

# Prices

***The bigger question is what to track – WPI or CPI? WPI is moderating and getting closer to the comfortable zone. However, CPI continues to be close to double digits. The month of December is bringing signs of moderating retail inflation but the upside risks remain. The challenge before the policymakers is how to bring down inflationary expectations which may be caught in a self-fulfilling cycle***

## P.1 What to track?

The “Expert Committee to Revise and Strengthen the Monetary Policy Framework” of the Reserve Bank of India (RBI) released its report on 21st January 2014. Its key recommendations include (i) monetary policy should target inflation such that it varies around 4% with a band of +/-2%. Further, the Committee recommended adopting the Combined Consumer Price Index (CPI, Base Year 2010) published by the Central Statistical Organisation as the nominal anchor for headline inflation. Currently, the headline inflation in India is Wholesale Price Index (WPI, Base Year=2004–05). While not formally accepting the report, the RBI did increase interest rates in face of moderating year-on-year (y-o-y) WPI inflation and sticky CPI inflation, implicitly acknowledging the recommendations of the report.

The decision to move from WPI to CPI was two-fold. First reason was the increased vulnerability of the economy to supply/external shocks and second was the relatively large weight of food in the CPI. Further the Committee argued that the CPI does a better job of reflecting costs of living than WPI. And the Committee provided evidence that CPI influences inflation expectations relative to other measures of inflation.

In the short-run, the target is to bring down in the inflation from 10 to eight per cent over the next one year and then to six per cent over the next two years.

To acknowledge this change, we examine the main components of both WPI and CPI and continue reporting all four indices

of inflation in India. Other than the WPI and CPI, we have Consumer Price Index of Industrial Worker (CPIIW, Base Year, 2001) and Consumer Price Index of Agricultural Labour (CPIAL, Base Year 1986-87). Further, the combined CPI is further divided in rural and urban inflation with the same base year as CPI (Table P.1). All inflation rates are calculated from the indices on a y-o-y basis.

## P.2 Trends of Inflation Rate

The main trends are that WPI inflation rate has gone up while retail inflation remains sticky in double digits or close to it. The quarter-on-quarter inflation of WPI inflation rate shows significant fall from 14.9 per cent in 2013-14:Q2 to 6.4 per cent in 2013-14:Q3. Core inflation continues with its weakening trend, falling further to 4.4% in 2013-14:Q3.

There is weakening of inflation in December in all the indices. Using monthly data to calculate y-o-y inflation rates, WPI inflation was 6.2%, CPI inflation was 9.5%, primarily driven by the fall in CPI urban inflation to 8.6%. CPIIW inflation too fell to 9.1%. Rural CPI inflation in December fell but continued to be in double digits (10.3%). Similarly, CPIAL inflation continues to be in double digits but exhibited weakening trends in December (11.2%).

In sum, inflation shows signs of weakening. Retail inflation, however, remains perilously close to double digits.

### P.3 Food Inflation

World-wide food prices fell by 11% on a y-o-y basis in October-December 2013 (World Bank Pink Sheet). Domestically, we see continued high food inflation. WPI food articles inflation (includes only the food articles component of primary articles) has gone up further from last quarter mainly driven by the rise in ‘fruits and vegetables’ and ‘condiments and spices’ (Table P.2). The good news is that cereals and pulses show a significant slide downwards. ‘Eggs, Meat and Fish’ continues to be in double digits but shows signs of moderation. However, price of milk has gone up slightly though it is in single digits. In sum, protein inflation and ‘fruits and vegetables’ inflation continue to cause angst in the budgets of common citizens.

The CPI combined food, beverages and tobacco inflation in 2013–14:Q3 was 8.2%. This includes cereals and products, pulses and products, oils and fats, eggs, meat and fish, milk and produce, condiments and spices, vegetables, fruits, sugar etc, non-alcoholic beverages, prepared meals and ‘pan, tobacco and intoxicants’.

**In December, WPI food articles inflation weakened to 13.7%. In contrast, CPI inflation went up to 14.7% in December.**

Although WPI and CPI inflation are strictly not comparable because the WPI food articles inflation does not include the price of manufactured food, one thing is for certain that food inflation continues to be high and in double digits. The RBI in its “Macroeconomic and Monetary Developments Third Quarter Review 2013-14” (henceforth referred to as the RBI Review) states that vegetable prices fell sharply in December 2013 and there was further correction in prices in the fortnight of January 2014.

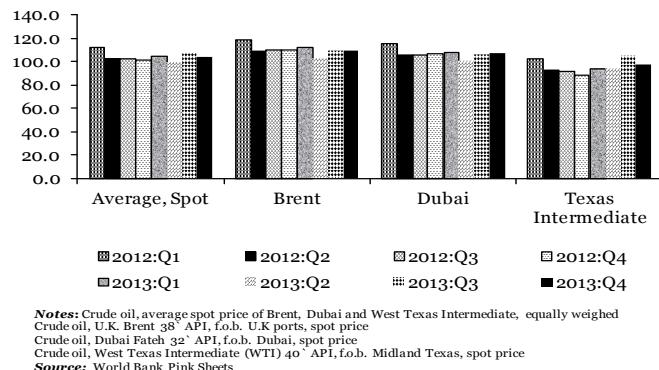
As rain gods play havoc with six per cent above rainfall in 2013, persistent slow build of agricultural infrastructure and little reforms in agriculture marketing, food driven inflation keeps on rearing its

ugly head. In the long run, food inflation can only be kept in check by improvement in infrastructure, structural reforms and government policy initiatives. While the government has historically concentrated its attention to cereal and grain inflation, it is time to re-orient the infrastructure in India to other categories of food as the nation gets richer. An agricultural strategy with a vision plan for the next twenty years is a need of the hour.

### P.4 Fuel Inflation

Crude Petroleum Inflation, included in the WPI Primary articles continues to show double digit inflation and has gone up from 11.8% in 2013-14:Q2 to 17.1% in 2013-14:Q3. In contrast, the world prices have come down (Figure P.1). This is probably due the depreciation of the rupee (Rs per dollar) by 14% on a y-o-y basis in 2013-14:Q3.

**Figure P.1: Crude Oil, \$ per barrel, 2012:Q1 to 2013:Q4**



WPI Fuel and Power inflation has gone down from 12% in 2013-14:Q2 to 10% in quarter three. This is mainly because mineral oil inflation has gone down from 15.3% in 2013-14:Q2 to 12.4% in quarter three. This is consistent with worldwide trends. However, electricity inflation jumped up from 18.6% in 2013-14:Q2 to 23.4% in quarter three.

The CPI Combined Fuel and light inflation shows inflation of only 4.1% in 2012-13:Q3. Worldwide energy prices have gone up by 2.4% in the last quarter of 2013 (World Bank Pink Sheets). This is lower than the Indian measures of inflation.

The likelihood of moderation of fuel and power inflation is relatively low as the RBI Review argues that inflation in this category was mainly driven by increase in administered prices. Any relief would be short-term in nature as it would be driven more by political concerns and may reverse itself after economic concerns take over in the latter part of the year. The RBI Review shows that the under-recoveries of oil-marketing companies continue to remain high at Rs 600 billion during the first half of 2013-14, half of which is on account of diesel.

WPI Manufacturing inflation continues to be low at 2.7% in 2013-14:Q3, up from 2.5% in quarter two.

## P.5 Inflation Expectations

The influence of inflation expectations on CPI have been cited as one of the reasons for moving the headline inflation from WPI to CPI. The RBI started a survey on inflationary expectations in 2005. There are three measures –current, three-months ahead and one-year ahead. All three measures increased to double digits inflation expectation in December 2009 and has stayed up there for three years (December 2013).

Since a longer time series is available for CPI Industrial Workers, it is used to understand the relationship between retail inflation and expectations rather than CPI combined. The WPI has a higher correlation with expectations than CPI. However, in the last seven quarters i.e. since June, 2012, the gap between inflationary expectations and CPI Industrial Workers is relatively narrower than WPI and expectations. Unfortunately, there are not enough observations for us to check this “structural change” in a robust manner.

**Our analysis suggests that for CPI Industrial Workers, expectations is backward looking i.e. current expectations are formed by past values of CPI Industrial Workers.**

The persistence is very high – the effect lasts for 12 lags or almost three years. In contrast, statistical analysis between the inflationary expectations and WPI variable suggest that WPI inflationary expectations are forward-looking. However, the persistence is much lower i.e. about three lags.

If expectations are increasing influenced by retail inflation and they are backward looking, it makes sense for the RBI to reduce CPI retail inflation such that expectations are permanently reduced downwards. Otherwise, there is a risk of getting into a self-fulfilling cycle of inflation. This can only happen with credible action from the RBI such that what it did on 28<sup>th</sup> January, 2014.

## P.6 Asset Inflation

Assets in India mainly includes two items–housing and gold. The CPI Housing inflation in the third quarter of 2013-14 is a lowly three per cent. Using monthly numbers one finds that it is 9% in December, slightly lower November 2013 (9.7%). The RBI Housing Price Index (HPI) shows 13.8% inflation in 2013-14:Q2 versus 15% in Q1. The HPI inflation has steadily come down from the peak of 26% in 2012-13:Q3. The CPI inflation rate in that 2013-14:Q2 was 9.5%, which means the real return on housing still remained positive in the second quarter of 2013-14.

Gold prices have been falling with negative inflation rate since the beginning of 2013.

The third asset is buying of financial assets. We track that by using the BSE. In 2013-14:Q2, the y-o-y increase in BSE was 7.3%, which means the real return on BSE was negative.

Therefore, there is moderation in asset inflation. However, housing inflation continues to remain strong. If there is failure to increase real interest rates, asset inflation will continue to be positive as investors hunt for positive real returns. However, this has grave concerns for growth and equity.

## P.7 Global Inflation

**The RBI Review shows that India has the highest inflation rate amongst all the major emerging and developing economies (EDEs).**

Inflation rate of developed economies are far lower. High inflation rate affects the competitiveness of the Indian economy. The currencies of all EDEs are depreciating in the face of United States tapering off. Therefore, India is worse-off.

## P.8 Inflation Outlook

The RBI Review predicts that “retail inflation measured by the CPI is expected to moderate from current levels, driven down by further seasonal softening in vegetables and fruits prices in Q4 of 2013-14. However, CPI excluding food and fuel inflation is expected to remain elevated, imparting persistence to the headline. Accordingly, headline CPI inflation could still remain above 9 per cent in the rest of 2013-14. In 2014-15, a slow paced inflation moderation amidst sticky prices could continue. Based on the assumptions of the normal rainfall, some cost pressures from administered fuel price increases, elevated rural wages, supply chain bottlenecks and still heightened inflation expectations, CPI inflation is expected to range between 7.5 and 8.5 per cent in Q4 of 2014-15, albeit, with the balance of risk tilted to the upside”.

## P.9 Conclusion

High inflation is hurting India in more ways than one – competitiveness, growth and equity. It is also clear that there is a change in the economy as citizens form expectations which are more aligned with CPI than WPI. Food inflation hurts the poorest sections of society. With asset inflation, the rich only get richer. Further there is little increase in the productive capacity of the economy.

The goal for the policymaker is clear-control inflation and inflation expectations such that India can grow again. The long-run goal is of course to improve the

productivity and thereby the productive capacity of the Indian economy.

**Table P.1: Major Indicators of Inflation, 2011-12:Q1 to 2013-14:Q3 (% y-o-y)**

<b>Year: Month</b>	<b>WPIINFL</b>	<b>CPI Industrial Worker</b>	<b>CPI Agricultural Labour</b>	<b>CPI Rural</b>	<b>CPI Urban</b>	<b>CPI Combined</b>	<b>WPI Core Inflation</b>
2011-12:Q1	9.6	8.9	9.4	N.A.	N.A.	N.A.	9.3
2011-12:Q2	9.7	9.2	9.3	N.A.	N.A.	N.A.	9.7
2011-12:Q3	9.0	8.4	8.2	N.A.	N.A.	N.A.	9.9
2011-12:Q4	7.5	7.2	6.0	7.9	9.3	8.5	8.1
2012-13:Q1	7.5	10.1	7.9	9.6	11.0	10.2	6.4
2012-13:Q2	7.9	9.8	9.1	9.8	10.0	9.9	6.4
2012-13:Q3	7.3	10.1	10.5	10.2	9.9	10.1	6.0
2012-13:Q4	6.7	11.7	12.6	10.7	10.6	10.7	5.5
2013-14:Q1	4.8	10.7	12.6	9.3	9.8	9.5	3.7
2013-14:Q2	6.6	10.8	12.9	9.3	10.1	9.7	4.5
2013-14:Q3	7.0	10.6	12.4	10.8	9.9	10.4	4.4

**Notes:** 1. Base Year: 2004-05 for WPI, 2001 for CPI Industrial Worker, 1986-87 for CPI Agricultural Labour and 2010 for CPI Rural, Urban and Combined.

**Sources:** Office of the Economic Advisor, Labour Bureau and Central Statistical Organisation

**Table P.2: Year-on-Year Inflation Rate of Major Categories in Food Articles in WPI,  
2010-11:Q1 to 2013-14:Q3**

<b>Period</b>	<b>Food Articles</b>	<b>Food Grains (Cereals and Pulses)</b>	<b>Fruits and Vegetables</b>	<b>Milk</b>	<b>Eggs, Meat and Fish</b>	<b>Condiments and Spices</b>	<b>Other Food Articles</b>
2011-12:Q1	8.8	2.3	16.2	6.9	9.1	14.5	22.6
2011-12:Q2	9.1	3.3	14.9	10.1	10.6	0.5	20.9
2011-12:Q3	6.4	4.7	1.7	11.0	12.3	-3.8	18.5
2011-12:Q4	5.1	4.2	-5.3	13.1	18.6	-18.1	14.2
2012-13:Q1	10.8	8.2	14.4	11.5	17.1	-18.2	10.0
2012-13:Q2	9.2	14.8	5.3	7.1	14.6	-12.5	15.2
2012-13:Q3	8.7	17.9	2.7	6.2	13.3	-15.9	10.6
2012-13:Q4	11.0	17.4	11.3	4.5	11.7	0.8	11.6
2013-14:Q1	8.2	14.3	2.7	4.2	11.5	14.8	2.8
2013-14:Q2	16.7	9.5	37.7	4.9	15.2	11.9	-5.7
2013-14:Q3	17.3	6.7	43.6	6.3	14.7	21.3	-8.4

**Note:** Base Year: 2004-05.

**Source:** Office of the Economic Advisor, Government of India