INTEREST RATE OUTLOOK

26 November 2021

Inflation overheating: Key risk to yield

Dipanwita Mazumdar
dipwanwita.mazumdar@bankofbaroda.com

Sonal Badhan
sonal.badhan@bankofbaroda.com

India's yields have risen considerably in line with global yields. Majority of central banks have turned hawkish due to overheating of inflation. India's yield is expected to be between 6.3%-6.5% in FY22, with risks tilted to the upside. OIS rates are already inching up, signaling rising rates. Further, rising inflation (5.5%: FY22), faster pace of RBI's normalisation (expected reverse repo rate hike in Q4 and repo rate hike in Q1FY23) supports the narrative. We do not expect RBI to conduct any major OMOs in Q4FY22.

Key highlights

- India's 10Y yield is likely to range between 6.3%-6.5% in FY22.
- Surging reverse repo amount to be the main driver of RBI's balance sheet.
- No major OMO announcement is expected in the remaining part of FY22.
- Key upside risks to yield are inflationary concern and normalisation with reverse repo ar then repo hike.

Yields inching up: India's 10Y yield edged up by 50bps in CYTD21 after falling by 69bps in CY20. The main reason has been overshooting of domestic and global inflation beyond central bank targets. This has turned majority of the central bank policymakers hawkish despite an uncertain growth outlook. US and UK overnight rates have shot up by 18bps and 61bps in CYTD21 respectively. Even US 10Y yield has overshot its 200day MA. In India also RBI has started policy normalisation, following which OIS rates (1Y) have risen by 33bps from Oct'21 policy.

India on path of fiscal consolidation: Led by a decline in Covid-19 cases and removal of restrictions, economic activity has rebounded. This has provided support to government revenues. As a result, despite higher expenditure needs, Centre's fiscal deficit is expected to be lower at 6.5%, versus budgeted 6.8% in FY22. It is expected to further narrow down to 6% in FY23. Thus, general government issuances are expected to ease to Rs 19.5tn (Rs 21.2tn in FY21).

Reverse repo to drive RBI's balance sheet: On the liabilities side, reverse repo has increased by Rs 5.9tn (till 13 Nov'21). It is expected to go up even further on the back of policy normailsation. Currency demand which has been increasing at a slower pace of Rs 1.3 tn in FYTD22 so far, is also expected to pick up. On the asset side, foreign currency accretion has been Rs 3.6tn (till 13 Nov'21). Thus, for balance sheet adjustment, no further OMO purchase will be required.

Banks to taper their bond demand: As credit demand revives, banks are expected to have lesser surplus to deploy in G-sec. In addition, higher bond yields and liquidity withdrawal by RBI will also impact banks' bond buying. However, mutual funds and insurance companies, flushed with liquidity, will emerge as large bond holders.

Yields to remain in the range of 6.3%-6.5% in FY22: We believe risks to yield will remain on the upside. This will be on account of elevated inflation due to higher energy prices and supply side bottlenecks (est.: CPI: 5.5% in FY22). RBI is also expected to hike rates soon (reverse repo rate hike in Q4FY22 and repo rate hike in Q1FY23) on the back of revival in high frequency indicators.

FY22 yield outlook

CY20 had been a supportive year for global as well as domestic yields. It had been a year of massive monetary stimulus ranging from rate cuts and other alternative measures of balance sheet expansion (37.9% -US Fed, 70.3%-ECB, 134%-BoJ; of GDP). However, in CYTD21, tables have turned. The main reason behind this is the overshooting of inflation, with energy crisis (325% increase in fuel prices from its low in Oct'20) impacting fuel prices globally. Global central banks despite being uncertain on growth outlook have turned hawkish on inflation, as it remains well above their targeted level. We expect India's 10-year yield to remain in the range of 6.3%-6.5% in FY22 and 6.5%-6.7% in FY23. Our forecast is based on a comprehensive study of global yield trends, domestic demand and supply dynamics, and allied influencing factors such as inflation, RBI's stance on rate and liquidity.

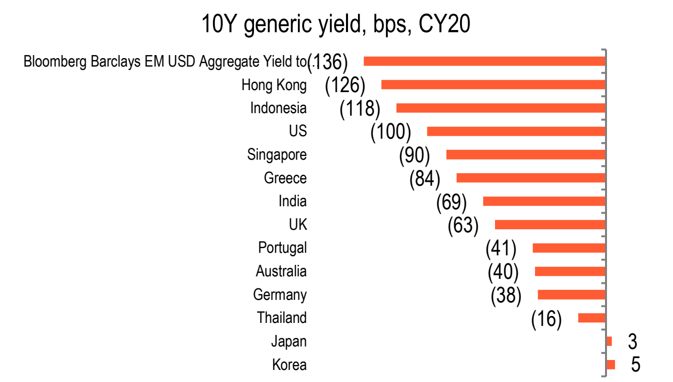
Summary of key findings

- Global yields are shooting up–US 10Y yield which has a high correlation (0.59) to domestic yields has inched up by 72bps in CYTD21. India's 10Y yield has also risen by 50bps in the same period.
- Central bank officials (Fed, BoE) hinted at hawkish policy approach. BoE is expected to start the rate hike cycle in Dec'21 policy. Fed has tapered monthly asset program by US$ 15bn.
- RBI has started normalisation with auction of variable reverse repo rate (VRRR). This is also reflected in the reverse repo amount of RBI's balance sheet which has increased by Rs 5.9tn till Nov'21.
- Even weighted average 7-day VRRR rose by 39ps since Oct'21 policy. Currently, the weighted average 15-day VRRR is at a high of 3.95%. Other short term rates also reflect that normalisation has begun with OIS swap rates-1Y up by 33bps.
- Inflationary pressures remain elevated as food items still exhibit some upward bias. However, government's response through excise duty cut on petrol and diesel by Rs 5/lt and Rs 10/lt, respectively, will be positive for lowering inflation. We thus expect headline CPI to be ~5.5% in FY22.
- RBI's balance sheet is expected to swell by 12% in FY22 against 7% in FY21, as liabilities side would mainly be driven by Rs 3.2tn expansion in reverse repo and Rs 2.5-2.8tn currency demand.
- For balancing the balance sheet, Rs 2.5tn OMO purchase is required (base case) which has mostly been done. RBI, mutual funds and insurance companies will be large buyers of government securities.
- We expect India's 10Y yield to range between 6.3%-6.5% in FY22 and 6.5%-6.7% in FY23, with risks tilted to the upside. However, fiscal consolidation and FII inflows might support yields in the near term.

Hawkish tone guiding yields

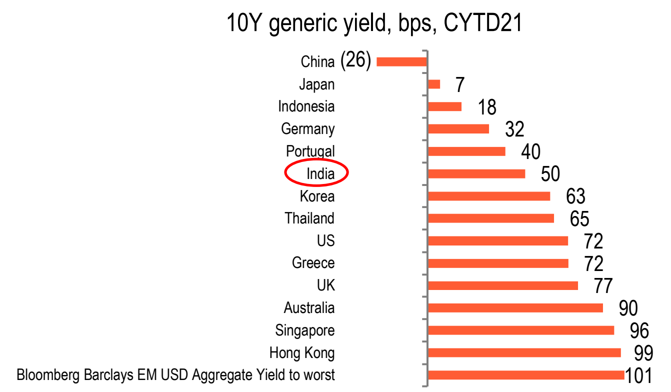
Global interest rates have shown complete reversal this year. In CY20, Covid-19 induced stimulus had prompted bond yields to careen at its lows. US 10Y yield had dropped by 100bps since the start of the year, exacerbated by a fall in policy rate (150bps) as well as expansionary asset purchase program (balance sheet increased two fold since Dec'19). Even EM yields fell by 136bps. Indian yields also headed southward with a drop of 69bps, supported by RBI's rate cut of 115bps in CY20.

Fig 1 – Global yields declined in CY20



Source: Bloomberg, Bank of Baroda Research

Fig 2 – In CYTD21, global yields have inched up



Source: Bloomberg, Bank of Baroda Research | *As of 25 Nov 2021

However, tables turned in CYTD21 with major global yields shooting up. This has been on the back of moderation in in global Covid-19 cases (average of 449k cases in the last two-months against peak of 1503k cases since the beginning of the pandemic) and vaccination gaining pace. In India too (incremental cases have fallen from a peak of 0.4mn cases to 11.7K cases in the last one-month), Covid-19 cases have inched down and ~35% are fully vaccinated. Nearly 90% are expected to receive their first dose by Dec'31. EM yields have also risen by 101bps, following 77bps and 72bps increase in UK's and US 10Y yield. Global central banks remain fairly hawkish in their recent statements with US Fed announcing reduction of monthly asset purchase program by US$ 15bn/month. BoE has also hinted at raising policy rate at the earliest. Bank of Korea raised rates for the first time since Nov'18 (cumulative 50bps hike in CYTD21). Other EMs such as Brazil and Russia are also on a rate hike cycle.

Fig 3 – Global central banks' policy signals

Central Banks	Statements	Policy signal
US	Announced tapering with winding down of its monthly asset purchases at a pace of US$ 15bn/month (US$ 10bn: Treasury purchase + US$ 5bn: Mortgage Backed Securities. Fed dot plot priced in rate hikes (higher members vouching for rate increase). Fed minutes also highlighted that rate hike and tapering might be 'sooner than currently anticipated'.	Hawkish
Europe	ECB hinted at lower pace of asset purchase in Q4 of CY21 than in Q2 and Q3. However, it downplayed the chances of a rate hike in CY22. Inflation is estimated to be at 2.2%, 1.7% and 1.5% respectively, in CY21, CY22 and CY23, thus gradually settling to the target, once the transitory effect dissipates.	Dovish
UK	Two MPC members voted for a rate hike in Nov'21 policy and three members voted for unwinding its asset purchase program of £ 895bn against two members earlier. The policy also added that the market implied path for bank rate would rise to around 1% by end of CY22. CPI is expected to rise to 4.2% in Nov'21 and is expected to peak at ~5% in Apr'22. Considering the overheating of inflation, markets are anticipating a rate hike in Dec'21.	Hawkish
Japan	Bank of Japan stayed put on rates and maintained its pace of asset purchase. It sounded dovish as it slashed its inflation projection to 0% from 0.6% earlier in FY21 (Apr'21- Mar'22). In FY22 and FY23 as well, inflation is estimated to be below its 2% target at 0.9% and 1% respectively.	Dovish
Australia	Reserve Bank of Australia (RBA) in its recent policy discontinued the yield curve control of 0.1% on its April 2024 Government bond. It projected inflation to be at 2.25% in CY21 and CY22 and at 2.5% in CY23. However, it intends to keep the policy rate at its current level (0.1%) until CY24.	Dovish
Singapore	Monetary Authority of Singapore tightened its monetary policy by allowing the Singapore dollar (S$), in nominal effective terms, to appreciate mildly.	Hawkish
Brazil	Brazil remains the most hawkish central bank, raising its policy rate for the sixth time since March and at a much higher magnitude of 150bps – the highest hike in almost 20 years – taking the total cumulative increase in CYTD21 to 575bps.	Hawkish
Russia	Russia too, effected its sixth consecutive rate hike and cumulative increase of policy rate has been 325bps in CYTD21.	Hawkish

Source: Bloomberg, Bank of Baroda Research

Recent comments from Fed officials that validate hawkish approach

- *St. Louis Fed President James Bullard said that the Fed should "tack in a more hawkish direction" provided inflation does not begin to ease.*
- *Philadelphia Fed President Patrick Harker said that the Fed might have to act before CY23, if inflation does not ease.*
- *Chicago Fed President Charles Evans pointed out that the issues leading to high inflation seem more persistent than previously thought.*

Fig 4 – Global central banks hawkish

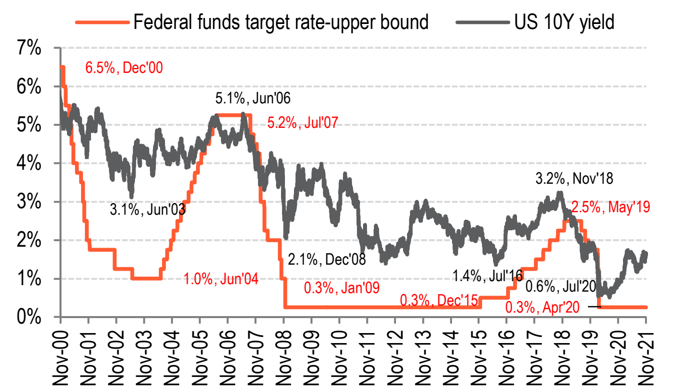
Countries	Inflation, change (%)		Policy rate, change (bps)		Policy direction in CYTD
	CYTD*	CY20	CYTD*	CY20	
Brazil	6.2	0.2	575	(250)	↑
Russia	3.3	1.8	325	(200)	↑
Mexico	3.1	0.3	75	(300)	↑
Korea	2.7	(0.2)	50	(75)	↑
Germany	4.8	(1.8)	0	0	
UK	3.6	(0.7)	0	(65)	-
US	4.8	(0.9)	0	(150)	-
India	**(0.1)**	**(2.8)**	**0**	**(115)**	-
Japan	1.3	(2.0)	0	0	-
China	1.3	(4.3)	0	0	-
Australia	2.1	(0.9)	0	(65)	-
Thailand	2.7	(1.2)	0	(75)	-
Malaysia	3.6	(2.4)	0	(125)	-
Philippines	1.1	1.0	0	(200)	-
Indonesia	0	(0.9)	(25)	(125)	↓
Turkey	5.3	2.8	(200)	500	↓

Source: Bloomberg, Bank of Baroda Research | *As of 25 Nov 2021

US a key driver of global yields

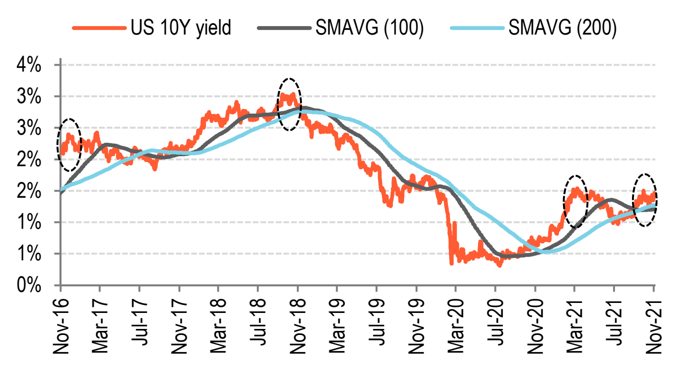
In CY20, US 10Y yield and policy rate corroborated an easing cycle. Yields dropped to its lowest and policy rate stuck at the near zero level seen during the financial crisis. However in CYTD21, yields are signalling that the easing phase may soon dissipate. As US 10Y yield and Federal fund rate have a fairly strong correlation of 0.76, the current uptrend in bond market signals ending of monetary easing might materialise soon. Notably, off late US 10Y yield has even breached its 100day MA as well as 200day MA.

Fig 5 – Trend of US 10Y yield and Fed policy rate



Source: Bloomberg, Bank of Baroda Research| *As of 24 Nov 2021

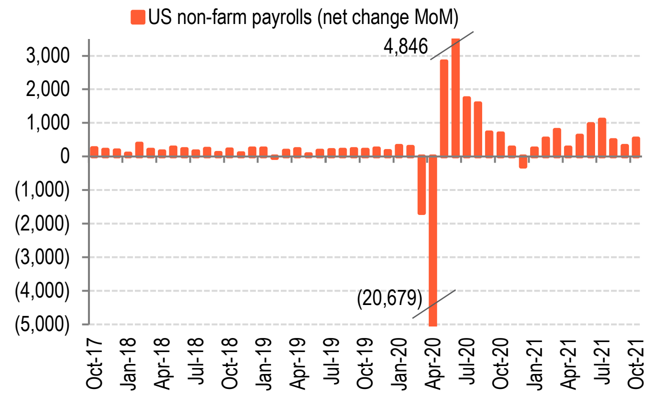
Fig 6 – US 10Y yield overshot its 200-day moving average



Source: Bloomberg, Bank of Baroda Research| *As of 24 Nov 2021

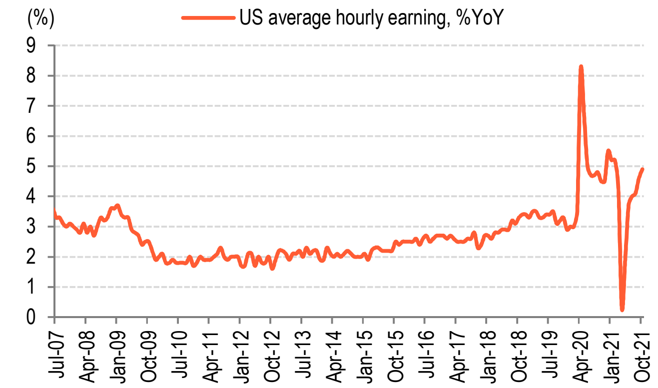
US macro prints also validate the same. US inflation has persistently overshot the 2% target and is likely to remain so till CY22. Currently, Fed policy is signaling a rate hike in CY22, with 9 out of 18 FOMC members voting for the same as against 7 members earlier. Recovery is seen in labour market which is further supporting Fed's stance.

Fig 7 – US nonfarm payroll additions picking pace



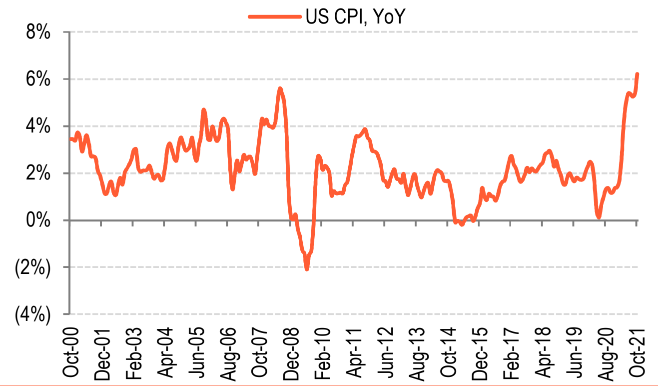
Source: Bloomberg, Bank of Baroda Research

Fig 8 – US wages inching up



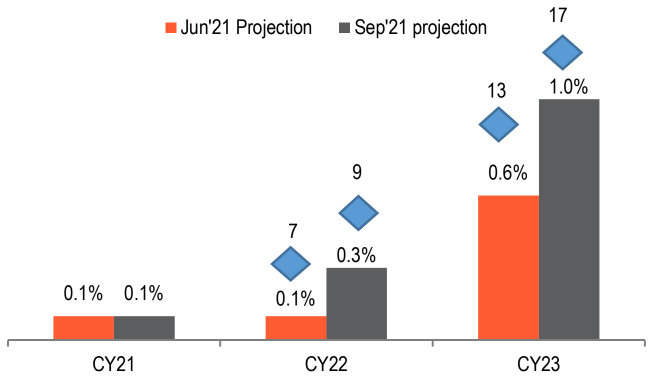
Source: Bloomberg, Bank of Baroda Research

Fig 9 – US inflation skyrocketing



Source: Bloomberg, Bank of Baroda Research

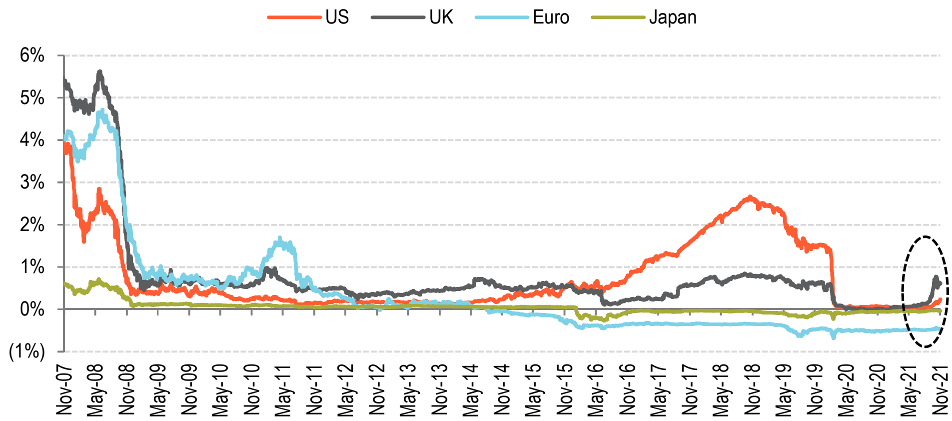
Fig 10 – US rate hike time table



Source: Bloomberg, Bank of Baroda Research. Note: Rhombus indicate number of members voting for rate hike.

Even forward rates reflect that there is a possibility of rate hike. US overnight 1-year forward rate has shot up by 18bps in CYTD21 from 147bps drop in CY20. Same is the case with UK (61bps increase in CYTD21 versus 66bps drop in CY20). Euro and Japan on the other hand are fairly stable on account of dovish policy.

Fig 11 – Forward rates of major economies such as US, UK inching up

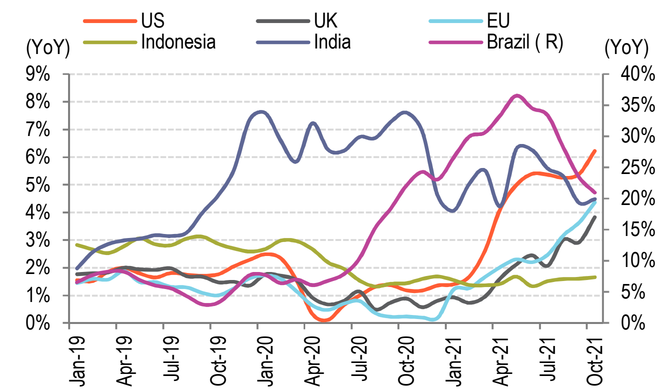


Source: Bloomberg, Bank of Baroda Research| *As of 23 Nov 2021

Elevated global inflation also exerting pressure on yields

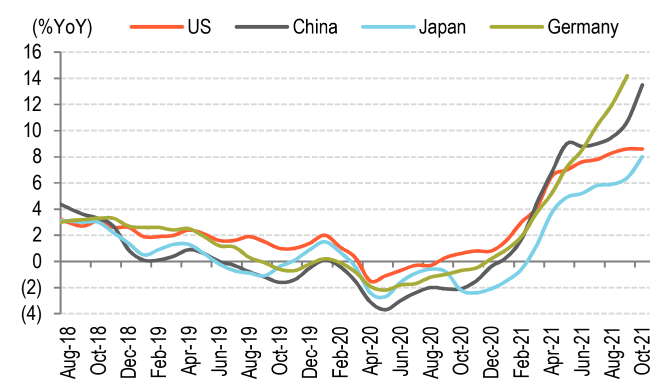
For both advanced and emerging economies, inflation has picked up considerably. Revival in demand as global economy re-opens has pushed commodity prices to a new high. Supply chain bottlenecks due to chip shortage as well as congestion at ports has further added to the upward pressures. Oil prices are also hovering at elevated levels (US$ 79/bbl-currently) as OPEC+ is yet to increase its supply.

Fig 12 – Inflation in major AEs and DMs



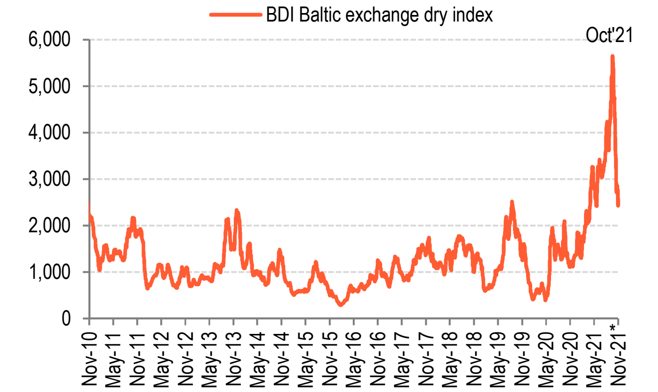
Source: CEIC, Bank of Baroda Research

Fig 13 – Higher commodity prices are putting pressure on PPI globally



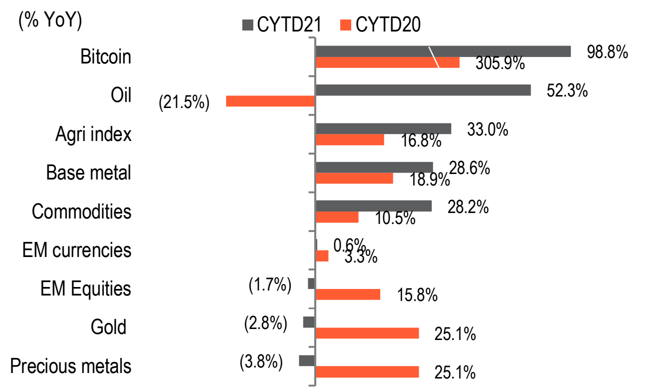
Source: Bloomberg, Bank of Baroda Research

Fig 14 – Baltic dry index rose sharply in Oct'21; but has since moderated



Source: Bloomberg, Bank of Baroda Research

Fig 15 – Global commodity prices inching up in CYTD21

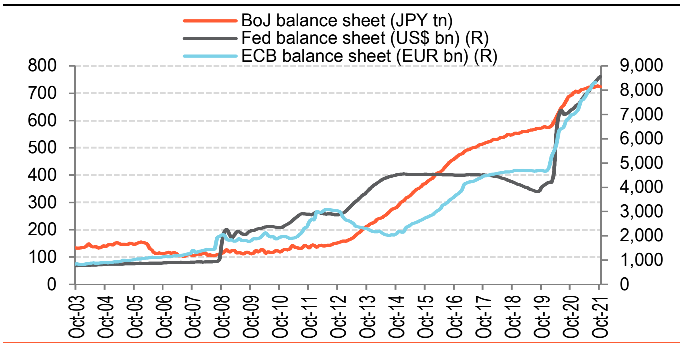


Source: Bloomberg, Bank of Baroda Research

Central banks' balance sheets to begin consolidation

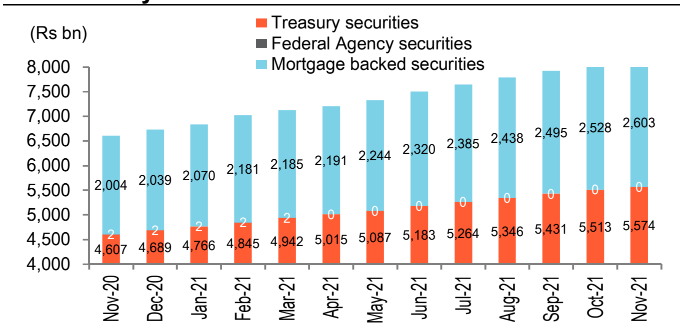
Overheating of central banks' balance sheet continued in CYTD21. Fed's balance sheet as % of GDP swelled to a record high of 38% (nearly double since CY19). Securities held outright by Fed has increased by US$ 4.3tn since Feb'20. For ECB, balance sheet as % of GDP rose to 70% from 39% in CY19. So is the case with BoJ (134%). However, this ultra-loose policy is likely to be gradually withdrawn as inflation edges upwards.

Fig 16 – Balance sheet of major central banks expanding



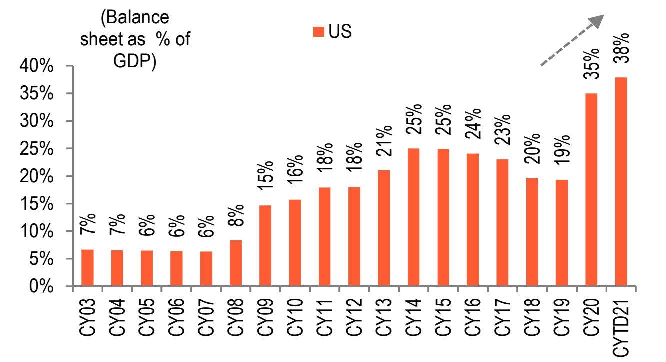
Source: Bloomberg, Bank of Baroda Research

Fig 17 – Asset side of US balance sheet has swelled enormously



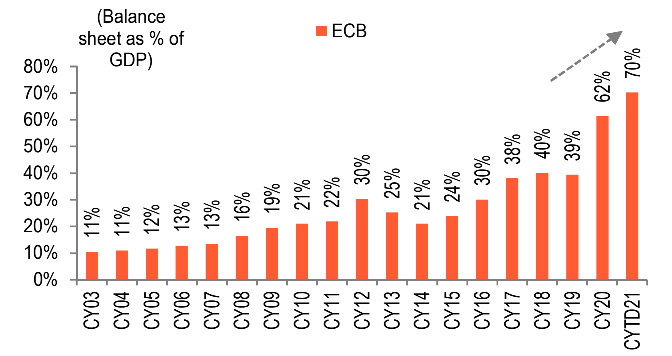
Source: Bloomberg, Bank of Baroda Research| *As of 17 Nov 2021

Fig 18 – US balance sheet as % of GDP has shot up significantly to 38%, an all-time high



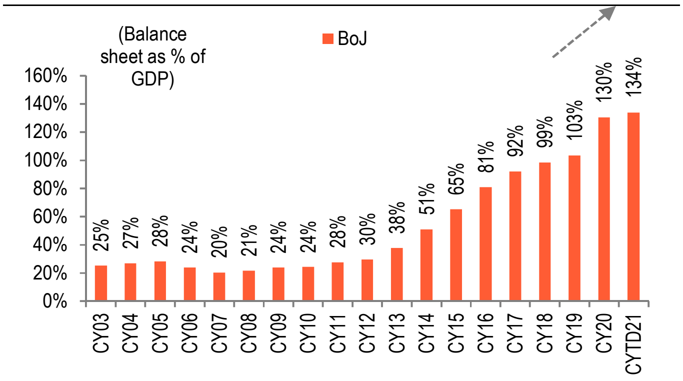
Source: CEIC, Bank of Baroda Research | CYTD: Till Oct'21

Fig 19 – Similar trend for ECB with the ratio at 70%



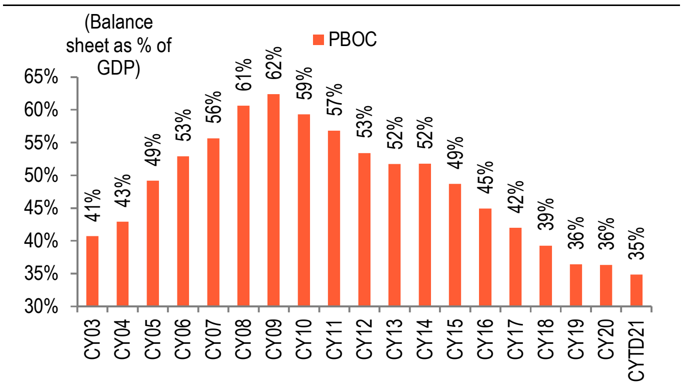
Source: CEIC, Bank of Baroda Research | CYTD: Till Oct'21

Fig 20 – BoJ stimulus also led to further expansion of balance sheet



Source: CEIC, Bank of Baroda Research | CYTD: Till Oct'21

Fig 21 – So is the case with China



Source: CEIC, Bloomberg, Bank of Baroda Research | CYTD: Till Oct'21

Outlook on global yields

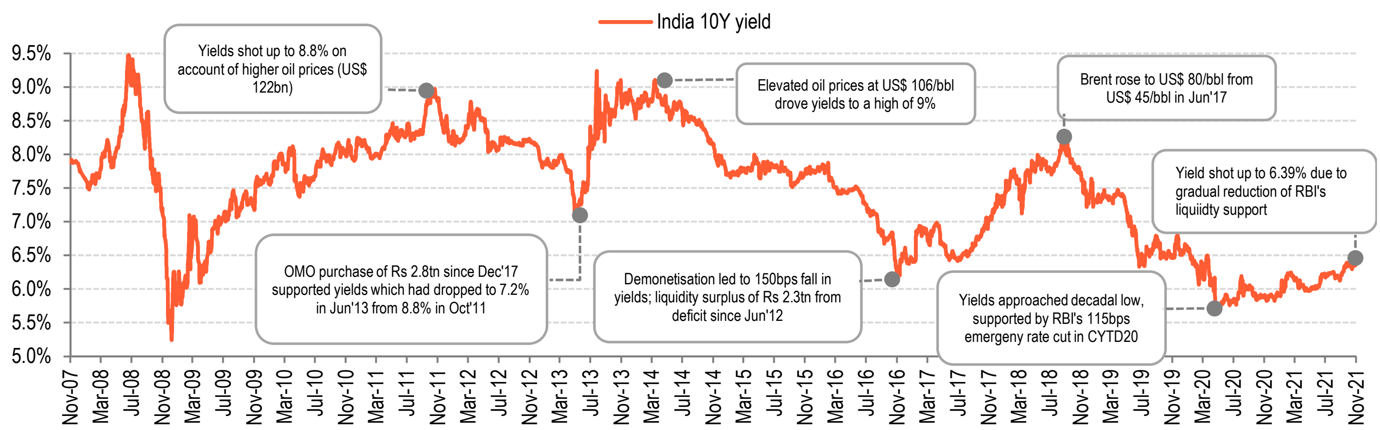
- Global yields are likely to be elevated in CY21 and in CY22 as well.
- Inflation has overshot major central bank's target.
- Labour market is gaining momentum. So pressure on wages is incipient.
- Supply side bottlenecks and elevated energy prices are likely to pose upside risk to inflation and hence yields.
- Withdrawal of liquidity support through unwinding of balance sheet will also put pressure on global yields.
- However, rising Covid-19 cases and new variant might put downside pressure on yields.

India's 10Y yield shooting up from GFC lows

India's 10Y yield dropped to a low of 5% during the Covid-19 crisis. This level was last seen during the financial crisis of 2008-09. This was supported by RBI's rate cut and liquidity measures. However, as economy resumed to normalcy post second wave of Covid-19, yields started picking up (+6%). This was in line with global yields (especially US) and policy response of major central banks being hawkish. RBI also hinted at policy normalcy with withdrawal of G-SAP and conducting VRRR auction.

The big question is how far can yields go? We estimate a tight band of 6.3%-6.5% for FY22 and 6.5%-6.7% in FY23, based on global trends and a host of domestic factors including fiscal deficit, demand-supply dynamics, RBI intervention through OMO purchase, inflation, and monetary policy and oil prices.

Fig 22 – India's 10Y yield is picking up from its Covid-19 induced low



Source: Bloomberg, Bank of Baroda Research | Till 25 Nov 2021

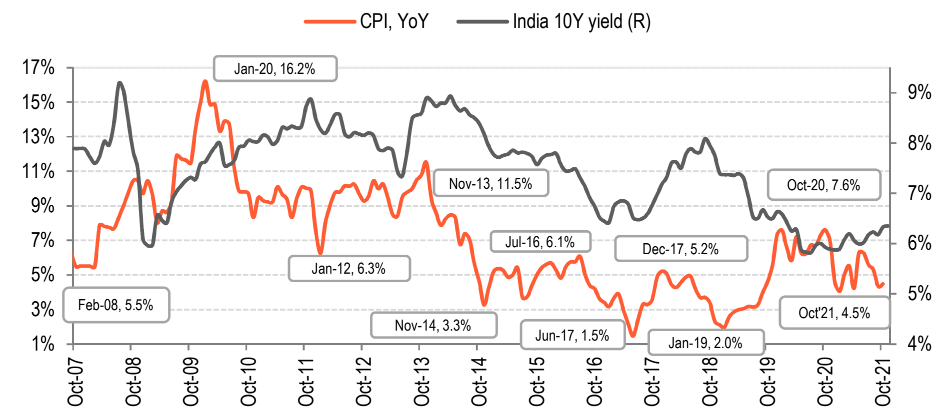
Key economic factors show upside risk to yields

We believe, upside risks will emerge from higher oil prices, increase in interest rate differential leading to potential FII outflows, elevated inflation and RBI rate hikes. On the other hand, robust central government revenues remain robust and lower general government issuances in FY22 are downside risks to our view. Further, India's inclusion in global bond index could support FII inflows, and hence yields.

Inflation pressure to persist

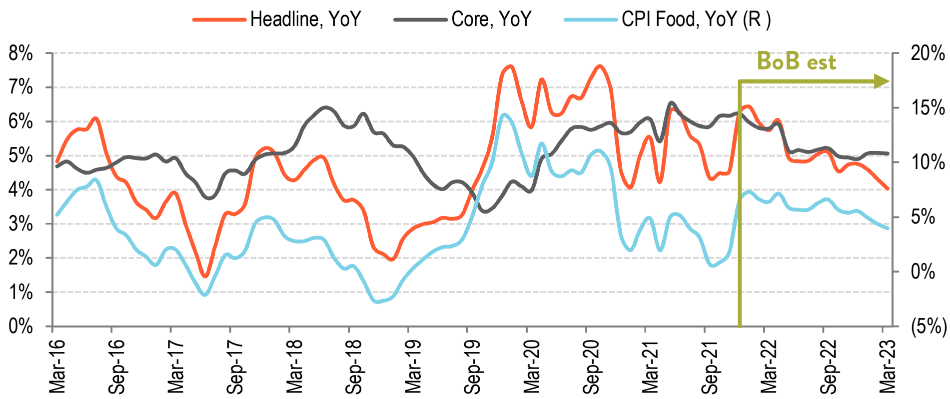
India's CPI inflation has a correlation of 0.46 with 10Y yield and their cycles coincide with a lead/lag historically. Headline inflation skyrocketed during the pandemic era (as high as 7.3% in Sep'20). However, it is expected to moderate in Q3FY22, led by favourable base and normal monsoon. However, upside risk persists with respect to global supply bottlenecks and elevated energy price (international + domestic). RBI estimates that if crude prices remain 10% above the baseline (US$ 75/bbl), domestic inflation could be higher by 30 bps. We expect headline CPI to settle at ~ 5.5% in FY22, before moderating to 4.4% in FY23, which is still above MPC's targeted 4%.

Fig 23 – Peak & trough of CPI & 10Y yield coincide with a lag



Source: CEIC, Bloomberg, Bank of Baroda Research | Note: Before Jan'12, CPI series was based on CPI-IW (2004- 05=100) | Till 25 Nov 2021

Fig 24 – CPI to remain above MPC's targeted 4% in FY22 and FY23 as well



Source: CEIC, Bloomberg, Bank of Baroda Research

Rate hike cycle to begin

The Covid-19 induced rate cut has already been translated into the 10Y yield which fell considerably in CY20. However, for the past two policy meetings, MPC members are hinting at normalisation through various statements on negative real rates, hinting at reverse repo rate hike and growth rebounding from its Covid-19 trap gradually.

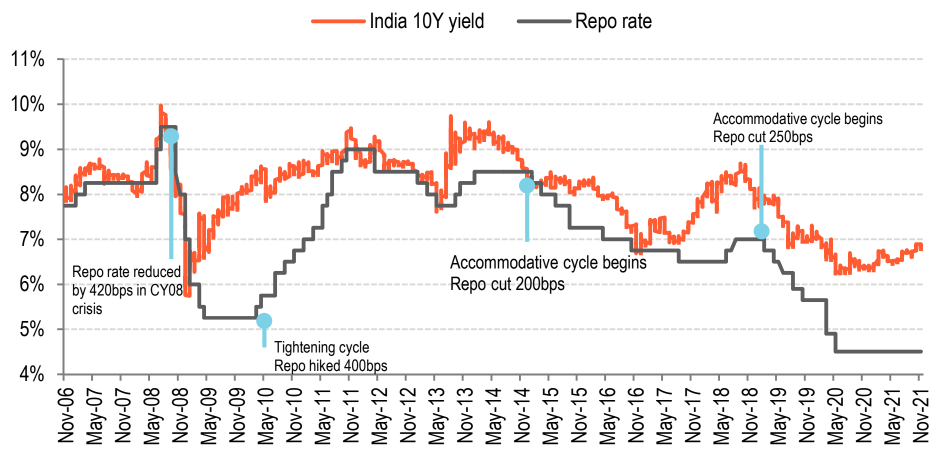
- *MPC statements hinting at normalisation: Prof. Varma and Dr. Goyal viewed real policy rate of -1% to -1.5% (repo rate – one year ahead inflation) as appropriate to support durable recovery in growth.*

- *Dr. Goyal mentioned that liquidity calibration needs to take into account any sudden change in capital flows. At the same time, recommends a higher fixed reverse repo rate for banks linked to raising their interest rates on deposits.*

- *Prof. Varma said that raising effective money market rates quickly towards 4% would ensure macroeconomic stability and help anchor inflation expectation appropriately.*

We expect further normalisation in the upcoming policy decision through reduction of the gap between repo and reverse repo in Q4FY22, before lifting off repo rate in the beginning of FY23.

Fig 25 – 10Y yield inching up, RBI might raise rate

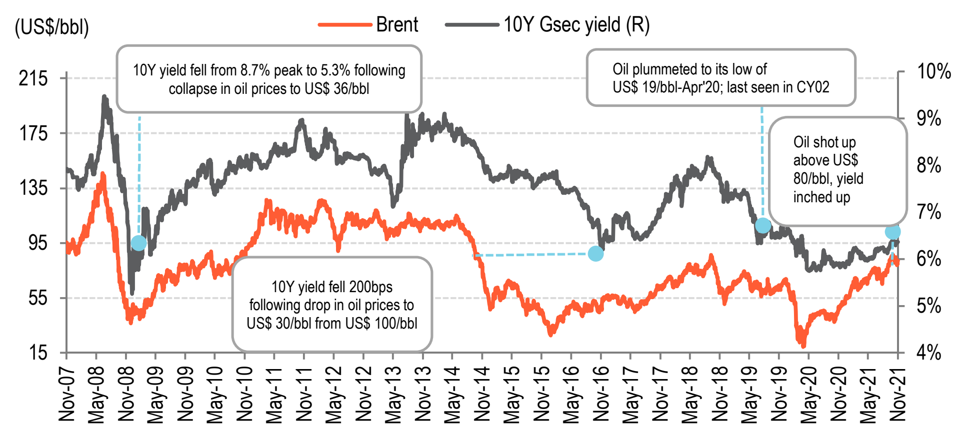


Source: Bloomberg, Bank of Baroda Research | Till 25 Nov 2021

Elevated oil prices

From a low of US$ 19/bbl in Apr'20 (onset of Covid-19 pandemic), global oil prices hit a high of US$ 86.4/bbl in Oct'21 (highest since Oct'18), pushing global yields up. The rise in oil prices can be explained by OPEC+ sticking to supply cut and revival in global demand with resumption of economic activity.

Fig 26 – Oil is currently at US$ 82/bbl, yield also shot up



Source: Bloomberg, Bank of Baroda Research | Till 25 Nov 2021

Fig 27 – Brent forecast by different agencies

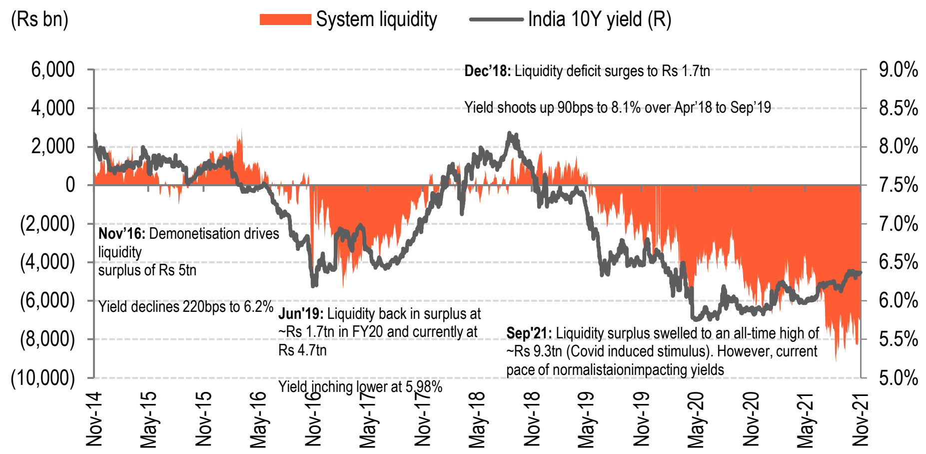
International Brent Price Forecast (US$/bbl)	Q4CY21	Q1CY22	Q2CY22	Q3CY22
Bloomberg	80.0	77.9	74.0	72.0
RBI (SPF)	73.0	72.0	69.0	68.0
DOE	80.5	75.0	69.5	66.0

Source: Bloomberg, Bank of Baroda Research

Gradual withdrawal of surplus liquidity to begin

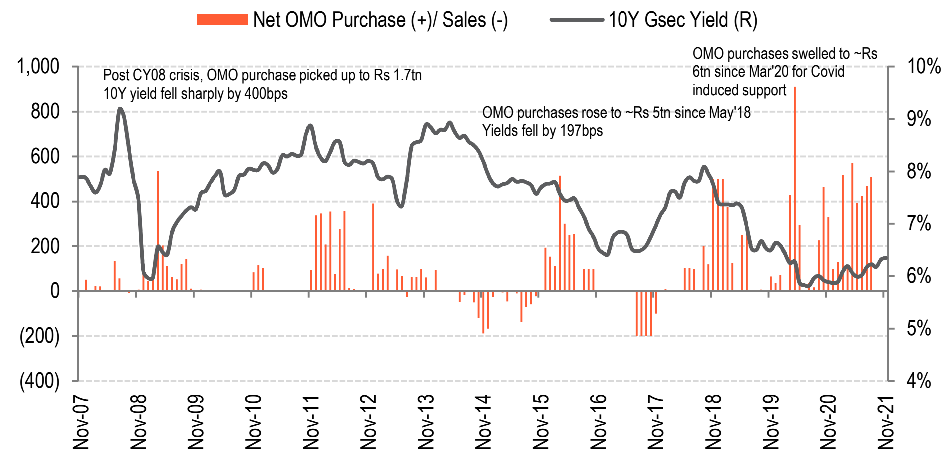
RBI had taken a host of measures such as from targeted long-term repo operations, OMO purchases and operation twist which led to huge influx of liquidity. In fact liquidity surplus soared to a record high level of above Rs 9tn in Sep'21. However, currently normalisation process has kicked in and RBI is gradually withdrawing liquidity support weighted average 7-day reverse repo rate jumping by 39bps since Oct'21 monetary policy and 15-day reverse repo at a high of 3.95% as of 3 Nov 2021.

Fig 28 – Mounting liquidity surplus (Rs 9tn in Sep'21) supported lower yields, however current pace of normalisation putting pressure on yields



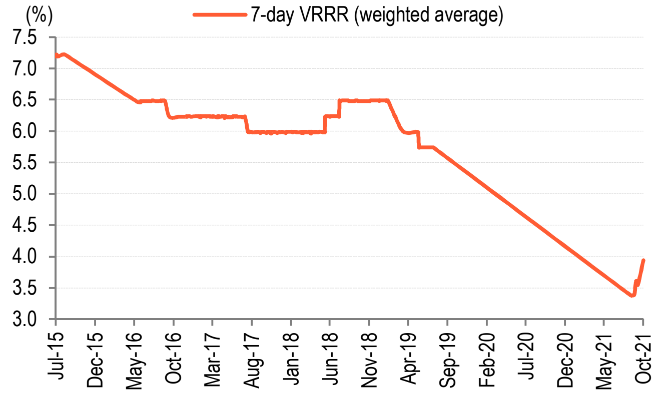
Source: Bloomberg, Bank of Baroda Research | Till 25 Nov 2021

Fig 29 – Lower pace of OMO purchase off late impacting yield



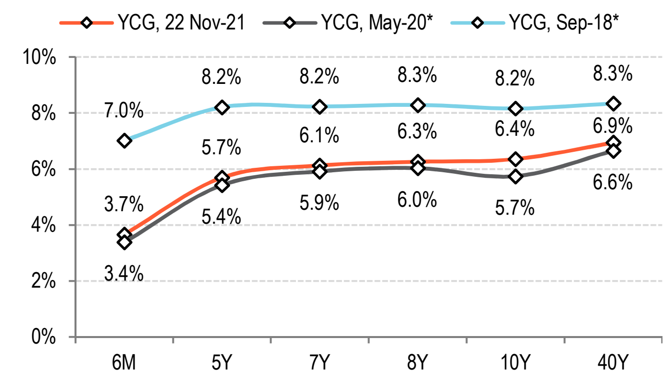
Source: Bloomberg, Bank of Baroda Research | Till 25 Nov 2021

Fig 30 – Variable Reverse Repo Rate inching up



Source: Bloomberg, Bank of Baroda Research | Till 26 Oct 2021

Fig 31 – Yield curve still has a steepening bias



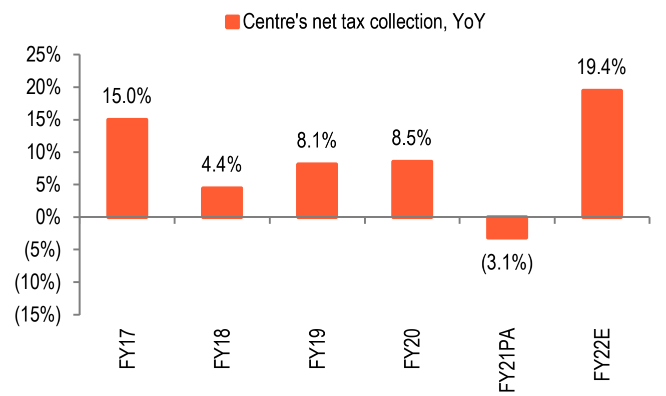
Source: Bloomberg, Bank of Baroda Research | * trough/peak yield in the easing/tightening cycle

Issuances to be lower amidst efforts of fiscal consolidation

Centre's fiscal deficit rose sharply to 9.3% (% of GDP) in FY21 from 4.6% in FY20, on the back of Covid-19 pandemic. The spike was driven by significant shortfall in Centre's net revenue collections, which missed the budgeted target (BE) by a whopping Rs 3.9tn. At the same time expenditure had to be increased to meet the health infrastructure demand and provide fiscal stimulus to the economy. This led to Rs 4.7tn increase in total expenditure compared with the budgeted targeted (BE). This was met by additional Rs 5.7tn increase in gross market borrowings above with BE of Rs 7.8tn.

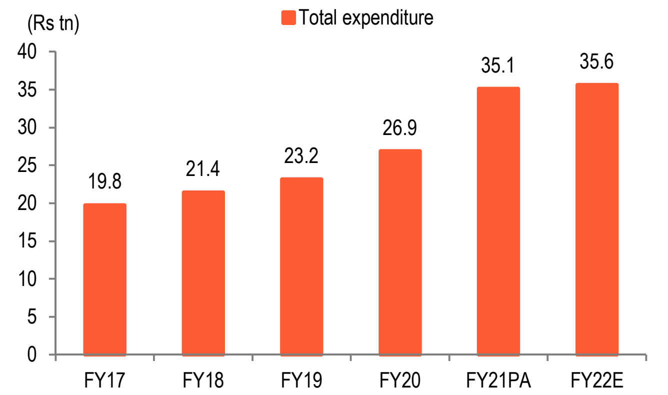
Now in FY22, the scenario is much better. Despite the second Covid-19 wave hitting the economy this year, business activity is seen recovering and Centre's revenue collections are better than pre-pandemic (FY20) levels also. Centre's net revenue collections in FYTD22 (Apr-Sep) are at Rs 10.8tn versus Rs 5.5tn in FYTD21 and Rs 8.2tn in FYTD20. Both direct and indirect tax collections are estimated to be higher than budgeted. Our conservative estimates indicate a ~Rs 1.9tn upside in the Centre's gross tax collections. Thus gross issuances have been maintained at the budgeted level of Rs 12.05tn. This is despite increase in expenditure on account of higher allocation for MGNREGA, fertilizer subsidy and free vaccination for all. We thus expect centre's fiscal deficit to clock in at 6.5% (% of GDP) in FY22 versus BE of 6.8%, and moderate further to 6% in FY23.

Fig 32 – Centre's net tax collections to rebound in FY22



Source: Budget documents, Bank of Baroda Research | PA-Provisional Accounts, E-Bank of Baroda Estimates

Fig 33 – …supporting Centre's budgeted spending target



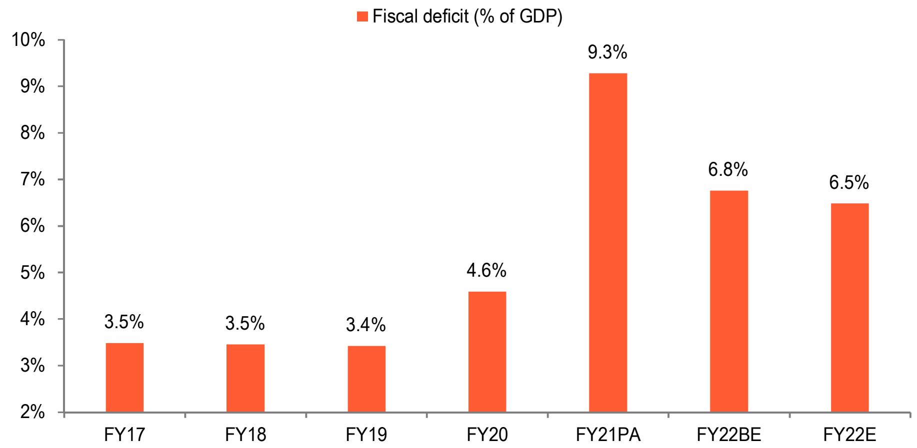
Source: Budget documents, Bank of Baroda Research | PA-Provisional Accounts, E-Bank of Baroda Estimates

Fig 34 – Borrowing math

(Rs bn)	FY18	FY19	FY20	FY21RE	FY22 BE	FY22 Revised
H1	3,570	2,760	4,250	7,360	7,240	7,020
H2	2,310	2,950	2,850	6,101	4,815	5,030
Gross borrowing	**5,880**	**5,710**	**7,100**	**13,461**	**12,055**	**12,050**
Repayments	(1,373)	(1,483)	(2,360)	(2,272)	(2,808)	(2,808)
Net borrowing	4,507	4,227	4,740	11,189	9,247	9,247
Buyback	(416)	-	-	-	-	-
Net Switching	11	5	-	-	-	-
Short-term borrowing	449	69	1,501	2,250	500	500
NSSF	1,026	1,250	2,400	4,806	3,919	3,919
State provident funds	158	161	116	180	200	200
Others	54	740	443	391	543	543
External debt	79	55	87	545	15	15
Drawdown of cash	41	(13)	50	(214)	644	644
Total debt receipts	**5,911**	**6,494**	**9,337**	**19,148**	**15,068**	**15,068**

Source: Budget Documents, Bank of Baroda Research | RE-Revised Estimates. BE-Budgeted Estimates

Fig 35 – Centre's fiscal deficit to consolidate more than budgeted in FY22

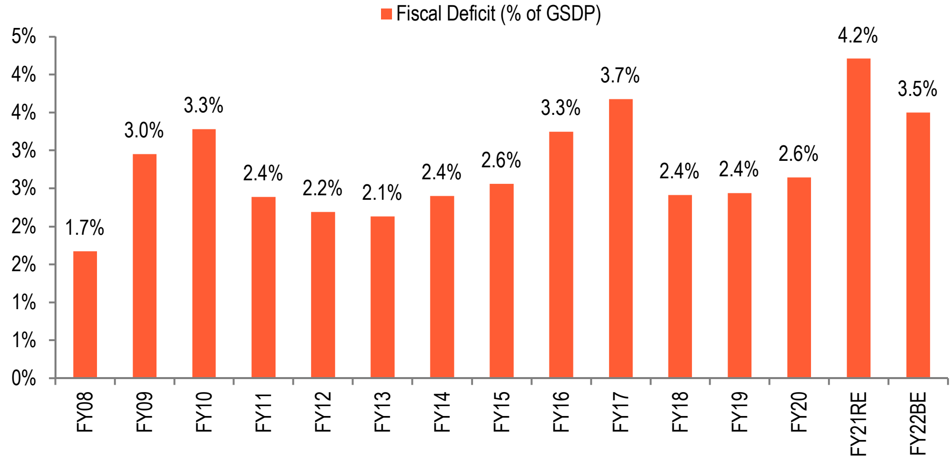


Source: Budget documents, Bank of Baroda Research | PA-Provisional Accounts, E-Bank of Baroda Estimates

With increase in Centre's tax revenues, devolution to states is also budgeted to go up from Rs 5.9tn in FY21 to Rs 6.7tn in FY22. In addition, states' revenue collections are also gradually inching back to pre-pandemic levels (FY20) with revenue receipts in FYTD22 (Apr-Sep) at Rs 8.7tn versus Rs 7tn in FYTD21 and Rs 8.1tn in FYTD20. Hence, we expect the fiscal deficit of states to also ease to 3.5% in FY22 from 4.2% in FY21 (RE).

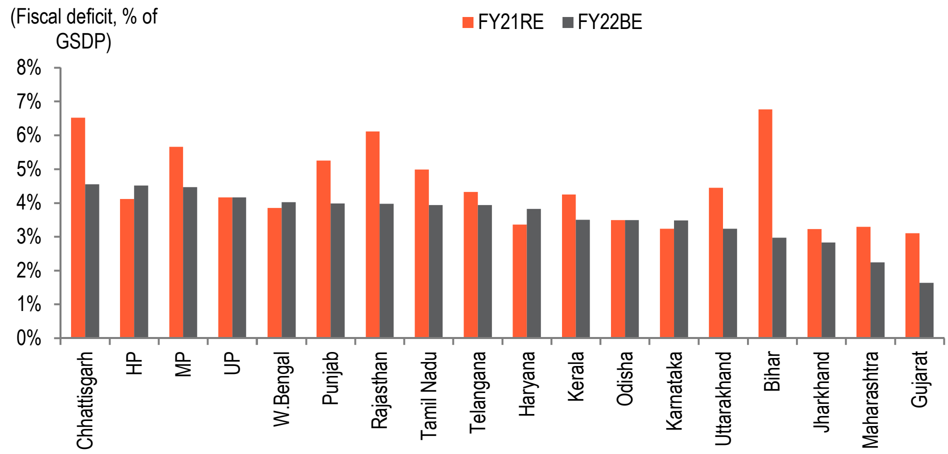
This year too, Centre has allowed states to borrow up to 3.5% of GSDP without any conditions and 5% of GSDP conditional on implementation of reforms and performance under four pillars: power distribution, public distribution system, local body revenues and ease of doing business. But with robust revenue collections, we expect borrowing by states to be lower at ~Rs 7-7.5tn in FY22 versus Rs 7.6tn in FY21.

Fig 36 – Fiscal deficit of states* to also narrow down in FY22



Source: RBI, State Budget Documents, Bank of Baroda Research | | RE-Revised Estimates. BE-Budgeted Estimates *Includes Bihar, Chhattisgarh, Gujarat, Haryana, Jharkhand, Karnataka, Kerala, Maharashtra, Odisha, Punjab, Rajasthan, TN, Telangana, UP, W. Bengal, Assam, HP and Uttarakhand

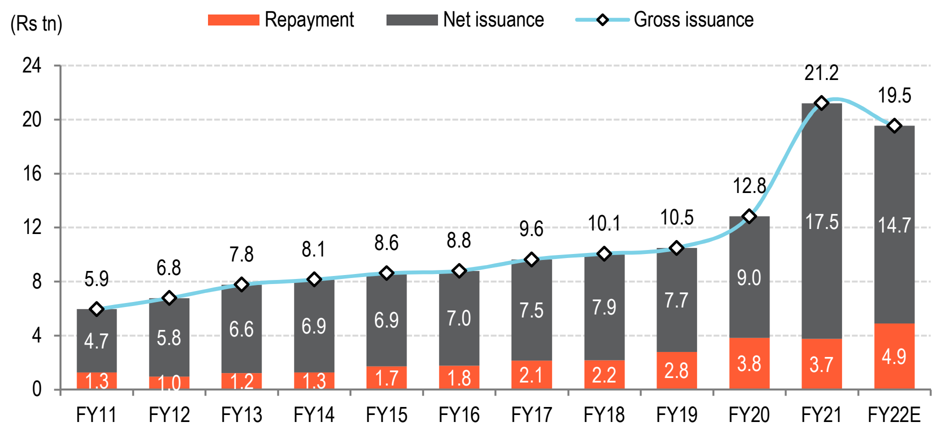
Fig 37 – State-wise fiscal deficit targets for FY22



Source: RBI, State Budget Documents, Bank of Baroda Research | RE-Revised Estimates. BE-Budgeted Estimates

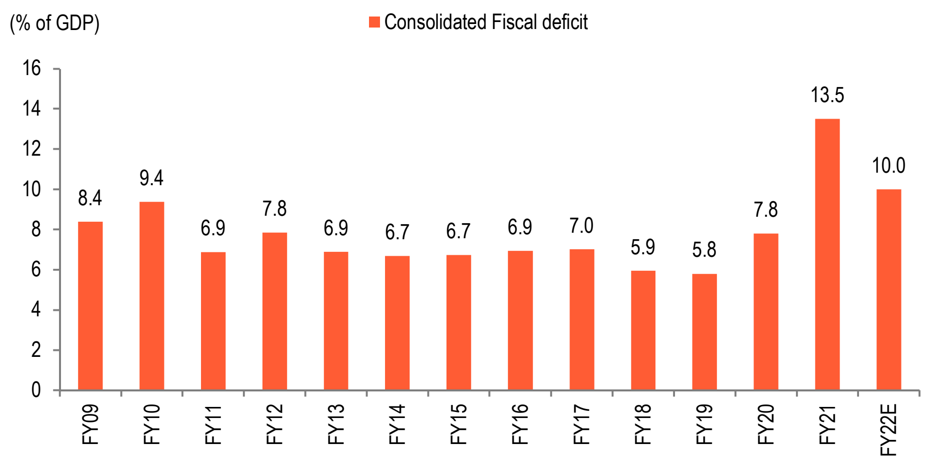
Thus, overall gross supply of bonds for FY22 is expected to ease compared with FY21. We estimated that gross supply of general government papers will be at Rs 19.5tn in FY22 compared with Rs 21.2tn in FY21 and net supply is estimated at Rs 14.7tn versus Rs 17.5tn in FY21. This will allow the general government fiscal deficit to ease to 10% of GDP in FY22 from 13.5% in FY21.

Fig 38 – Supply of Government papers



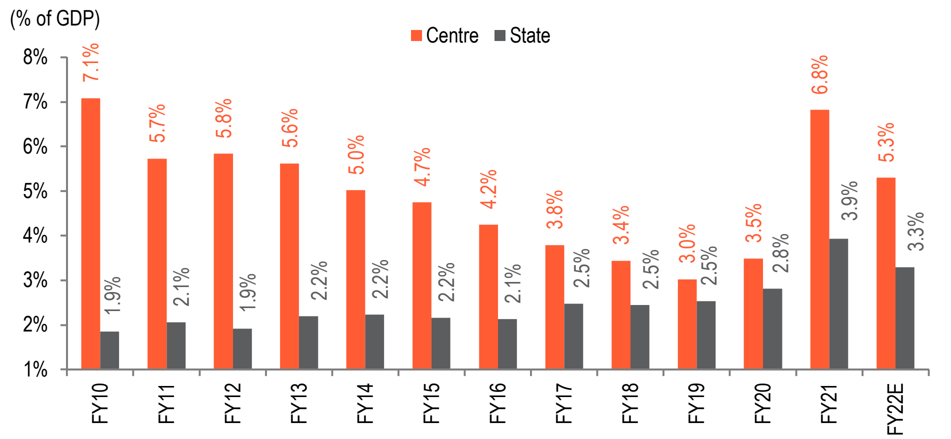
Source: RBI, PIB, Bank of Baroda Research | E-Bank of Baroda Estimates

Fig 39 – General government fiscal deficit consolidating



Source: RBI, budget documents, Bank of Baroda Research | E-Bank of Baroda Estimates

Fig 40 – Centre and state issuance as % of GDP



Source: RBI, PIB, Bank of Baroda Research | E- Bank of Baroda Estimates

Bond demand to be supported by MFs and insurance companies

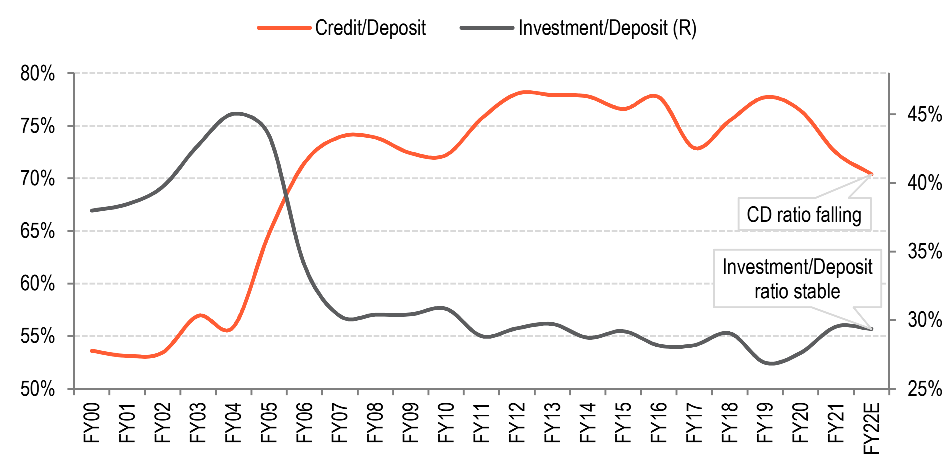
On the demand side, insurance companies and mutual funds are likely to emerge as key buyers in the bond market. Whereas scheduled commercial banks (SCB) are expected to taper their demand in comparison to last year, due to higher credit offtake. RBI too is not expected to buy central government bonds worth more than Rs 2.5tn (net) in FY22. Insurance companies, mutual funds and banks, are estimated to purchase Rs 2.9tn, Rs 2tn, and Rs 1.7tn of central government bonds on a net basis respectively.

So far in FYTD22, RBI has remained a significant player in the bond market with majority demand coming from its side. In FYTD22, it has purchased (net OMO) of Rs 2.37tn till date (as of 21 Oct 2021). In our base case scenario, we do not expect overall buying to exceed Rs 2.5tn this fiscal year.

Revival in credit growth to lower SCB bond demand

In FY21, credit growth at 5.9% was far lower than deposit growth of 10.9%, allowing SCBs to park funds in central government securities worth Rs 2.9tn on a net basis. However, in FY22, as nominal GDP is estimated to rebound sharply, so is credit growth, thus leading to lower demand for government securities. As SCBs' credit-deposit ratio rises, their investment-deposit ratio falls (Fig 41). At present, the incremental investment-deposit ratio is 24.02% (as of 5 Nov 2021) versus 87.26% last year (as of 6 Nov 2021).

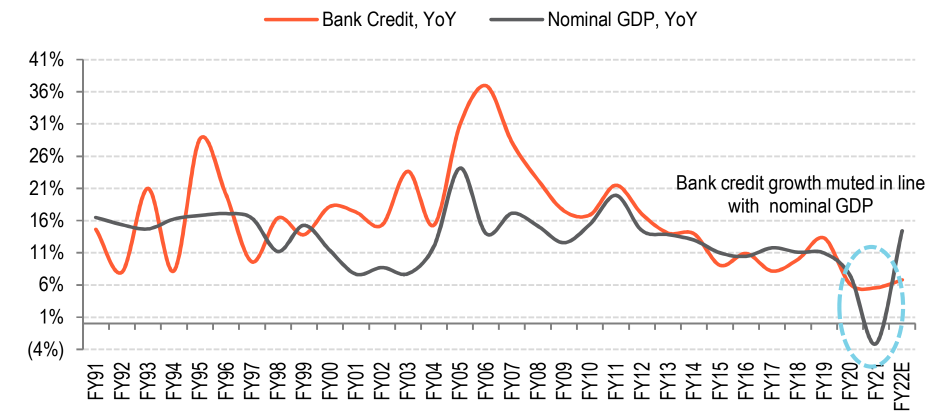
Fig 41 – CD ratio falling, Investment-Deposit ratio stable



Source: Bloomberg, Bank of Baroda Research

The outlook on credit growth is robust, given our forecast of a rebound in real and nominal GDP growth in FY22. Credit growth is intrinsically linked to nominal GDP growth as we have seen since 1991 (Fig 42).

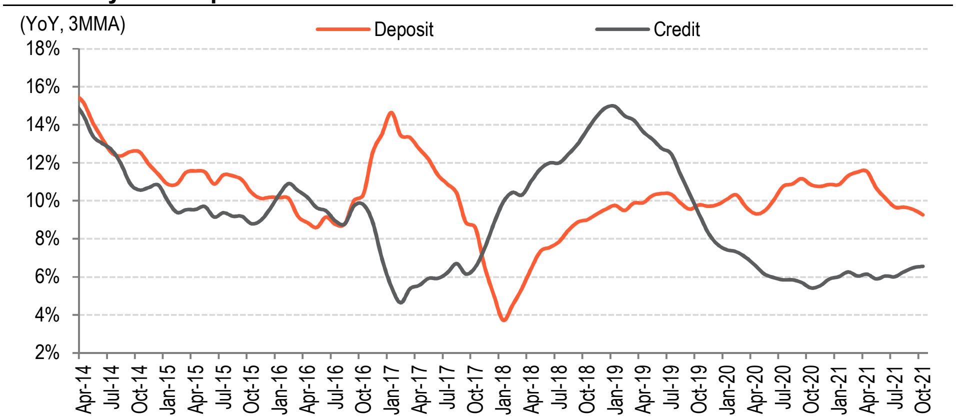
Fig 42 – Nominal GDP growth to rebound in FY22 on low base, credit growth is assumed to be at the current run rate at 6.8%



Source: Bloomberg, Bank of Baroda Research| E-Bank of Baroda Estimates

With recovery in credit offtake and rising yields, banks are estimated to slightly lower their purchase of government securities. We estimate aggregate credit growth of ~7.5-8% (Nominal GDP estimated at 14.4% in FY22-Budget documents) and deposit growth of 10% in FY22 – this leaves room for net purchases of Rs 1.7tn worth of central government securities by SCBs. In addition, SCBs should be in a position to purchase ~ Rs 1tn of state government securities. Till now investment accretion of SCBs has been lower compared with previous years (Fig. 45).

Fig 43 – Credit-deposit wedge at 580bps in FY21 compared with 180bps in FY20; currently at 370bps in Oct'21



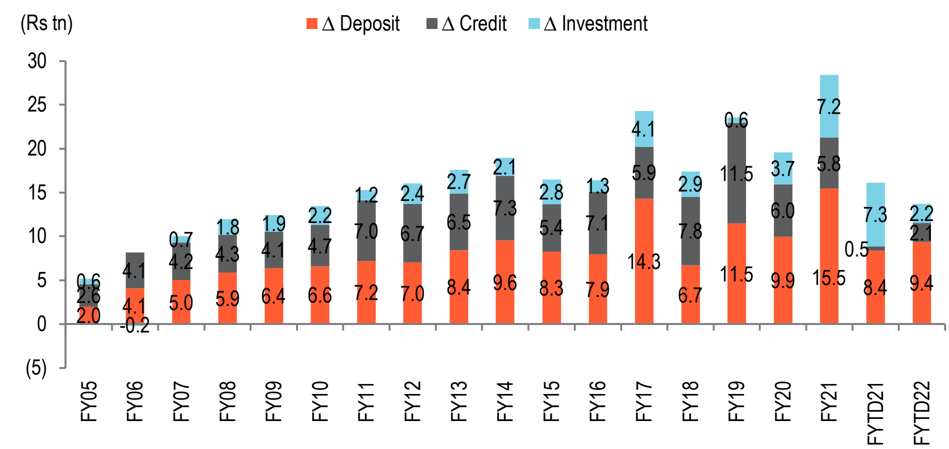
Source: CEIC, Bank of Baroda Research

Fig 44 – Credit, deposit and investment trends

(Rs tn)	FY15	FY16	FY17	FY18	FY19	FY20	FY21	FY22*
Credit	**65.4**	**72.5**	**78.4**	**86.3**	**97.7**	**103.7**	**109.5**	**111.6**
Abs change	5.4	7.1	5.9	7.8	11.4	6.0	5.8	2.1
Deposit	**85.3**	**93.3**	**107.6**	**114.3**	**125.7**	**135.7**	**151.1**	**160.5**
Abs change	8.3	7.9	14.3	6.7	11.5	9.9	15.5	9.4
Investment	**24.9**	**26.3**	**30.3**	**33.2**	**33.8**	**37.5**	**44.6**	**46.9**
Abs change	2.8	1.3	4.1	2.9	0.6	3.7	7.2	2.2
CD ratio	**76.6**	**77.7**	**72.9**	**75.5**	**77.7**	**76.4**	**72.5**	**69.6**

Source: CEIC, Bank of Baroda Research |*Till 5 Nov 2021

Fig 45 – Investment accretion is benign

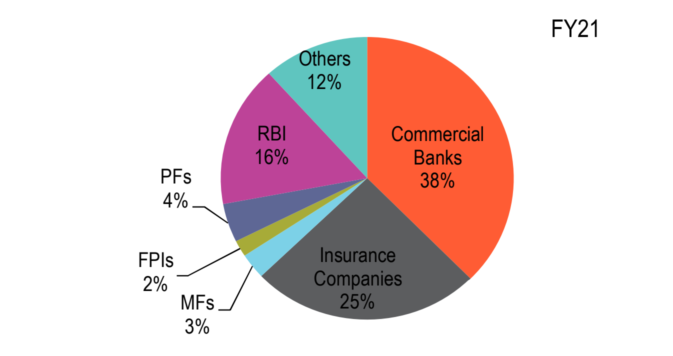


Source: CEIC, Bank of Baroda Research | Till 5 Nov 2021

Mutual Funds, Insurers and PF to emerge as large buyers

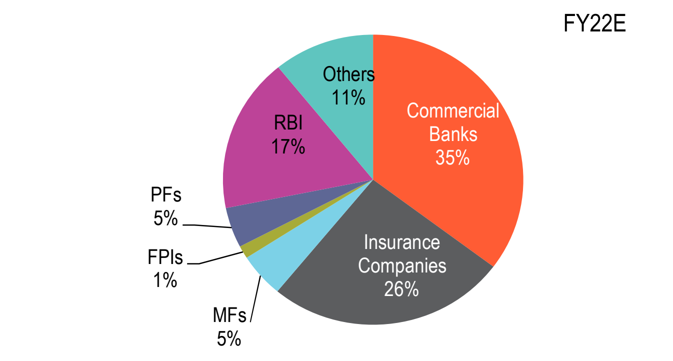
We estimate that insurance companies will continue to be net buyers at Rs 4.2tn (state and central government combined). Provident funds alone could purchase state government securities of Rs 1.7tn in FY22 out of the total kitty of Rs 2.2tn. Even Mutual Funds (MFs) would support as the current share of government securities of overall AUM of MFs is picking pace (Fig.49).

Fig 46 – Ownership pattern of Central government securities in FY21



Source: RBI, Bank of Baroda Research

Fig 47 – Ownership pattern of Central government securities in FY22E



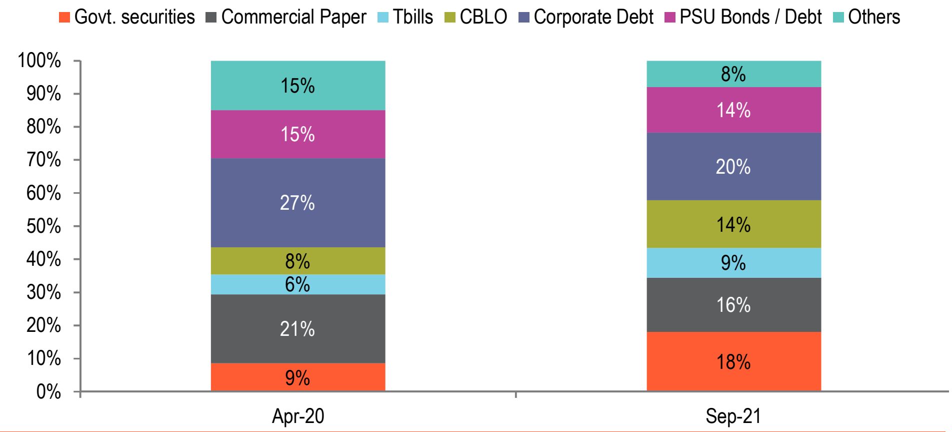
Source: RBI, Bank of Baroda Research

Fig 48 – Ownership pattern of general government securities (incremental change)

(Rs bn)	FY19	FY20	FY21	FY22E
Commercial Banks	813	1,962	2,862	1,720
Insurance Companies	1,732	1,861	3,046	2,898
MFs	(332)	719	1,319	2,020
FPIs	(443)	(323)	(151)	(215)
PFs	66	(181)	330	475
RBI	2,766	754	2,572	2,498
Others	1,732	1,861	3,046	2,898
Total	**5,242**	**5,656**	**11,493**	**9,843**

Source: RBI, Bank of Baroda Research | E- Bank of Baroda Estimates for net demand

Fig 49 – MFs investment in government securities picking pace



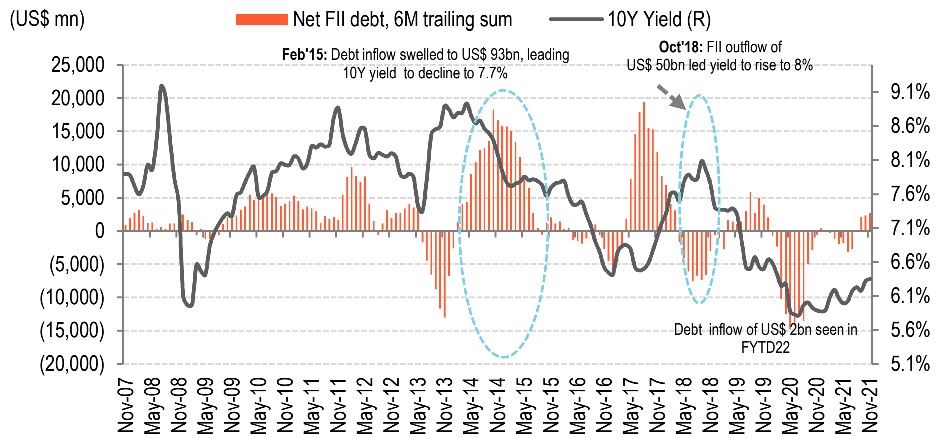
Source: SEBI, Bank of Baroda Research

FII debt inflows to remain buoyant

In FY21, total FII inflows (debt + equity) were US$ 31.2bn. However, while inflows into equities surged (US$ 37.3bn), debt segment saw outflows of US$ 6.1bn amidst concerns over Covid-19, low domestic interest rates as well as safe-haven demand for US bonds. Apart from this, ratings downgrades by major agencies (Moody's downgraded India's rating to Baa3 with a negative outlook, Fitch changed its outlook from stable to negative) also made investment in debt market less attractive for FIIs.

However, the situation has changed remarkably in FY22. So far, FII inflows have totalled US$ 2bn, with more than half of these inflows (US$ 2.4bn) going in the debt segment. This is because India's growth outlook has improved significantly on the back of a steady decline in Covid-19 cases and picking up of vaccinations. We expect debt inflows to remain strong in Q4FY22 as well. Further, India's inclusion into global bond index may also spur further inflows into the debt segment. RBI has also announced measures to make the Indian debt market more attractive for foreign investors.

Fig 50 – FII inflows in debt segment shooting up to US$ 2.1bn in FYTD22, however yields are picking up



Source: Bloomberg, Bank of Baroda Research | Till 25 Nov 2021

Reverse repo to be the main driver of RBI's balance sheet

#1 Balance sheet stance

Note: Balance sheet comparison stands for Apr-Mar financial year from 2020-21 onwards in accordance with Bimal Jalan Committee's recommendations

For the current financial year, RBI's balance sheet expansion will be driven by higher quantum of reverse repo operations on the liabilities side due to the initiation of policy normalisation. We expect RBI's balance sheet to expand by 12% in FY22 against 7% increase in FY21.

On the liabilities side, main expansion would be led by reverse repo under LAF which is expected to increase by Rs 3.2tn in FY22 compared with FY21. Another major component is the currency in circulation. However, as Covid-19 induced dent in demand is still visible as CIC accretion has been at a very slow pace of only Rs 1.3tn in FYTD22 (Apr-Nov). However, with falling Covid-19 cases, increased pace of vaccination, resumption of economic activity, CIC accretion in Dec'21-Mar'22 is expected to pick pace. We expect an accretion of Rs 2.5-2.8tn in the base case.

On the asset side, two important components are foreign and domestic investment. Till date there has been US$ 58bn accretion in FX reserves. Going ahead, we expect trade deficit to widen due to higher imports as economic activity picks up. This should be offset by buoyant exports, software and remittances receipts as well as foreign inflows. Overall, we expect BoP surplus of ~US$ 50-55bn in FY22, (assuming INR remains at current levels). Notably, net cash forex intervention by RBI (Apr-Sep'21) has been US$ 40.4bn. This has released equal amount of INR into the system. For balancing, RBI has already conducted Rs 2.37tn of OMO purchase. We expect no further/nominal amount of OMO purchase announcement in the wake of normalisation. Further, surplus system liquidity is also expected to come down from its recent peak of Rs 9tn seen during Sep'21. However, no clear signal has been provided regarding the desired level (% of NDTL). We expect gradual reduction in liquidity from Q4FY22 onwards to stay at ~Rs 5.5-6tn.

Fig 51 – Higher BOP surplus in FY21

Year	Inward remittances into India (US$ bn)	Software receipts (US$ bn)	FDI inflows (US$ bn)	FII inflows (US$ bn)	BoP Surplus (US$ bn) (+/- accretion/depletion)
FY08	41.9	36.9	15.9	20.8	92.16
FY09	44.8	43.7	19.8	(15.0)	(20.08)
FY10	52.3	48.2	18.0	29.0	13.44
FY11	53.1	50.9	11.8	30.3	13.12
FY12	63.5	61.0	22.1	17.2	(12.75)
FY13	64.0	63.5	19.8	26.9	3.88
FY14	65.3	67.0	21.6	4.8	15.56
FY15	65.5	70.4	31.3	42.2	61.4
FY16	62.6	71.5	36.0	(4.1)	18.1
FY17	56	70.8	35.6	7.6	21.6
FY18	62.4	72.2	30.3	22.1	43.6
FY19	69.9	77.7	30.7	(0.6)	(3.3)
FY20	75.2	84.9	43.0	1.4	59.6
FY21	73.4	86.0	44.0	36.1	87.3

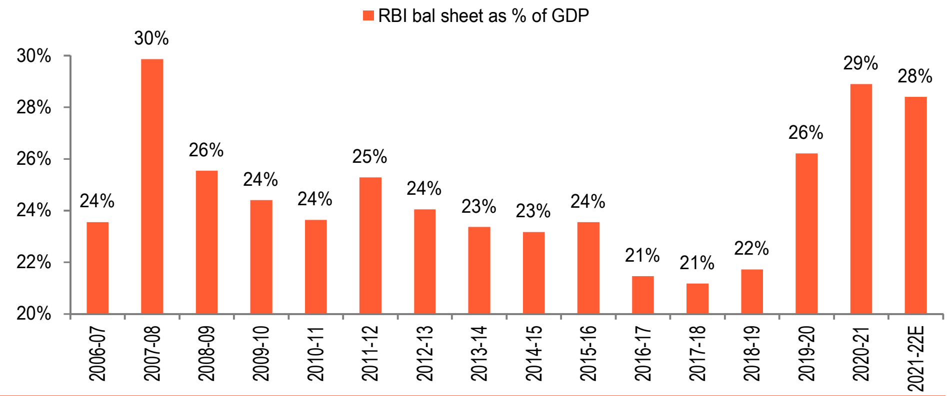
Source: CEIC, Bank of Baroda Research

Fig 52 – RBI's BALANCE SHEET

(Rs bn)	2015-16	2016-17	2017-18	2018-19	2019-20	2020-21	2021-22E
Total Notes Issued	17,077	15,063	19,120	21,688	26,356	28,269	31,106
Capital & Reserves	67	67	67	67	67	67	67
Deposits	5,065	8,963	6,526	7,649	11,759	14,915	18,120
w/w Bank	4,294	5,042	5,071	5,494	4,709	6,989	7,093
Others-Reverse Repo (LAF)	770	2,974	1,454	2,154	7,049	7,876	11,026
Other Liabilities and Provisions	10,220	8,947	10,463	11,625	15,166	13,825	14,931
Total Liabilities	**32,430**	**33,041**	**36,176**	**41,029**	**53,348**	**57,077**	**64,158**
Gold Coins & Rupee Coins	1,393	1,324	1,450	1,683	2,568	2,485	2,996
Investments – Foreign	23,064	23,687	26,351	27,852	35,450	39,519	43.200
Investment – Domestic	7,033	7,558	6,297	9,899	11,720	13,332	15,814
Loans and Advances	520	173	1,639	932	3,222	1,351	1,985
Other Assets*	419	300	440	663	387	390	163
Total Assets	**32,430**	**33,041**	**36,176**	**41,029**	**53,348**	**57,077**	**64,158**

Source: RBI, Bank of Baroda Research Note: From 2020-21, RBI's accounting year has been changed to FY | *Includes investments in subsidiaries | E-Bank of Baroda Estimates

Fig 53 – RBI balance sheet is expected to be at 28% of GDP in FY22

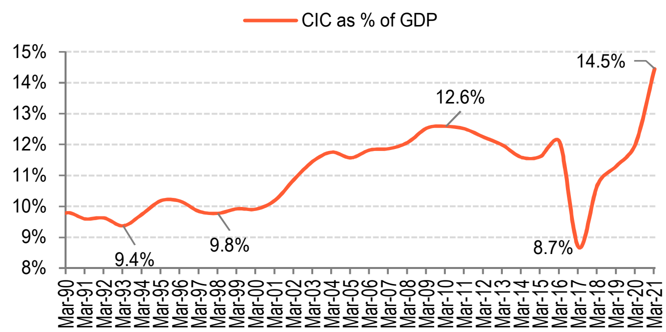


Source: CEIC, RBI, Bank of Baroda Research Note: From 2020-21, RBI's accounting year has been changed to FY

#2 Currency in circulation [CIC]

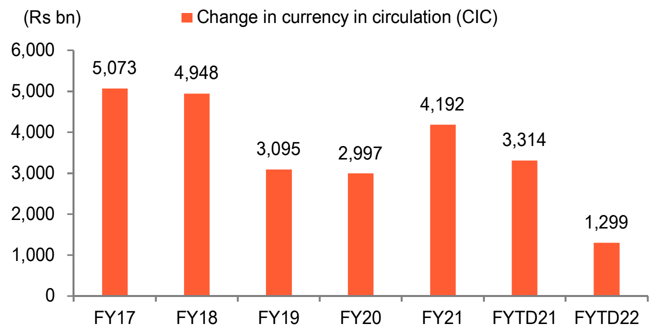
In FY21, CIC accretion was Rs 4.2tn (2.1% of GDP) against Rs 3tn (1.5% of GDP) in FY20. However, in FYTD22, the pace of accretion has been much slower at Rs 1.3tn as consumption demand has still remained weak. However, with falling Covid-19 cases, and pickup in government's spending, we expect CIC to pick pace in H2FY22.

Fig 54 – CIC as % of GDP picked up in FY21



Source: Bloomberg, Bank of Baroda Research

Fig 55 – CIC accretion at a much slower pace in FYTD22



Source: Bloomberg, Bank of Baroda Research| Note: FYTD: Apr-Nov

Fig 56 – Data showing interrelation between OMO purchase, Fx intervention and foreign currency account (FCA)

Year	Reserve money growth (%)	FX intervention (US$ bn)	Chg in FCA (Rs bn)*	Chg in domestic investments (Rs bn)*	Net OMO purchase (Rs bn)
2011-12	11	(20)	1,805	1,669	1,342
2012-13	5	(3)	755	1,037	1,461
2013-14	14	9	2,332	(44)	520
2014-15	11	55	3,780	(1,510)	(627)
2015-16	13	10	1,705	1,848	623
2016-17	(13)	12	623	524	1,105
2017-18	27	34	2,664	(1,260)	(888)
2018-19	15	(15)	1,501	3,601	3,000
2019-20	10	45	7598	1,822	1,136
2020-21	19	68	4069	1,612	3,133
2021-22E	14	40#	3,681	2,483	2,372@

Source: RBI, CEIC, Bank of Baroda Research | Note: From 2020-21, RBI's accounting year has been changed to FY | E-Bank of Baroda Estimates | # Actual data as of Sep 2021 | @ Oct 2021 |*Calculated from RBI's balance sheet

Risks to our yield forecast

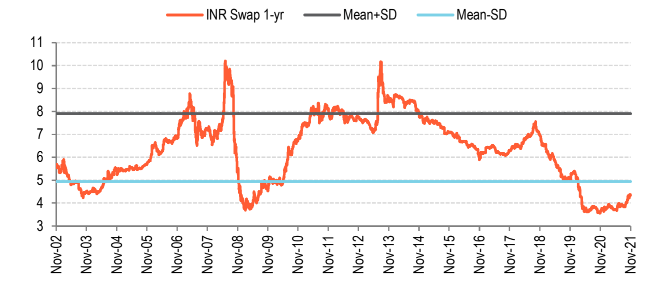
Key upside risks to our 10Y yield forecast of 6.3%-6.5% for FY22 and 6.5%-6.7% for FY23 include:

- Faster pace of rate hike by US Fed.
- Higher pace of normalisation by RBI with reverse repo hike expected in Q4/increased demand through the reverse repo window.
- Rising oil prices pose inflationary risk. Thus exerting pressure on yields and also increasing chance of a rate hike by RBI faster than expected to tame inflation.
- However, fiscal consolidation and FII inflow might support yields in the near term.

Annexure A

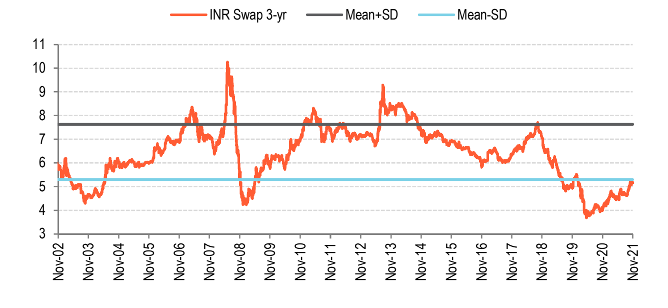
Interest rates

Fig 57 – INR 1Y Swap rate rose to 4.36 as on 25 Nov 2021 against 4.02 as on 30 Sep 2021



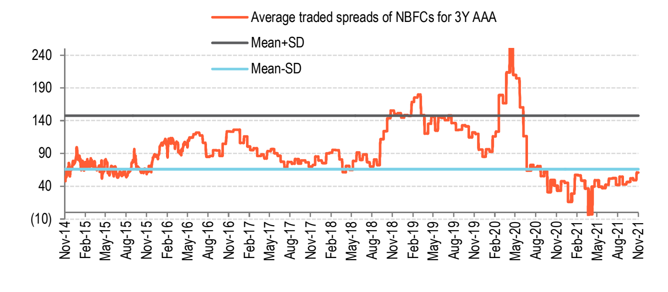
Source: CEIC, Bank of Baroda Research | Till 25 Nov 2021

Fig 58 – INR 3Y Swap rate rose to 5.16 as on 25 Nov 2021 against 4.83 as on 30 Sep 2021



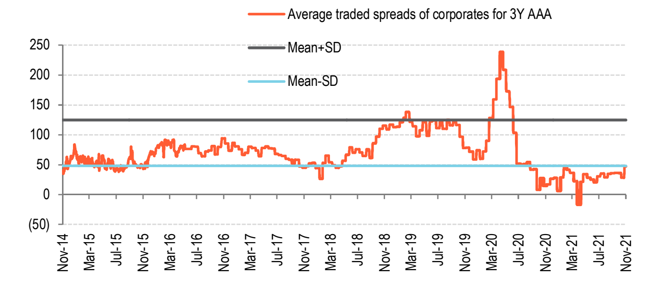
Source: CEIC, Bank of Baroda Research | Till 25 Nov 2021

Fig 59 – NBFC 3Y AAA spread rose to 61bps as on 24 Nov 2021 against 43 as on 30 Sep 2021



Source: CEIC, Bank of Baroda Research | Till 24 Nov 2021

Fig 60 – Corp 3Y AAA spread rose to 47bps as on 24 Nov 2021 against 36bps as on 30 Sep 2021



Source: CEIC, Bank of Baroda Research | Till 24 Nov 2021

Fig 61 – rates Falling across a wide spectrum

Instrument (%)	Q2FY21	Q3FY21	Q4FY21	Q1FY22	Q2FY22	Q3FY22
Savings deposit	4.0	4.0	4.0	4.0	4.0	4.0
1 year time deposit	5.5	5.5	5.5	5.5	5.5	5.5
2 year time deposit	5.5	5.5	5.5	5.5	5.5	5.5
3 year time deposit	5.5	5.5	5.5	5.5	5.5	5.5
5 year time deposit	6.7	6.7	6.7	6.7	6.7	6.7
5 year recurring deposit	5.8	5.8	5.8	5.8	5.8	5.8
5 year senior citizen savings scheme	7.4	7.4	7.4	7.4	7.4	7.4
5 year monthly income scheme	6.6	6.6	6.6	6.6	6.6	6.6
5 year national savings certificate	6.8	6.8	6.8	6.8	6.8	6.8
Public provident fund scheme	7.1	7.1	7.1	7.1	7.1	7.1
Kisan vikas patra	6.9	6.9	6.9	6.9	6.9	6.9
Sukanya samriddhi account scheme	7.6	7.6	7.6	7.6	7.6	7.6

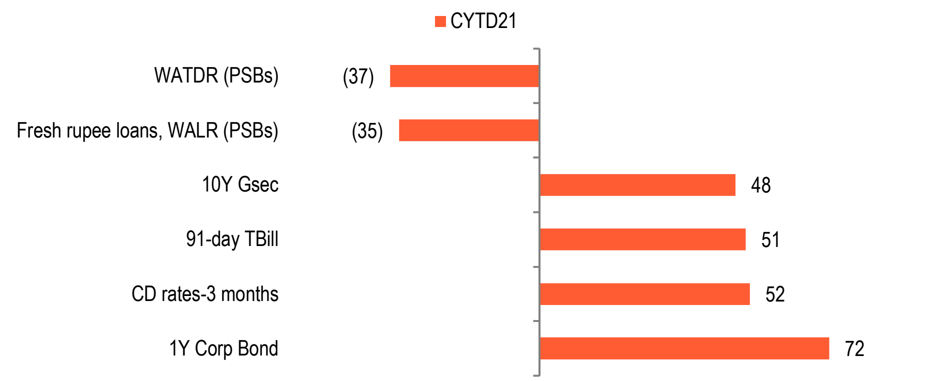
Source: Department of Economic Affairs, Ministry of Finance, Government of India, Bank of Baroda Research

Fig 62 – Bank-wise one-Year MCLR also reducing

(%)	Mar-21	Apr-21	May-21	Jun'21	Jul'21	Aug'21	Sep'21	Oct'21
Public Sector Banks								
Bank of Baroda	7.40	7.40	7.40	7.35	7.35	7.35	7.35	7.30
Bank of India	7.35	7.35	7.35	7.35	7.30	7.25	7.25	7.25
Canara Bank	7.35	7.35	7.35	7.35	7.35	7.35	7.35	7.25
Indian Bank	7.30	7.30	7.30	7.30	7.30	7.35	7.35	7.35
Punjab National Bank	7.35	7.35	7.35	7.30	7.30	7.30	7.30	7.25
State Bank of India	7.00	7.00	7.00	7.00	7.00	7.00	7.00	7.00
Private Sector Banks								
Axis Bank Ltd.	7.40	7.40	7.35	7.35	7.35	7.35	7.35	7.35
HDFC Bank Ltd.	7.20	7.20	7.20	7.20	7.20	7.20	7.20	7.20
ICICI Bank Ltd.	7.30	7.30	7.30	7.30	7.25	7.25	7.25	7.25
Indusind Bank	8.60	8.60	8.60	8.60	8.55	8.45	8.45	8.45
Kotak Mahindra Bank	7.25	7.25	7.25	7.25	7.25	7.25	7.20	7.20

Source: RBI, Bank of Baroda Research

Fig 63 – Change in market rates of major segments, in bps



Source: RBI, Bloomberg, FBIL, Bank of Baroda Research

Disclaimer

Visit us at www.bankofbaroda.com

For further details about this publication, please contact:

Economics Research Department
Bank of Baroda
+91 22 6698 5218
chief.economist@bankofbaroda.com