

## INFLATION AND RATE OUTLOOK

04 November 2020

### Rates seem to have bottomed out

Forward guidance by global central banks implies low yields and negative real global yields in the medium-term. While India too is seeing negative real policy rate, a decline in inflation to 4.2% in FY22 will reduce the magnitude and also imply limited room for easing by RBI. Elevated gross borrowing of Rs 21tn (centre and states) suggests yield curve is likely to remain steep and 10Y yield is expected to remain range bound between 5.75-6.25%. Unseasonal rains and rising global commodity prices are a risk to our estimates.

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**Global yields to remain low:** The global narrative is lower rates for longer. The US FOMC expects rates to remain in the current range of 0-0.25% till CY23. ECB, BoJ and BoE will follow suit. Inflation in most of these economies is running far below central bank mandates, with the US at 1.5%, Germany at (-) 0.2% and Japan at 0%. Real rates are thus likely to remain negative for the foreseeable future.

**India's real rate has turned negative:** India's current real policy rate is also negative, reminiscent of the 2009-12 period when high retail inflation at 10% (led by food) drove sustained negative real rates. Food inflation is running at 9.6% FYTD21. Excluding supply-side factors (taxes, gold prices, Pan and tobacco), demand-driven core inflation (household goods, rent, education, health and recreation) is only 3.2%. We estimate CPI inflation at 4.2% in FY22.

**Supply-side inflation on the rise:** Apart from energy prices, other commodities – food, metals and precious metals – are at higher levels compared to last year. A Covid-19 vaccine may drive commodity prices even higher. Indian food prices are influenced not only by global prices but also by MSPs, government procurement and currency in circulation. Food stocks are at their highest level and CIC increased by 11.3% in FYTD21 (17% over the last five years).

**Expect 10Y yield in 5.75-6.25% range:** We estimate that the Centre's fiscal deficit will rise to 7.6% of GDP in FY21 from 4.6% in FY20. Fiscal deficit of states is estimated at 4.5% of GDP. This implies gross borrowing of Rs 21tn in FY21 (Rs 13.6tn done during FYTD21). Banks and RBI are absorbing fresh issuance of dated securities. With gradual economic rebound demand for credit is likely to pick up. This should provide a floor to 10Y yield at 5.75% and support a range of 5.75-6.25% (vs. 5.8-6.5% in past months).



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## Global bond yields depressed

Global yields have fallen in recent months amidst the Covid-19 crisis and ensuing rate cuts by global central banks. The US Fed has cut policy rate by 150bps this year and is likely to continue with ultra-low rates at least till CY23 (current dot plot of US FOMC). This will keep global yields lower. Also, inflation in many advanced economies including US, Japan and Germany has consistently remained low. Covid-19 may lead to lower inflation in the next few years as well. Hence, the trajectory of global yields is likely to be southwards in the near-future.

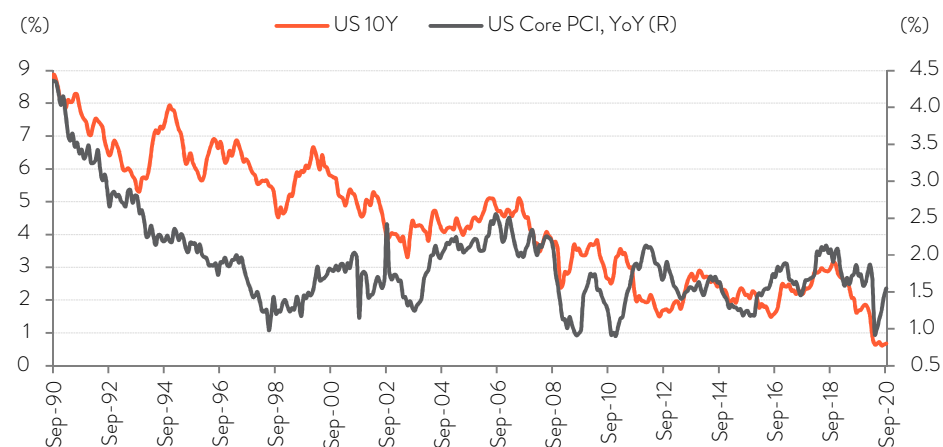
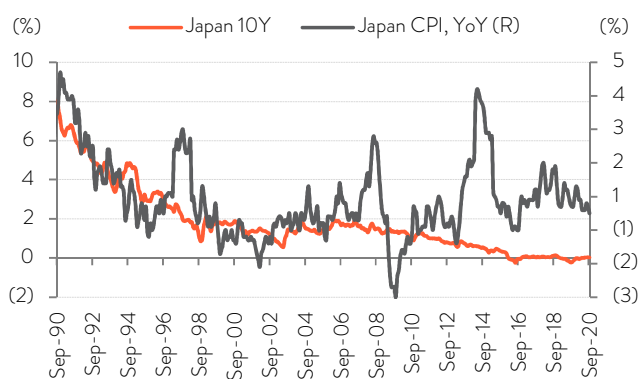
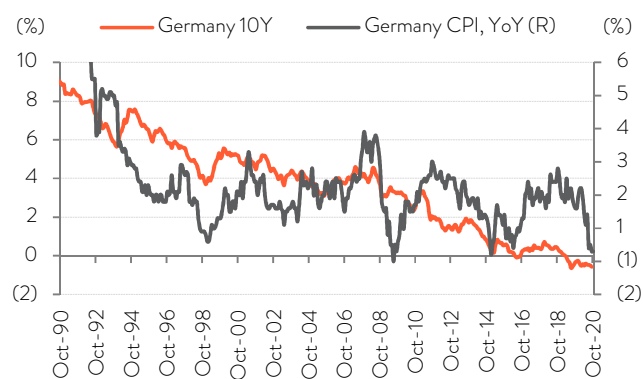
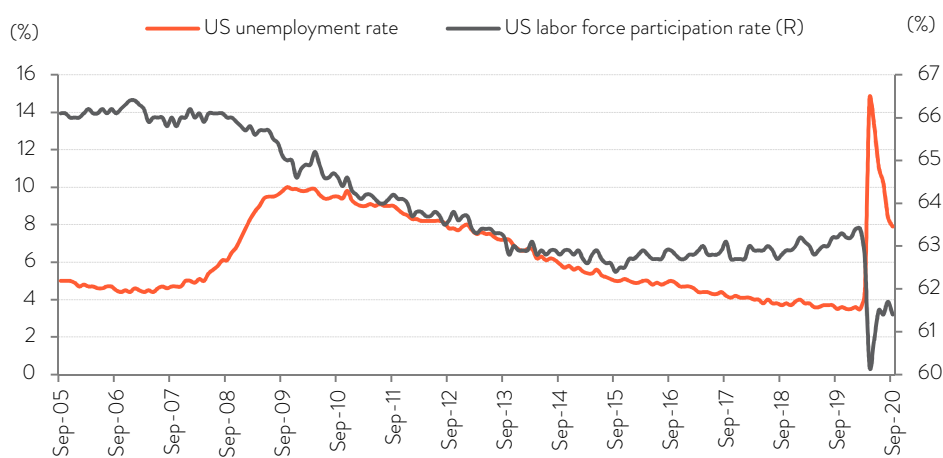
### Economic contraction weighing on bond market

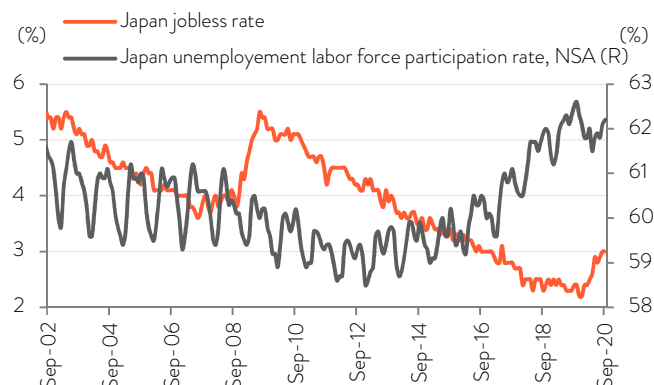
With average inflation (personal consumption expenditure or PCE) of 1.6% since Jan'09, the US Federal Reserve has not been able to achieve its targeted 2% inflation rate set in 2012. During the same period, CPI inflation in Japan has been only 0.3% and in Germany 1.2%.

Current PCE rate in US is at 1.5%. Current inflation rates in Germany and Japan are far lower at (-) 0.2% and Japan at 0%. Inflation in the US has fallen by 30bps since Jan'20. In Germany, the fall has been much sharper at 190bps owing to an appreciating currency, lower energy prices and VAT reduction. The US Fed has now revised its inflation goal to an average of 2% over the cycle instead of 2% at a point in time. This gives it room to sustain lower rates for longer.

During CYTD20, the US 10Y yield has fallen 107bps, declining to a record low of 0.51% in Aug'20 from a high of 1.92% in Jan'20. Amid Covid-19 headwinds, US GDP has contracted sharply in Q2CY20 by 31.7%, the worst on record. However, it has improved to 33.1% in Q3CY21 with removal of lockdown restrictions. Similar to US, yields in other major markets have also fallen alongside a sharp contraction in economic activity. Germany's 10Y yield has declined by 46bps and the UK by 60bps. The only exception is Japan which has seen a 6bps increase.

Central banks the world over have responded by cutting policy rates. The US Fed was the first to respond, cutting rates by 150bps within a span of 13 days since Mar'20 to a record low of 0-0.25%. Other global central banks have also followed with policy rate reductions as well as liquidity injections and quantitative easing.

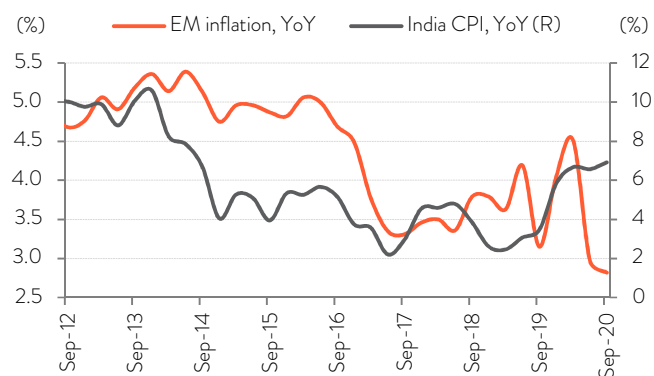
**FIG 1 – US 10Y YIELD HAS DECLINED TO HISTORIC LOWS DURING THE COVID-19 CRISIS**

**FIG 2 – JAPAN'S 10Y YIELD IS TRADING NEAR ZERO**

**FIG 3 – GERMANY'S 10Y YIELD IS BELOW ZERO**

**FIG 4 – AFTER A RECORD HIGH, UNEMPLOYMENT IN THE US IS FALLING**


**FIG 5 – JAPAN HAS SEEN A RISE IN UNEMPLOYMENT RATE IN COVID-19**

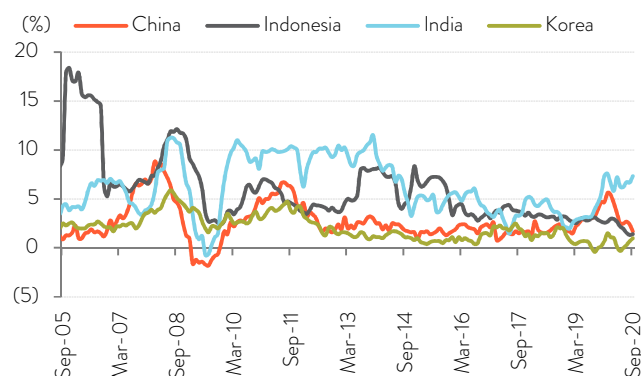
Source: Bloomberg, Bank of Baroda Research

**FIG 6 – GERMANY ALSO SAW AN INCREASE IN UNEMPLOYMENT RATE**

Source: Bloomberg, Bank of Baroda Research

**FIG 7 – INFLATION IN EM HAS DECLINED...**

Source: Bloomberg, Bank of Baroda Research

**FIG 8 – ...INDIA AN OUTLIER WITH HIGH INFLATION**

Source: Bloomberg, Bank of Baroda Research

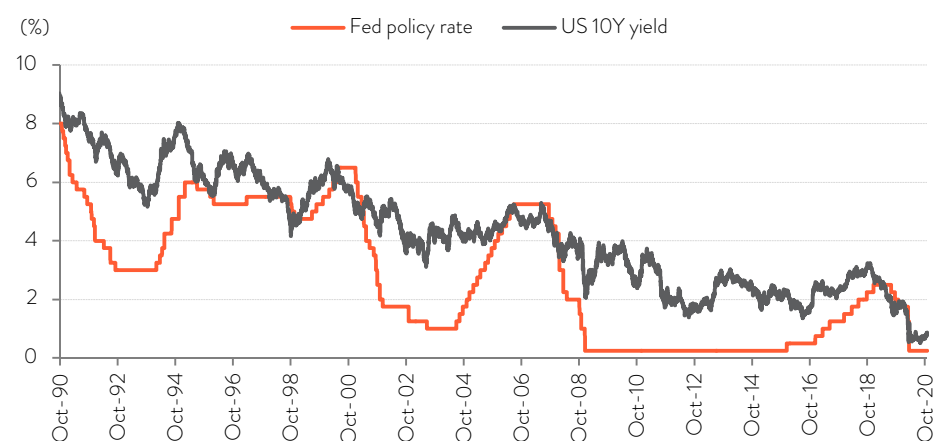
### Outlook on global yields muted

Global central banks are likely to keep interest rates low for economic recovery to take hold. The US Fed's dot plot suggests that policy rates are expected to remain at current levels till CY23. We note a high correlation (0.85) between the Fed's policy rate and the US 10Y yield. ECB and BoJ are also likely to follow the Fed's policy schedule and keep rates low in the medium term, implying muted yields across key economies.

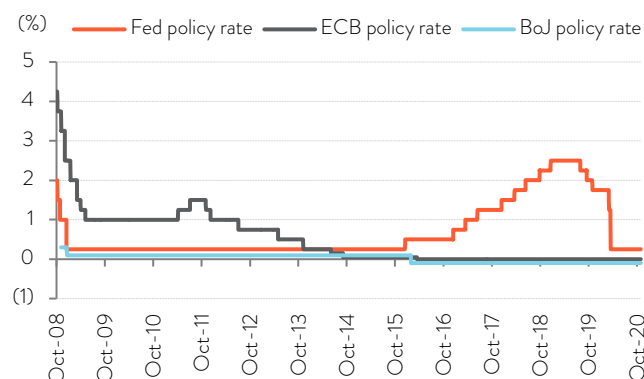
**FIG 9 – FED'S FORWARD GUIDANCE SUGGEST ULTRA-LOW RATES WILL CONTINUE**

	2020		2021		2022		2023		Longer term	
Target	Jun'20	Sep'20	Jun'20	Sep'20	Jun'20	Sep'20	Jun'20	Sep'20	Jun'20	Sep'20
0.000										
0.125	.....	.....	.....	.....	.....	.....		.....		
0.250										
0.375					.			..		
0.500										
0.625						.		.		
0.750										
0.875										
1.000										
1.125					.					
1.250										
1.375								.		
1.500										
1.625										
1.750										
1.875										
2.000									.	.
2.125										
2.250									...	...
2.375									.	.
2.500									.....	.....
2.625										
2.750									.	.
2.875										
3.000									..	..
3.125										

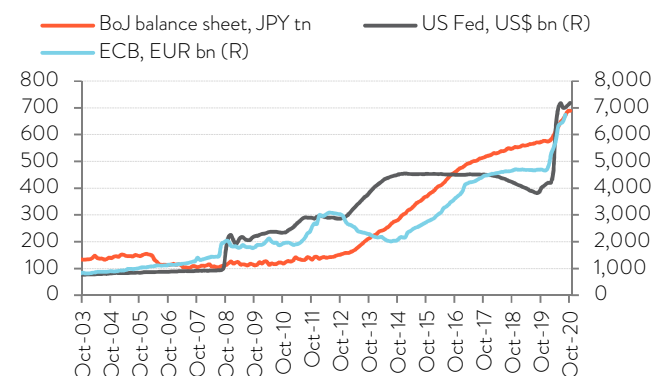
Source: Bloomberg, Bank of Baroda Research

**FIG 10 – US 10Y YIELD ALSO EXPECTED TO REMAIN LOW**


Source: Bloomberg, Bank of Baroda Research

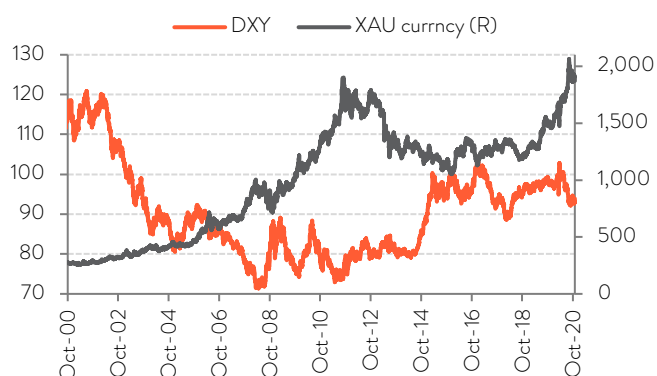
**FIG 11 – GLOBAL POLICY RATES EXPECTED TO REMAIN SOFT**

Source: Bloomberg, Bank of Baroda Research

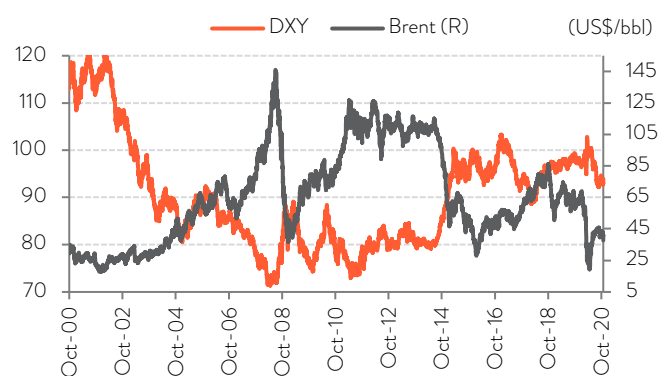
**FIG 12 – BALANCE SHEET OF MAJOR CENTRAL BANKS EXPANDING**

Source: Bloomberg, Bank of Baroda Research

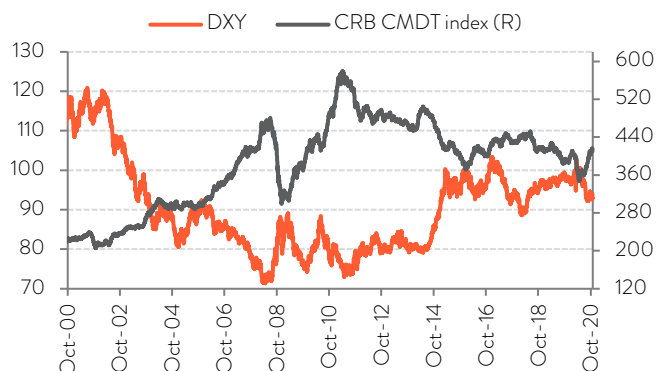
The risk to this outlook remains higher inflation in the US and the world. EMs are especially susceptible to energy prices and commodity inflation. Historically, a weaker US dollar has resulted in higher commodity prices, be it oil, precious metals or commodities.

**FIG 13 – DXY AND GOLD ARE INVERSELY RELATED**

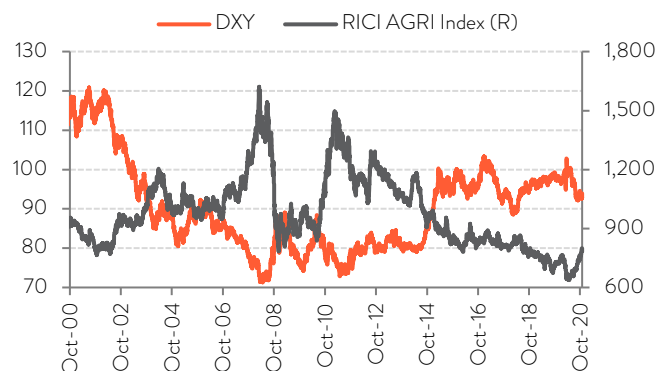
Source: Bloomberg, Bank of Baroda Research

**FIG 14 – DXY AND OIL ALSO SHOW INVERSE RELATION**

Source: Bloomberg, Bank of Baroda Research

**FIG 15 – COMMODITY PRICES RISE WHEN USD FALLS**

Source: Bloomberg, Bank of Baroda Research

**FIG 16 – AGRI INDEX IS REVERSING AS USD FALLS**

Source: Bloomberg, Bank of Baroda Research

## India yield to hold at ~6% in near term

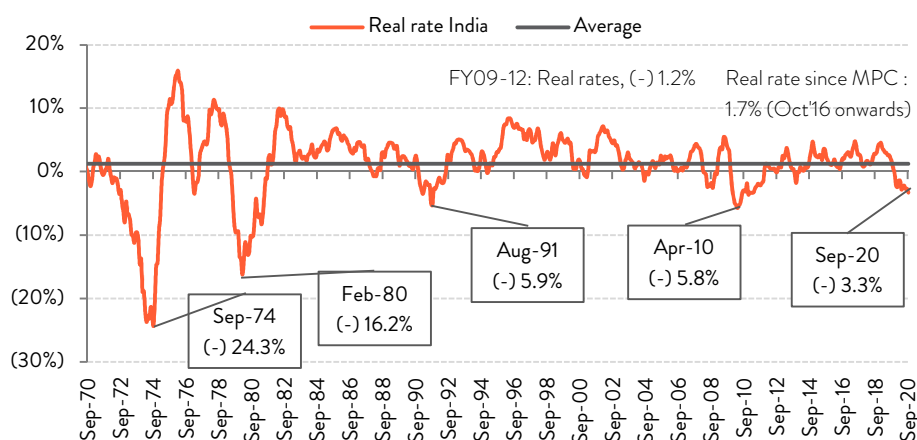
India's 10Y yield has oscillated between 5.8% and 6.7% over the past few months. We expect yields to hold in the range of 5.75-6.25% in the near term as (1) negative real rates limit rate cuts, (2) inflation remains elevated (headline CPI print for FY21 estimated at 5.8%), and (3) additional government borrowing to meet budgeted expenditure will provide a floor to yields.

## Economic indicators support steady yields

### High negative real rates

Akin to the post-GFC trends seen in 2009, real rates (policy rate less inflation) have once again turned negative now amid the Covid-19 crisis. Real rates were negative for an elongated period between 2009 and 2012 due to high domestic inflation. While food inflation has increased once again, international energy prices are currently at less than 60% of 2009-13 levels (US\$ 95/ barrel). Nonetheless, domestic retail fuel prices have increased 7% over the last year because of a hike in domestic taxes.

**FIG 17 – INDIA'S REAL INTEREST RATE TURNS NEGATIVE IN CRISIS PERIODS**



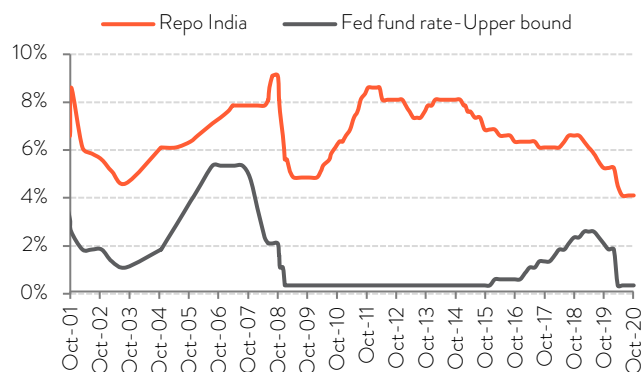
Source: CEIC, Bank of Baroda Research

RBI reduced repo rates by 135bps in CY19 due to a slowdown in GDP growth. Notably, CPI inflation was relatively muted at 3.7% in the same period, implying average real rate of 1.2%. In CY20 however, with the onset of the Covid-19 pandemic, RBI cut rates sharply by another 115bps between Mar-May'20. Inflation too has inched up to 6.7% in FYTD21 due to the supply side bottlenecks and higher taxes on petrol/diesel and increase in international gold prices. This has pushed real rates into negative territory. Real rates in India are now substantially lower than global counterparts. Thus limiting the space for RBI to cut rates further. Since the MPC has been formed, India's real rates are aligned with other EMs. A sustained diversion is not sustainable as seen during 2008 and 2015 when



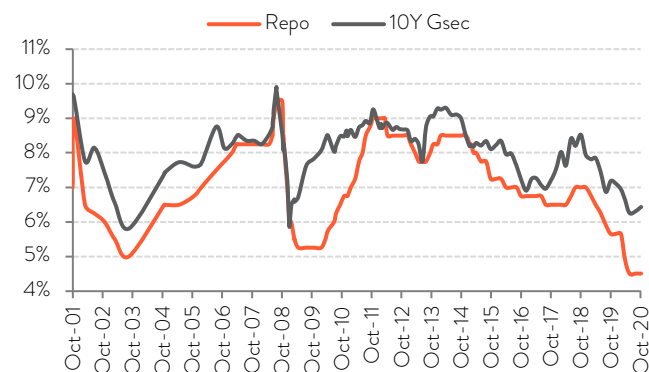
US Fed kept rates at 0-0.25%, whereas RBI raised rates from 5.5% in 2009 to 8.5% in 2012 owing to rising inflation.

**FIG 18 – INDIA’S RATE CUT CYCLE CAN DEVIATE FROM THE US, AS SEEN FROM 2009 ONWARDS**



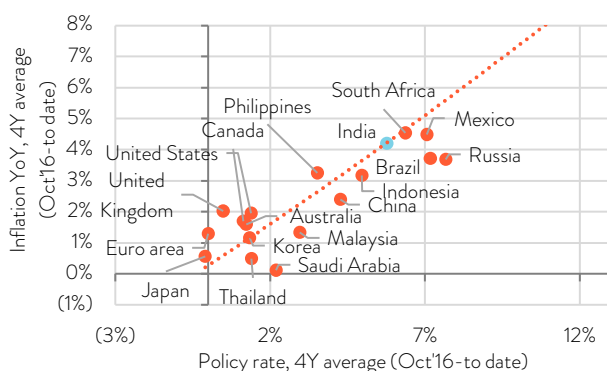
Source: Bloomberg, Bank of Baroda Research

**FIG 19 – RATE CUT CYCLE REFLECTED IN 10Y GSEC, ALBEIT INCHING UP OFF LATE**



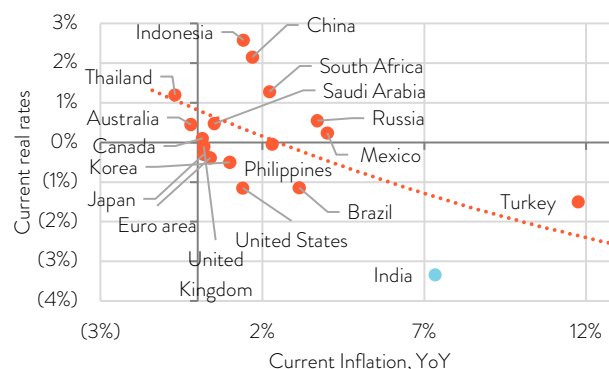
Source: Bloomberg, Bank of Baroda Research

**FIG 20 – REAL RATES DURING MPC TENURE HIGH AT 1.7% DUE TO LOW INFLATION (4.1%)...**



Source: Bloomberg, Bank of Baroda Research

**FIG 21 – ...BUT INDIA CURRENTLY AN OUTLIER WITH HIGH NEGATIVE REAL RATES**

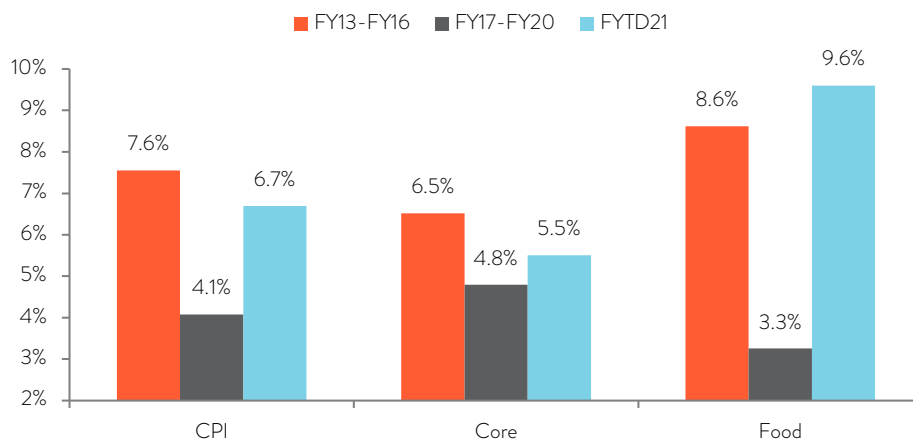


Source: Bloomberg, Bank of Baroda Research

### Elevated food inflation

In the current series (2011-12), retail inflation in India can be divided into two halves – the first four years over FY13-FY16 when retail inflation averaged 7.6% and the next four years (FY17-FY20) when it averaged 4.1%. The key distinction between the two phases is the large fall in food inflation – from 8.6% on average in the first phase to 3.3% in the second. Core inflation fell from 6.5% to 4.8% over these two periods. Thus, food inflation was the enabling factor that drove retail inflation lower. This is true even over the long run in India.

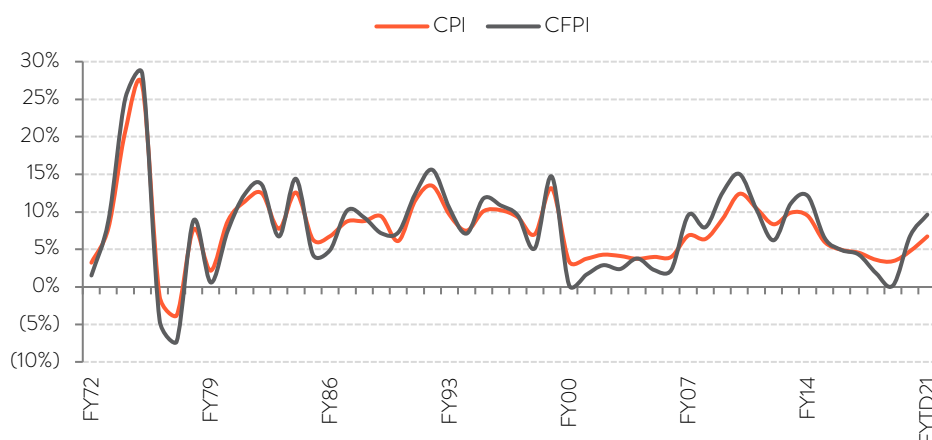
We note that food inflation has seen a broad-based uptick in FYTD21 to 9.6%, similar to trends seen during financial year 2013 to 2016.

**FIG 22 – INFLATION OVER DIFFERENT PHASES**

Source: CEIC, Bank of Baroda Research

**FIG 23 – FOOD INFLATION FELL ACROSS THE BOARD DURING FY17-FY20, BUT HAS SEEN BROAD-BASED UPTICK IN FY21**

Source: CEIC, Bank of Baroda Research

**FIG 24 – CPI & FOOD INFLATION SHOW SIMILAR LONG-TERM TRENDS**

Source: Bloomberg, Bank of Baroda Research

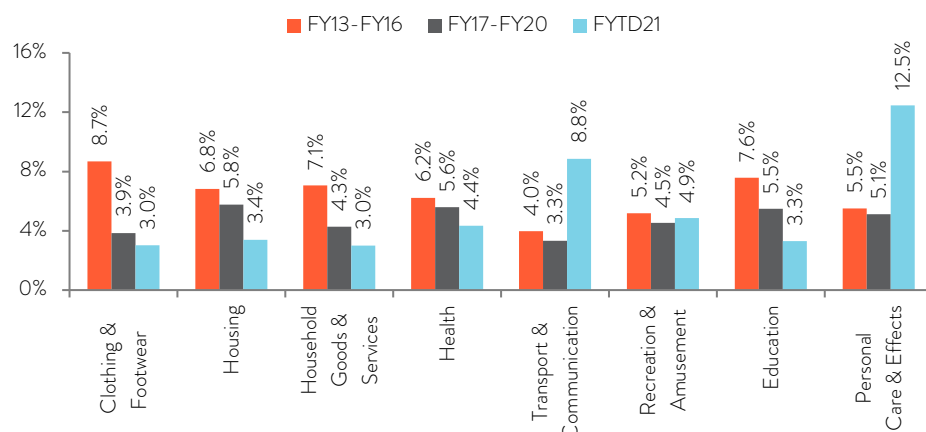
### Retail petrol and gold prices pushing up core inflation

Core inflation fell to 4% in FY20 with a broad-based decline across categories, barring personal care and effects. This is a sharp drop from the average of 5.8% in the current series. The decline can be explained by a domestic slowdown wherein GDP growth decelerated to 4.2% in FY20 and further to (-) 24% in Q1FY21.

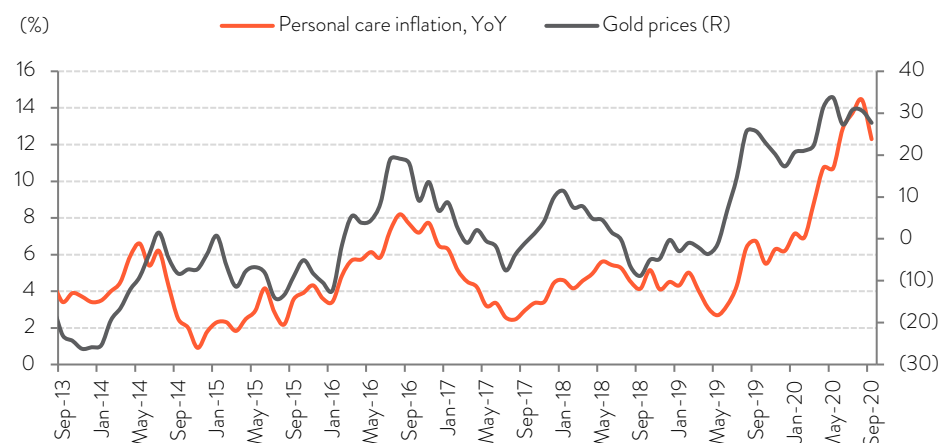
Within core, housing inflation is currently muted due to lower demand. Education, recreation and amusement, household goods and health inflation are also benign. For instance, education inflation is at 3.3% in H1FY21 compared with 5.5% in FY20. Health inflation too has come down from 6.3% in FY20 to 4.4% in H1FY21. However, higher domestic fuel and gold prices have driven core inflation to 5.5% in FYTD21. In fact, fuel prices will also have a more generalised impact on retail inflation because of pass-through into the economy.

Excluding the supply-side factors (increase in taxes on fuel, higher gold prices and pan, tobacco and intoxicants), demand-driven core inflation is only 3.2%. This is consistent with muted demand. But as and when the economy recovers from the pandemic and a vaccine is available, we expect a mean reversion in some categories next year. Statistically, core inflation has been below 4% only 6% of the time in current series (6 observations out of total 105 observations). As much as 60% of the time, it has been in the range of 4-6%.

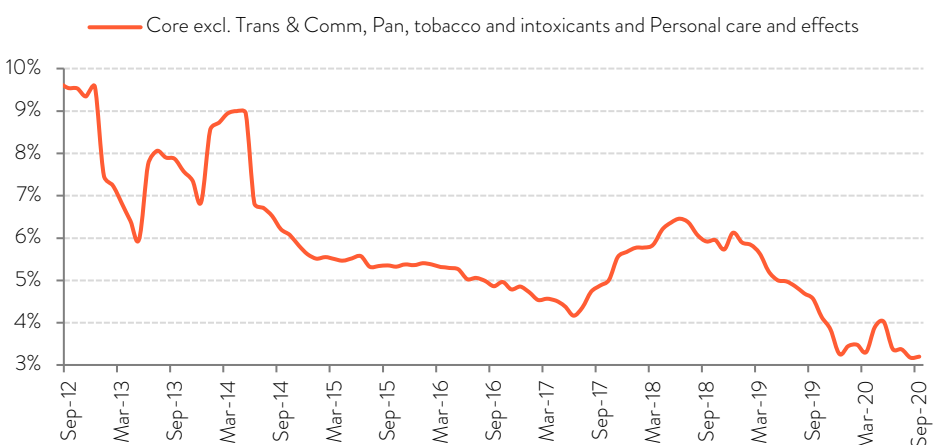
**FIG 25 – BREAKDOWN OF CORE INFLATION**



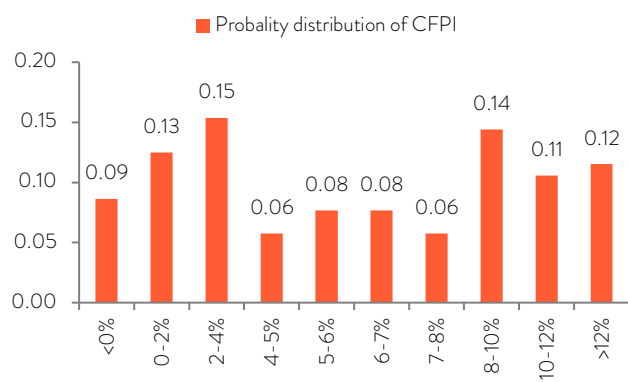
Source: CEIC, Bank of Baroda Research

**FIG 26 – HIGHER GOLD PRICES HAVE RAISED CORE INFLATION**

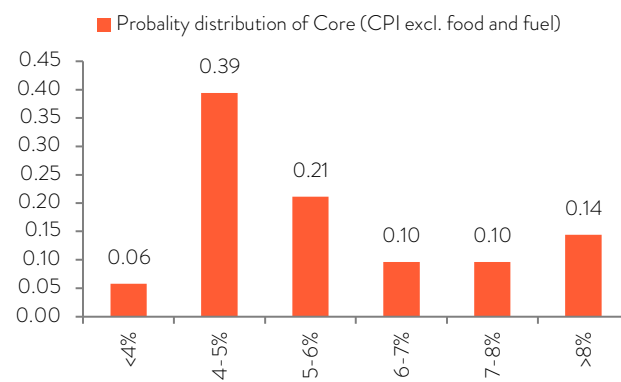
Source: Bloomberg, CEIC, Bank of Baroda Research

**FIG 27 – STRIPPED OF FUEL, PAN, TOBACCO & GOLD PRICE COMPONENTS, CORE INFLATION REFLECTS CURRENT MUTED DEMAND**

Source: CEIC, Bank of Baroda Research

**Probability distribution of volatile inflation components****FIG 28 – CFPI LIKELY TO SETTLE ABOVE 8% IN FY21E**

Source: Bloomberg, Bank of Baroda Research

**FIG 29 – CORE COULD SETTLE BETWEEN 4-6%**

Source: Bloomberg, Bank of Baroda Research

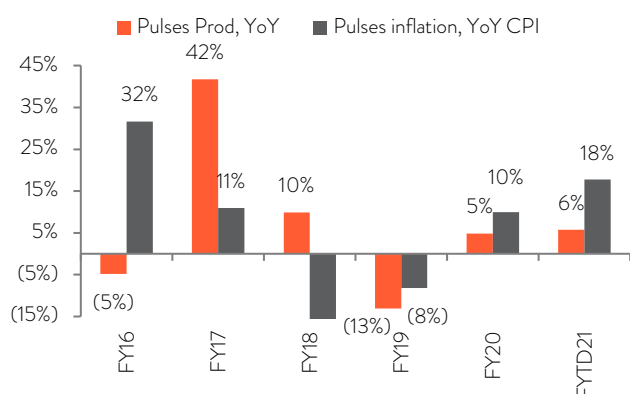
## Inflation expected to soften only in FY22

At present, food inflation is quite broad-based with double-digit increases in 6 out of 12 components. We expect a decline in the vegetable and pulses categories given a high base in coming months. In addition, the government has put restrictions on onion exports which is positive for inflation. Stock holding limits have also been imposed to arrest the price rise. However, the recent rains in Oct'20 have added an element of uncertainty in reduction of food inflation.

Normally, an increase in production in a year does lead to lower prices in the ensuing year. For instance, onion production was up by 15% last year and inflation is at 2% this year (FYTD21). During FY20, prices were up by 90% which incentivized farmers to sow a larger area. Potato production was down by 3% last year and prices have increased by 76% this financial year (FYTD21).

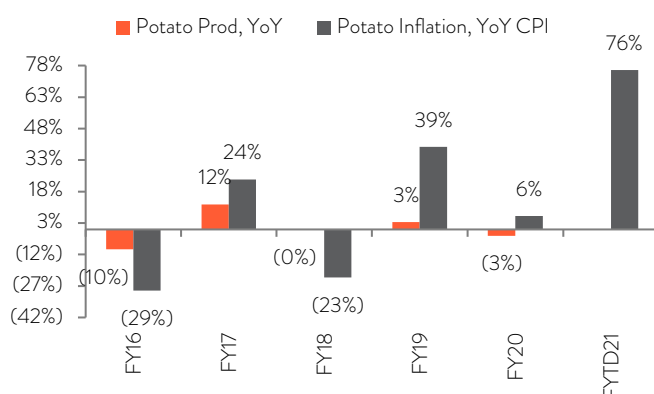
Given the increase in acreage in current kharif season and the water availability (117% of average storage of last 10 years), production of vegetables, cereals and pulses should improve. Already acreage under pulses is higher by 13% (1<sup>st</sup> A.E) this season. A high base effect along with higher supply should ease food inflation to 4.2% in FY22 from 7.8% in FY21. Core inflation is estimated at 4.8% in FY22 as supply side constraints ease. However, as inflation will remain above 4%, we continue to believe that further room for further rate cuts is limited.

**FIG 30 – PULSES INFLATION EXPECTED TO EASE OFF**

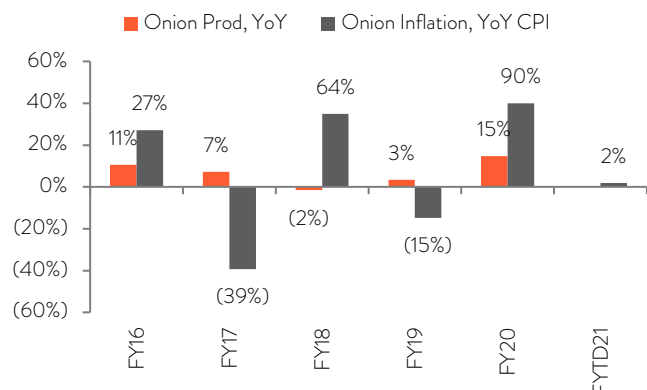


Source: CEIC, Bank of Baroda Research | Note: FYTD21 production estimates are based on 1<sup>st</sup> advance estimates for Kharif and average Rabi estimates for 3 years. FYTD21 Inflation estimates for Jun-Sep'20

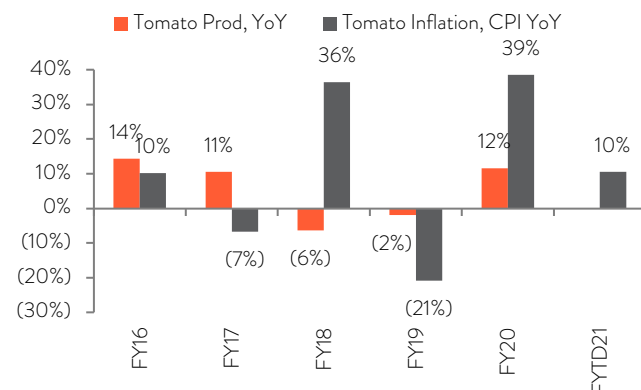
**FIG 31 – POTATO PRICES LIKELY TO REMAIN ELEVATED DUE TO LOWER PRODUCTION**



Source: CEIC, Bank of Baroda Research | Note: FY20 inflation estimates till Feb'20. FYTD21 Inflation estimates for Jun-Sep'20

**FIG 32 – ONION PRICES HAVE STARTED TO EASE LED BY HIGHER PRODUCTION**

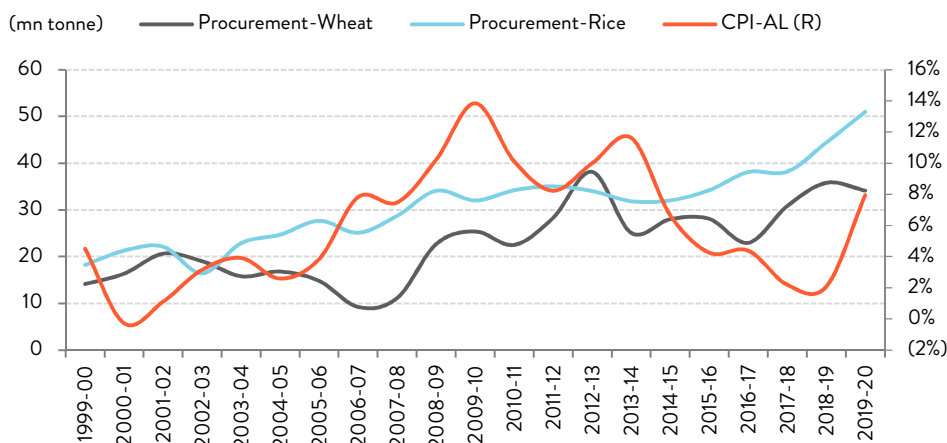
Source: CEIC, Bank of Baroda Research | Note: FY20 inflation estimates till Feb'20. FYTD21 Inflation estimates for Jun-Sep'20.

**FIG 33 – HIGHER PRODUCTION OF TOMATO HAS RESULTED IN MODERATION OF PRICES**

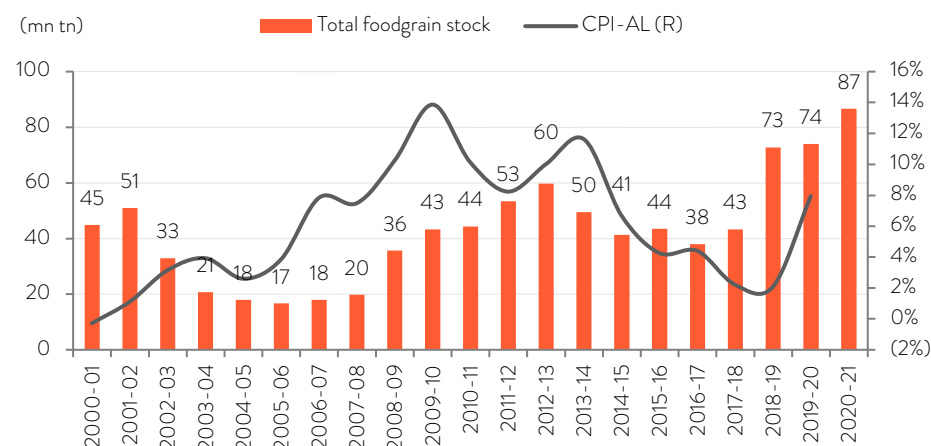
Source: CEIC, Bank of Baroda Research | Note: FY20 inflation estimates till Feb'20. FYTD21 Inflation estimates for Jun-Sep'20.

### Higher procurement now can help curb inflationary pressure

We note a clear relationship between crop support prices (MSP), procurement of cereals by the government and food inflation in India. At present, the share of government procurement is higher than the peaks seen in 2012-13 and 2009-10, with food stocks now at the highest level. However, if the government does choose to reduce food stocks then it can manage to reduce cereal inflation.

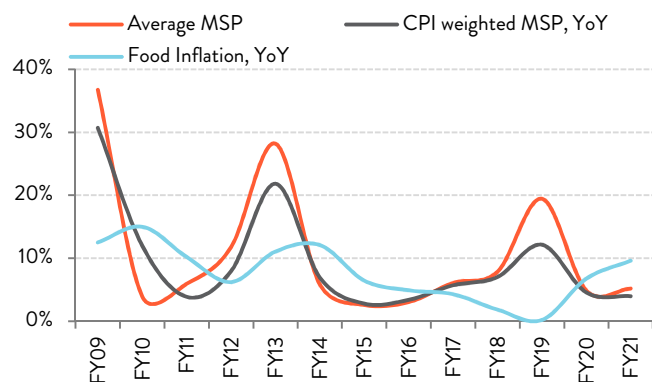
**FIG 34 – GOVT. PROCUREMENT SHARE IN TOTAL PRODUCTION HAS SPIKED**

Source: CEIC, RBI, Bank of Baroda Research | Note: CPI-AL – CPI-Agricultural Labourers

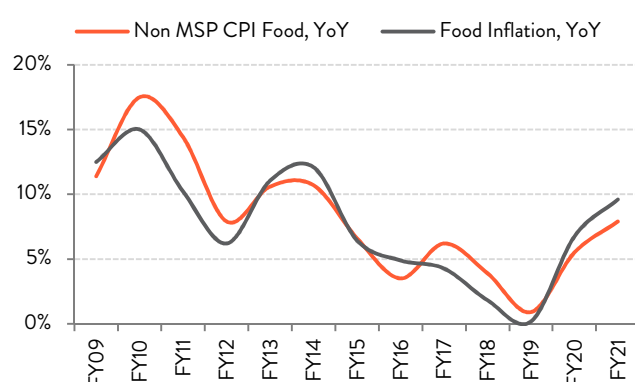
**FIG 35 – FOODGRAIN STOCKS HAVE DOUBLED IN LAST FIVE YEARS**

Source: RBI, Bank of Baroda Research. Note: Stock for 2020-21 relates to position as on August 01, 2020.

CPI-weighted MSP (13% of CPI basket) and food inflation typically exhibit a fairly positive correlation, barring FY19 where the fall in food inflation was led by a decline in the non-MSP (30.2%) category. During FY19, vegetable inflation was (-) 4.4% which rebounded to 21.8% in FY20.

**FIG 36 – MSP AND FOOD INFLATION EXHIBIT A FAIRLY POSITIVE CORRELATION**

Source: CEIC, Bank of Baroda Research | Note: Old series calculation based on CPI-IW (Industrial Workers)

**FIG 37 – NON-MSP TRENDS MOVING IN LINE WITH FOOD INFLATION**

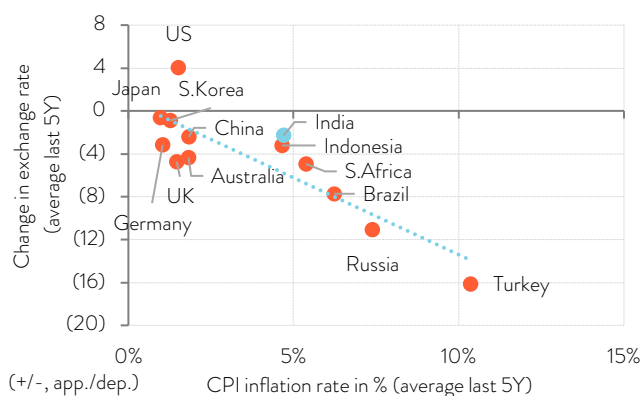
Source: CEIC, Bank of Baroda Research | Note: Old series calculation based on CPI-IW (Industrial Workers)

### Exchange rate to partly help anchor inflation

In FY12, the INR depreciated by 10.7% against the US dollar, which drove retail inflation higher. In H1FY13 as well, CPI inflation remained elevated at 9.4% driven in part by 7.7% depreciation in the USDINR. An RBI study notes that a 1% move in exchange rate leads to a 15bps change in headline inflation. Further, the pass through of impact of change in exchange rate to inflation is around five months.

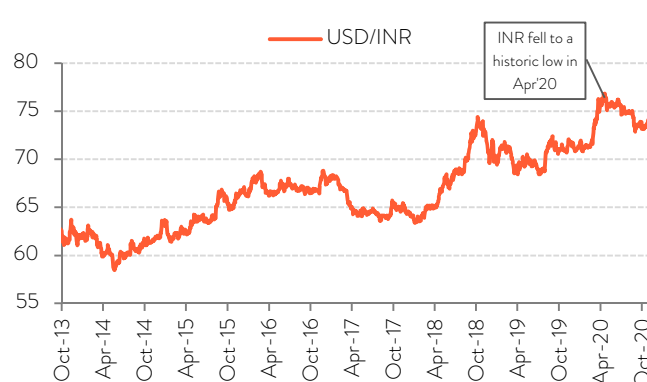
The current outlook on the INR is favourable due to a sharp decline in trade deficit and resumption of FII inflows into India. With an inherent upward pressure on the currency in FYTD21, RBI has emerged as a key balancing force in the forex market. However, as the economy opens up further, imports will gradually gather pace and thus the trade deficit is slated to increase. We forecast a narrow exchange rate band of Rs 72.5-74.5 to the USD in FY21.

**FIG 38 – EXCHANGE AND INFLATION RATES ARE INVERSELY RELATED**



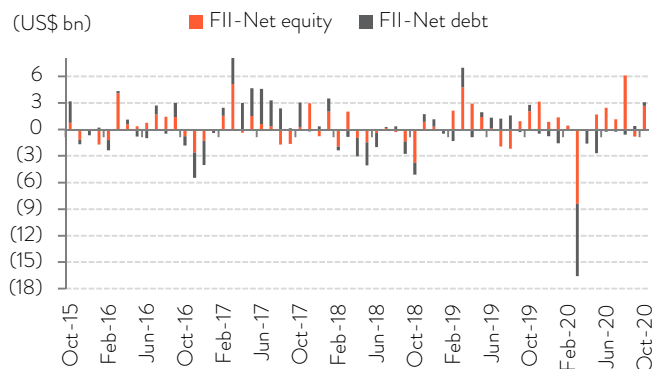
Source: Bloomberg, IMF, Bank of Baroda Research

**FIG 39 – INR HAS APPRECIATED RECENTLY...**



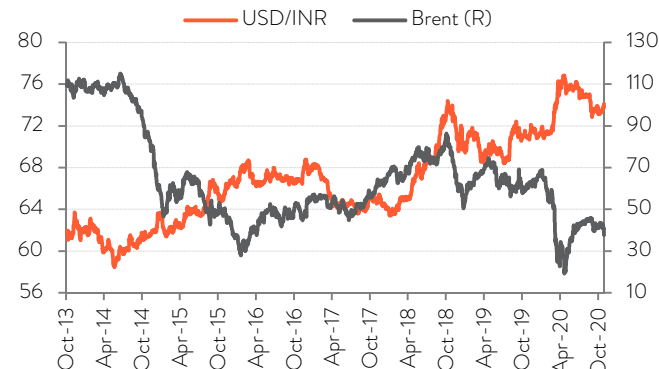
Source: Bloomberg, Bank of Baroda Research | Note: Daily data as of 29 Oct'20

**FIG 40 – ...SUPPORTED BY RESUMPTION IN FII INFLOWS...**



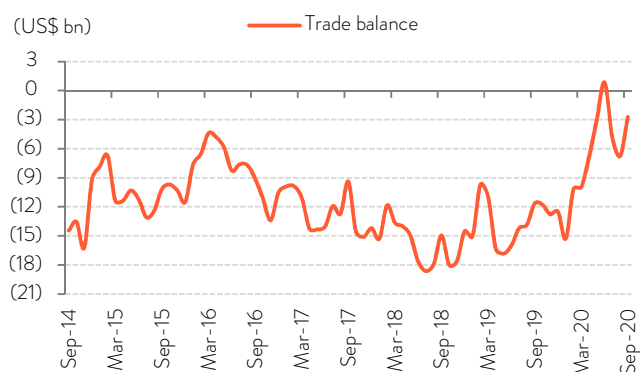
Source: Bloomberg, Bank of Baroda Research

**FIG 41 – ...AND LOWER OIL PRICES**

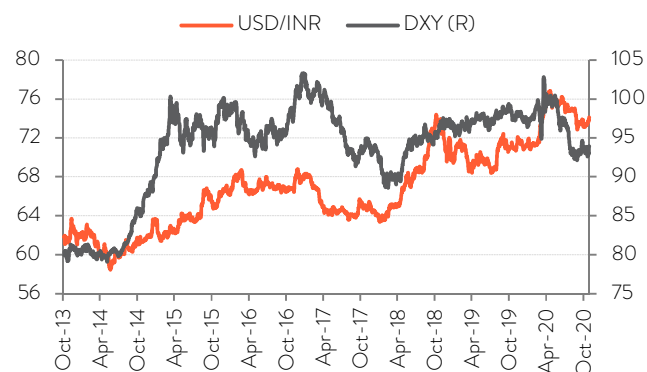


Source: Bloomberg, Bank of Baroda Research | Note: Daily data as of 29 Oct'20



**FIG 42 – TRADE DEFICIT HAS NARROWED SHARPLY**

Source: CEIC, Bank of Baroda Research

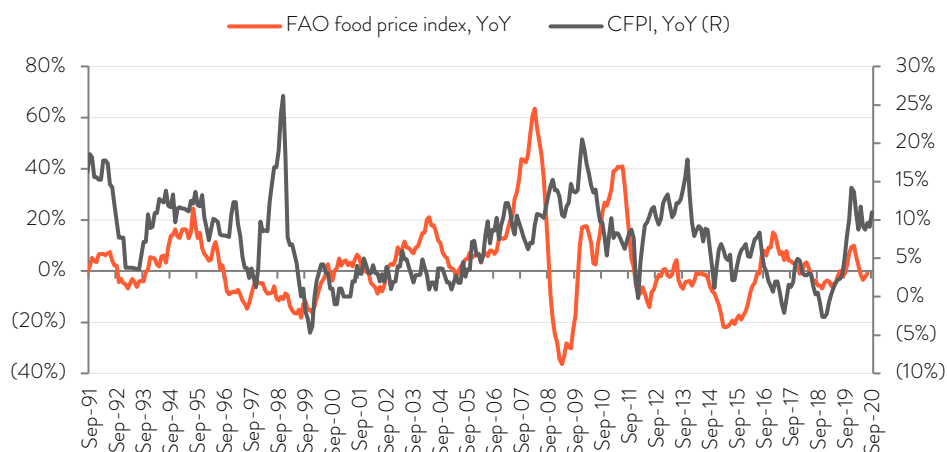
**FIG 43 – PRESSURE ON US DOLLAR HAS INCREASED**

Source: Bloomberg, Bank of Baroda Research | Note: Daily data as of 29 Oct'20

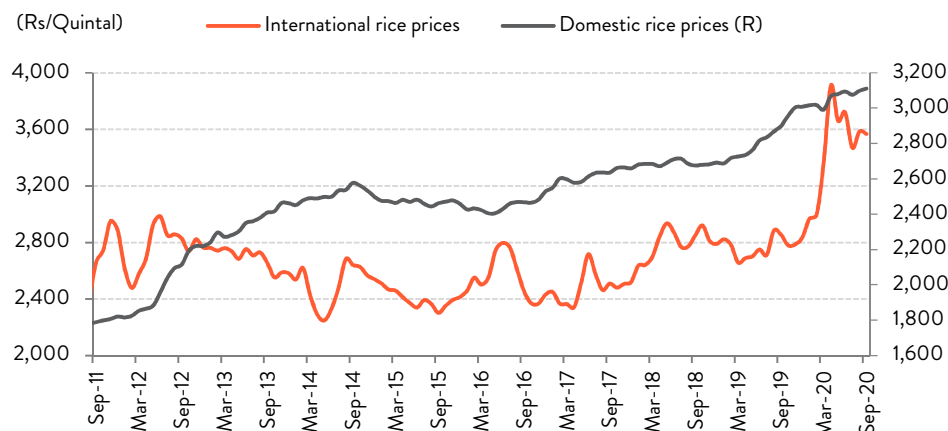
## Upside risks to inflation in H2FY21 and FY22

### Global food prices inching up

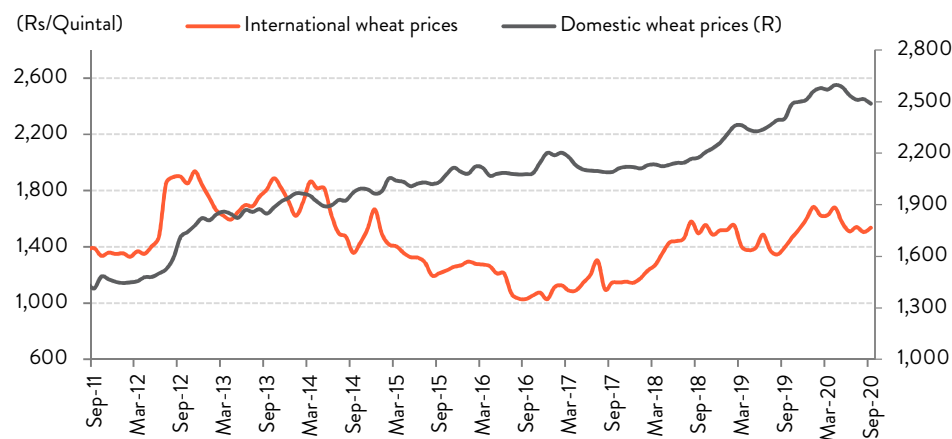
After dipping in CY18, the FAO index shows that global food prices are now inching up. The highs and lows of the index have coincided with domestic inflation, as seen during CY93, CY08 and CY14.

**FIG 44 – GLOBAL FOOD PRICES INCHING UP – FOOD INFLATION MIGHT ESCALATE FURTHER**

Source: Bloomberg, Bank of Baroda Research

**FIG 45 – DOMESTIC RICE PRICES INCREASING; INTERNATIONAL PRICES DIP**

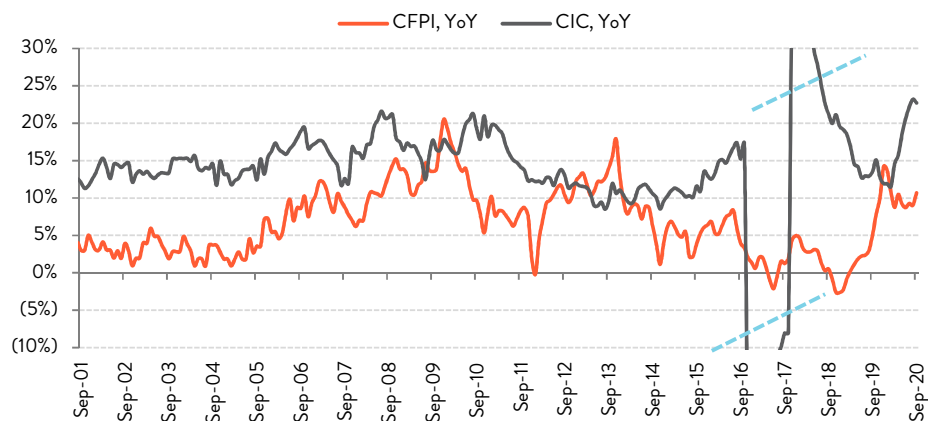
Source: World Bank, CEIC, Bank of Baroda Research

**FIG 46 – DOMESTIC AND INTERNATIONAL WHEAT PRICES MODERATING**

Source: World Bank, CEIC, Bank of Baroda Research

**Currency demand suggests food inflation may remain elevated**

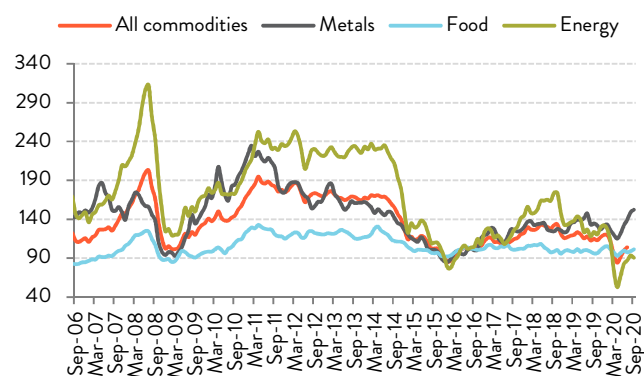
The recent pickup in currency demand suggests food inflation is likely to follow an uptrend. Generally, food inflation and currency demand go hand in hand, exhibiting a positive correlation of 0.66.

**FIG 47 – HIGHER CURRENCY DEMAND POST-COVID POINTS TOWARD FIRMING UP OF FOOD INFLATION**


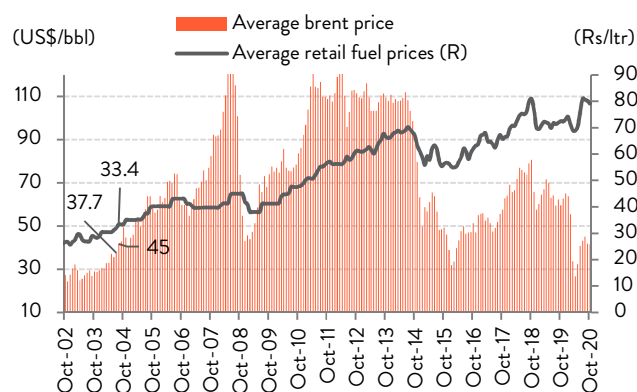
Source: Bloomberg

### Other upside risks to inflation

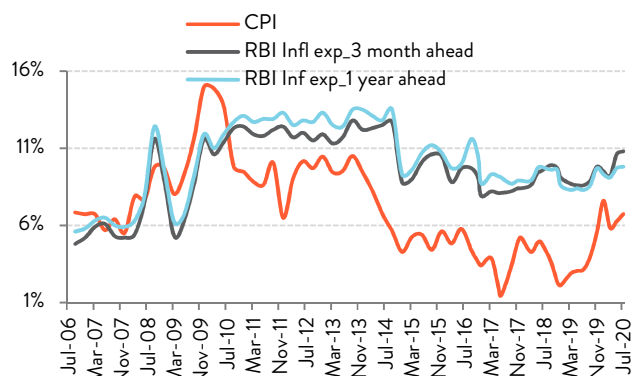
- **Higher input cost:** Commodity prices are inching up globally. India's manufacturing PMI also indicates that input cost inflation continues to remain high.
- **Inflation not well anchored:** RBI's inflation expectation survey results show that current, three-month and one-year inflation trajectories remained elevated, suggesting inflation will remain high in the near-to-medium term. However expectations are also adaptive.

**FIG 48 – GLOBAL COMMODITY PRICES RISING**


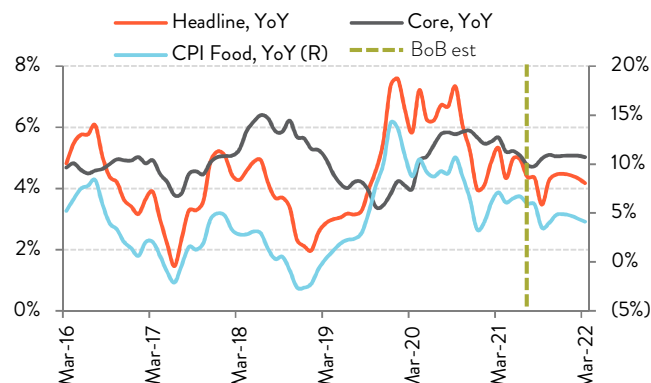
Source: IMF, Bank of Baroda Research

**FIG 49 – PETROL AND DIESEL PRICES ON AN UPWARD TRAJECTORY**


Source: CEIC, Bank of Baroda Research

**FIG 50 – MOVEMENT OF ACTUAL INFLATION VIS-À-VIS EXPECTATIONS**

Source: CEIC, Bank of Baroda Research

**FIG 51 – WE EXPECT INFLATION TO REMAIN ELEVATED IN FY21**

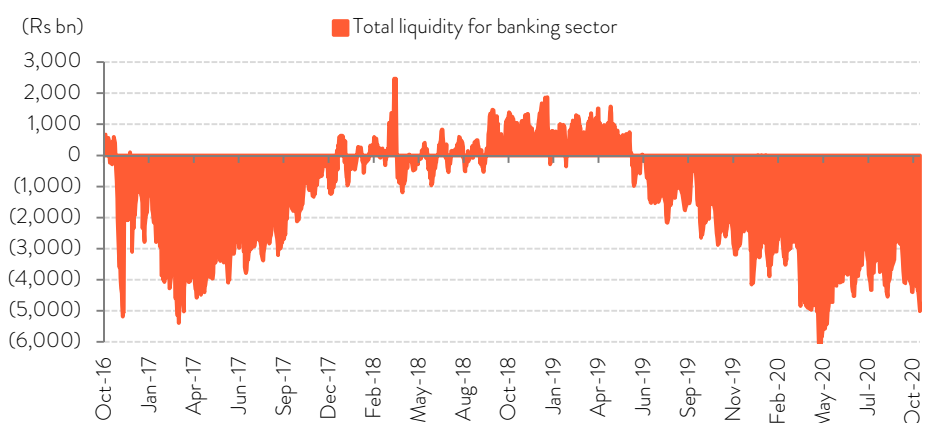
Source: CEIC, Bank of Baroda Research

### Higher borrowings to provide floor to yields

We estimate that the Centre's fiscal deficit for FY21 will balloon to 7.6% of GDP from 4.6% in FY20. This would require additional borrowings of Rs 6tn out of which Centre is borrowing Rs 5.3tn in dated securities. We expect the Centre to increase its short-term borrowing to maintain the budgeted spends. States too will have to issue securities to maintain their spending levels. This, in our view, will provide a floor to the 10Y yield at 5.75% and support a range of 5.75-6.25% for the year (vs. 5.8-6.5% over the past months).

### Yields have fallen as liquidity improved

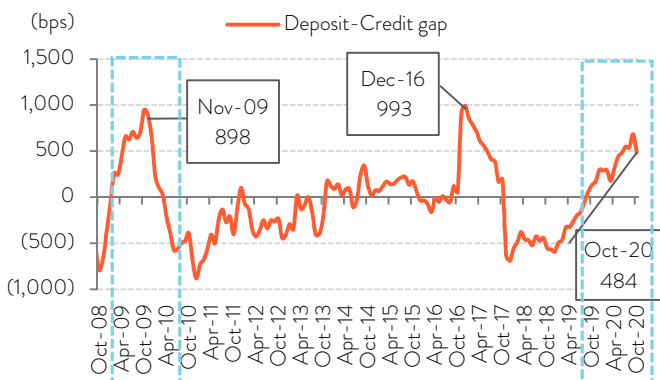
Liquidity has been a key factor pushing yields lower. From a deficit of Rs 31bn as of 19 Jun 2019, the liquidity surplus surged to Rs 5tn as of 31 Oct 2020 (Fig 52), driven by RBI's liquidity injections, currency intervention and the growing deposit-credit wedge. Consequently, yields fell 96bps to 5.88% over this period.

**FIG 52 – LIQUIDITY SURPLUS AVERAGED AT RS 4.1TN IN OCT'20**

Source: RBI, CEIC, Bank of Baroda Research | Data for Oct-20 as of 31 Oct

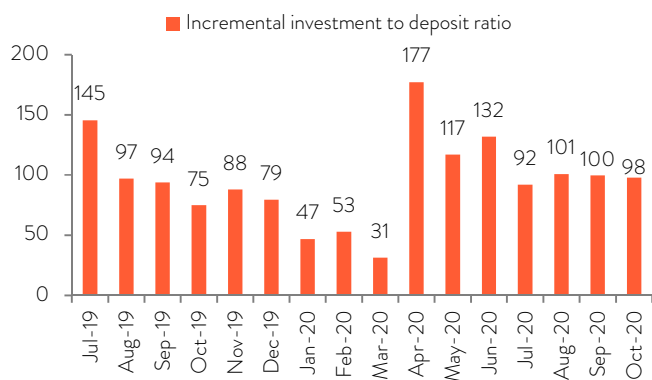
- **RBI's liquidity injections:** The central bank has injected liquidity through outright open market operations (OMO), targeted long-term repo operations (TLTRO), LTROs and on-tap TLTROs. The liquidity injected through these tools alone total Rs 5.36tn (2.7% of GDP) in FY21. In addition, the 100bps CRR cut this year has led to a direct liquidity injection of Rs 1.4tn (0.7% of GDP).
- **FX intervention:** This has spurred a Rs 1.5tn increase in liquidity in FY20 and Rs 4.2tn in FYTD21. Going forward, forex intervention may not help to infuse liquidity as the trade deficit is expected to be much higher in H2FY21.
- **Deposit-credit wedge:** The growing deposit-credit wedge has become an important driver of liquidity for the bond market. Scheduled commercial banks' credit-deposit ratio has fallen from 76.4% in Mar'20 to 72.3% now (Oct'20). On the other hand, incremental investment-deposit ratio has increased from 31.5% in Mar'20 to 97.6% in Sep'20 and averaged at ~116% over this period. However, credit growth is expected to pick up in H2 and improve further next year as GDP growth rebounds. This is likely to put upward pressure on bond yields.

**FIG 53 – RISING DEPOSIT GAP HAS LED TO SURPLUS LIQUIDITY WITH BANKS...**



Source: CEIC, Bank of Baroda Research | Data for Oct'20 as of 9 Oct

**FIG 54 – ...PUSHING INCREMENTAL INVESTMENT-DEPOSIT RATIO HIGHER**

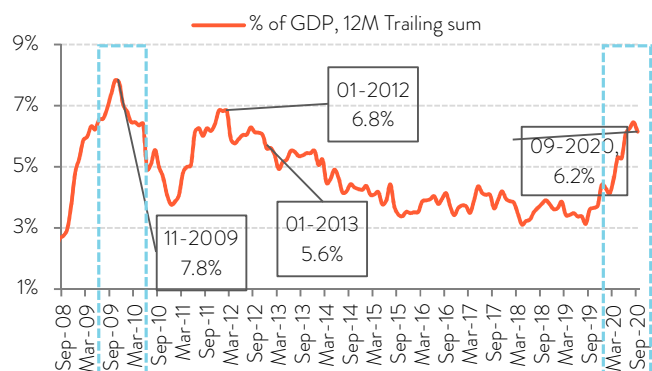


Source: RBI, Bank of Baroda Research | Data for Oct'20 as of 9 Oct

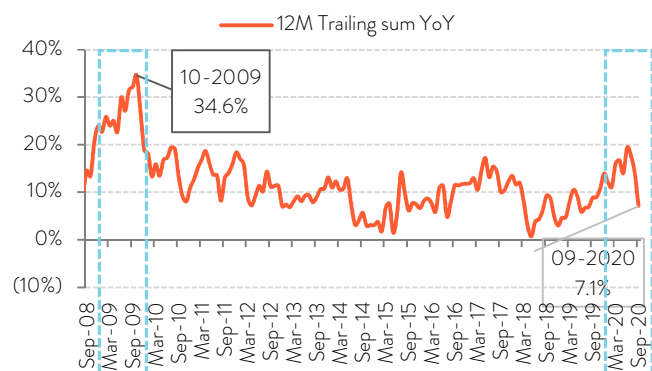
### Higher issuances a concern for yields

The general government deficit has already increased to 9.9% of GDP in Sep'20. Of this, the Centre's fiscal deficit is at 6.2% and that of states is at 3.7%. So far this year (Apr-Sep), while the central government's net revenue is down by 38.6%, state governments have reported a decline of 11.6% in revenue receipts. States have been supported by a 34.1% hike in grants from the Centre. Direct tax collections for the Centre have fallen by 31.4% and indirect taxes by 11.6%. Notably, non-tax revenues have also dropped 55.9%.

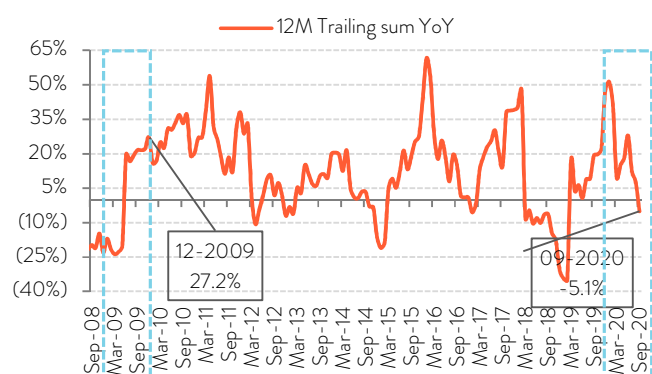
On the expenditure front, the Centre's expenditure is sharply cooling down and fallen by 0.6% compared with 14.1% rise in the same period last year. So far, government spending has been a bulwark for the economy. States' expenditure growth has also eased to 0.3% growth compared with a 5.1% increase in the same period last year. In both cases capex has been severely hit, with Centre's capex down by 11.6% and states capex down by 21.1% in FYTD21. To support state capex, the union government has recently announced a Rs 120bn package for 50-year interest-free loans for states. In addition, the Centre will also be reallocating Rs 250bn towards its capex spending, thus increasing the capex target for FY21 from Rs 4.12tn to Rs 4.37tn.

**FIG 55 – CENTRE'S FISCAL DEFICIT BEGINNING TO EASE...**


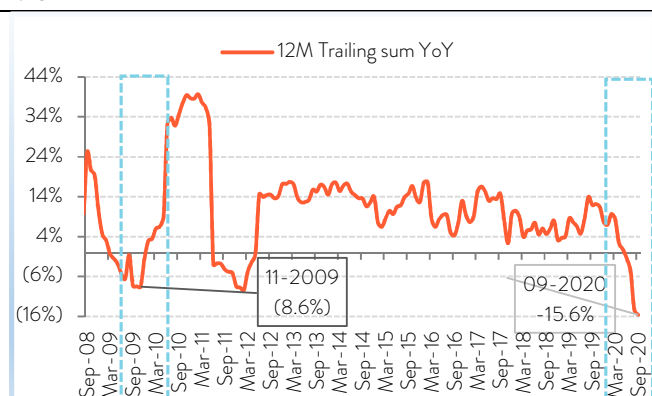
Source: CEIC, Bank of Baroda Research

**FIG 56 – ...AS SPENDING MOMENTUM WEAKENS**


Source: CEIC, Bank of Baroda Research

**FIG 57 – CENTRE'S CAPEX SEVERELY IMPACTED**


Source: CEIC, Bank of Baroda Research

**FIG 58 – REVENUE RECEIPTS CONTINUE TO REMAIN MUTED**


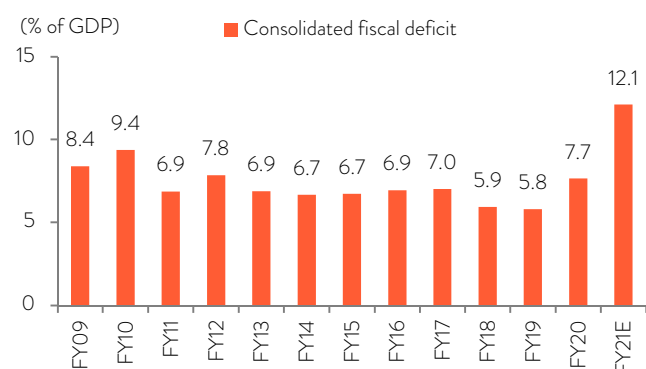
Source: CEIC, Bank of Baroda Research

The Centre has taken Parliament approval to spend an additional sum of Rs 1.7tn in FY21. As of now, we are estimating Centre's total expenditure to increase by 13.3% to Rs 30.44tn. This is expected to translate to a fiscal deficit of 7.6% of GDP for the year. States are likely to report a shortfall of 4.5%, taking the combined deficit to 12.1% in FY21.

To finance this gap, Centre has already increased its borrowing by ~Rs 2tn from the markets. This includes additional Rs 1.1tn on behalf of states to pay them for GST compensation cess. During H1FY21, states borrowings have increased by 46% and are on track to borrow Rs 8tn this year. RBI's recent announcement of OMOs in state development loans (SDL) will support the already elevated borrowings, in turn curbing pressure on yields.

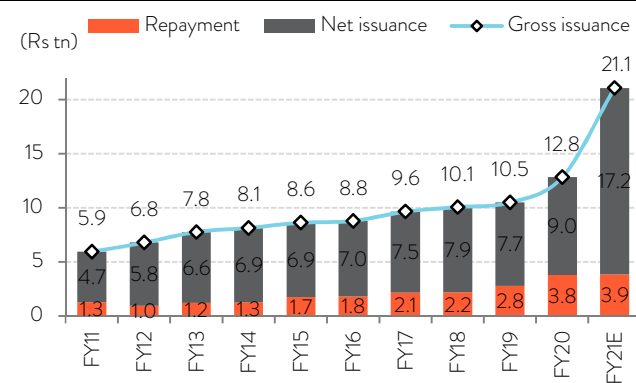
We estimate gross issuance of dated securities at Rs 21tn in FY21. As of 23 Oct 2020 (FYTD basis), gross supply of papers stands at Rs 12.3tn while net supply stands at Rs 10.4tn.

**FIG 59 – CONSOLIDATED FISCAL DEFICIT IN FY21 TO BE MUCH HIGHER THAN 2008-09 CRISIS CYCLE**



Source: RBI, CEIC, Bank of Baroda Research | E-Bank of Baroda estimates

**FIG 60 – SHARP JUMP IN STATE AND CENTRE ISSUANCES TO PUSH UP SUPPLY OF GOVT. PAPERS**



Source: RBI, Bank of Baroda Research | E-Bank of Baroda estimates

### Banks and RBI have emerged as large buyers

The current bond sales have been mostly absorbed by SCBs, insurance firms and RBI. MFs have emerged as large net buyers of T-Bills.

**FIG 61 – MARKET BORROWINGS OF STATES GAINING PACE**

Quarterly SDL issuances, (Rs bn)	FY16	FY17	FY18	FY19	FY20	FY21 (actual)	FY21 (planned)
Q1	502	548	650	766	815	1,673	1,272
Q2	627	792	1,130	809	1,439	1,614	1,783
Q3	858	1,214	1,054	1,277	1,470	742^	2,022
Q4	959	1,322	1,348	1,809	2,006	-	-
<b>Total</b>	<b>2,946</b>	<b>3,876</b>	<b>4,182</b>	<b>4,661</b>	<b>5,731</b>	<b>4,029</b>	<b>-</b>

Source: RBI, Bank of Baroda Research | ^As of 27 Oct 2020

**FIG 62 – CENTRE'S BORROWING IN Q2FY21 WAS AT RS 4.2TN; Q3 BORROWINGS ON THE RISE**

Total accepted amount (G-Sec), (Rs bn)	FY16	FY17	FY18	FY19	FY20	FY21 (actual)	FY21 (planned)
Q1	1,740	1,500	1,680	1,320	2,040	3,140	3,460
Q2	1,630	1,910	1,890	1,440	2,210	4,520	4,200
Q3	1,640	1,610	1,640	1,270	1,930	1,929^	3,110
Q4	840	800	670	1,680	920	-	2,330
<b>Total</b>	<b>5,850</b>	<b>5,820</b>	<b>5,880</b>	<b>5,710</b>	<b>7,100</b>	<b>9,589</b>	<b>13,100</b>

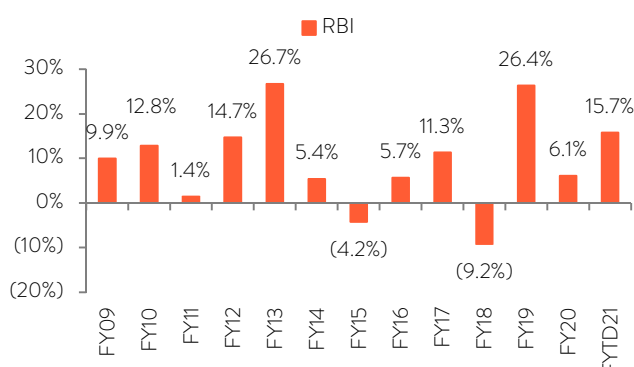
Source: RBI, Bank of Baroda Research | ^As of 29 Oct 2020

**FIG 63 – CENTRE'S T-BILL ISSUANCES**

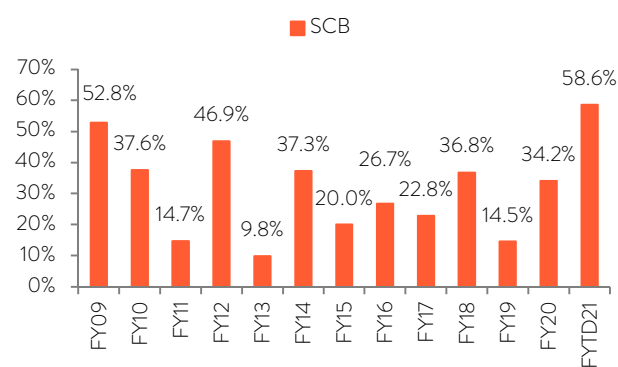
T-bill issuances, (Rs bn)	FY16	FY17	FY18	FY19	FY20	FY21 (actual)	FY21 (planned)
Q1	2,613	2,797	2,888	3,089	3,364	5,328	5,000
Q2	2,667	2,584	3,186	3,299	3,024	5,417	4,550
Q3	2,645	2,747	2,632	3,070	2,889	1,305^	2,080
Q4	2,104	1,684	2,486	1,812	2,511	-	-
<b>Total</b>	<b>10,029</b>	<b>9,811</b>	<b>11,192</b>	<b>11,271</b>	<b>11,788</b>	<b>12,050</b>	<b>-</b>

Source: RBI, Bank of Baroda Research; ^as of 28 Oct 2020

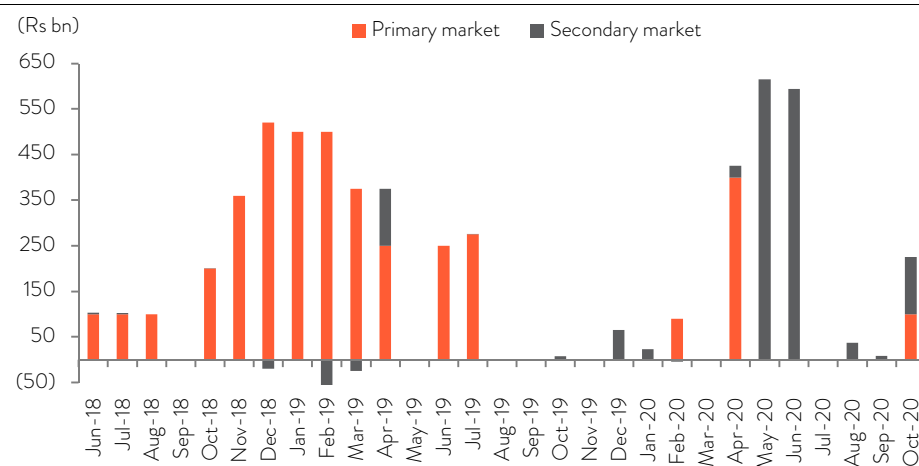
So far, banks have already bought Rs 7tn of government securities (58.6% of total supply) compared with Rs 4.4tn (34.2%) in the whole of FY20. A big part of the remaining supply of government paper has been absorbed by the central bank. RBI has also been conducting 'Operation Twist' to anchor long-end yields. So far, it has made net purchases of Rs 1.94tn (15.7% of government paper supply). On the other hand, FIs have been net sellers of US\$ 4.54bn in the debt segment.

**FIG 64 – RBI'S HOLDING OF GOVT. SECURITIES STANDS AT RS 1.94TN IN FYTD21**

Source: CEIC, Bank of Baroda Research | FYTD – Till 23 Oct 2020

**FIG 65 – OWNERSHIP OF GENERAL GOVERNMENT SECURITIES BY BANKS**

Source: CEIC, Bank of Baroda Research | FYTD – Till 9 Oct 2020

**FIG 66 – RBI'S NET BOND PURCHASES**

Source: RBI, Bank of Baroda Research | Data for Oct'20 as of 23 Oct



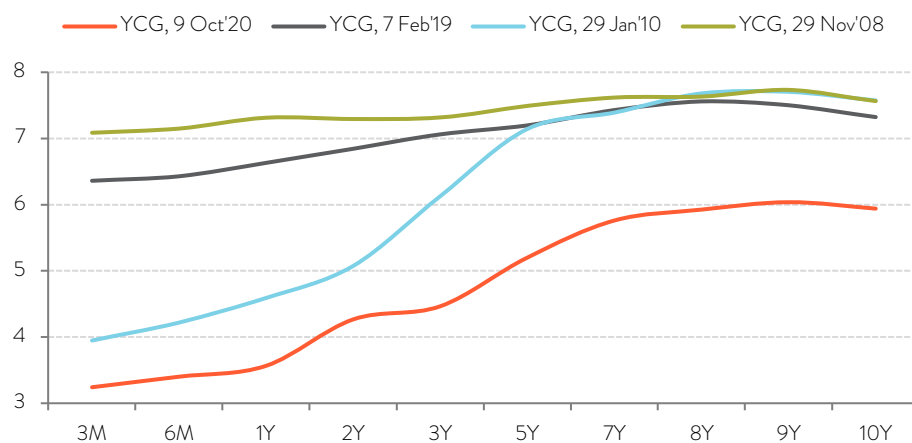
### Borrowing costs have fallen

India's 10Y yield has fallen by 65bps in the calendar year in comparison with a 115bps reduction in repo rate and 185bps reduction in one-year T-Bill. This has led to a much steeper yield curve. Uncertainty over the extent of government borrowing explains the relatively lower decline in 10Y yield.

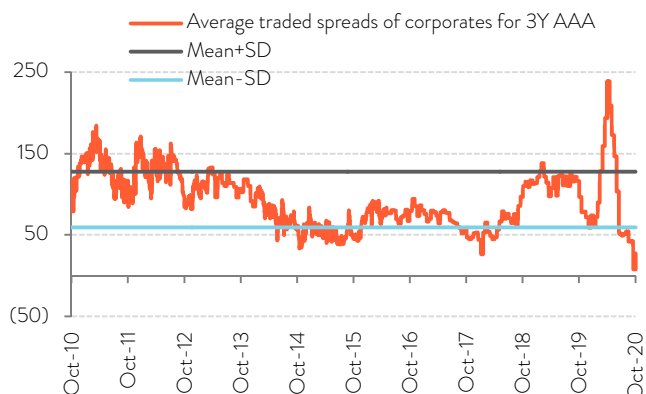
The liquidity surplus has led to a sharp fall in short-term yields, not only for sovereign bonds but also for NBFCs and corporates. While the spread of 3Y AAA NBFCs over relevant G-sec has declined from a high of 259bps in May'20 to 31bps at present, the spread for corporate papers too has fallen from a high of 239bps in Apr'20 to 8bps in Oct'20. This has also been possible because of targeted liquidity facilities such as TLTROs and the partial credit guarantee scheme (PCG).

Given the context of negative real rates limiting RBI's rate cuts to current levels and the prospect of additional borrowing to meet budgeted expenditure, we believe India's 10Y yield is likely to remain in the range of 5.75-6.25% in the near term.

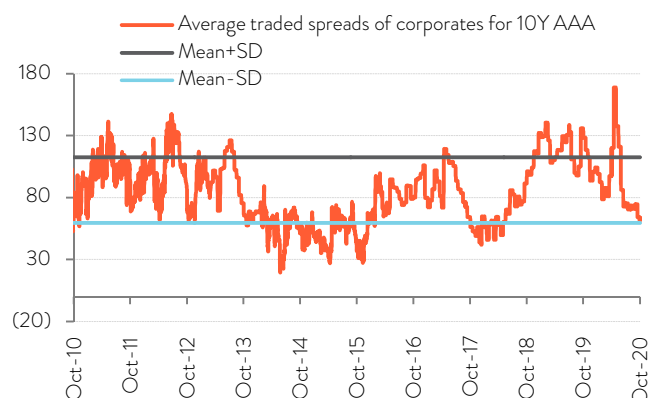
**FIG 67 – INDIA SOVEREIGN YIELD CURVE SHOWS YIELDS FALLING ACROSS THE SPECTRUM**



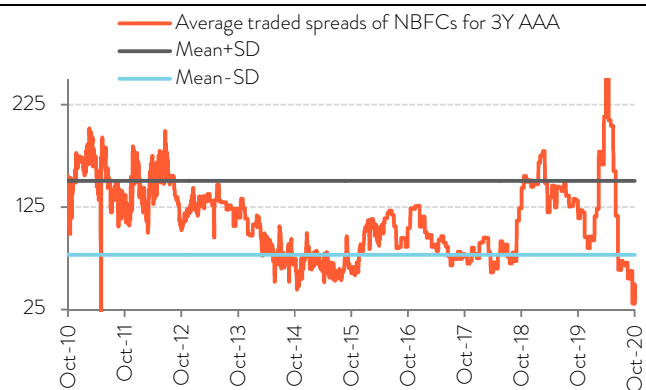
Source: Bloomberg, Bank of Baroda Research

**FIG 68 – SPREAD FOR 3Y AAA RATED CORPORATE PAPER BELOW ITS MEAN REVERSION LEVEL...**


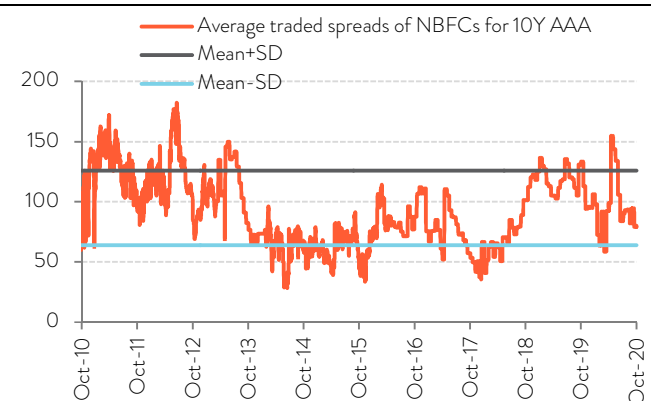
Source: Bloomberg, Bank of Baroda Research

**FIG 69 – ...AND APPROACHING LOWS FOR 10Y AAA RATED CORPORATE PAPER AS WELL**


Source: Bloomberg, Bank of Baroda Research

**FIG 70 – SPREAD OF 3Y AAA RATED NBFC PAPER ALSO BELOW ITS MEAN REVERSION LEVEL...**


Source: Bloomberg, Bank of Baroda Research

**FIG 71 – ...AND SIGNIFICANTLY LOWER FOR 10Y AAA RATED NBFC PAPER**


Source: Bloomberg, Bank of Baroda Research

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