



TRENDS AND MEASURES OF INFLATION IN INDIA

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ABSTRACT:

In this research paper inflation is defined as the steady and continuous rise in the general price level that is an economic phenomenon that is most feared by policymakers around the world. Inflation has become a major obstacle to achieving the objective, as policymakers seek to develop policies that promote rapid and stable economic growth and development. Price volatility adversely affects the growth and growth process. The increase in the price level actually reduces the value of wealth and income. Due to a lack of purchasing power, people are able to buy the original basket by spending a large portion of their disposable income. Higher level of spending reduces the savings of the economy. This reduction in savings has resulted in a favorable decline in investment and thus adversely affects economic development.

The Indian economy is considered to be a developing economy characterized by three sectors, agriculture, production and service sectors. In our study, we will try to study whether barriers exist in agriculture and production and whether these barriers increase regional inflation in the economy. Let us now discuss the problems that arise in the agricultural sector and how these barriers affect inflation in the region.

Key words: - *Inflation, Consumer Prices, Monetary Policies, Credit Delivery, Price Index*

INTRODUCTION:

The Price stability is one of the main objectives of every macroeconomic policy making in the economy as it helps to stabilize nominal interest rates and thereby promote higher investment and development. Higher levels of inflation or price volatility may reduce purchasing power in the future and therefore may adversely affect savings, investment and economic growth. Inflation can also increase the risk of high turnover in the business and the reduction of export competition.

The rise in the rate of inflation also affects the market for constituents. The result is increased input prices. Inflation can also have adverse effects on the external sector. In an inflationary economy, the value of domestic currency and the exchange rate will decrease. While imports will be more expensive, exports will be cheaper. Although it can be argued that this may lead to an increase in the level of

exports, it is generally observed that inflation payment has an adverse effect on the balance of the situation. Adverse conditions in the external sector also create barriers to access to foreign capital and adversely affect re-development.

There is a steady increase in the overall level of inflation. The RBI is concerned with inflation as price stability is the main objective of monetary policy. The prices of certain goods or services may go up or down compared to the prices of others reflecting changes in productivity or demand and supply conditions. But when the total cost level rises, it reduces the purchasing power of income, increases the cost of living, and reduces the actual cost of savings. Savers, investors and financial intermediaries closely observe the link between inflation and interest rates. The level of inflation is also critical in maintaining the competitiveness of domestic industries in the liberalized trade and market exchange rates government. Above all,

poor people are at risk of inflation as there is no effective hedge against inflation. As Keynes puts it, "inflation is a form of taxation that the public finds difficult to avoid." Thus, the issue of inflation and its measurements is always catching up in India.

Structural Approach to Inflation:

The structural outlook for inflation suggests that during periods of rapid development, demand for the product increases at a larger and faster pace. However, with the increase in demand the output in the economy is not able to continue supply. The structuralism approach proposes that different sectors of the economy are not able to increase output in the short term due to constraints existing in the respective sectors. These constraints may be due to the nature of the products produced by the sector, obsolete and sophisticated technology used by the sector (in the case of manufacturing) or the inability of the economy to promote the export of traditional goods that help the generation.

Agricultural Sector:

Structuralize approaches to inflation suggest that inflation is an inevitable consequence of rapid economic development. Large investments in the economy result in ~~rapid economic~~ growth. These investments are usually made in non-profit sectors. As a result, agriculture is backward even though the non-agricultural sector is growing at a rapid pace. Thus, the sector has limited access to modern tools (e.g., tractors, harvesters), advanced inputs (e.g., fertilizers, pesticides, high yielding varieties of seeds (HYVs)), and limited access to basic infrastructure due to low investment in agriculture. The limited availability of HYV seeds, fertilizers, pesticides and modern technologies for facilities (e.g. irrigation) has a detrimental effect on the productivity of agricultural products. Further, the lack of proper irrigation facilities means that the area will have to rely mainly on rainfall to meet the

water needs. Uncertainty related to rainfall in terms of timely arrival and / or rainfall ratio brings down the productivity of the area as crops die due to various crop diseases due to lack of water or short rainfall. We also note that this area depends on biological processes. As a result, the production of certain types of output requires a gestation period. Thus we observe that the sector cannot adjust its production in the short term due to the supply of the sector.

In terms of mathematics, inflation in the agricultural sector works as follows to bridge the gap between production and increase in production cost. Following is the mathematical function to calculate the output gap, growth in manufacturing prices, inflation in agriculture sector.

$$INFAGRI = INFAGRI (GAPAGRIR, INFMANU_{-1} INFAGRI_{-1}) \quad 1$$

For the output of the agriculture and output of the potential following is the mathematical expression...

$$GAPAGRIR = \left(\frac{AGRIR^P - AGRIR}{AGRIR^P} \right) \quad 2$$

To obtain a possible output series, we fit the log-linear trend using the regression equations provided in Equation 3. The predicted / fitted values for this regression are taken as trend levels of potential or output.

$$LOG (AGRIR) = \alpha_1 + \alpha_2 Trend + \epsilon_{17}$$

To determine the existence of obstacles in the agricultural sector, the linear form for the function given by Equation 1 is given below.

$$INFAGRI = \beta_0 + \beta_1 GAPAGRIR + \beta_2 INFMANU_{-1} + \beta_3 INFAGRI_{-1} + \epsilon_{18}$$

Regional prices include inflation needed to anticipate inflation. We expect the signs of falling inflation to be positive.

Positive production gaps in agriculture show that the region has the potential to produce at

the level of (AGRIR^P), despite the fact that there is less production than is possible in this area. We argue that this gap exists because of the barriers discussed earlier. This deviation of output from its potential level causes the sectorial price to rise. Thus we expect the coefficient of the output gap in Equation 4 to be positive and significant.

Hence, the agricultural sector requires production through the manufacturing sector. Inflation in the manufacturing sector is adversely affected by the cost of production on the agricultural sector, which will affect the inflation in the agricultural sector. We thus expect the coefficient of inflation in the manufacturing sector to be positive. We will now turn to the discussion on the existence of barriers in the manufacturing sector and the factors that create pressure on inflation in this area.

Manufacturing Sector:

Product inflation can be clearly explained by two factors. The inability of the region's production to adjust the FIU for demand growth can be considered as a factor. Another factor that may increase the price level is the increase in the cost of production in the region. We will first try to explain the reasons behind the constraints in the production process and then discuss the factors that affect the cost of production. Rapid economic growth leads to rapid growth in the income of the economy. With the increase in the income of the economy, there is a rapid increase in the demand for production in the agricultural and manufacturing sectors. Now, the manufacturing sector uses agricultural production as the main input into the production of products. Due to the constraints in agriculture, production in that area is very limited, which means that the input to the production sector is very limited. In this way, problems in the agricultural sector will prevent the region from producing potential products.

Inflation in the manufacturing sector is proposed to be a function of the constraints in the production sector, inflation in the agricultural and external sectors, and in the manufacturing sector. Inflation in the manufacturing sector can be written as follows: Output gaps in mathematically manufacturing sectors, increase in import prices and increase in agricultural prices.

INFMANU = INFMANU (GAPMANUR, INFAGRI-1, INFMANU-1, INFIMP) 5

For the output of the Manufacturing (MANUR) and output of the potential (MANUR^P) following is the mathematical expression...

GAPMANUR =

$$\text{GAPMANUR} = \left(\frac{\text{MANUR}^P - \text{MANUR}}{\text{MANUR}^P} \right)$$

To obtain a series of possible outputs, we fit the log-liner trend using the equation 7. The predicted / fitted values for this regression are taken as a possible output.

LOG (MANUR) = $\gamma_1 + \gamma_2 \text{Trend} + \epsilon_{19}$

The positive output gap in the manufacturing sector indicates that although the sector has the capacity to produce manure levels, the actual production potential produced by this sector is less than likely. We are responsible for the various bottlenecks in the product to its full potential. A positive sign of the multiplication of the output gap in the manufacturing sector indicates that if the output speed is positive, that is, the actual output potential is less than the inflation in the manufacturing sector.

INFMANU = $\delta_0 + \delta_1 \text{GAPMANR} + \delta_2 \text{INFGRI}_1 + \delta_4 \text{INFIMP} + \delta_{20}$

Let us now turn our attention to the impact of regional constraints and regional inflation on the overall inflation of the economy.

Overall Inflation in Indian Economy:

The overall inflation of the economy can be

attributed to the weighted sum of regional inflation. The Indian economy is divided into three sectors. Agriculture, production and service sectors, we have explained the factors affecting inflation in the first two sectors. In our study, we assume that the service sector inflation is externally determined. Then the relationship between overall inflation and regional inflation is shown as follows.

$$\text{INFWPIAC} = \text{INFWPIAC} (\text{INFAGRI}, \text{INFMANU}, \text{INFSESV})$$

Below is the econometric equation you can estimate to determine overall inflation and regional inflation.

$$\text{INWPIAC} = \varphi_0 + \varphi_1 \text{INFAGRI} + \varphi_2 \text{INFMANU} + \varphi_3 \text{INFSESV} + \varepsilon_{21}$$

We expect that the regional inflation coefficient will show positive signs and will be statistically significant. That is, when inflation rises in a sector, overall inflation in the economy also increases. The magnitude of regional inflation is the number of regions that contribute to India's overall inflation.

Inflation Measures:

In India, inflation is measured using different price indices. The commonly quoted index is the Wholesale Price Index (WPI), which is a measure of the average change in the wholesale prices of commodities in the economy, and the Consumer Price Index (CPI) that changes the general level of retail prices of selected goods and services. Those families buy for consumption purposes. Other available indices include the GDP deflator, which is defined as the ratio of GDP to current prices, to GDP ratio at constant prices, and the Private Final Consumption Cost (PFCE) deflator which gives a clear estimate of inflation for the economy. Both indices are derived from the National Accounting Statistics. However, the GDP deflator and PFCE deflator are only available on a quarterly basis after a two month interval from 1996. For this reason, the focus of this study is on the WPI and CPI for the

Industrial Workers Index (CPI IW) and the Indian inflation is calculated using both the indexes.

Wholesale Price Index (WPI):

The WPI series was compiled and published by the Office of the Economical/Financial Advisor (OEA), Department of Industrial Policy and Promotion (DIPP), Ministry of Commerce and Industry, Government of India (GoI). WPI seeks to capture price movements in the economy at the wholesale level. It is used as a deflator for various nominal topographical variables to obtain the actual variables. The WPI base is revised from time to time to coordinate with other indicators in the economy. The WPI was started on September 2, with the foundation year 2004-05.

Consumer Price Index (CPI):

Consumer prices calculate the marginal cost of goods consumed by consumers in the economy. CPI numbers change the living value of workers to some extent, so that their salary can be paid at varying levels of rates. The CPI in India is designed for different segments of the population. There are five different CPI solutions:

- CPI/Industrial Workers (CPI-IW).
- CPI/Agricultural Labourers (CPI-AL).
- CPI/Rural Labourers (CPI-RL).
- CPI/Urban Non-Manual Employees (CPIUNME).
- CPI-Combined (CPI-C).

Issues in Choices of Inflation Measure:

In India, the RBI focuses on historical wholesale price index developments. This is visible in the bulk of the analysis devoted to WPI in Central Bank Communication. Consumer prices are referenced as early significant discharges from the dynamics of WPI. To select a solution that focuses on monetary policy, there are three points to consider:

1. The first challenge is to select the reference population. In any country, no single price index will affect the entire population as a result of price changes. Thus the target population must be selected. The price index of this population should not move very eagerly from other people.
2. The weight of the index must be chosen. This distribution should be close to the current consumption basket of possible populations.
3. The prices in the indicator should be calculated correctly, the consumption baskets should be effectively reflected and the data timely and reliable.

Taking these criteria into consideration, we now analyse the various price indices available in India in terms of a choice that best fits the above criteria.

Index Pricing of Wholesale:

India is one of the few countries to be considered as the headline in the central bank's measures. This priority over CPI is often explained by three criteria: national coverage, timely release, and availability in a very different way. Only the last one of these criteria is controversial: CPI numbers are not disclosed to the public in the details available for WPI. The approach underlying WPI depends on two concepts: the total value of the output of the manufactured products and the value of the surplus marketed for agricultural products.

Deflator in GDP:

The GDP deflator is another indicator of inflation, which is often considered to be wider than CPI and WPI. In most countries, the GDP deflator is obtained using various primary price indices. It is used to reduce the cost of individual components of GDP in current estimates. The GDP deflator is needed indirectly as a ratio of current prices to estimates at constant prices. When this process is followed, the GDP deflator is legally recognized as a high quality inflation measure.

Thus, by construction, the most recent files on the quarterly GDP deflator are less information than is already visible in WPI and CPI.

Price Index of Consumer:

Overall CPI is the representation of the average basket value of goods and services used by households. However, in India, existing CPIs refer to particular segments of the population. The index is compiled from 78 centers. The so-called 'industrial workers' class is actually wrong and includes workers in factories, mines, plantations, trains, public motor transport activities, power generation and distribution establishments as well as ports and docks. These include discontinued rentals, as is done internationally by some measures of CPI, e.g. U. S. In. In addition to the estimated rental component, the index has 10% service. Moreover, from the point of view of credit, one of the important assets of the CPI-IW is that the salary index for civil servants is used as a reference index.

However, in the food category, we have stated that the distribution of costs is not very different between the two weights. This improves your density in the CPI-IW's weight plan.

Prices of Foods in India:

Food prices have been the biggest contributor to high CPI inflation in recent years. This has become a major topic of discussion among policymakers and the media. To find out the accuracy of food pricing data, we generate data for food prices from four sources:

- Ministry of Agriculture (MOA): retail and wholesale rates.
- CMIE: Commodity spot price data produced on a daily frequency for the National Commodity Derivatives Exchange (NCDEX).
- Labour Bureau: Price level data under CPI-IW.
- FCI: Minimum Support Price (MSP)

Monetary Policies:

Turning to the evaluation of monetary policy, it would be fair to say that monetary policy has been largely successful in meeting the main objectives of the post-financial reforms. 1990 As inflation declined worldwide in the late 1990s, so did India. The average inflation rate for the last decade has been around five percent, which is less than eight percent in the last four decades. 1990s Structural reforms of the late 1990s, including improved financial-financial interfaces and reforms in the government securities market, enabled better financial management after the late 1990s. Most importantly, after the implementation of low and stable inflation, stable expectations of inflation and inflation tolerance in the economy have come down. Despite international crude oil prices, it is encouraging to note that inflation is low and expectations of inflation are stable. Inflation expectations are a key determinant of real inflation, and as inflation collapses, we are taking pre-emptive measures to keep inflationary expectations stable. As discussed below, many of the equipment, both existing and new, were working to improve liquidity conditions to achieve the desired objectives. Other factors such as increased competition, productivity gains and strong corporate balance sheets have contributed to this low and stable inflation environment, but it appears that calibrated financial monetary measures have also played a significant role.

Financial Sector and its Challenges for Growth:

Higher sustainable growth leads to a larger number of households increasing their income in the higher income category and hence higher savings groups, along with increased demand for financial savings opportunities.

While maintaining high inflation as the main purpose of inflation, along with the high and sustainable development that is desperately

needed for the developing economy, we did not support targeting inflation. Apart from the legal concerns regarding development as the main objective, some other factors suggest that inflation targeting is not suitable for India. First, like many other developing countries, we have moderate inflation, while double-digit inflation is the exception and is mainly socially unacceptable. Secondly, the existence of efficient financial transmission mechanisms is essential for the operation of the financial markets through the operation of competent financial markets and the absence of interest distortions. In India, although the money market, government debt and foreign exchange market have really evolved in recent years, they still have some way to go, while the growth of the corporate lending market is still pending. Although interest rate control has been largely met, some administrative interest rates still remain. Third, inflationary pressures still persist due to significant supply shocks related to the adverse effects of rainfall on agriculture, where monetary policy may have little role. After all, in a large economy like India, it is also difficult to select universally acceptable parameters of inflation, due to various regional differences and the incompleteness of the components and products in the market of products.

CONCLUSION :

The Indian experience underscores the need for developing market economies to provide greater flexibility in exchange rates, but the authorities can also benefit by having the ability to intervene in the foreign exchange market in the wake of the volatility in international capital flows. An important lesson is that in developing countries, rather than adhere to strict theoretical rules, flexibility and practicality are required in the management of exchange rates and monetary policies. Three features that mark India's transition to the open economy.

The challenges that arise are outlined in the shape of business activities. On the one hand, the largest companies are acquiring such financial shapes so that they are approaching the banks' discretionary exposure limits even though they are still small compared to large global MNCs. On the other hand, with changes in technology, there is new activity at all levels of activity, both small and medium. To tackle these earlier problems, the largest Indian banks should be encouraged to accelerate growth through organic growth and consolidation; and the corporate debt market needs to be developed so that the biggest companies can have direct access to the financial market. Banks need to be more robust with risk management systems, including risk management, for the growth and contribution of companies at the bottom. Financing new entrepreneurs and jobs is a fundamentally risky business because of no previous sales and inadequate availability of collateral, but it is the banks' job to take such risks, but in a measured way. Given the history of the public sector banks shown earlier, such an approach requires a change of mind-set, but training on risk assessment, risk management and marketing is focused.

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Figure 1.1 Consumer Prices

