


Analysis of Inflation rate (CPI) before and during COVID

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Relevance of area chosen

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- Among the many ways in which Covid-19 has affected the economy, the one that affected each and every person, is inflation.
 - Inflation is an economic term describing the sustained increase in prices of goods and services within a period.
 - Inflation can have an effect on : interest rates, exchange rate, economic growth etc.
 - In India, inflation is primarily measured by two main indices — WPI (Wholesale Price Index) and CPI (Consumer Price Index)

Methodology

Sample size

- 26
- CPI data for 13 months after Covid and 13 months before covid
- Feb 2019 to March 2021

Statistical tools

- Tableau
- Power BI
- Python Seaborn

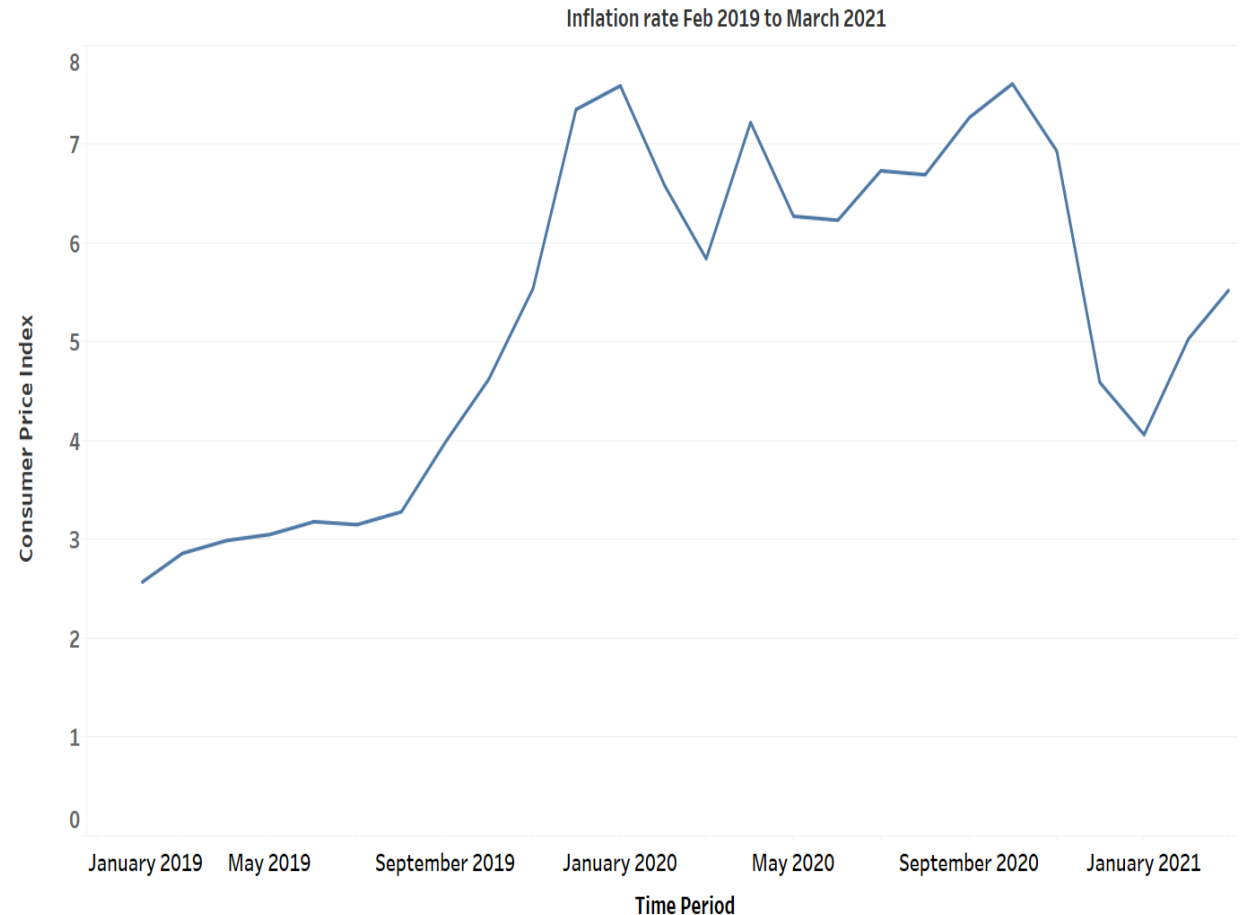
Data Source

- RBI Website

General Analysis

From the general analysis of CPI during the period

- CPI during covid period seems to be higher compared to the pre-covid period
- CPI was on upward trend even before Covid hit the nation
- Downward slope of CPI during the period around January – Reduction in food inflation due to harvest season

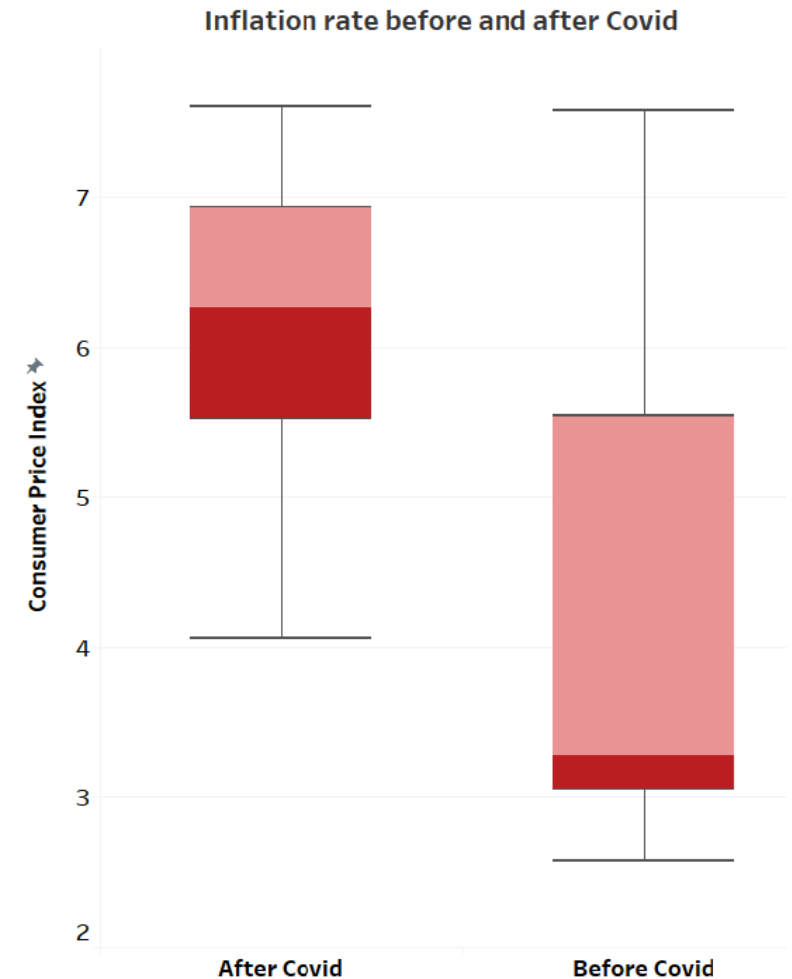


In-depth Analysis: Pre Covid vs Covid period

	Mean	Std	Min	25%	50%	75%	Max
Before Covid	6.15	1.09	4.06	5.52	6.27	6.93	7.61
After covid	4.36	1.80	2.57	3.05	3.28	5.54	7.59

Analysis shows

- Clear distinction between CPI before covid and after covid
- Median and Min value CPI are higher after covid
- Max value remain almost the same

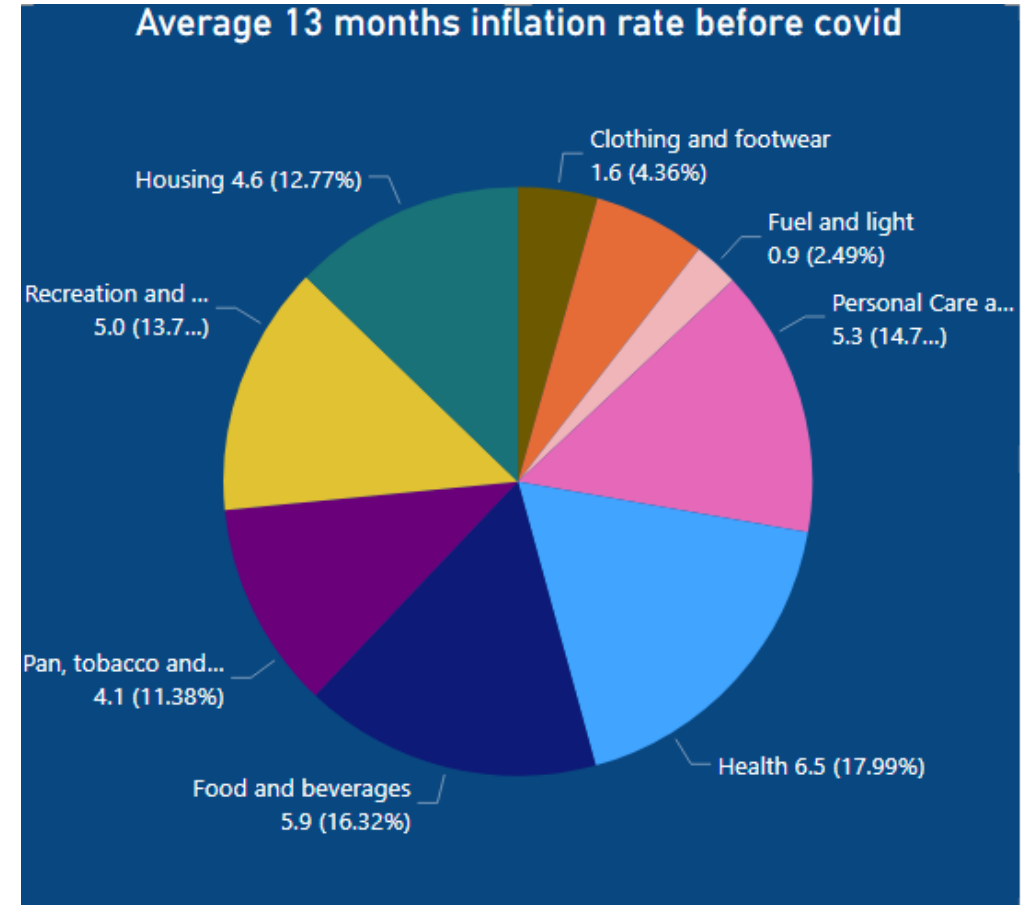


CPI Pre-covid: Sector wise break up analysis

The top most 5 sectors contributing to CPI in the order are

- Health
- Food and beverages
- Personal Care and Effects
- Recreation and amusements
- Housing

Let us check whether the same is case with CPI during covid period



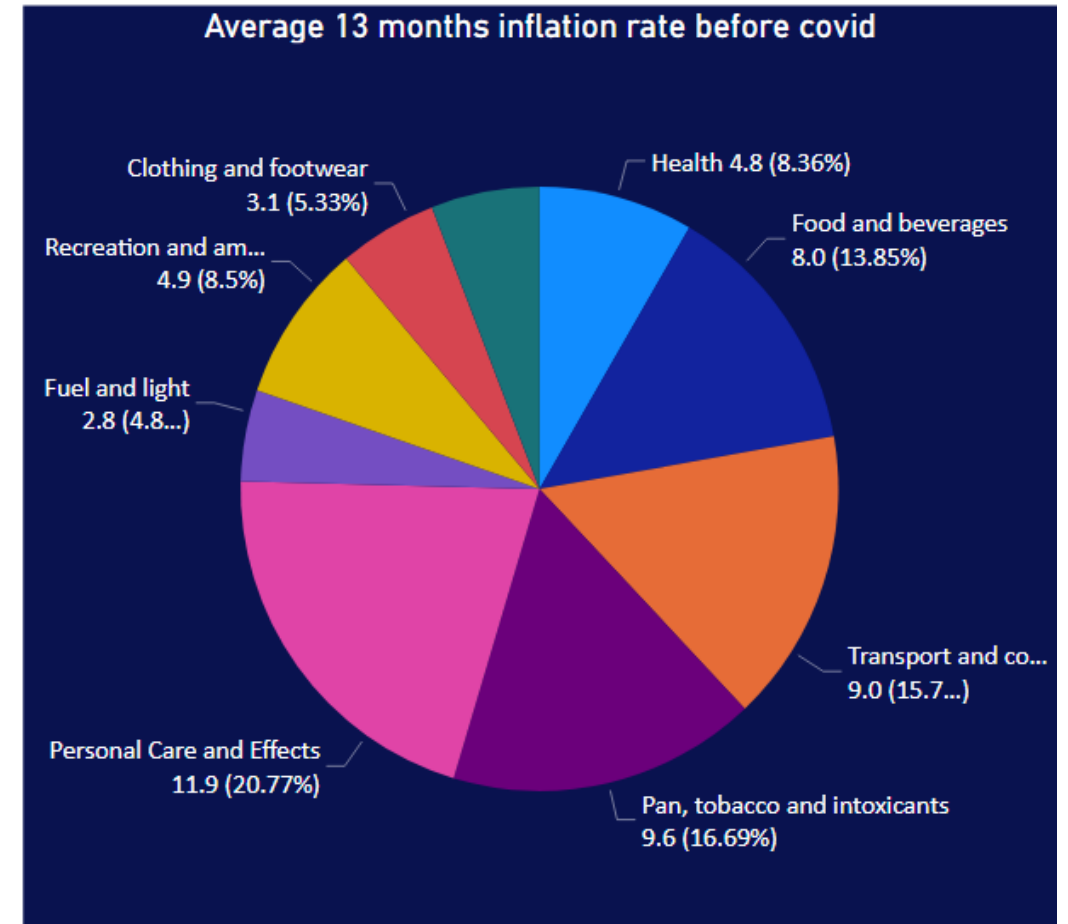
CPI Covid: Sector wise break up analysis

The top most 5 sectors contributing to CPI in the order are

- Personal Care and Effects
- Pan tobacco and intoxicants
- Transport and Communication
- Food and beverages
- Health

❖ Even though 3 of the top 5 sectors remain the same , the order of importance is different

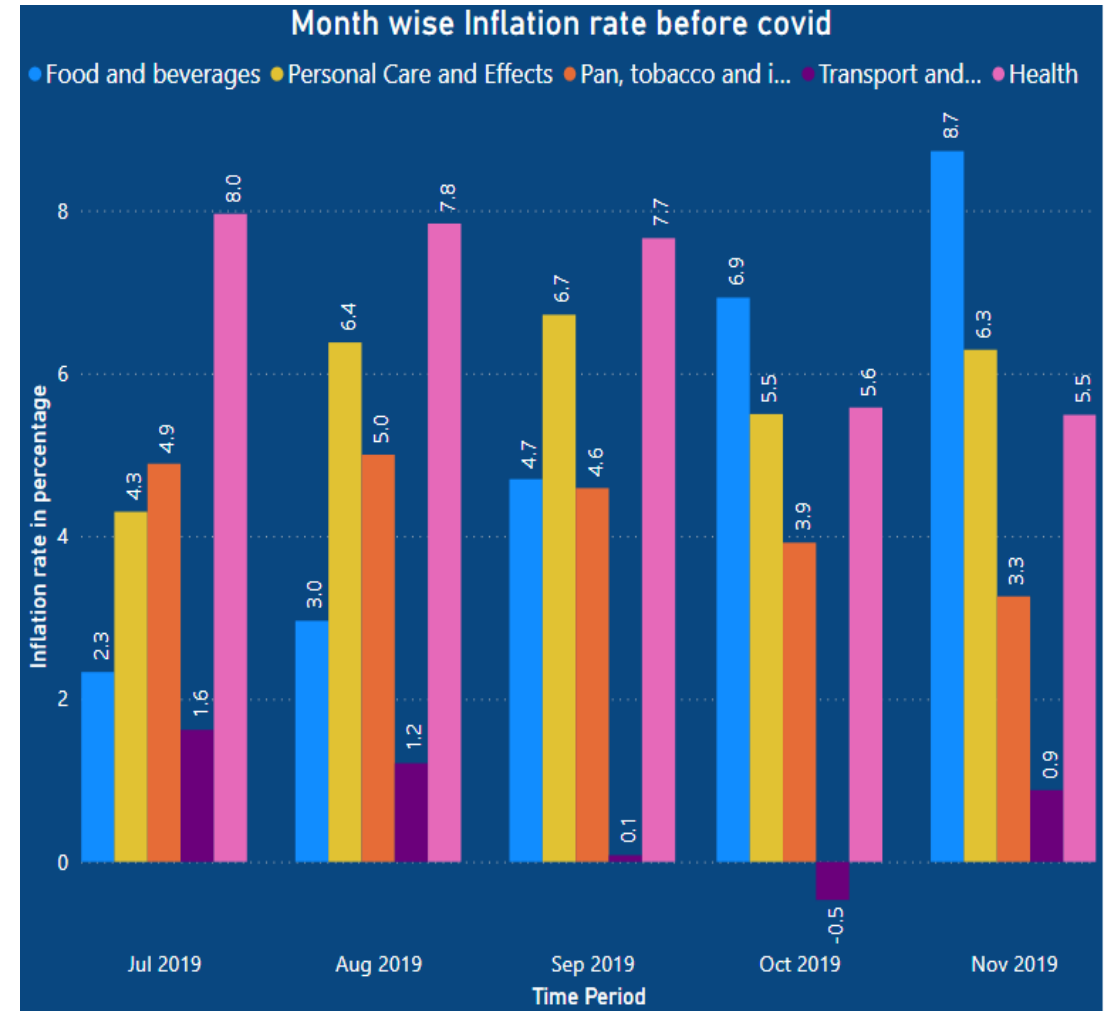
To understand it better, let us do a month wise analysis of sectors



CPI Pre-covid: Month wise break up of top 5 sectors

During the months July –November

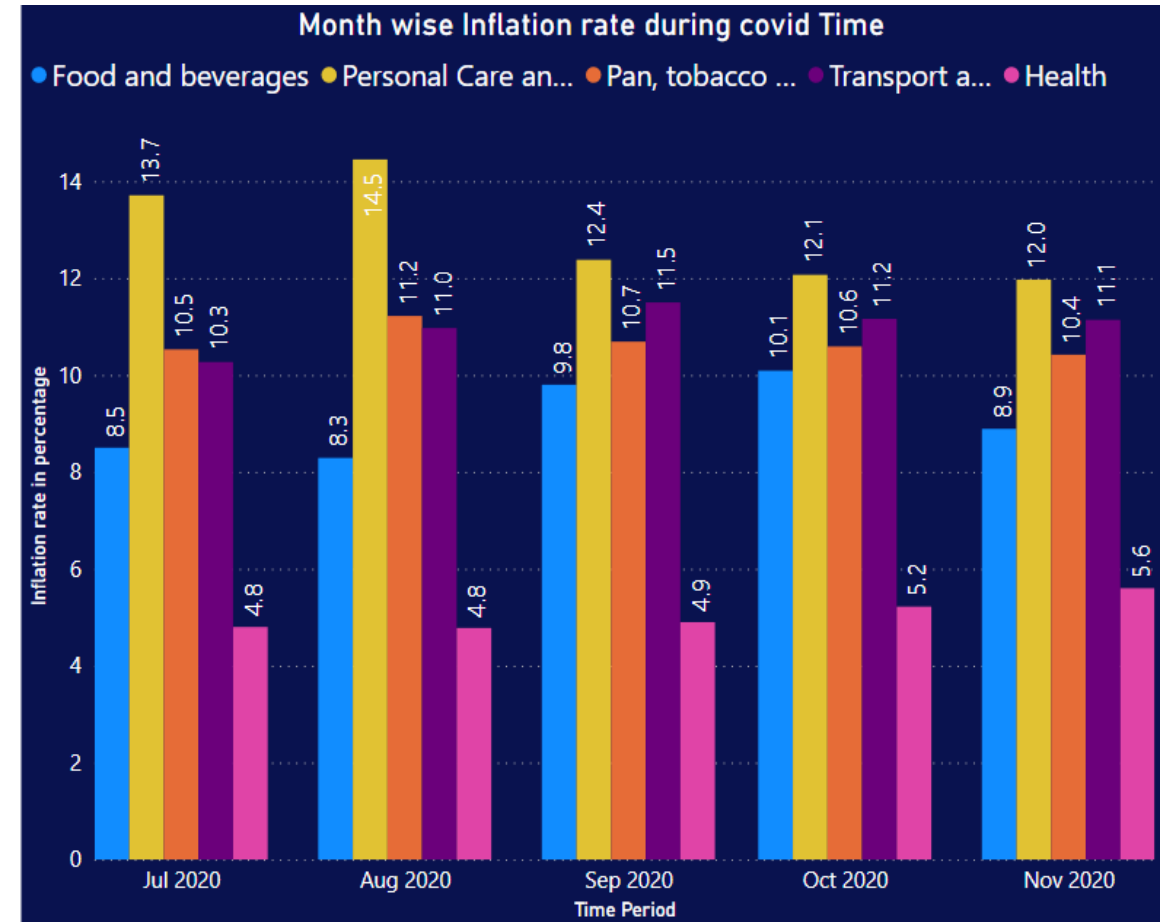
- Health and Food are the sectors contributed the most to CPI
- Next highest is Personal care and effects but at 6% -7% levels
- Transport and Communication contributed the least



CPI covid: Month wise break up of top 5 sectors

During the months July –November

- Personal care and effects contributed the highest to CPI
- Transport and Communication & Pan,Tobacco and Intoxicants are the 2nd highest contributors
- Health and Food are the sectors contributed the least to CPI



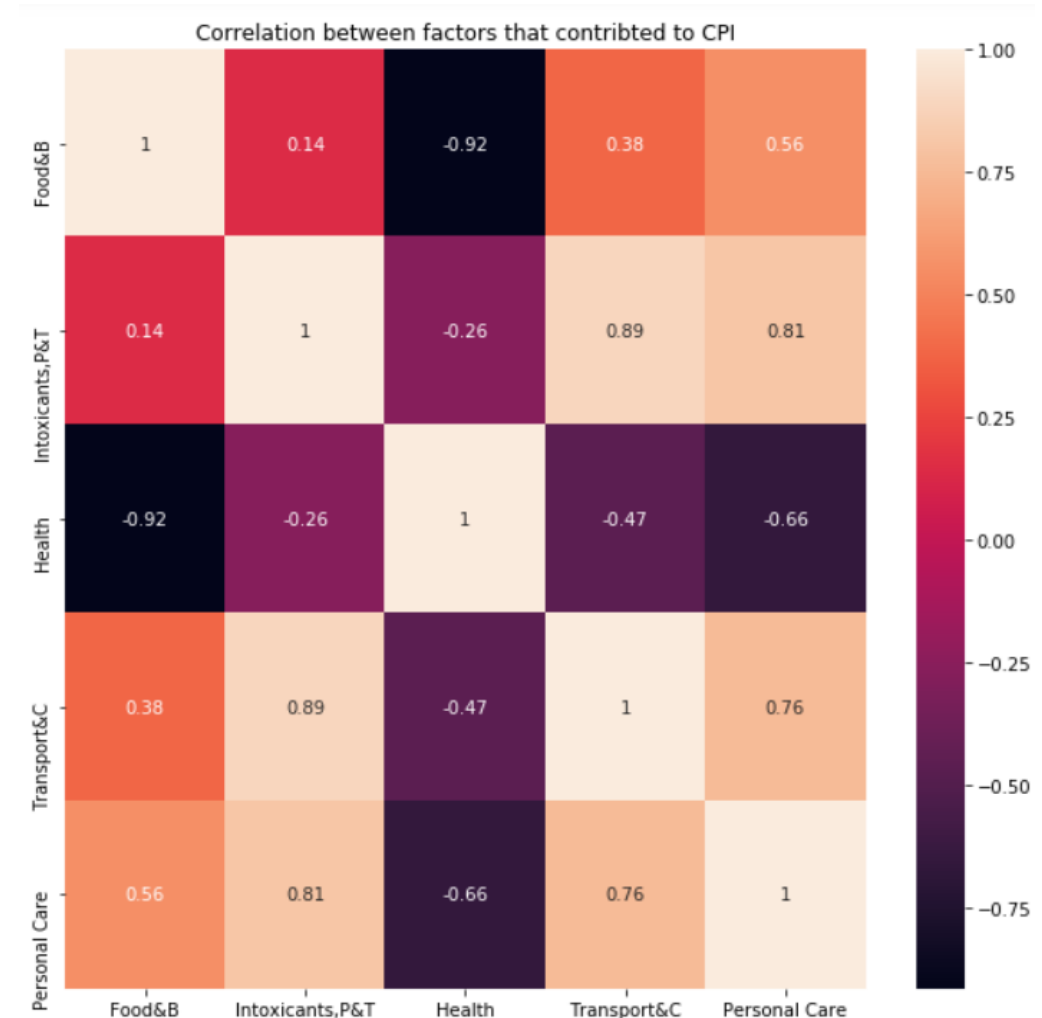
Correlation among different sectors contributing to CPI

Positive Correlation

- ✓ Pan, Tobacco and Intoxicants and Transport & Communication
- ✓ Pan, Tobacco and Intoxicants and Personal care
- ✓ Health and Personal care effects

Negative Correlation

- ✓ Food & Beverages and Health
- ✓ Personal Care and Health



Interpretation of output

- Food and health inflation was high before covid and so not the major contributor towards hike in inflation during covid
 - ✓ Increase in Food inflation compared to pre- covid period - disruption in supply chain
- Personal care and effects, Transport and Communication and Pan, Tobacco and Intoxicants contributed the maximum towards inflation during Covid due to the following reasons
 - ✓ Personal care and effects –cost of going to a barber/beautician went up,High inflation due to hike in gold prices
 - ✓ Transport and Communication:- Increase in fuel prices and high transport fares due to restricted public transport , increasing excise duty on petrol and diesel
 - ✓ Pan, Tobacco and Intoxicants:-- state governments' increasing the tax on these products to shore up revenue

Thank You!