SBI RESEARCH

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SUPPLY SIDE CPI INFLATION IS CURRENTLY DRIVING 64% OF HEADLINE INFLATION IN INDIA, 36% IS DEMAND LED: STRONG LABOUR MARKET IN US MIGHT STILL NECESSIATE AGGRESSIVE FED RATE HIKES, FEARS OF RECESSION OVERBLOWN

CPI inflation moderated slightly to 7.01% in Jun'22 as compared to 7.04% in May'22 due to moderation in food inflation. The June data now confirms the fact that peak in India has passed. Interestingly, while urban inflation has eased to 6.92% in Jun'22, rural inflation has however increased modestly by 1 bps in Jun'22 with increase in weighted contribution of clothing and footwear.

Meanwhile, globally, high inflation has been a worrying factor across the world. Both demand (owing to pandemic related fiscal stimulus) as well as supply factors (supply issues causing high commodity and food prices) are being responsible for higher prices. Using the idea from the recent paper by Shapiro (***FRBSF Economic Letter**, June 21, 2022*), we bifurcated CPI inflation into Supply and Demand CPI. **Our analysis shows that out of 299 commodities in headline CPI basket, 200 could be categorised as supply driven and the rest 99 as demand driven. Our results show that , supply side factors are currently responsible for almost two-third of the current elevated level of CPI inflation. This in part reflects supply constraints from continued global supply disruptions related to the pandemic and the war in Ukraine. Demand factors contribute only one-third to CPI inflation.**

In India, CPI inflation attributable to supply side factors has started moving up after Sep'21 while demand led CPI remained more or less constant. The two have been moving together post Feb'22 (since the starting of Russia-Ukraine conflict). **However in the recent months demand led CPI inflation has moved up a bit, while supply led CPI inflation continues to moderate. Clearly, the RBI may have to raise rates further though, the clear downward trend in inflation attributable to supply side factors bodes quite well for inflation trajectory going forward.**

The core inflation has trended down from its peak in April (taking last 12-months as reference period). The moderation is on account of fall in contribution of Transport and communication from 1.7% in April to 1.1% in June. **The fall in core CPI largely the product of fall in demand owing to lagged effect of high inflation in the past months**. Further correction in prices of precious metal around April has contributed to correction in personal care and effect. With major states such as Maharashtra which contribute 100 bps to All India CPI (95 bps in June) expected to announce cut in VAT on fuel, **it is expected that core may correct further as pass through of fuel will happen in subsequent months along with correction in global prices of commodities.**

The problem however lies with central banks in developed economies that should have normalised monetary policy from mid 2021 itself and did clearly miss the bus. Central banks are in a catch-up mode. **As per independent research the wide gap between the job vacancy rate and unemployment rate (currently at 3.3%) in USA currently indicate a strong labour market**. This will translate into higher nominal wages. This in turn might create a wage-price spiral. **Hence a moderation in commodity prices would not be enough to halt rising inflation. The fear arises that spiralling inflation and an aggressive monetary policy tightening cycle may lead to the recession particularly in the US economy.**

However, the fear is unfounded. Historical analysis done by Alan Blinder indicates that out of 11 episodes of high inflation/ monetary tightening in US, seven of them were arguably "pretty soft," and three of them never had the intention of making the landing soft. **And hence in the current situation the risk of a recession is only 20-30%, instead the chance of prolonged stagflation seems more.**

Separately, we now expect inflation by March 23 might end up closer to 5%. However, as per our calculation, the additional impact of GST rates increase on CPI inflation will be in the range of 15-20 bps only.

Even as IIP numbers printed close to 20%, the bad news is that in Q1FY23, new investment announcement declined by around 27% to Rs 4.35 lakh crore as compared to Rs 5.99 lakh crore in Q1FY22 and Rs 5.75 lakh crore in Q4FY22.

SUPPLY AND DEMAND DRIVEN INFLATION

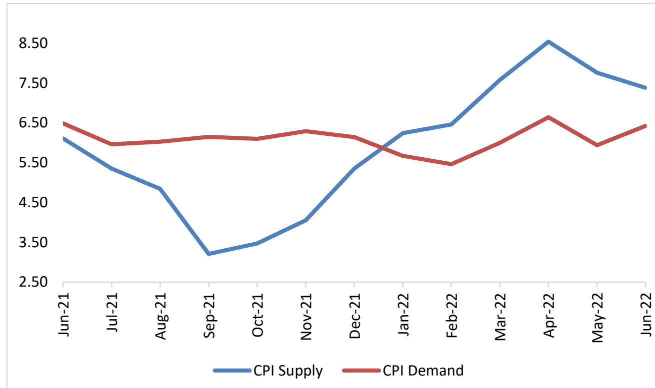
- CPI inflation moderated slightly to 7.01% in Jun'22 as compared to 7.04% in May'22 due to moderation in food inflation. **The June data now confirms the fact that peak had passed (in line with our earlier prognosis that April'22 inflation at 7.79% was the peak).** Core CPI also moderated in June to 5.96% as compared to 6.09% in May. Interestingly, rural CPI increased by 1 bps to 7.09% in June.
- The moderation in inflation in the last two months has been possible because of the various steps taken by the Government, including cut in taxes on petrol/ diesel , restrictions imposed on food exports, a cut in cement prices and a global meltdown in commodity prices.
- **Globally, high inflation has been a worrying factor across the world**. **Both demand (owing to pandemic related fiscal stimulus) as well as supply factors (supply issues causing high commodity and food prices) are being responsible for higher prices**. Categories that experience frequent supply-driven price changes include food and household products such as dishes, linens. Categories that experience frequent demand-driven price changes include motor vehicle-related products, mobile phones and electricity.
- Going a step further, assessing the past two-year data reveals some changes in which categories experienced demand and supply shocks in the post-pandemic period. Specifically, categories with extraordinarily frequent supply-driven price changes in 2021 and 2022 include products with known supply constraints during the pandemic, such as new automobiles, fuel, and consumer appliances. Categories with extraordinarily frequent demand-driven price changes during this period include many goods consumed at home—for example, furniture, clothing, toys, personal care items—as well as services related to reopening from pandemic-related closures, such as hotels, restaurants and cinema.
- Using the idea from the recent paper by Shapiro (**How Much Do Supply and Demand Drive Inflation?, FRBSF Economic Letter**, June 21, 2022), we bifurcated CPI inflation into Supply and Demand CPI. **Our analysis shows that out of 299 commodities in CPI, 200 are categorised as supply driven and the rest 99 as demand driven.**
- **Our results show that , supply side factors are currently responsible for almost two-third of the current elevated level of CPI inflation. This in part reflects supply constraints from continued global supply disruptions related to the pandemic and the war in Ukraine. Demand factors contribute only to one-third to CPI inflation.**

Demand & Supply Inflation: Weighted Contribution (%)

	# of Items		Apr-22	May-22	Jun-22
Demand CPI	99	%	2.6	2.3	2.5
		Share	34%	33%	36%
Supply CPI	200	%	4.2	4.7	4.5
		Share	66%	67%	64%
Overall CPI	299	%	7.8	7.0	7.0

Source: SBI Research

Demand and Supply CPI inflation (%)



Source: SBI Research

- This is similar to the results of the FRSB paper where 100 categories of goods and services categories in the PCE index of the USA were separated into demand and supply categories. The paper concluded that supply factors explain about half of the run-up in current inflation levels in the US while demand factors are responsible for about one-third, with the remainder resulting from ambiguous factors.
- In India, CPI inflation attributable to supply side factors started moving up after Sep'21 while demand CPI remained more or less constant. The two have been moving together post Feb'22 (since the starting of Russia-Ukraine conflict). **However in the recent month demand CPI has moved up a bit, while supply CPI continues to moderate. Clearly, the RBI may have to raise rates further though, the improvement in inflation attributable to supply side factors bodes well for inflation trajectory going forward.**

DECLINING CORE INFLATION

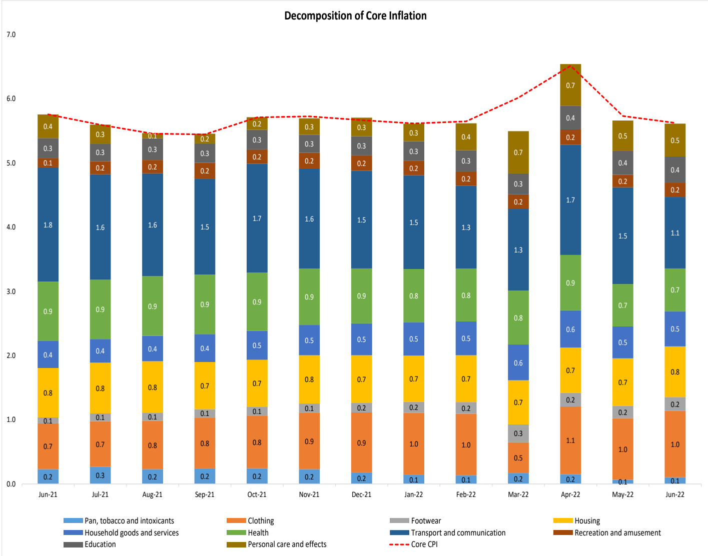
- The core inflation that has trended down from its peak in April (taking last 12-months as reference period). The moderation is on account of fall in contribution of Transport and communication from 1.7% in April to 1.1% in June. The second component that has driven the current moderation in core is personal care and effect which as corrected by 0.2%.
- The fall in core CPI largely the product of fall in demand owing to lagged effect of high inflation in the past months. Further correction in prices of precious metal around April has contributed to correction in personal care and effect. With major states such as Maharashtra which contribute 100 bps to All India CPI (95 bps in June) expected to announce cut in VAT on fuel, it is expected that core may correct further as pass through of fuel will happen in subsequent months along with correction in global prices of commodities.

IMPACT OF GST ON INFLATION

- Several goods and services will cost more from July 18 with the Goods and Services Tax (GST) Council approving an increase in rates to address inverted duty structures and withdrawing some exemptions. Government has said that any increase in GST rates is intended to make up for "inefficiencies" in the value chain. Government also indicated that all states are aware of the potential impact of rate rationalisation on inflation and any increase in GST rates will also make up for the tax burden borne by some other activities in that value chain.
- **As per our calculation, the additional impact of GST rates increase on CPI inflation will be in the range of 15-20 bps only.**

DECLINING GLOBAL COMMODITY PRICES

- The Russia-Ukraine conflict throttled a flow of raw materials that was already being restricted by logistical logjams, bad weather and other disruptions. The result was soaring prices. In March Brent crude hit $128/bbl, and European gas prices were three times higher than they had been just two months earlier. Copper, a trend-setter for all industrial metals, hit a record price of $10,845 per tonne. Wheat, corn and soyabean prices rose by double-digit percentages.
- **Yet in recent weeks the situation has changed. Oil is trading at around $100 a barrel. Copper has dropped below $8,000 a tonne for the first time in 18 months; metals in general have fallen by 10-60% since their 52-week high. Agricultural-commodity prices are back at the pre-war levels.**



Major Commodities (% Change from 52 Week High)			
Energy		**Agricultural**	
Crude Oil WTI	-17.5	Lumber	-54.9
Crude Oil Brent	-17.8	Corn	-17.7
Gasoline	-16.7	Coffee	-16.0
Natural gas	-30.4	Cotton	-35.2
Heating oil	-27.4	Wheat	-41.4
Ethanol	-26.7	Cocoa	-16.5
Precious Metals		Sugar	-7.1
Gold Spot	-15.7	Soybeans	-7.2
Silver Spot	-28.4	Soybean Oil	-22.2
Palladium	-29.5	Soybean Meal	-6.6
Platinum	-25.6	OrangeJuice-Frozen	-8.4
Base Metals		Oats	-26.1
Aluminium	-38.2	Rice-Rough	-8.5
Zinc	-32.4	Cattle-Feeder	-0.7
Copper	-28.9	Cattle-Live	-3.8
Nickel	-54.6	Hogs-Lean	-7.6
Steel	-43.1	-	
Tin	-45.5		
Lead	-21.2		
Iron ore	-50.3		
Source: SBI Research			

OUTLOOK FOR THE US ECONOMY

- **Monetary policy ought to have been normalised in 2021 and now central banks are in catch-up mode. As per independent research (Martin Wolf) the wide gap between the job vacancy rate and unemployment rate (currently at 3.3%) in USA currently indicate a strong labour market**. This will translate into higher nominal wages. This in turn might create a wage-price spiral on top of the ongoing price-price spiral. Hence a moderation in commodity prices would not be enough to halt rising inflation and we end up in stagflation as per such research.
- Against this backdrop, as per such independent research there are three possibilities ahead for the US Fed: (i) immaculate disinflation, (ii) a strong slowdown to return to the 2% target, (iii) a failure to regain the 2% target and a stagflation cycle. And hence it is unclear how interest rates will move in the future. The future looks even more uncertain than usual.

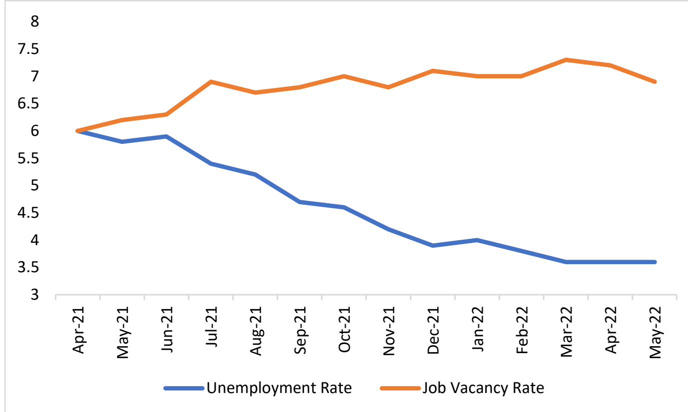
IIP GREW BY 19.6% IN MAY 2022

- IIP witnessed a growth of 19.6% yoy in May 2022, compared to last year growth of 27.6% mainly due to the low-base effect. Manufacturing grew by 20.6%, Electricity by 23.5% and Mining by 10.9% in May. Cumulatively, during Apr-May 2022 IIP grew by 12.9%.

INVESTMENT ANNOUNCEMENTS, AFTER REACHING RS 20 TRILLION IN FY22 HAS DECLINED 27% IN Q1FY23

- New investment announcements in FY22, as per projects today, touched all time high of Rs 20 trillion led by private sectors, which announced record investments of Rs 13.75 trillion in FY22.
- Major industries where new announcements were made during FY22 includes Roadways (Rs 2.67 lakh crore), Iron & Steel (Rs 2.66 lakh crore), Basic Chemicals (Rs 2.13 lakh crore), Real Estate (Rs 1.74 lakh crore), Community Services (Rs 1.72 lakh crore) and non-conventional power (Rs 1.10 lakh crore).
- However, in Q1FY23, new investment announcement declined by around 27% to Rs 4.35 lakh crore as compared to Rs 5.99 lakh crore in Q1FY22 and Rs 5.75 lakh crore in Q4FY22.

US: Unemployment Rate vis-à-vis Job Vacancy Rate (%)



Source: SBI Research

IS THE WORLD HEADING TOWARDS RECESSION?

- Today the central banks in both AEs and EMEs, and fiscal authorities around the world understand that inflation and unemployment naturally rise or fall together when supply shocks rule the roost. This concurrence of maladies presents central bankers—now, as then—with a Hobson's choice. If they tighten monetary policy to fight inflation, it will slow the economy. But if they ease monetary policy to fight recession, it will make inflation worse.
- **The fear arises that spiralling inflation and an aggressive monetary policy tightening cycle may lead to the recession particularly in the US economy.**
- **However, the fear is unfounded.** Historical analysis done by Alan Blinder indicates that out of 11 episodes of high inflation/monetary tightening in US, seven of them were arguably "pretty soft," and three of them never had the intention of making the landing soft. **And hence in the current situation the risk of a recession is only 20-30%, instead the chance of prolonged stagflation seems more.**

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