

## Economy

### Deep dive into CPI data reveals easing supply constraints, narrowing price pressures

- ▶ **CPI inflation has remained above 6% for almost a year...:** CPI inflation has remained above the upper limit of MPC's target range of 6% since Dec '19, with the sole exception of Mar '20. The latest inflation print for Nov '20 came in at 6.93%, surprising us and the street on the lower side. Despite the lower-than-expected number, CPI inflation in the first nine months of FY21 now stands at 6.9%.
- ▶ **...leading to fears of generalisation of price pressures:** Persistently high inflation has led to concerns that it could cause generalisation of price pressures. Recently, the RBI also warned that generalised inflationary pressures pose a serious threat to evolving macroeconomic outlook.
- ▶ **However, Diffusion Index shows price pressures are getting concentrated in fewer items:** Our analysis of Diffusion Index, which calculates percentage of items recording price increase vs price decrease, shows fears of generalisation of price pressures don't have any merit. On the contrary, price pressures are getting concentrated in fewer items now compared to last year. This is evident from the fact that during Jul-Nov '20, Diffusion Index averaged 65 (indicating only 65% of CPI basket has recorded price increases), sharply down from 75 in the corresponding period last year.
- ▶ **Trimmed Means measures of inflation further confirm the finding:** Moreover, Trimmed Means inflation measures also confirm this finding. Our analysis shows Trimmed Means inflation measures fell sharply in Nov '20. In sequential terms, 5%, 10% and 20% TM inflation fell 58bps, 56bps and 41bps, respectively. This is the sharpest sequential fall since Jul '15. Also, since Jun '20, the gap between headline inflation and TM inflation measures has been consistently widening, further indicating the fact that price pressures are getting concentrated in increasingly fewer items.
- ▶ **Contribution of perishables, services to headline inflation falling...:** In the recent months, perishables inflation has started coming down YoY. During Oct-Nov '20, share of perishables inflation in headline inflation stood at 52%, sharply down from 60% in Oct-Nov '19. Similarly, the share of services in headline inflation fell to 15% during Oct-Nov '20 from 22% during Oct-Nov '19. This indicates possible normalisation of supply chains and near-normal resumption of service sector.
- ▶ **...leading to a corresponding increase in share of durables:** The share of semi-perishables (22% in Oct-Nov '20 vs 9% in Oct-Nov '19) and durables (10% in Oct-Nov '20 vs 8% in Oct-Nov '19) has correspondingly increased, possibly indicating pent-up demand is entering the market and restocking by households.

Research Analyst:

Anagha Deodhar

anagha.deodhar@icicisecurities.com  
+91 22 2277 7622

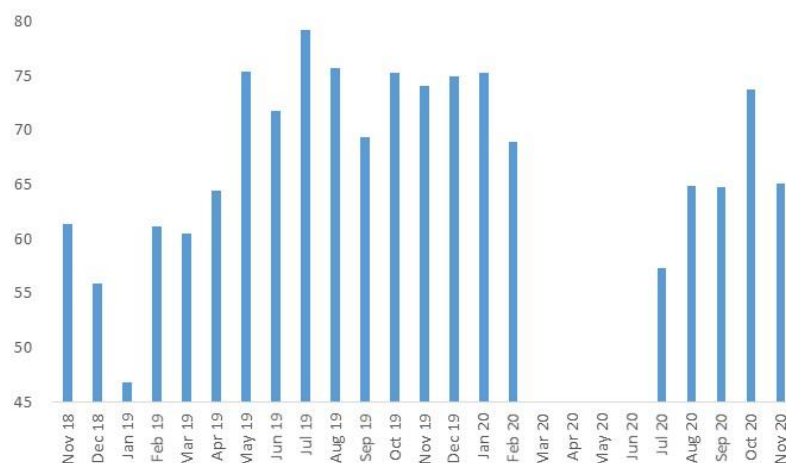
Please refer to important disclosures at the end of this report

CPI inflation has remained above 6% since Dec '19, with the sole exception of Mar '20. Persistently high inflation has sparked fears of un-anchoring of household inflation expectations and broad-based price increases. In the Oct '20 Monetary Policy Report, the RBI cautioned that rising oil prices, supply chain disruptions, and heightened volatility in financial markets could have a bearing on inflation. It further added that monetary policy has to keep a constant vigil on price movements, especially as it can 'translate into generalised inflation.'

### Diffusion Index refutes fears of generalisation of price pressures

In the recent past, many voices have warned about generalisation of price increases after almost a year of over 6% inflation. To assess whether inflationary pressures are generalising or not, we construct CPI Diffusion Index based on all 299 items in the CPI basket. Our analysis shows that despite high and rising inflation, dispersion of price pressures is getting narrower. This implies that price pressures are getting concentrated in fewer items.

**Chart A: CPI Diffusion Index**



Source: Mospi, I-Sec research. Since Diffusion Index is based on month-on-month inflation, there is no data for Jun '20 as detailed inflation data for 299 items is not provided by Mospi for Mar – May '20.

Chart A shows that during FY20, Diffusion Index averaged 73<sup>1</sup>. This implies that during the year, 73% of the CPI basket recorded rising prices. However, during Q2FY21 Diffusion Index averaged 62, indicating the dispersion of price pressures was significantly lower compared to a year earlier. While in Oct '20 Diffusion Index increased to 74, it again fell to 65 in Nov '20. During Jul-Nov '20 it has averaged 65, sharply down from 75 in the corresponding period of last year.

Hence, Diffusion Index proves that fears of generalisation of price pressures do not have any merit. On the contrary, price pressures are getting concentrated in fewer items now compared to last year.

<sup>1</sup> We are excluding Mar '20 from the calculation since there is no detailed CPI data available for the month.

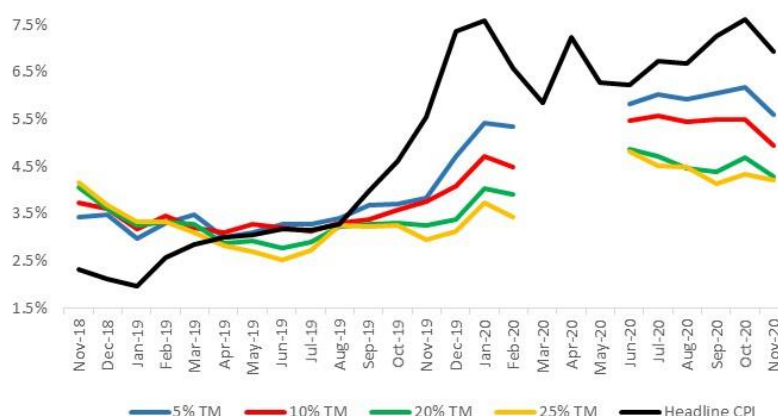
## Trimmed Means inflation confirms the disproportionate contribution by fewer items

To validate the findings of Diffusion Index that current price pressures are concentrated in fewer items, we turn to Trimmed Means inflation measures. Trimmed Means (TM) measures calculate core inflation by removing inflation outliers. E.g. 5% TM measure removes 15 items (5% of 299 CPI items) with highest inflation rates and 15 items with lowest inflation rates. Similarly, 10% TM measure removes 30 items with highest and 30 items with lowest inflation rates.

Since Trimmed Means measures exclude outliers, they have less noise compared to headline inflation and exclusion-based core inflation numbers.

Our analysis shows Trimmed Means inflation measures fell sharply in Nov '20. In sequential terms, 5%, 10% and 20% TM inflation fell 58bps, 56bps and 41bps, respectively. This is the sharpest sequential fall since Jul '15. Also, since Jun '20, the gap between headline inflation and TM inflation measures has been consistently widening, further indicating the fact that price pressures are getting concentrated in increasingly fewer items.

**Chart B: Trimmed Means inflation measures**



Source: Mospi, I-Sec research

To understand which items are driving TM measures lower, let us look at some of the most common outliers (i.e. items with highest and lowest inflation rates) during Jun '20 and Nov '20.

**Table 1: Inflation outliers excluded from TM measures**

	Items with lowest inflation rates	Items with highest inflation rates
Jun '20 to Nov '20	Cinema, other entertainment, private tuition, food items (ginger, lemon, garlic) kerosene by PDS, headwear etc.	Air fare, gold, silver, potato, pulses (urad, moong, masoor), meat (chicken & mutton), intoxicants (beer, foreign liquor, toddy), monthly maintenance charges etc.

Source: Mospi, I-Sec research

An interesting case in point is 'goods for recreation and hobbies.' During Jun '20 to Oct '20, the item was excluded from 10% TM consistently, although for different reasons. In Jun '20 and Jul '20 (i.e. Unlock 1.0 and Unlock 2.0), 'goods for recreation and hobbies' recorded one of the lowest inflation rates within the basket. However, during Aug '20 to Oct '20 (Unlock 3.0, Unlock 4.0, Unlock 5.0), it recorded one of the highest inflation rates in the basket. Hence, during the first two months of the Unlock, it was an outlier due to very low inflation, while in the subsequent three months of Unlock it was an outlier due to very high inflation.

## Perishables inflation is declining, possibly indicating normalisation of supply chains

We normally calculate perishables inflation based on a very narrow basket of milk, meat & fish, eggs, fruits and vegetables. However, we now expand the perishables basket to assess the impact of lockdown measures and the resultant supply disruptions on various categories of inflation. For the same, we use the classification used in Modified Mixed Reference Period (MMRP) in Consumer Expenditure Survey 2011-12. The classification is given in Table 2:

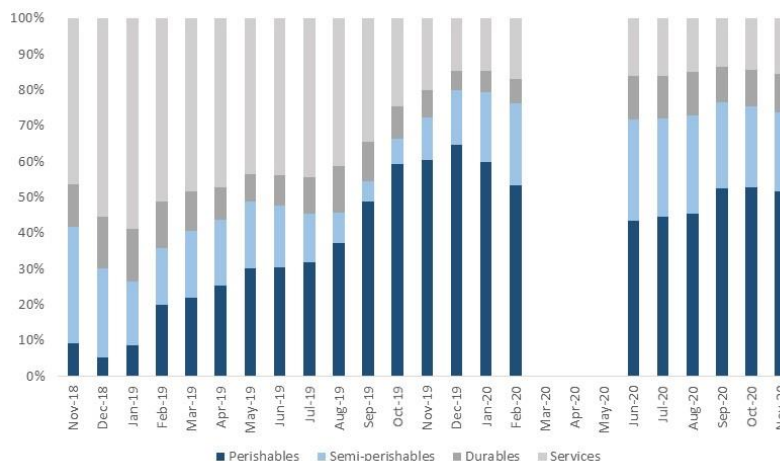
**Table 2: MMRP classification, CES 2011-12**

Classification	Weight in CPI	Items
Perishables (7-day recall)	34%	Edible oil, eggs, fish, meat, vegetables, fruits, spices, beverages, processed foods, pan, tobacco and intoxicants
Semi-perishables (30-day recall)	32%	All other food, fuel and light, miscellaneous goods and services including non-institutional medical services
Durables (365-day recall)	10%	Clothing, bedding, footwear, education, medical (institutional), durable goods
Services	24%	School/college fees, mobile, internet and cable TV charges, private tuitions etc.

Source: Mospi, I-Sec research

In Chart C, we show contribution of each of these categories to headline inflation:

**Chart C: Contribution to headline inflation**



Source: Mospi, I-Sec research

Chart C shows the share of perishables in headline inflation started increasing long before Covid-19 pandemic and the subsequent lockdown. Hence, in our opinion, the narrative that lockdown pushed up perishables inflation has flimsy ground. Unfortunately, we do not have data on all 299 items in CPI basket from Mar '20 to May '20. Hence, it is impossible to calculate how perishables inflation based on the CES basket moved during the most stringent phase of the lockdown. However, the data shows that perishables inflation has started coming down YoY. During Oct-Nov '20, share of perishables inflation in headline inflation stood at 52%, sharply down from 60% in Oct-Nov '19. Similarly, the share of services in headline inflation fell to 15% during Oct-Nov '20 from 22% during Oct-Nov '19. This indicates possible normalisation of supply chains and near-normal resumption of service sector. The share of semi-perishables (22% in Oct-Nov '20 vs 9% in Oct-Nov '19) and durables (10% in Oct-Nov '20 vs 8% in Oct-Nov '19) has correspondingly increased, possibly indicating pent-up demand entering the market and restocking by households.

*This report may be distributed in Singapore by ICICI Securities, Inc. (Singapore branch). Any recipients of this report in Singapore should contact ICICI Securities, Inc. (Singapore branch) in respect of any matters arising from, or in connection with, this report. The contact details of ICICI Securities, Inc. (Singapore branch) are as follows: Address: 10 Collyer Quay, #40-92 Ocean Financial Tower, Singapore - 049315, Tel: +65 6232 2451 and email: navneet\_babbar@icicisecuritiesinc.com, Rishi\_agrawal@icicisecuritiesinc.com.*

*"In case of eligible investors based in Japan, charges for brokerage services on execution of transactions do not in substance constitute charge for research reports and no charges are levied for providing research reports to such investors."*

*New I-Sec investment ratings (all ratings based on absolute return; All ratings and target price refers to 12-month performance horizon, unless mentioned otherwise)*

**BUY: >15% return; ADD: 5% to 15% return; HOLD: Negative 5% to Positive 5% return; REDUCE: Negative 5% to Negative 15% return; SELL: < negative 15% return**

#### ANALYST CERTIFICATION

I/We, Anagha Deodhar (MA Economics) authors and the names subscribed to this report, hereby certify that all of the views expressed in this research report accurately reflect our views about the subject issuer(s) or securities. We also certify that no part of our compensation was, is, or will be directly or indirectly related to the specific recommendation(s) or view(s) in this report. Analysts are not registered as research analysts by FINRA and are not associated persons of the ICICI Securities Inc. It is also confirmed that above mentioned Analysts of this report have not received any compensation from the companies mentioned in the report in the preceding twelve months and do not serve as an officer, director or employee of the companies mentioned in the report.

#### Terms & conditions and other disclosures:

ICICI Securities Limited (ICICI Securities) is a full-service, integrated investment banking and is, inter alia, engaged in the business of stock brokering and distribution of financial products. ICICI Securities Limited is a SEBI registered Research Analyst with SEBI Registration Number – INH000000990. ICICI Securities Limited SEBI Registration is INZ000183631 for stock broker. ICICI Securities is a subsidiary of ICICI Bank which is India's largest private sector bank and has its various subsidiaries engaged in businesses of housing finance, asset management, life insurance, general insurance, venture capital fund management, etc. ("associates"), the details in respect of which are available on [www.icicibank.com](http://www.icicibank.com).

ICICI Securities is one of the leading merchant bankers/ underwriters of securities and participate in virtually all securities trading markets in India. We and our associates might have investment banking and other business relationship with a significant percentage of companies covered by our Investment Research Department. ICICI Securities generally prohibits its analysts, persons reporting to analysts and their relatives from maintaining a financial interest in the securities or derivatives of any companies that the analysts cover.

Recommendation in reports based on technical and derivative analysis centre on studying charts of a stock's price movement, outstanding positions, trading volume etc as opposed to focusing on a company's fundamentals and, as such, may not match with the recommendation in fundamental reports. Investors may visit [icidirect.com](http://icidirect.com) to view the Fundamental and Technical Research Reports.

Our proprietary trading and investment businesses may make investment decisions that are inconsistent with the recommendations expressed herein.

ICICI Securities Limited has two independent equity research groups: Institutional Research and Retail Research. This report has been prepared by the Institutional Research. The views and opinions expressed in this document may or may not match or may be contrary with the views, estimates, rating, target price of the Retail Research.

The information and opinions in this report have been prepared by ICICI Securities and are subject to change without any notice. The report and information contained herein is strictly confidential and meant solely for the selected recipient and may not be altered in any way, transmitted to, copied or distributed, in part or in whole, to any other person or to the media or reproduced in any form, without prior written consent of ICICI Securities. While we would endeavour to update the information herein on a reasonable basis, ICICI Securities is under no obligation to update or keep the information current. Also, there may be regulatory, compliance or other reasons that may prevent ICICI Securities from doing so. Non-rated securities indicate that rating on a particular security has been suspended temporarily and such suspension is in compliance with applicable regulations and/or ICICI Securities policies, in circumstances where ICICI Securities might be acting in an advisory capacity to this company, or in certain other circumstances.

This report is based on information obtained from public sources and sources believed to be reliable, but no independent verification has been made nor is its accuracy or completeness guaranteed. This report and information herein is solely for informational purpose and shall not be used or considered as an offer document or solicitation of offer to buy or sell or subscribe for securities or other financial instruments. Though disseminated to all the customers simultaneously, not all customers may receive this report at the same time. ICICI Securities will not treat recipients as customers by virtue of their receiving this report. Nothing in this report constitutes investment, legal, accounting and tax advice or a representation that any investment or strategy is suitable or appropriate to your specific circumstances. The securities discussed and opinions expressed in this report may not be suitable for all investors, who must make their own investment decisions, based on their own investment objectives, financial positions and needs of specific recipient. This may not be taken in substitution for the exercise of independent judgment by any recipient. The recipient should independently evaluate the investment risks. The value and return on investment may vary because of changes in interest rates, foreign exchange rates or any other reason. ICICI Securities accepts no liabilities whatsoever for any loss or damage of any kind arising out of the use of this report. Past performance is not necessarily a guide to future performance. Investors are advised to see Risk Disclosure Document to understand the risks associated before investing in the securities markets. Actual results may differ materially from those set forth in projections. Forward-looking statements are not predictions and may be subject to change without notice.

ICICI Securities or its associates might have managed or co-managed public offering of securities for the subject company or might have been mandated by the subject company for any other assignment in the past twelve months.

ICICI Securities or its associates might have received any compensation from the companies mentioned in the report during the period preceding twelve months from the date of this report for services in respect of managing or co-managing public offerings, corporate finance, investment banking or merchant banking, brokerage services or other advisory service in a merger or specific transaction.

ICICI Securities or its associates might have received any compensation for products or services other than investment banking or merchant banking or brokerage services from the companies mentioned in the report in the past twelve months.

ICICI Securities encourages independence in research report preparation and strives to minimize conflict in preparation of research report. ICICI Securities or its associates or its analysts did not receive any compensation or other benefits from the companies mentioned in the report or third party in connection with preparation of the research report. Accordingly, neither ICICI Securities nor Research Analysts and their relatives have any material conflict of interest at the time of publication of this report.

Compensation of our Research Analysts is not based on any specific merchant banking, investment banking or brokerage service transactions.

ICICI Securities or its subsidiaries collectively or Research Analysts or their relatives do not own 1% or more of the equity securities of the Company mentioned in the report as of the last day of the month preceding the publication of the research report.

Since associates of ICICI Securities are engaged in various financial service businesses, they might have financial interests or beneficial ownership in various companies including the subject company/companies mentioned in this report.

ICICI Securities may have issued other reports that are inconsistent with and reach different conclusion from the information presented in this report.

Neither the Research Analysts nor ICICI Securities have been engaged in market making activity for the companies mentioned in the report.

We submit that no material disciplinary action has been taken on ICICI Securities by any Regulatory Authority impacting Equity Research Analysis activities.

This report is not directed or intended for distribution to, or use by, any person or entity who is a citizen or resident of or located in any locality, state, country or other jurisdiction, where such distribution, publication, availability or use would be contrary to law, regulation or which would subject ICICI Securities and affiliates to any registration or licensing requirement within such jurisdiction. The securities described herein may or may not be eligible for sale in all jurisdictions or to certain category of investors. Persons in whose possession this document may come are required to inform themselves of and to observe such restriction.

This report has not been prepared by ICICI Securities, Inc. However, ICICI Securities, Inc. has reviewed the report and, in so far as it includes current or historical information, it is believed to be reliable, although its accuracy and completeness cannot be guaranteed.