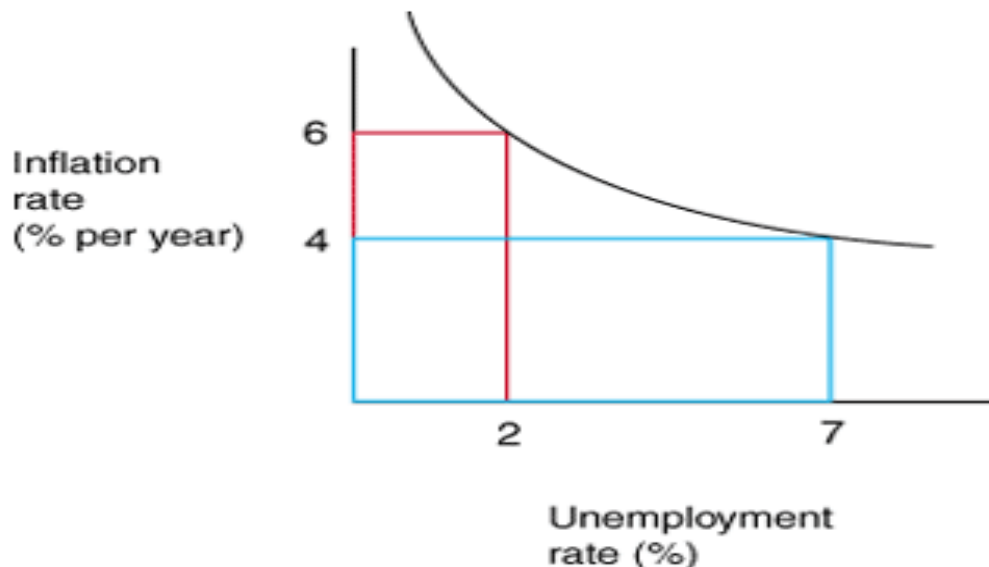
E. Limitations of study:

- a) Present study was based on available data and information of unemployment and inflation rate of India.
- b) The present study concentrates only upon Indian scenario of unemployment and inflation rates.

4. DATA ANALYSIS AND INTERPRETATION:

a) Phillips Curve:

The study of “relationship between inflation rates and unemployment rates” is known as Phillips curve.



The study suggests that there is existence of relationship between inflation rates and employment rates in the context of India.

Certain extent of inflationary conditions in the economy are considered valid in order to reduce unemployment rate.

Phillips found a relationship between unemployment rates and inflation rates in the context of Indian economy.

Phillips found that unemployment rates and inflation rates have an inverse relationship i.e. inflation rises as unemployment falls and vice versa.

The challenge in front of policy makers is how to keep inflation rates and unemployment rates low as much as can.

Phillip's study was an important outcome but having some challenges like how to control unemployment rates and inflation rates, when minimizing one result, increasing the other.

It is significant to know that the Phillips curve cited above is a forecasted example, actual Phillips curve may vary due to other varriables.

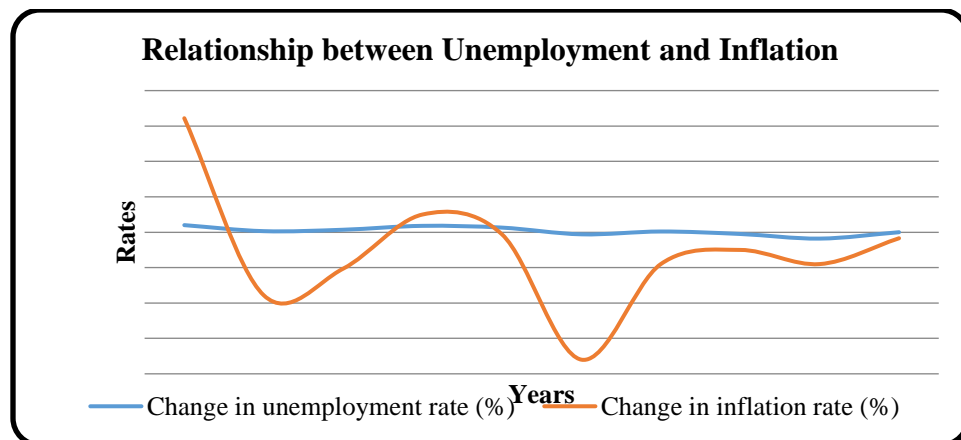
b) Relationship between Unemployment Rates & Inflation Rates in Context of India Since 2009-10 to 2018-19:

The approach of Phillips curve is- reduction in unemployment increase in inflation and increase in unemployment reduction in inflation.

The table below shows variation in unemployment and inflation rates currently in India since 2009-10 to 2018-19:

Table No. 1: Relationship between Unemployment and Inflation										
Years	2009-10	2010-11	2011-12	2012-13	2013-14	2014-15	2015-16	2016-17	2017-18	2018-19
% Change in unemployment rate	0.2	0.03	0.07	0.18	0.13	-0.06	0.02	-0.05	-0.18	-00
% Change in inflation rate	3.22	-1.78	-1.03	0.5	-0.06	-3.6	-0.9	-0.5	-0.9	-0.17

Source: dbie.rbi.org.in



Analysis & Results: From the above results and analysis it has been observed that Phillips Curve exists in Indian context. In 2009-10 change in unemployment rate was 0.2% whereas inflation rate was 3.28%.

In the years 2015-16 and 2016-17 the unemployment rate was negative i.e. 0.02% and (0.05%), at the same time inflation rates were (0.9%) and (0.6%) respectively.
Therefore, relationships exist between unemployment rates and inflation rates in context of Indian economy.

5. HYPOTHESIS TESTING:

H₀: There is an existence of a relationship between unemployment rate and inflation rate in context of India.

H₁: There is no existence of a relationship between unemployment and inflation rate in context of India.

Table No. 2: Hypothesis Testing Results		
Sr. No.	Particulars	Correlation Coefficient
1	Inflation Rate based on Wholesale Price Index for all Commodities & Unemployment Rate	-0.3664
2	Inflation based on Consumer Price Index & Unemployment Rate	-0.1239
3	Inflation Rate based on Gross Domestic Product deflator (annual %) & Unemployment Rate	0.0315

The statistical results proved the relationship between unemployment rates and inflation rates in the Indian context.

The Correlation Coefficient between inflation rates based on WPI for all commodities and unemployment rates is -0.3664 and other two results clearly interpret that there is an inverse relationship.

The correlation coefficient between inflation and unemployment is negative, so null hypothesis is rejected (**Reject H₀**) and alternate hypothesis is accepted (**Accept H₁**).

There exists an Inverse relationship between unemployment rates and inflation rates in the Indian context.

6. FINDINGS:

The significant findings of the research study are:

- It is found that if Inflation rate rises, the unemployment rate falls and vice versa.
- Unemployment rates and Inflation rates showed inverse relationship in the context of Indian economy.
- It is confirmed that there is existence of the Phillips curve in the context of Indian economy.

7. CONCLUSION:

The present research study attempts to demonstrate whether the relationship exists between unemployment rates and inflation rates in the context of Indian economy.

The results, analysis and findings of the study proved that Phillips Curve present in the Indian Economy.

The results and observations showed an inverse relationship between the unemployment rates and inflation rates in the context of Indian economy.

The results of statistical tests and hypothetical analysis revealed that unemployment rates and inflation rates are inversely related, thus confirming the existence of the Phillips curve in the context of Indian economy.

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