

FOOD INFLATION IN INDIA

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Food inflation in India has remained stubborn in recent years. A number of proximate factors such as increasing demand particularly arising from higher rural wages, rising agricultural cost of production, changing consumption pattern favoring protein items, increases in minimum support prices (MSPs) and droughts in certain years are believed to have led to higher food inflation. This paper examines the relevance of these factors and finds that increasing real rural wages have played the most dominant role in the determination of overall food inflation in India in the long-run. Though statistically significant, the long-run impact of hikes in MSP of food crops, namely, rice and wheat and input cost inflation (except wages) on food inflation were not as overbearing as were generally perceived. Similarly, the long-run impact of protein expenditure on food inflation, though significant statistically, was found to be

weak. In the short-run, the impact on food inflation stems from the same factors that are important in the long-run viz., increases in rural real wages, MSP and input price pressures. Empirical results indicate that the introduction of MGNREGA does not seem to have caused any significant increase in food inflation as generally perceived. Since the increase in real wages have the largest influence in driving food inflation, it bears to reason that there is a need to raise agricultural productivity in line with the increase in real wages to assuage food price pressures.

The general perception has been that with rise in income, the expenditure on non-food rise faster than food expenditure. This is owing to the relatively low income elasticity for food expenditure. However, rising income is generally accompanied by increase in preference for higher value and more nutritious food items. This has been the case in the Indian context also as shown by the rising share of higher and more nutritious food items in total food expenditures by the various rounds of NSSOs consumption expenditure surveys. Rising income and the consequent changing preference may have been one of the major factors determining the observed pattern of food inflation in recent years. Another aspect is the structural constraints facing Indian agriculture leading to demand-supply gaps and thus persistent build-up of food price pressure. These constraints are rising population, limited supply and competing uses of cultivable land, low agricultural productivity which remained more or less stagnant during the 2000s. The vagaries of climate change, in particular, the adequacy, spatial and temporal distribution of rainfall together with lack of necessary inputs and mechanization often resulted in fluctuating agricultural production and thus bouts in food prices. Rising personal disposable income, particularly, in rural areas with the implementation of MGNREGA and the steep hikes in MSPs in recent years may have also contributed to increase in and changing composition of demand for food and thus higher food inflation. The role of fiscal and monetary policy, especially the impact of the stimulus packages and the monetary stance in the wake of the global financial crisis have also been ascribed to have also contributed to rising inflation in general. However, these factors have not been put under empirical analysis as to whether they have contributed to food price inflation. It is in this backdrop that an attempt is being made in this study to empirically verify the contribution of these factors to the observed pattern of food inflation during the period.

There have been number of empirical and analytical studies in India which have tried to explain the recent trend in food inflation in India. These studies have broadly attributed food inflation in India to supply and demand side factors.

One of the traditional explanations for rising food prices has been the supply-side shocks related to weather either because of droughts or floods. Mohanty (2010) argues that drought-led high food prices have contributed significantly to seven out of nine double-digit inflation episodes (between 1956 and 2010) in India. Over the years the volume and spatial distribution of monsoon rains have a significant impact on agricultural production and hence food inflation (Mohanty, 2014). The Reserve Bank of India (RBI) has also emphasized that supply shocks have been the main drivers of inflation (Reserve Bank of India, 2010). Chand (2010) argues that the main reason for India's high food inflation during 2009 was the supply shocks due to droughts and carryover effect of low growth of food production in 2008–09.

In addition to short-run transient supply-side factors, there are also long-term structural supply-side factors which raise food prices such as a shift in land use from food crops to export-oriented commercial crops since the mid-1990s, environmental degradation and the resultant fall in agricultural productivity. A commodity wise analysis of inflation by Nair & Eapen (2012) has found that majority of the commodities was subject to inflationary pressures due to domestic supply-side constraints. With the exception of milk, the paper finds no concrete evidence to support the popular view that the higher food prices in recent years were the outcome of a "secular shift" in food consumption patterns towards high-value agriculture products.

As far as demand side is concerned, rising incomes especially rural farm wages (Chand 2010, Mohanty 2013) and increase in real consumption (Mohanty 2013) are highlighted as major reasons. The Indian economy has been growing fast since the opening of the economy in the early 1990s. In addition to the high growth of the economy, the rapidly expanding Indian middle class has been cited as a major cause of the rise in food prices in India in recent years. In his analysis of 'Changing Inflation Dynamics in India', Mohanty (2011) demonstrates that average annual monthly per capita expenditure has risen faster in the second half of the 2000s than in the first half. Though the share of per capita food expenditure has decreased during this period, there has been a clear structural shift in food consumption towards protein-based food items in recent years. The prices of these items, including fruits and vegetables, have increased at higher rates than that of cereal products, since the supply side of these products has not been able to meet such a rapid increase in demand (Mohanty, 2011 and 2014). Subbarao (2011), Rajan (2014) and Gokarn (2010 and 2011) have explained the high value food and protein driven food inflation by showing that the change in income distribution and income levels that has taken place in India in recent years, has led the demand for protein-based food items like pulses, eggs, milk and milk products and meat products.

Another source of the demand-driven inflation is the expansionary income support offered to the poor through schemes, such as Mahatma Gandhi National Rural Employment Guarantee Scheme (MGNREGA), pay commission awards and other social welfare schemes. These welfare and employment oriented schemes such as MGNREGS have infused substantial amounts of liquidity and purchasing power generating increased demand for food items (Rakshit 2011, Ministry of Agriculture, GoI). Rajan (2014) noted that "a sharp pickup in rural wages was seen after the rural employment guarantee program (assuring 100 days of employment to every household whose adult members volunteer to do unskilled manual work) was enacted. MGNREGA may have contributed to the bargaining power of rural workers, but careful econometric studies suggest that it accounts for only a small fraction of the rural wage increase, and indeed, any effect is waning. That said, the indexation of MGNREGA wages suggests its effects in pushing rural wage inflation will not disappear entirely." Further, occasional pay commission awards may also have added to the pressure on worker wages in general.

The study shows that the persistence of food inflation in recent years can largely be ascribed to higher wages, particularly, in the rural sector pushed further by hikes in MSP of rice and wheat and input cost inflation. These very factors also explained the movement of food price in the short-run. The long-term impact of protein expenditure, though large in magnitude, was found to be weakly significant. The vagaries of monsoon have contributed to food price pressures occasionally, but they may not have long-term impact on food prices. Empirical results indicate that the introduction of MGNREGA does not seem to have caused any significant increase in food inflation as generally perceived.

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