

Dichotomy of two Inflation Indices

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Abstract: From 1996 to 2007, during a period of 11 years, the three inflation indicators - WPI, CPI and GDP deflator were following the same trend and the same magnitude in inflation with a miniscule divergence. On average, the difference in the inflation shown by the two variables was less than 0.25%. But it was 2008, when this historic equivalence broke down and CPI started to drift apart showing north of about 3 to 5 percentage points than either the WPI or the GDP deflator. For the last five years, CPI inflation has been 9.6% per annum and GDP deflator 6.8%; an annual difference of 2.8%. According to the GDP data for 2012-13, this difference is 4.2 percentage points¹. There are very strong implications of this misguided misreading of inflation. In contrast to protestations of the RBI, this also represents a divergence of 4 percentage points in the real rate of interest. If the lending rate is 15%, and inflation 6%, then most borrowers are paying 9% real; with the CPI, the real rate is "only" 5%. Is it any wonder then that the economy has stalled, and stalled at near historic low growth-rates of 4.5% for the better part of the last two years? This huge discrepancy raises several questions in the mind of the economists, including if there are policy implications for the same.

Introduction

Wholesale Price Index, first published in 1902, tracks wholesale prices. It is the weighted price index, compiled on a weekly basis, of a basket of goods consisting of 435 commodities which are categorized under three major groups: primary articles; fuel, power, light and lubricants; manufactured products. These three categories are again divided into smaller subgroups. Until recently, Indian government has taken WPI as an indicator of rate of inflation in the economy. Where WPI targets supply side, Consumer Price Index is more meaningful from consumer point of view because it considers the consumer expenditure². For CPI, the weights are assigned on the basis of consumer expenditure survey.

1. Consumer Price Index for Industrial Workers (CPI-IW).
2. Consumer Price Index for Urban non-manual Employees (CPI-UNME).
3. Consumer Price Index for Agricultural Labourers (CPI-AL).
4. Consumer Price Index for Rural Labourers (CPI-RL).

There is one wholesale price index and 3-4 different kinds of consumer price indices³. The reason why we need different indices is that basket of goods consumed by each of the categories mentioned is likely to be quite different from the others, e.g. For CPI-IW⁴, a basket of 244 commodities is tracked and for CPI-AL, 777 commodities and here again, each commodity is given different weightage. Until recently we had four, and currently we have three CPIs (Industrial Workers, Urban Non-Manual Employees and Rural Labourers) representing different segments of the population. While the CPI-UNME series is published by the Central Statistical Organization, the others are published by the Department of Labour. From February 2011, the CPI (UNME) released by CSO is replaced as CPI (urban), CPI (rural) and CPI (combined). The Central statistics office (CSO), Ministry of Statistics and Programme Implementation introduced a new series of Consumer Price Index on base 2000=100 for all India and states/UTs separately for rural, urban and combined with effect from

¹ <http://www.inflation.eu/inflation-rates/india/historic-inflation/cpi-inflation-india.aspx>

² In simpler terms, Wholesale Price Index is the middle point of all the prices that the merchants pay for certain goods or services from the manufacturers or traders. While the Consumer Price Index, on the other hand, is also the middle point of all the prices that the consumers, homeowners and private sectors have paid for particular products and services.

³ Among the above indices until October 2009, only WPI was used to calculate inflation and made public through newspapers hence the name **headline inflation**. The other index numbers were published as index numbers and not as inflation. Fiscal and monetary policy changes are greatly influenced by changes in WPI.

January 2011. While WPI is computed on an all-India basis, CPIs are constructed for specific centers⁵ and then aggregated to an all-India index. WPI is available with a shorter lag than the CPIs. WPI has a broader coverage than the CPIs in terms of the number of commodities, quotations, inclusion of non-agricultural products and tradable items.

The differences in coverage and weightage in WPI and CPI at times lead to diverging trends and make it difficult to gauge the underlying inflationary pressures. By definition and construction, the GDP deflator is a more comprehensive measure of inflation. But because of its more timely nature, most analysts take the CPI as a surrogate⁶. Retail inflation is a superior indicator of the underlying demand situation in the economy, which determines the extent to which retailers can pass on a sustained rise in wholesale prices. While, in a strong demand environment, retailers can pass on the entire increase in wholesale prices or even more to their end-consumers, if demand remains weak, retailers could witness pressure on margins. There is no doubt that, conceptually, retail inflation—price rise driven by potential consumer demand and available supply—is a better indicator of inflation for guiding monetary policy decisions than WPI inflation, capturing market dynamics and arriving at a more realistic inflation forecast.

Why there is a paradox?

To some extent the divergence between WPI and CPI can be attributed to statistical differences stemming out of coverage of the indices, classification of items and the relative weights of their constituents. Transaction cost and taxes are reflected in the consumer price index but not in wholesale price index contributing to the departure between the duo.

Another reason of this large anomaly between the CPI and GDP Deflator is food inflation. Over the last six years, this high food inflation was literally engineered by the UPA government via massive upsurge in procurement prices for food. In the space of three short years, 2006-08, the relative price of food increased by 33%. This relative price increase caused food inflation only to further result in to the large divergence between the GDP deflator and the CPI. The latter has a near 50% weight of food, while the former has a weight of agriculture of less than 18%. In WPI, food inflation rose from 10.3% year on year to 18.2% in quarter ended in August 2013. For the CPI, the same figure has declined from 11.7% to 10.9%. The trend of CPI higher than WPI in respect of food items is intriguing and is a trend against normal price behaviour and needs to be examined more carefully, as it may have some important policy ramifications. As it is observed that food represent half of the CPI basket as opposed to 14% of WPI, or 31% if less volatile manufactured food items are included.

The difference is so large that it changes the very nature and interpretation of monetary policy. It suggests that the RBI has been fighting inflation that it could not affect. Food inflation in India is political inflation, and inflation caused by administered, not market, prices. Monetary policy cannot affect the magnitude of administered prices. Food inflation is not the inflation that the RBI or the ministry of finance or the RBI should be looking at.

Why WPI is a bad boy?

A sustained rise in wholesale prices either results in an eventual increase in prices by retailers or a squeeze in their margins. But if the demand is strong, retailers may exercise pricing power and pass on the increase in wholesale prices to consumers. In case demand is weak, retailers will be forced to partly absorb the increase in wholesale prices in their margins. WPI proxies producer's price rather than consumer price. Moreover, it is contended that the WPI does not adequately capture the movement in prices of services, which constitute close to 2/3 of our entire economic activity.

However, WPI usage in the apex bank's inflation forecast was justified to some extent as well. Given the limited efficacy of monetary policy to deal with food and fuel inflation, and the limits on using core CPI inflation measures, RBI has paid full attention on non-food manufactured products inflation as an indicator of demand-side pressures in the economy. Also, there is not a single CPI that is representative of the whole country.

Which of these disparate measures should policymakers be looking at?

⁴ CPI-IW has got a broader coverage of site of goods and services than other measures of CPI. That is why CPI-IW is extensively used as cost of living index in organised sector. Consumer Price Index is used in calculation of Dearness Allowance which forms an integral part of salary of a Government Employees.

⁵ There are at present 78 centres at all India level to calculate various indices of CPI

⁶ GDP Deflator can be calculated on yearly basis while CPI can be enumerated on weekly basis now.

All prices do not behave the same way and a few volatile ones disturb the underlying trend. Many countries therefore measure core inflation as a supplementary indicator while measuring headline inflation. Since the scope of the inflation measured by the RBI is wide, inflation has not responded either to the increase in interest rate or control of money supply in the past. The central bank policy must target the index of inflation on which it has sufficient ex ante control. Core inflation reflects the broad underlying long-term trend of prices. If it is more than the target rate it would be because the economy is getting overheated and needs correction through monetary policy. At present, there is no assessment or use of core inflation, but it can certainly be measured from the available indices by eliminating volatile prices which exaggerate WPI or CPI. Excluding food and oil, for instance, would mean a core inflation of less than 2 percent. In India, core inflation – which can exclude fruits and vegetables, milk and edible oils – would measure the imbalance in the economy or the gap between ex ante savings and investment. Therefore, the RBI should at least use core inflation as a supplementary indicator while targeting WPI.

The monetary policy has limited efficacy to deal with the direct impact of food and fuel inflation. Currently, food and related products account for nearly half (49.7%) of the new CPI. To arrive at a more appropriate indicator for monetary policy decisions, it would be better to exclude prices of the fuel group and those food articles which are influenced by temporary, but sharp fluctuations in supply and can result in highly volatile prices.

RBI governor, Raghuram Rajan, had set up a committee, Urjit R. Patel Committee to revise and strengthen the monetary policy framework. This committee was looking to recommend an appropriate nominal anchor (implying a measure of inflation) for monetary policy conduct, among other objectives, in its report scheduled for December 2013. Urjit R. Patel Committee submitted its report in March 2014 and many recommendations of the report have been implemented, including adoption of the new CPI (combined) as the key measure of inflation.

Earlier, RBI had given more weightage to Wholesale Price Index (WPI) than CPI as the key measure of inflation for all policy purposes, largely for two reasons.

1. First, until 2011, there was no single CPI, representative of the whole country. There were three or four CPI measures, relevant for different segments of population. Now, there is one representative measure of retail inflation with further disaggregation to see how prices in rural and urban India are changing.
2. Second, WPI was earlier available with a shorter lag—only a 2-week delay—compared with CPI inflation which came with a 2-month lag. Now, CPI monthly inflation data is released couple of days prior to WPI inflation data for the same month.

The conceptual case for moving to CPI rests on two points.

1. First, WPI excludes prices of services such as education, healthcare, and rents. However, services now account for nearly 60 per cent of GDP and a vast majority of these services are not traded with other countries. As a result, inflation in these services is largely determined by the domestic demand-supply situation. Conversely, the new CPI measure assigns nearly 36% weightage on services and includes price changes in housing, education, healthcare, transport and communication, personal care and entertainment. CPI, therefore, is a better reflector of demand side pressures in the economy, than wholesale prices.
2. Second, WPI assigns nearly 15% and 10.7% weightage for the fuel group and metal and metal products group, respectively. Any sharp movements in international prices of fuels and metals, therefore, lead to sharp changes in WPI. This was visible in calendar year 2009 when WPI inflation saw south.

CPI: A Critical Appraisal

A Consumer Price Index is a measure estimating the cost of living conditions of different homogeneous group of population rather than total population and is calculated on the basis of retail price changes of constant set of goods and services as per the setting pattern of the group of population. A wide-based CPI for country as a whole including goods and services, has greater relevance for monetary policy formulation. National statistical commission, 2001 suggested a single comprehensive CPI by reshuffling prevailing 4 CPIs. This would improve the accuracy of computing inflation data and help policy-making and track price movement. As the IMF statistics only 24 countries use WPI as measure of inflation, while 157 countries use CPI as a measure of inflation figures it catches the price change experienced by consumers.

CPI is so sensitive to food prices, the indicator may be dominated by supply-side factors. At 10% weightage for housing rents, where values are estimated, means the effectiveness of index is questionable.

HICP: An Alternative?

RBI issued on October 2006, a discussion paper on construction of HICP. Harmonized Index of Consumer Price: is based on consumer price index for three reference population groups such as industrial workers, Urban non-manual employees and rural labourers. Harmonized Index of Consumer Price (HICP) is to bring out a single snapshot consumer price measure in the economy. Such an index might help in resolving the growing disparities between different consumer price indices (CPI). The government is also in the process of unveiling a new index which will capture more accurately the change in consumer price movements by expanding the coverage of items that form part of the consumer price index and also by enhancing the weight of some items in the basket. The HICP is a very popular index used in the European Union and gives a single inflation figure for the entire region. The HICP is calculated by combining the existing CPI series as their weighted average, with weights being based on the share of total aggregate consumption expenditure in the economy. The HICP would be a broad reflection of movements of the three CPI indices at the aggregate level and could be useful for policy analysis. It was found that the movements in the HICP series were closely reflecting the movements seen in the CPI-IW for industrial workers and the CPI-UNME, which captures price movements for urban non-manual employees, than the CPI-RL that is relevant to rural labour. There was also a substantial divergence between the WPI and the HICP. This variation was mainly on account of different composition and coverage of items in the two different indices. The HICP tends to give more weight towards food items, and other service-related goods while the WPI tends to give a higher weight to manufactured products, or non-food goods. Although this is a good attempt in trying to ascertain a single consumer inflation number, there are a number of statistical aspects that need to be carefully examined.

References

- [1]. John B Taylor, "The Financial Crisis and the Policy Responses: An Empirical Analysis of What Went Wrong", NBER Working Paper 14631, January 2009.
- [2]. Balakrishnan, P (1991): Pricing and Inflation in India (New Delhi: OUP India). – (2010): Economic Growth in India: History and Prospect (New Delhi: OUP India).
- [3]. Balakrishnan, P, R Golait and P Kumar (2008): "Agricultural Growth in India since 1991", DRG Study No 27, Reserve Bank of India, Mumbai.
- [4]. Balakrishnan, P and M Parameswaran (2014): "The Mechanism of Economic Growth in India", mimeo, Centre for Development Studies, Thiruvananthapuram.
- [5]. Gordon, R J (1975): "Alternative Responses of Policy to External Supply Shocks", Brookings Papers on Economic Activity, 6: 183-206.
- [6]. Goyal, A (2013): "Propagation Mechanisms in Inflation: Governance as Key" in S Mahendra Dev (ed.), India Development Report 2012-13 (New Delhi: Oxford University Press and Mumbai: IGIDR).
- [7]. "Inflation and Recession in the World Economy", Economic Journal, 86: 703-14.
- [8]. Singh, G (2014): "Inflation Targeting in India: Right and Wrong", viewed on 23 April, [http:// ideas forindia .in/ article.aspx?article_id= 248](http://ideas.forindia.in/article.aspx?article_id=248)
- [9]. Commission for Agricultural Costs and Prices(CACP) (2012): "Price Policy for Kharif Crops: The Marketing Season 2012-13", Department of Agriculture and Cooperation, Ministry of Agriculture, New Delhi. – (2013): "Price Policy for Kharif Crops: The Marketing Season 2013-14", Department of Agriculture and Cooperation, Ministry of Agriculture, New Delhi.
- [10]. Dev, S Mahendra (2009): "Structural Reforms and Agriculture: Issues and Policies", available at [http:// cacp. dacnet.nic .in /Structural_Reforms_ and_Agriculture.pdf](http://cacp.dacnet.nic.in/Structural_Reforms_and_Agriculture.pdf), accessed on 5 October 2012.
- [11]. Dreze, Jean and Amartya Sen (2013): An Uncertain Glory: India and Its Contradictions (London: Allen Lane/Penguin). GoI (2011): Annual Report 2010-11, National Statistical Commission, Government of India New Delhi.
- [12]. State of Indian Agriculture 2011-12, Department of Agriculture and Cooperation, Ministry of Agriculture, New Delhi, available at [http://agricoop.nic. in/SIA111213312.pdf](http://agricoop.nic.in/SIA111213312.pdf)
- [13]. Nair, Sthanu R and Leena Mary Eapen (2012): "Food Price Inflation in India (2008 to 2010): A Commodity-wise Analysis of the Causal Factors", Economic & Political Weekly, 47(20), pp 46-54.