



India Currency Watch

Crystal gazing the USD and INR

April 2021

Sameer Narang

chief.economist@bankofbaroda.com

INDIA CURRENCY WATCH

30 April 2021

Crystal gazing the USD and INR

A rising US economic tide (6.5% in 2021) and bond yields have lifted USD after 6.7% fall in 2020. US growth has pulled EM exports which, historically, go hand-in-hand with stronger currencies. INR shows exceptionally high correlation with EMs. While Covid-19 backdrop implies near-term weakness for INR, medium-term outlook looks bright as economic momentum revives given cleaner corporate balance sheets, higher exports, benign external deficits and inflation. INR to trade in a tight range of 73-75/USD in FY22.

Sameer Narang

+91 22 6698 5713

chief.economist@bankofbaroda.com

Aditi Gupta

aditi.gupta3@bankofbaroda.com

Jahnavi

jahnavi@bankofbaroda.com

Dipanwita Mazumdar

dipanwita.mazumdar@bankofbaroda.com

Sonal Badhan

sonal.badhan@bankofbaroda.com

EM cycles: EM currencies have seen two cycles: 2003-11—appreciation—and 2012-19—depreciation. EM currencies are stronger when EM economies grow faster than US led by exports (19% in 2003-11 vs. 1% in 2012-19) and rising current account surplus at 2.7% in 2003-11 vs. 0.2% in 2012-19.

Why USD went up? DXY does well when growth differential between US and EMs falls (2.7% in 2012-19 vs. 5.3% in 2003-11) and EM growth is led by debt (fiscal deficit at 3.3% vs. 0.9% in 2003-11). High inflation EM currencies do see a depreciation bias. Interest rate differential is a factor in EUR/JPY/GBP.

USD looks strong in near-term: Growth differential between US and EMs is likely to narrow down to 0.2% in 2021 led by US fiscal and monetary expansion and vaccination outcome. Thus DXY index has risen by 1.4% in 2021. EMs are seeing a pick-up in exports (up by 26.8% this year). Rising US demand has pushed commodity prices higher which typically have an inverse relationship with DXY. Higher US twin deficits implies USD to weaken in 2022.

INR cycles: INR appreciated by 1.1% p.a. between 2003 and 2007. Benign inflation (4.5%), lower fiscal deficit, capex cycle and heady export growth explain this. It saw depreciation of 10% p.a. during 2008-14 led by large twin deficits and high inflation (9.4%). Depreciation of 2.6% during 2015-20 was due to lower inflation (4.5%), declining twin deficits and higher forex reserves.

How is INR placed? While fiscal deficit has expanded to 9.5% of GDP, India is looking poised for pick-up in growth led by exports (services and PLI schemes), cleaner corporate balance sheets (capex cycle) and benign inflation—similar to 2003-07. While CAD will expand in FY22, it is projected at only 1.1%. The macro backdrop favours INR in a tight range of 73-75/USD. Rising Covid-19 cases are a risk to our view.

KEY HIGHLIGHTS

- US growth pushing US yields and US Dollar higher.
- Higher exports to US to push EM growth upwards and thus EM currencies, with a lag.
- Benign inflation and CAD implies, INR to trade in a tight range of 73-75/USD in FY22.



Contents

US dollar outlook	3
DXY movement decoded	4
Growth differential between EMs and US likely to narrow in 2021	6
EMs export growth to outpace US.....	7
US CAD to remain elevated.....	8
...so is the case for US fiscal deficit.....	9
FPI inflows to EMs dried up in 2020	10
Inflation differential between US and EMs declining.....	11
Yield differentials and currency movements	13
Commodity prices on an upswing	14
Expect short-term USD appreciation but medium-term weakness	16
Indian rupee outlook.....	17
Expected growth recovery to support INR.....	17
Current account to remain comfortable.....	18
Fiscal deficit and INR	20
Inflationary pressures to ebb in FY22.....	21
Buoyant foreign inflows	22
Higher oil prices remain a key risk.....	23
Surge in domestic Covid-19 cases risk to INR	24
INR should stabilise in 73-75/USD range	25

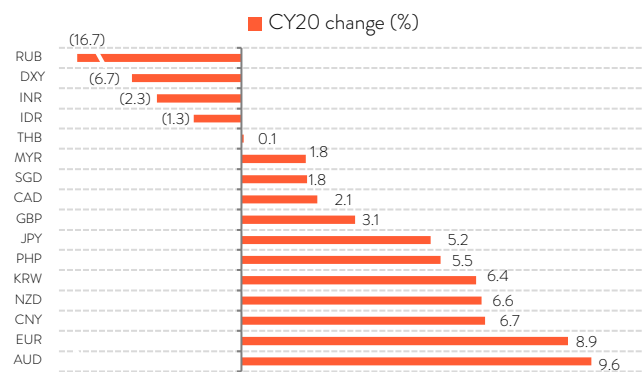
US dollar outlook

The US dollar as measured by the DXY index fell 6.7% in 2020 before staging a turnaround in 2021 (+1.1% YTD). Our research shows that the DXY has more room for upside in the near term. This is simply because of the strong growth outlook for the US this year – perhaps the best among large economies. The US government’s recent US\$ 1.9tn stimulus will act as a catalyst for growth and the proposed US\$ 2tn infrastructure package would further buttress the US dollar by driving global growth higher.

Growth is being fuelled by fiscal transfer to households this year as seen in large excess household savings. This implies that US demand for global goods will rise, pushing global export demand higher. The US current account deficit is also likely to inch up because of higher imports. The rising twin deficits drove the DXY lower over 2003-11 and we expect a repeat play later, perhaps in 2022.

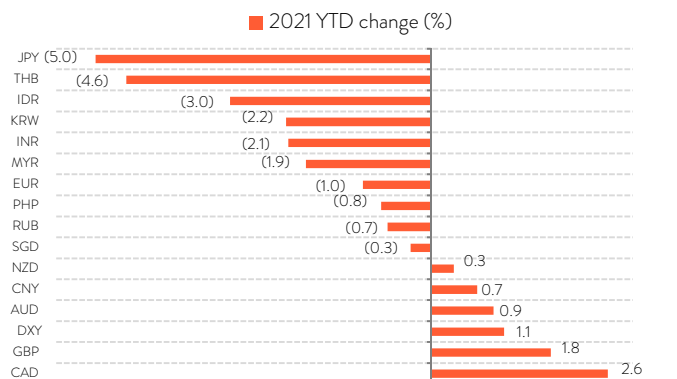
Higher growth in the US when commodity prices are trending up and the fiscal deficit is elevated also implies an increase in interest rates. Our analysis suggests that a rising rate differential between the US and other markets translates to a stronger, not weaker, USD. The only way for this trend to be negated is by an increase in global interest rates. We are already seeing evidence of this in the form of policy rate hikes in Brazil, Russia, and Turkey. Thus, on balance, while the US dollar may be stronger this year, we believe it could weaken next year as rest of world catches up with US growth.

FIG 1 – DXY DEPRECIATED BY 6.7% IN 2020...



Source: Bloomberg, Bank of Baroda Research

FIG 2 – ...BUT IS UP 1.1% IN 2021 SO FAR



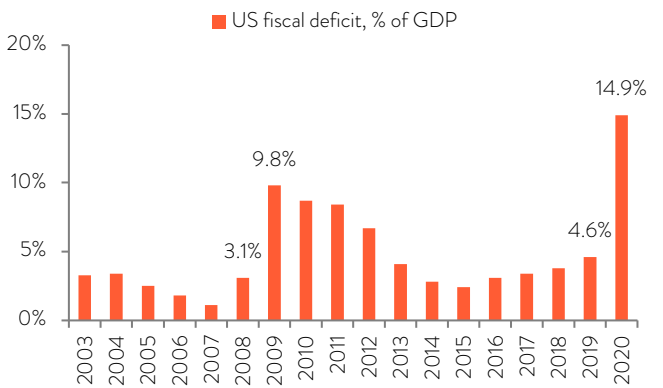
Source: Bloomberg, Bank of Baroda Research | Data as of 27 Apr 2021

DXY movement decoded

2020 will go down as a historic year – not only from the standpoint of the pandemic but also considering the fiscal and monetary stimulus to contain its economic impact. The US fiscal deficit expanded to 14.9% of GDP in 2020 from 4.6% in 2019. The fiscal impetus continues into 2021 with passage of the US\$ 1.9tn (8.6% of GDP) stimulus, to be followed by further fiscal spending estimated at US\$ 2tn.

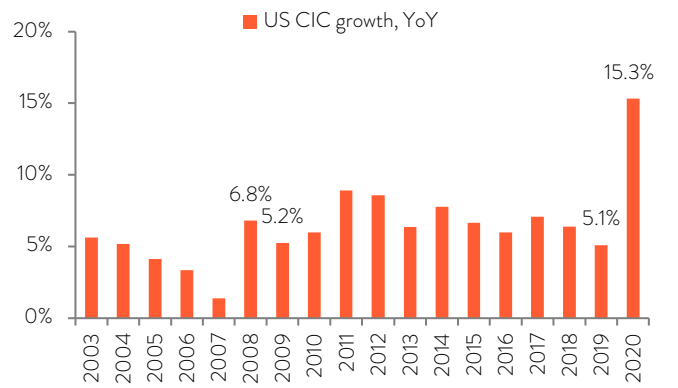
On the monetary side, almost one-fifth of US currency notes in circulation were printed in 2020 alone. Historically, such an overdrive in printing paper currency leads to debasement. No wonder gold had delivered returns of 27% in 2020. Bitcoin was up 51% in 2020 and has continued the ride in 2021 as well (+441%).

FIG 3 – US FISCAL DEFICIT ROSE SHARPLY IN 2020



Source: Bloomberg, Bank of Baroda Research

FIG 4 – US CURRENCY GROWING AT FASTEST PACE

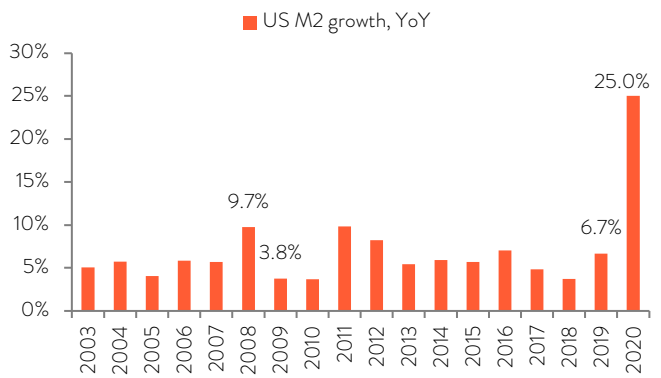


Source: Bloomberg, Bank of Baroda Research | Data as of 16 Mar 2021

On its own, such a hefty increase in currency in circulation is considered inflationary. However, hard currency is only a small proportion of a typical household’s wealth. A broader measure of money such as M2 which includes deposits is more relevant. Here too, the numbers are staggering. As much as one-fourth of the addition to M2 (US\$ 3.9tn addition) was in 2020 alone.

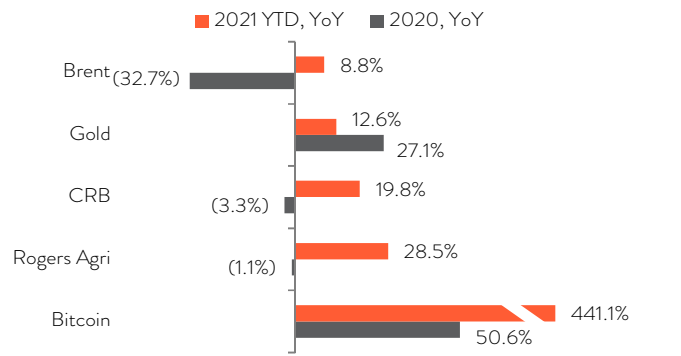
With resumption of demand and an inordinate increase in money supply, markets are increasingly fretting about inflation. Commodity prices are up. Energy prices, especially oil, are on a tear. Agricultural prices are increasing. Home prices in most parts of world are inching up. And despite the asset monetisation underway by the US Fed, yields are steadily inching up. The US 10Y yield has risen 71bps in 2021.

FIG 5 – US MONEY SUPPLY GROWTH ALSO ROSE SHARPLY IN 2020



Source: Bloomberg, Bank of Baroda Research

FIG 6 – COMMODITY PRICES ARE INCHING UP



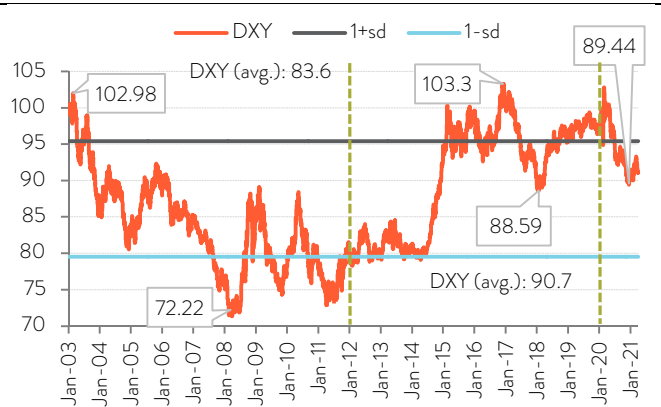
Source: Bloomberg, Bank of Baroda Research | Data as of 27 Apr 2021

What does all this mean for the USD? In 2020, the US dollar as measured by the DXY index fell by 6.7%, before reversing course in 2021. Our research shows that the key factors influencing USD or DXY index movement are the differentials in growth between US and other economies, inflation and interest rates between the US and world economy, twin deficit levels – in particular external deficit – and flows into the US.

The DXY index has exhibited two distinct phases: (1) 2003-11 – this period was marked by a peak in 2003 followed by a bottoming out in 2008 during the US financial crisis, then appreciation after global risk-off and lastly a slump to 2008 lows in 2011, (2) 2012-19 – the index appreciated over 2012-17, then dipped in 2018. It rose steadily thereafter, recovering to its 2017 peak in Mar'20.

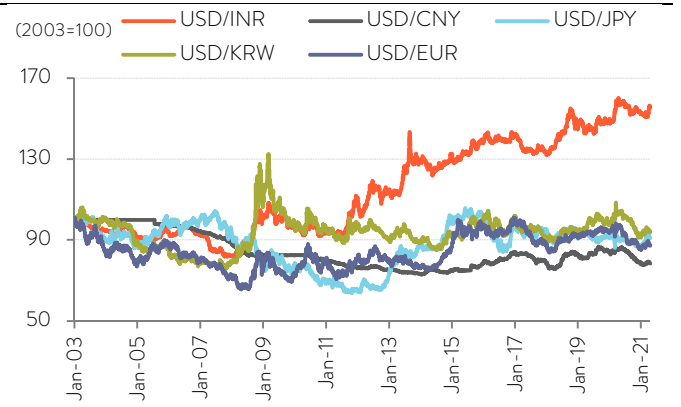
Since then however, the DXY has been on a relative downtrend, with a reversal seen only in the recent months. Our analysis suggests room for upsides in the near term as the US economy's growth differential to emerging markets narrows, followed by a weakening in the dollar over the medium term due to the widening US twin deficits (fiscal and current account). The next section of our report contains a detailed analysis of each phase of DXY movement and the corresponding underlying factors.

FIG 7 – DXY TREND



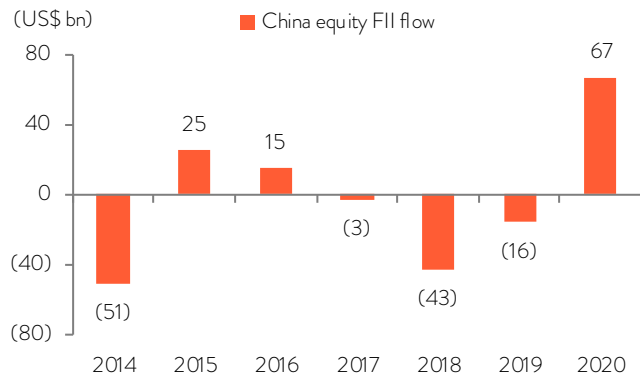
Source: Bloomberg, Bank of Baroda Research

FIG 8 – HOW ARE CURRENCIES MOVING?



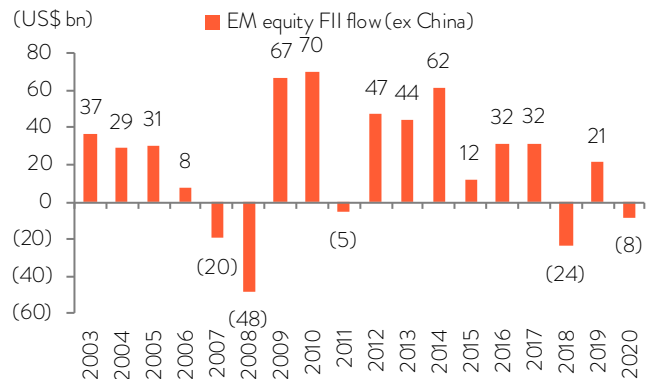
Source: Bloomberg, Bank of Baroda Research | Data as of 27 Apr 2021

FIG 9 – CHINA EQUITY INFLOWS



Source: State Administration of Foreign Exchange China, Bank of Baroda Research

FIG 10 – EM EQUITY INFLOWS



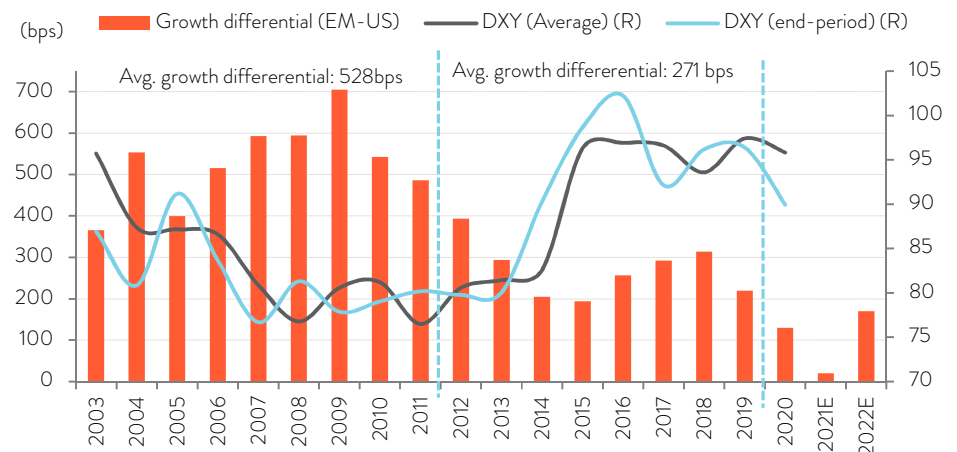
Source: Bloomberg, Bank of Baroda Research | Note: EMs corresponds to Emerging Market economies as per IMF definition

Growth differential between EMs and US likely to narrow in 2021

Historically, the growth differential between EMs and the US has been an important driver of movement in the DXY. During the first DXY phase of 2003-2011, the average differential was more than 5% – in other words, EMs were growing faster than the US by 5%. During this period, the DXY index fell from a high of 102.98 in 2003 to a low of 72.93 in 2011.

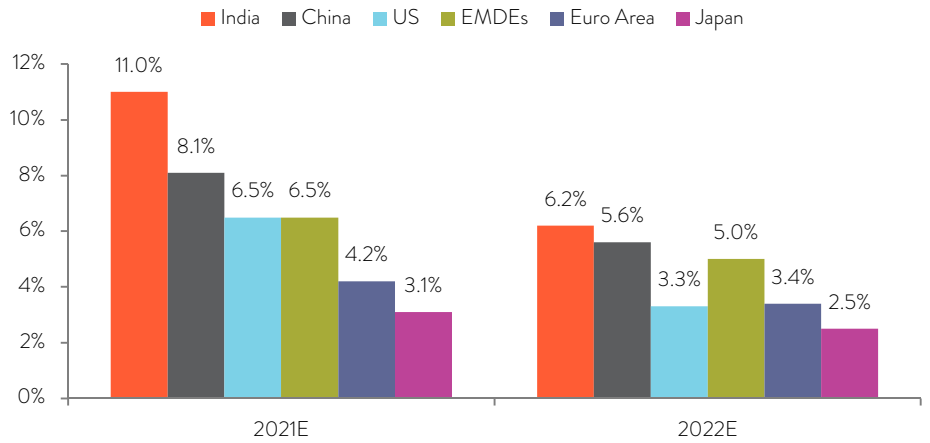
The average growth gap between the US and EMs dipped to less than 3% during 2012-2019 (phase-2), with the dollar seeing a resurgence during the period. In 2020, while this gap was lower at 1.3%, DXY was under pressure. We expect a further narrowing of the gap again in 2021 with the Fed projecting US growth at 6.5%, thus pushing the growth differential to a 20-year low, which is positive for the dollar. The bigger question is the economic outlook over the next few years. Current estimates suggest that growth differential with EMs is likely to expand to 1.7% in 2022 (0.2% in 2021) which may put downward pressure on DXY in medium-term.

FIG 11 – EM-US GROWTH DIFFERENTIAL LIKELY TO NARROW IN 2021...



Source: Bloomberg, Bank of Baroda Research | E: Estimates | Note: For US, growth projections are by US Fed and for EMs, IMF projections are used

FIG 12 – ...BEFORE INCREASING AGAIN IN 2022



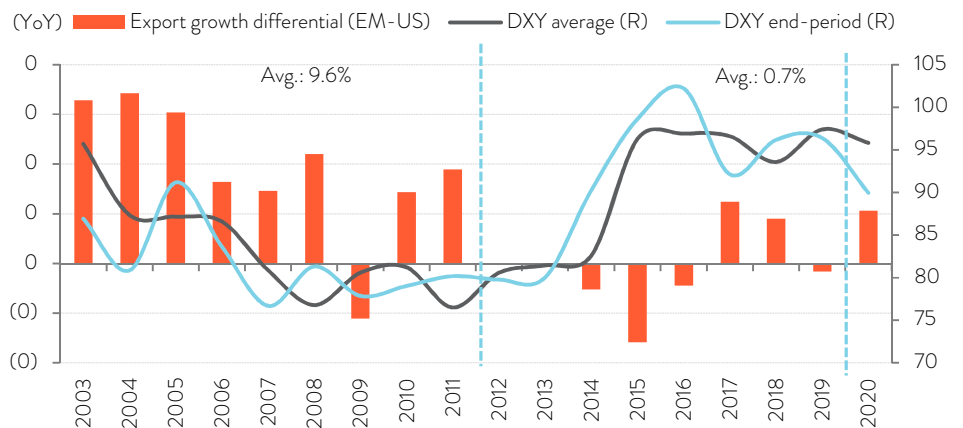
Source: IMF, Bank of Baroda Research | EMDE – Emerging Market and Developing Economies as per IMF definition | E: Estimates | Note: For US, growth projections are by US Fed, For India Bank of Baroda Estimates, rest are IMF projections

EMs export growth to outpace US

Exports play an important role in the EM growth model. Between 2003 and 2011 exports of emerging countries increased by 19.1% each year (up 9.4% for the US), despite the USD depreciating 3.9% on average. Hence, exports increased even as EM currencies appreciated.

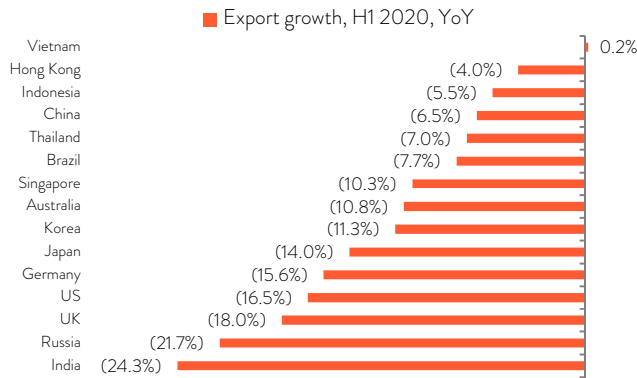
There was a perceptible slowdown during phase-2 through to 2019 when EM exports grew just 1% amidst a fall in global commodity prices. US export growth also slowed to 1.4% but was better than that of EMs. And this happened when EM currencies were depreciating. What we are now seeing is steady improvement in EM exports which typically coincides with stronger EM currencies.

FIG 13 – EMS OUTPERFORMED US EXPORTS OVER 2003-11 ALONGSIDE USD DEPRECIATION



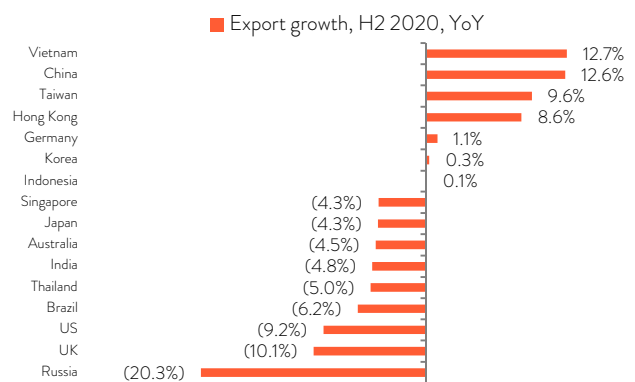
Source: WTO, Bank of Baroda Research

FIG 14 – EXPORTS FROM MAJOR ECONOMIES FELL IN H1 OF 2020...



Source: WTO, Bank of Baroda Research

FIG 15 – ...BUT EXPORTS FROM ASIAN ECONOMIES BOUNCED BACK IN H2 2020

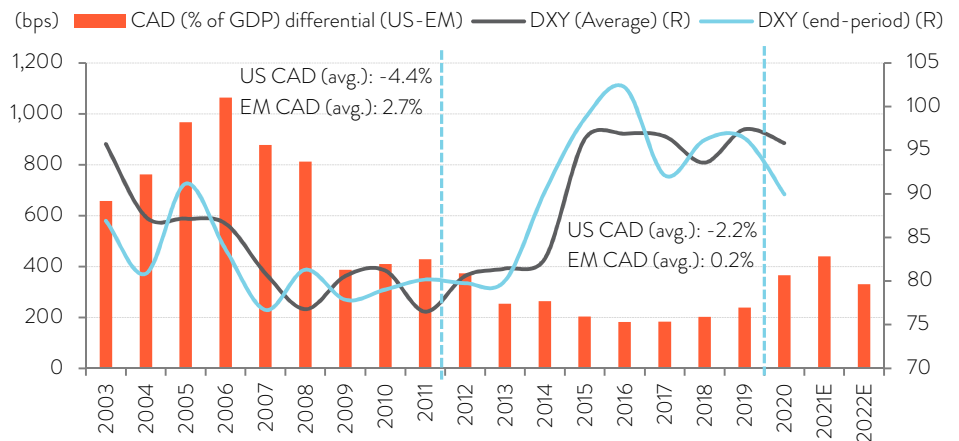


Source: WTO, Bank of Baroda Research

US CAD to remain elevated...

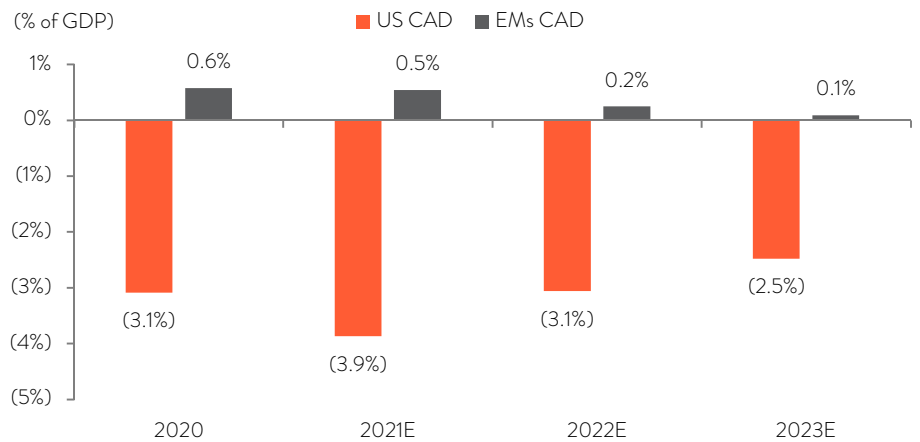
Higher current account deficits (CAD) drive currencies lower and vice versa. The US ran a deficit of 4.4% of GDP over 2003-11, whereas export growth of EMs led to a current account surplus of 2.7% during this period, putting pressure on the USD. The US external deficit position changed over 2012-19 when CAD fell to 2.2%. EMs saw their current account surplus shrink to 0.2%. The USD correspondingly appreciated during this phase.

FIG 16 – CAD DIFFERENTIAL BETWEEN EMS AND US EXPECTED TO INCH UP



Source: Bloomberg, Bank of Baroda Research | E: Estimates | Note: IMF projections (Apr'21)

The US may not see its CAD fall to the levels recorded during 2012 and 2019, its external deficit is expected to remain elevated in coming years. This is negative for the USD.

FIG 17 – US CAD EXPECTED TO EXPAND IN 2021 BEFORE CLIMBING DOWN

Source: Bloomberg, Bank of Baroda Research | E: Estimates | Note: IMF projections (Apr'21)

...so is the case for US fiscal deficit

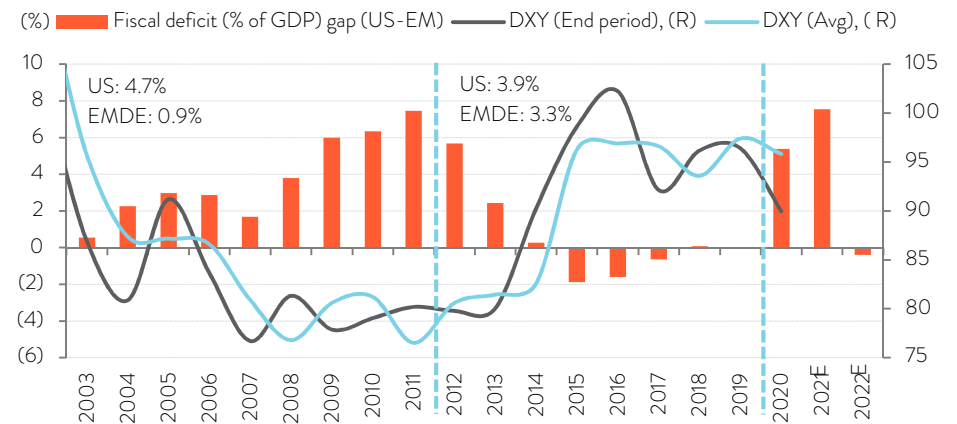
During the first DXY phase of 2003-2011, the US averaged a fiscal deficit of 4.7% of GDP vs. just 0.9% for emerging markets and developing economies (EMDE) – marking a high differential of 3.8% between the two, which correlates to a strengthening of EM currencies against the USD.

Over 2012-19, while the US moved towards fiscal consolidation and narrowed its deficit to an average of 3.9%, EMs saw a large increase to 3.3% of GDP. Thus, the second phase saw EMs increasingly using debt financing to grow as the export-driven model slowed down. As a consequence, EM debt-to-GDP ratio ballooned to 165% from 115% in 2011, after a far smaller 11ppt increase during the export-led growth phase-1.

2020 was no different. The US fiscal deficit has swelled to 14.9% from 4.6% of GDP in 2019. EMDEs saw their deficit increase to 9.5% from 4.7%. The rising differential is positive for EM currencies as higher US demand is reviving the export-driven growth model.

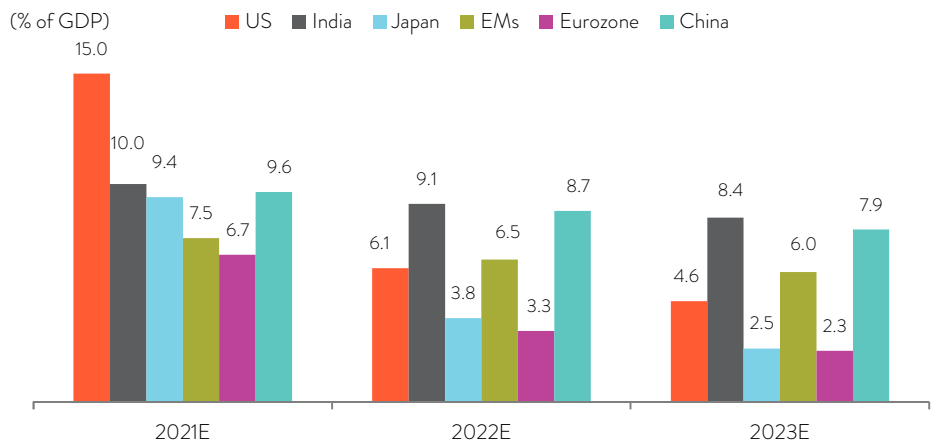
The key question is whether US demand will sustain – in our view, this looks likely. The Congressional Budget Office (CBO) expects US fiscal deficit at US\$ 2.3tn or 10.3% of GDP in CY21. The recent stimulus of US\$ 1.9tn takes the gap in finances to 15% of GDP (implying US CAD will also be higher). On the other hand, EMDEs are likely to see their average deficit decline to 7.5% in CY21.

FIG 18 – HIGHER US FISCAL DEFICIT TO PUT DOWNWARD PRESSURE ON DXY



Source: Bloomberg, Bank of Baroda Research | E-Estimates WEO | Note: IMF projections (Apr'21)

FIG 19 – US FISCAL DEFICIT SET TO EXPAND FURTHER IN CY21



Source: Bloomberg, Bank of Baroda Research | E-Estimates | Note: IMF projections (Apr'21)

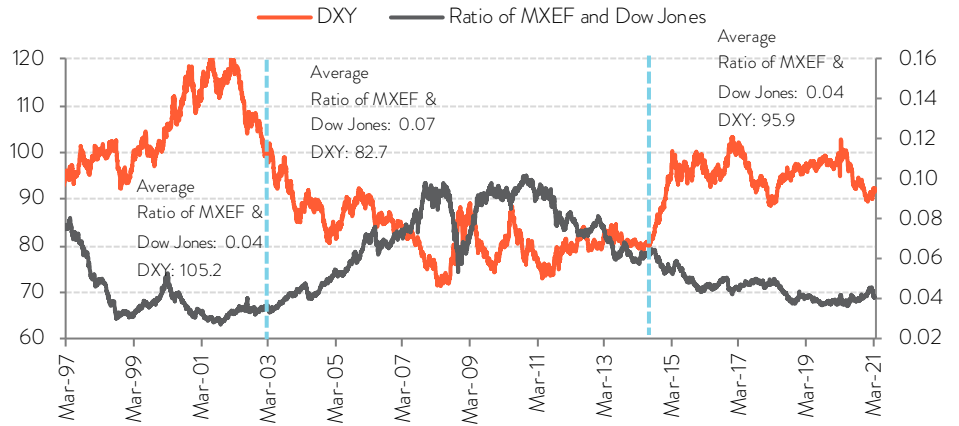
FPI inflows to EMs dried up in 2020

Our analysis shows that the differential in equity market returns is inverse to the DXY. EM equity markets outperformed the US by more than 15% on average over 2003-2011. In the same period, EM currencies posted an average annual gain of 7.4%. Global funds were chasing EM assets, in particular equity assets. With EM markets outperforming the Dow Jones, as was reflected by higher ratio (MXEF over Dow Jones), DXY took a fall. Similarly, when US markets started outperforming EMs (lower ratio), DXY started inching up. The same has been explained below.

Since 2012, US equity markets have consistently performed better than EMs. The differential in returns in favour of US equities has been to the tune of 8% every year. EM currencies were weaker to the extent of 0.8% each year during this period. DXY started edging upwards during this period.

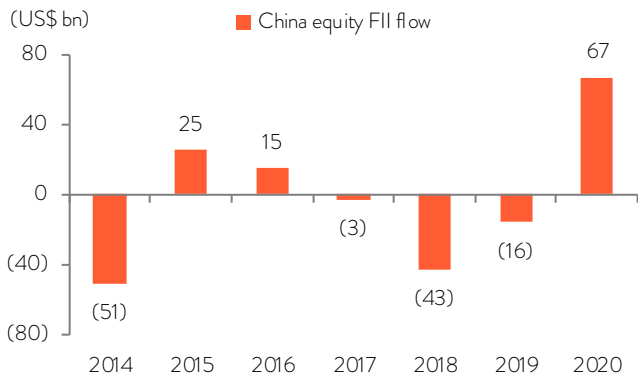
In 2020, EM markets rose by 15.8%. The Dow increased 7.2% while the Nasdaq surged 43.6%. A key monitorable is whether equity flows will continue to flow into EMs – in 2020, the top 7 markets saw an equity outflow of US\$ 8bn compared with an inflow of US\$ 21.4bn in 2019.

FIG 20 – EQUITY DIFFERENTIAL INVERSE TO DXY



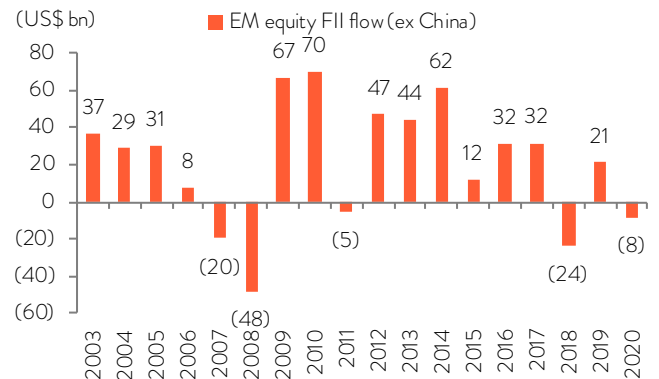
Source: Bloomberg, Bank of Baroda Research

FIG 21 – CHINA EQUITY INFLOWS



Source: State Administration of Foreign Exchange China, Bank of Baroda Research

FIG 22 – EM EQUITY INFLOWS



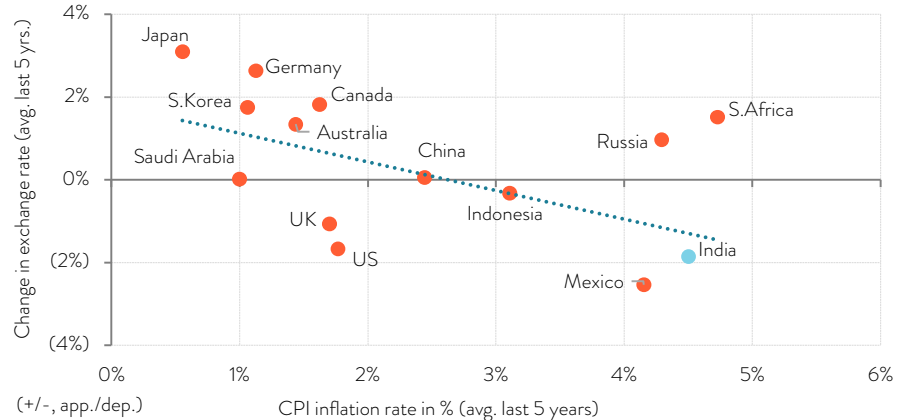
Source: Bloomberg, Bank of Baroda Research

Inflation differential between US and EMs declining

Between 2003-11, average US/EM inflation stood at 2.2%/5.5% while the DXY fell by 20% in the same period. Between 2012-19, average inflation in US/EM was lower at 1.4%/4.5% even as the DXY appreciated by 21% in the same period. Ideally, the higher the inflation differential between EMs and the US, the more EM currencies should depreciate to maintain purchasing power adjusted for catch-up in productivity. While this may not have played out at the aggregate EM level, a closer look at the differential between the US and country-specific inflation will be more pertinent.

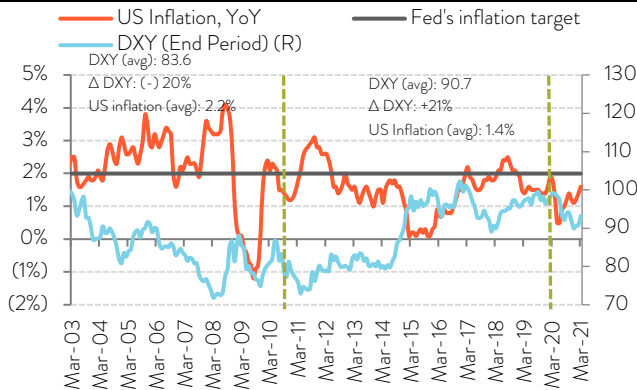
In the last five years, US inflation has averaged a low of 1.8% vs. 12.6% in Turkey, 4.3% in Russia, 4.6% in Brazil and 4.5% in India. During this period, Turkey has seen one of the highest levels of currency depreciation vs. the USD at 16.8%, the Brazilian Real 4.1%, Mexican Peso 2.5% and INR by 1.9%.

FIG 23 – NEGATIVE RELATION BETWEEN INFLATION AND EXCHANGE RATE



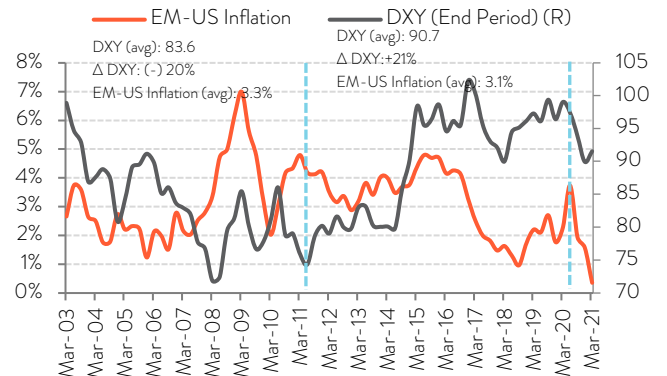
Source: World Bank, Bloomberg, Bank of Baroda Research

FIG 24 – DXY AND US INFLATION EXHIBITS NEGATIVE RELATIONSHIP TO MAINTAIN PURCHASING POWER



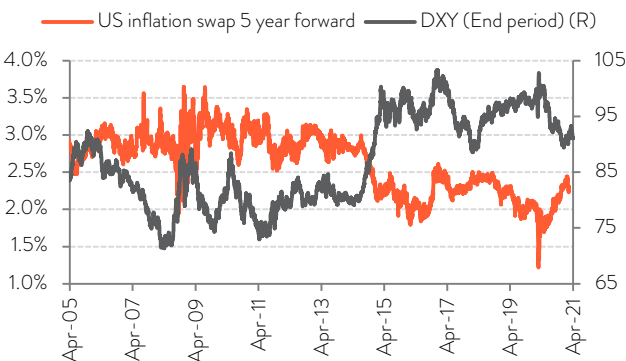
Source: Bloomberg, Bank of Baroda Research

FIG 25 – RECENTLY FALL IN INFLATION DIFFERENTIAL (EM-US) IS SEEN



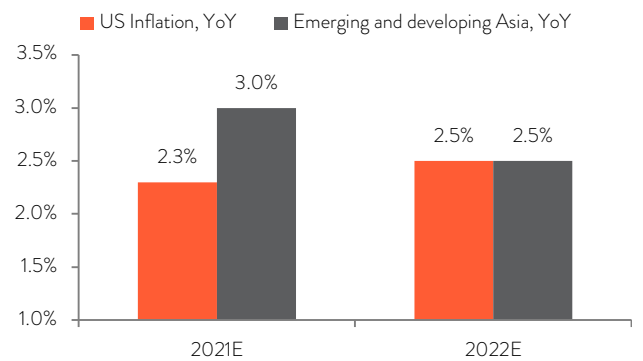
Source: Bloomberg, Bank of Baroda Research

FIG 26 – RECENT RISE IN US INFLATION FORWARD RATE IS NEGATIVE FOR DXY



Source: Bloomberg, Bank of Baroda Research

FIG 27 – US INFLATION TO INCH UP TO 2.3% IN 2021, EM INFLATION TO RISE TO 3.5% IN 2021



Source: IMF, Bank of Baroda Research | E: IMF Estimates

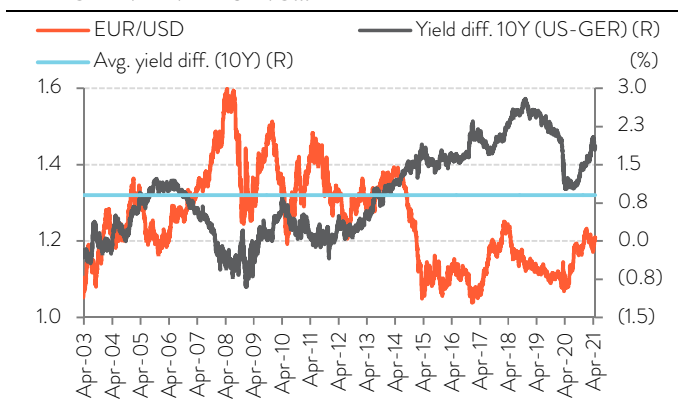
US inflation in 2021 is estimated at 2.3% led by a rebound in economic activity and further to 2.5% in 2022, as per IMF estimates. Inflation in EM and developing Asia are likely to come down to 2.5% in 2022 from 3% in 2021. Hence, on the basis of purchasing power parity alone, EM currencies should hold out well. But the country-specific differential between US and EMs will play a deciding role.

Yield differentials and currency movements

Typically, the greater the yield differential between the US and other countries, the stronger the DXY, all else being equal. This especially holds true for countries with an open capital account. Exchange rates move largely in line with yield differential, as seen in the case of the EUR and GBP. This year, the US 10Y yield has increased by 71bps, widening the gap with Germany which has seen a rise of 32bps. Consequently, the EUR which had appreciated against the USD last year has fallen by 1.0% this year. The 10Y yield in the UK has increased by 58bps, putting pressure on GBP.

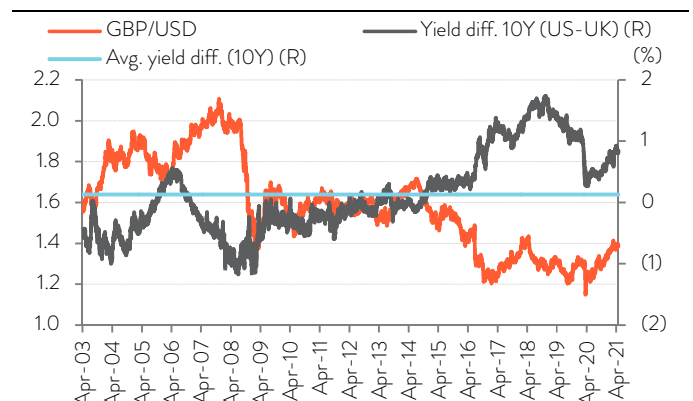
Yields across EMs are quickly catching up with the US. In fact, in most EMs, yields have risen faster than the repricing seen in the US. While the Fed has given adequate comfort on the short-end yields, more FOMC members are now anticipating a rate hike in 2022 than in the Dec'20 meeting (three instead of one). Rising US yields are positive for the DXY.

FIG 28 – YIELD DIFFERENTIAL BETWEEN US AND GERMANY RISING...



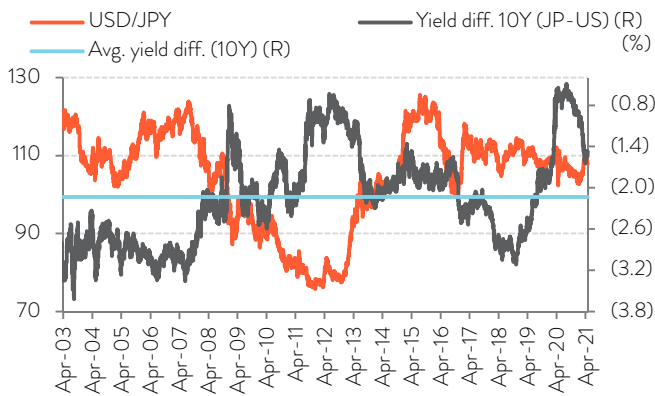
Source: Bloomberg, Bank of Baroda Research | Data as of 27 Apr 2021

FIG 29 – ...SIMILAR TREND FOR THE UK



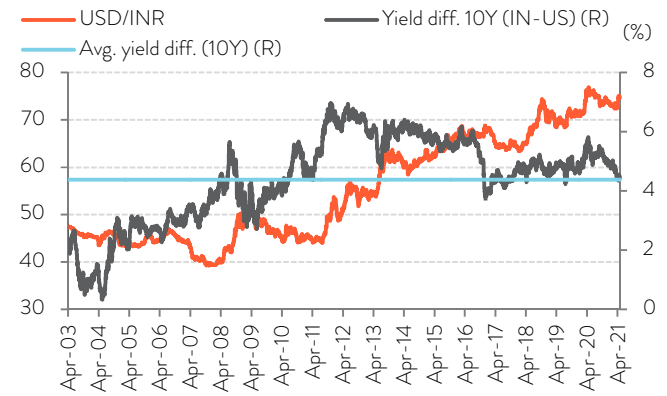
Source: Bloomberg, Bank of Baroda Research | Data as of 27 Apr 2021

FIG 30 – US YIELD RISING FASTER THAN JAPAN..



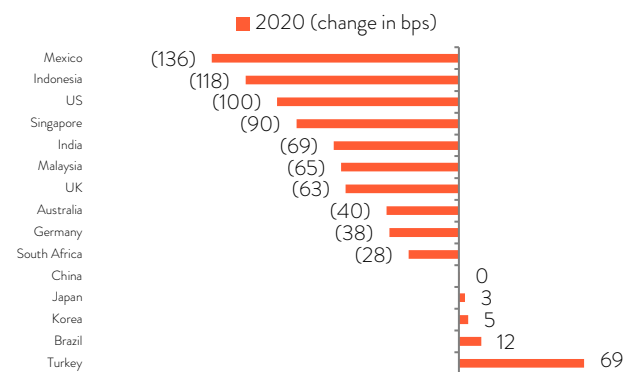
Source: Bloomberg, Bank of Baroda Research | Data as of 27 Apr 2021

FIG 31 – ...SIMILAR TREND FOR INDIA



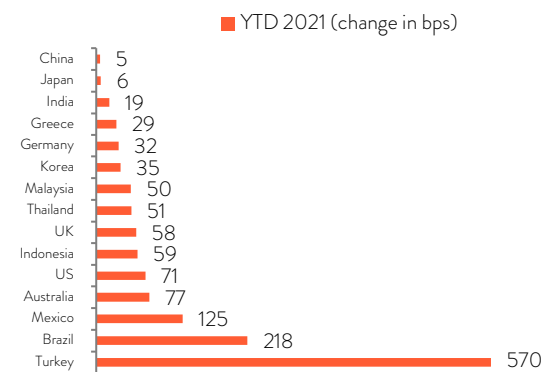
Source: Bloomberg, Bank of Baroda Research | Data as of 27 Apr 2021

FIG 32 – GLOBAL YIELDS IN 2020



Source: Bloomberg, Bank of Baroda Research

FIG 33 – GLOBAL YIELDS IN YTD 2021



Source: Bloomberg, Bank of Baroda Research | Data as of 27 Apr 2021

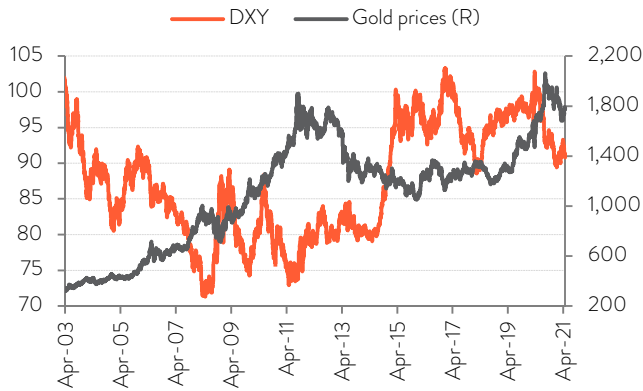
Commodity prices on an upswing

Commodity prices and the dollar move in opposite directions. Typically, a depreciating bias for the USD implies rising commodity prices. Between 2003 and 2011, all commodity prices climbed higher on average (gold: 20%, Brent: 20.9%, CRB index: 10.7% and Rogers agri index: 5.8%) and this was accompanied by a weaker DXY index.

In the next phase of 2012-2019, commodity prices were on the decline. Brent fell by 3.9%, gold by 1.1%, commodity prices (CRB index) by 3.3% on average, and agri index (Rogers) by 6.8%. During this period, the DXY moved higher.

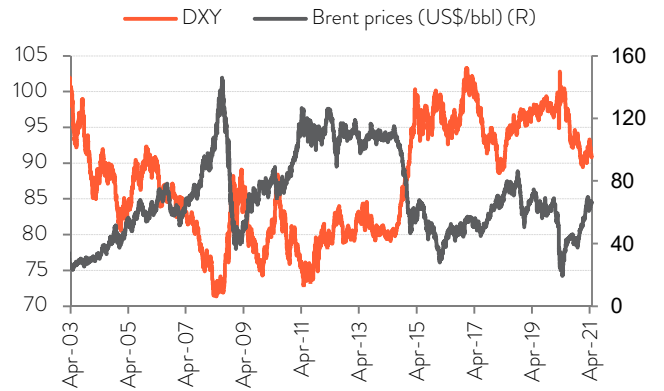
In 2020, as the pandemic struck across the globe and economic uncertainty rose, commodity prices fell on demand concerns. Governments and central banks ushered in expansionary policies. As demand stabilised, commodity prices started inching up again. While gold prices went up 27% in 2020, the DXY fell by 6.7%. Commodity prices have posted a striking rebound in CY21 and in a break from trend, the USD is also moving higher.

FIG 34 – GOLD VS. DXY



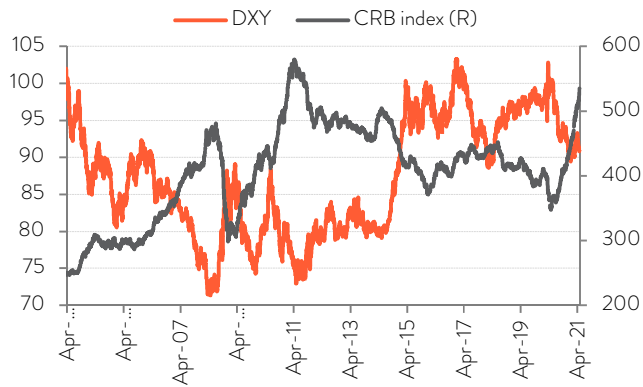
Source: Bloomberg, Bank of Baroda Research | Data as of 27 Apr 2021

FIG 35 – BRENT VS. DXY



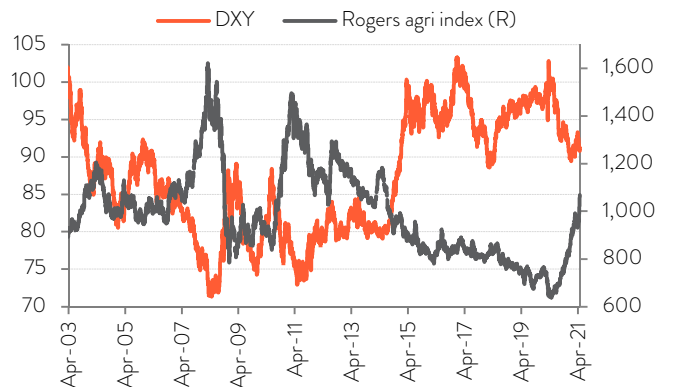
Source: Bloomberg, Bank of Baroda Research | Data as of 27 Apr 2021

FIG 36 – CRB VS. DXY



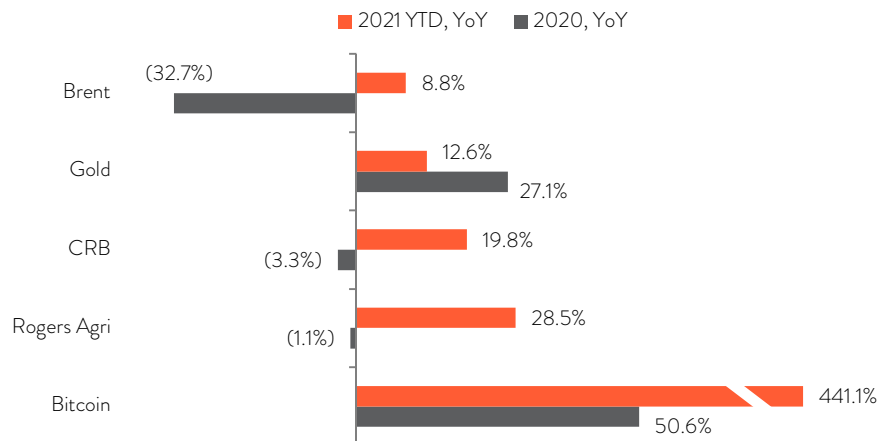
Source: Bloomberg, Bank of Baroda Research | Data as of 27 Apr 2021

FIG 37 – ROGER AGRI INDEX VS. DXY



Source: Bloomberg, Bank of Baroda Research | Data as of 27 Apr 2021

FIG 38 – GLOBAL COMMODITY PRICES ON THE RISE



Source: Bloomberg, Bank of Baroda Research | Data as of 27 Apr 2021

Expect short-term USD appreciation but medium-term weakness

The robust near-term growth outlook for the US economy implies the DXY index has greater room for upside. Rising US interest rates also favour an appreciating bias. However, commodity prices and the US dollar move in opposite directions. Also, the growing twin deficits (fiscal and current account) imply that the DXY index would head lower in the medium term. That is when commodity prices may move higher and DXY index moves lower.

Indian rupee outlook

A stronger USD implies little room for the INR to appreciate. Rising oil prices also imply India will have to contend with a higher trade deficit (a US\$ 10/bbl increase in oil raises India's CAD by 50bps). At the same time, higher growth implies an increase in domestic demand and imports thus exerting pressure on INR. However, on the positive side, higher growth is also likely to drive FPI and FDI inflows, thus limiting a sharp depreciation in the currency.

We expect the INR to trade with a depreciating bias steady in a range of 73-75/USD in FY22 vs. 74.2/USD in FY21. The relatively lower BoP surplus of US\$ 45bn forecast for FY22 as against US\$ 106bn in FY21 supports our view that INR appreciation in coming months is unlikely. On the downside, a further increase in oil price implies the INR may trade with a depreciation bias.

Expected growth recovery to support INR

India's growth trajectory saw an upward lift to 8.8% during FY04-FY07. Growth during FY00-FY07 was 7.1%. Higher growth is generally considered positive for currency as foreign investors look at buying domestic assets. However, if the growth leads to higher external deficits, it can push up depreciation pressures. This is what exactly happened between FY08 and FY14 when growth of 6.3% was accompanied by high CAD and much higher currency depreciation. We have enumerated different phases showing the relationship between INR and growth.

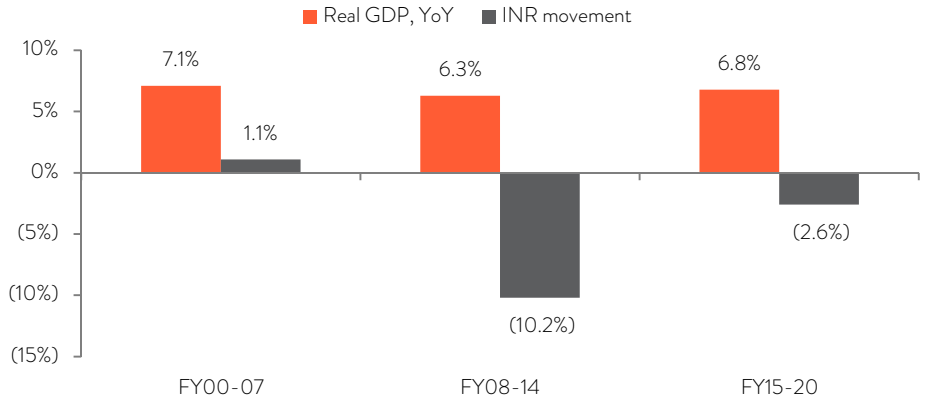
During the first phase (FY00-07), India's growth was driven by exports and a domestic capex cycle. The additional capacity expansion meant growth was non-inflationary. The global cycle was favourable for this outcome, with the USD under pressure and US and Europe driving global demand. Europe's growth was fuelled by debt, in particular in Southern European countries. US growth hinged on the housing market fuelled by household debt.

In the second phase (FY08-14), India's growth was spurred by domestic investment and a consumption cycle funded by higher fiscal deficits. It also saw creation of a large pool of non-performing assets which did not add to capacity. In the absence of external demand, what resulted was a large current account deficit. Inflation too inched up because of higher food prices and rising international oil and commodity prices. Thus, the INR depreciated rapidly in 2013.

In the third phase (FY15-20), growth was at 6.8%, higher than the 6.3% during FY08-FY14. However, inflation steadily came down. CAD was within tolerable levels. Oil prices were receding. Fiscal deficits averaged 3.8% compared with 5% during FY08-FY14. Consequently, currency depreciation was far lower at 2.6%. Going forward, we expect growth to pick up to 11% in FY22, which will support

INR. However, rising Covid-19 cases, shortage of vaccine and State specific lockdown pose downside risks to our growth estimates.

FIG 39 – HIGHER GROWTH LENDS SUPPORT TO INR

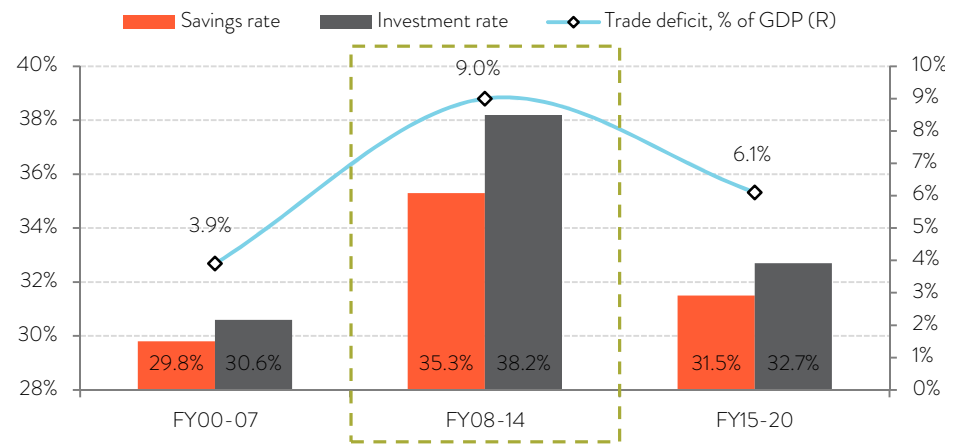


Source: Bloomberg, Bank of Baroda Research | Note: INR movement is w.r.t to highs and lows/turning points of the concerned phases

Current account to remain comfortable

High external deficits are a result of saving-investment imbalance in the domestic economy and put downward pressure on the INR. India saw a rising external deficit during FY08-FY14, at which time the gap between India’s savings rate at 35.3% and investment rate at 38.2% widened. Both consumption and investment imports were increasing, causing the trade deficit to swell to 9% of GDP on average over FY08-FY14 from 3.9% during FY00-FY07.

FIG 40 – HIGHER SAVINGS-INVESTMENT IMBALANCE LEADS TO HIGHER EXTERNAL SECTOR DEFICIT



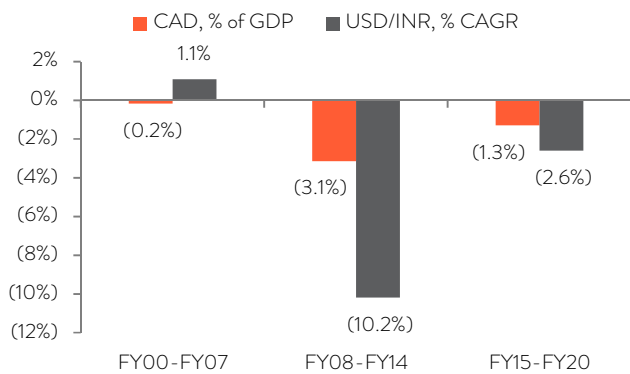
Source: CEIC, Bank of Baroda Research

The rising external deficits led to sharp currency depreciation in 2013 when the US Fed announced a reversal in monetary policy. The taper tantrum drove interest rates in the US up and widened its yield differential to other economies, pushing the dollar higher. EM economies with high external deficits were vulnerable and the Indian currency depreciated 14.7% in a short span of six months.

Oil prices also played a role in expanding imports during FY08-FY14 as they averaged at a high US\$ 93.7/bbl, before falling to an average of US\$ 62.6/bbl to date with a corresponding reduction in imports. However, non-oil imports and non-oil deficits have been expanding due to rising domestic demand.

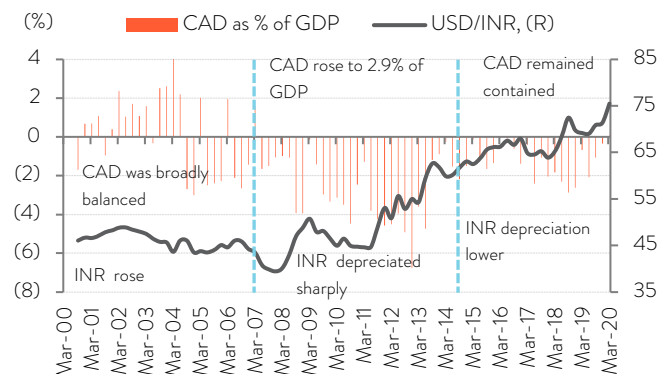
Even so, India's CAD has been within tolerable levels since FY14. In fact, India has seen a current account surplus in H1FY21 and is expected to end the year with a surplus of US\$ 25.2bn (0.9% of GDP). This is likely to reverse sharply in FY22 as growth rebounds to an estimated 11% in FY22 from a decline of 7.7% (BoB estimate) in FY21. Nevertheless, CAD is within manageable levels and bodes well for stability of the currency.

FIG 41 – HIGHER CAD LEADS TO CURRENCY DEPRECIATION



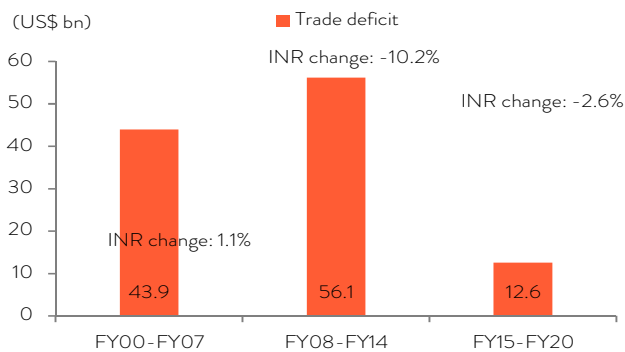
Source: CEIC, Bloomberg, Bank of Baroda Research

FIG 42 – INDIA'S CURRENT ACCOUNT POSITION REMAINS COMFORTABLE



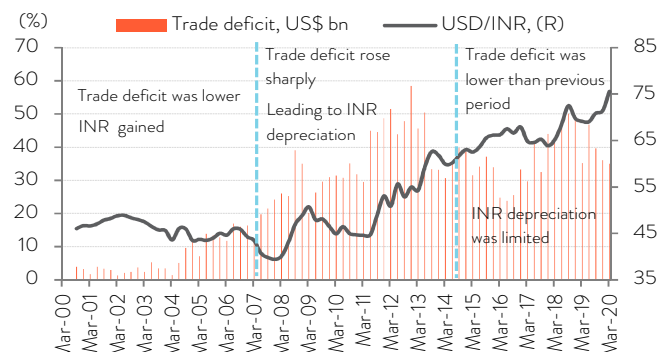
Source: CEIC, RBI, Bloomberg, Bank of Baroda Research

FIG 43 – INCREASE IN TRADE DEFICIT PUTS PRESSURE ON INR...



Source: CEIC, Bloomberg, Bank of Baroda Research

FIG 44 – ...BUT TRADE DEFICIT HAS MODERATED RECENTLY



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

Fiscal deficit and INR

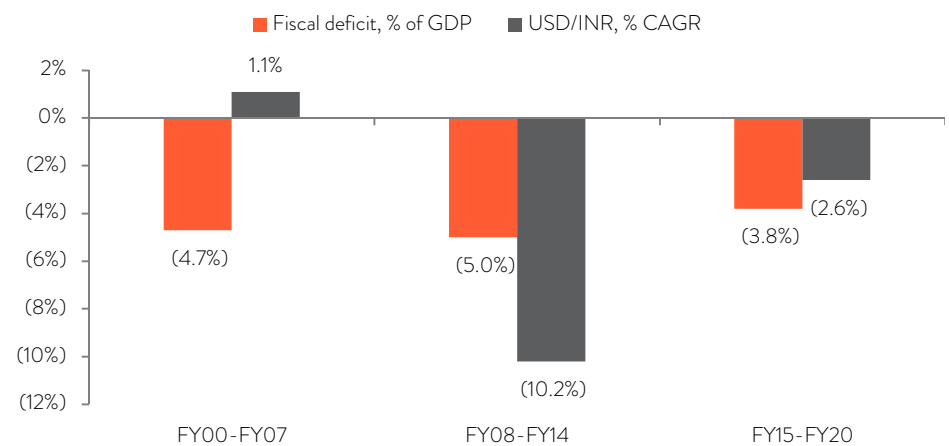
India had a twin deficit syndrome between FY09 and FY14 when both fiscal and current account shortfalls were rising, putting downward pressure on the INR. The fiscal deficit had increased after global growth declined post the America's housing market and the banking crises. Globally, fiscal policy was thought to be the way out to sustain growth.

In India's case, the fiscal push was accompanied by an ongoing private investment and consumption cycle. Over FY09-FY14, banks saw a 21.7% annual increase in credit growth to industry for fresh investments and those under implementation. Retail credit growth was relatively subdued during this period, after retail loans reported rising NPLs in the wake of the GFC. In FY12, retail demand picked up, supporting higher aggregate demand. Fiscal policy too remained expansionary till FY13, thus further adding to demand, which was met by imports; rising oil prices and subsidies did not help. (Charts).

We are seeing a high fiscal deficit in FY21 as well; for FY22, it is expected at 6.8% of GDP. Unlike FY09-FY14, retail demand and private investment demand are weak. Credit growth to the industrial sector has increased at a mere 1.8% CAGR over the last five years. Retail loans are the only segment to have reported a double-digit increase at 12.5% CAGR but these have also decelerated now.

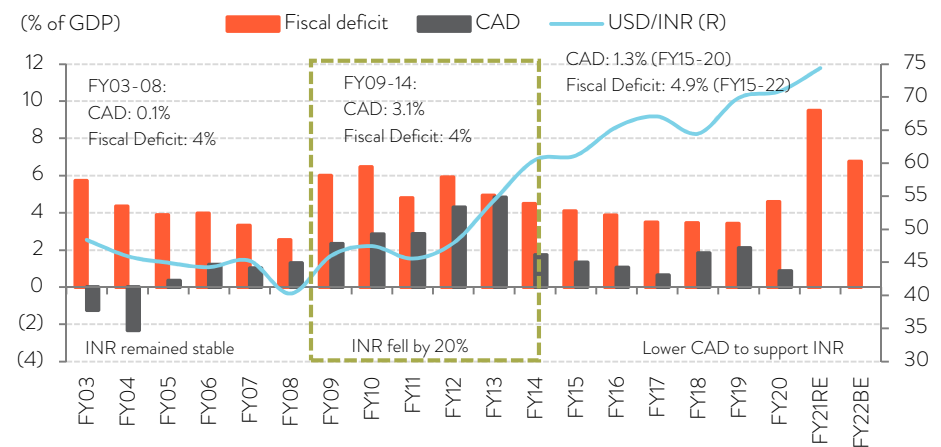
Thus, the fiscal deficit will boost aggregate demand but only to fill the gap left by private demand amid Covid-19. A part of fiscal expansion is for creating assets which in itself will expand capacity and thus be non-inflationary in the long-run.

FIG 45 – HIGHER FISCAL DEFICIT LEADS TO INR DEPRECIATION



Source: Bloomberg, CEIC, Bank of Baroda Research

FIG 46 – HIGHER TWIN DEFICIT DURING FY09-FY14 ADDED TO DOWNWARD PRESSURE ON INR



Source: Bloomberg, CEIC, Bank of Baroda Research

Inflationary pressures to ebb in FY22

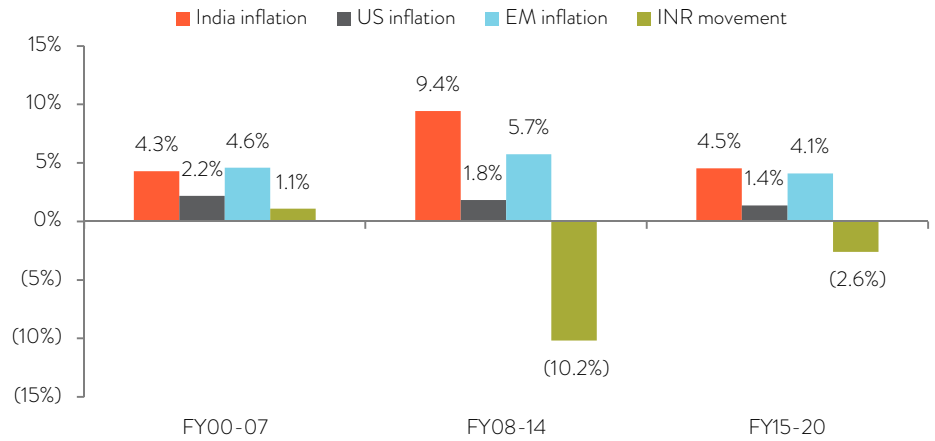
Since 2000, India has seen three distinct phases in its currency movement and inflation trajectory. During phase-1 (2000-07), the INR appreciated by 1.1% on average and was accompanied by domestic inflation of 4.3%. US inflation during this period was 2.2%. While economic theory suggests that the INR should have depreciated to the extent of 2.1% on average to maintain its purchasing power, this did not hold true. Productivity catch-up may explain this. It was also the phase when the USD was in steady decline and India’s inflation was in line with the EM average of 4.6%.

Phase-2 (2008-14) saw India’s inflation increase to 9.4% while the US saw a dip to 1.8%, opening up the inflation differential between the two countries. During this phase, the INR depreciated by 10.2% considering the highs and lows exhibited during this period. EM inflation was at 5.7%, higher than the 2000-08 period. But India had much higher inflation and higher depreciation to maintain purchasing power parity.

In phase-3 (2015-20), India’s inflation rate has once again stabilised to 4.5%. The US inflation rate has fallen even further to 1.4%. But the INR has been far more stable with average depreciation of only 2.6% each year. India’s inflation rate was also comparable to EMs at 4.1%. Thus, currency adjustment to maintain purchasing power against the USD and EMs was not required to that extent.

We expect India’s inflation at 4.8% in FY22 and 4.4% in FY23. This is favourable for the INR. However, upward movement of major commodity prices poses upside risk to our view on inflation.

FIG 47 – MOVEMENT OF US, EM AND EM INFLATION AND INR

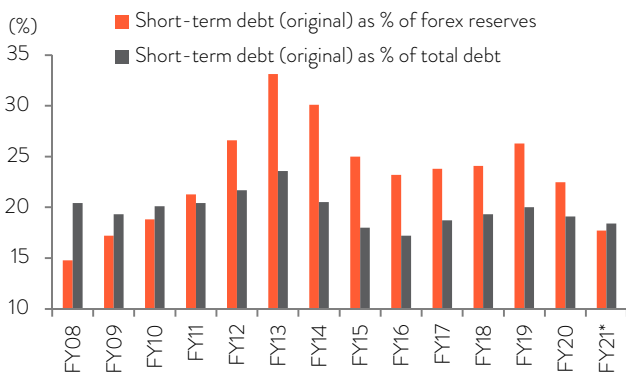


Source: Bloomberg, CEIC, Bank of Baroda Research | Note: INR movement is w.r.t to highs and lows/turning points of the concerned phases

Buoyant foreign inflows

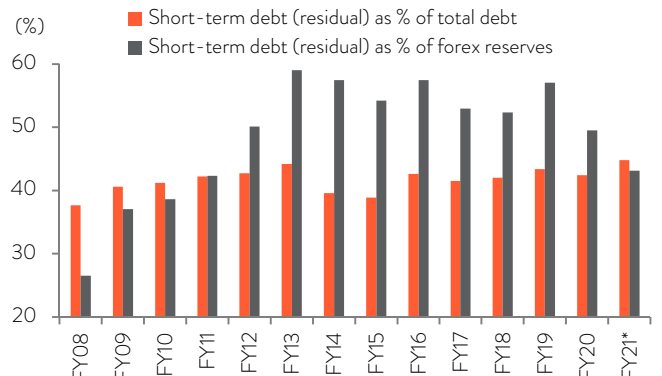
On 3 April 2009, India’s forex reserves stood at US\$ 255.2bn which rose to US\$ 275.4bn on 13 September 2013. During this time, India’s economy expanded from US\$ 1,191bn in FY09 to US\$ 1,828bn in FY13. The ratio of short-term debt (residual maturity) to forex reserves increased from 37% to 59% and the INR was under consistent pressure after the US Fed’s taper tantrum.

FIG 48 – SHORT-TERM DEBT AS PER ORIGINAL MATURITY



Source: RBI, Ministry of Finance Bank of Baroda Research | *Data as of 31 Dec 2020

FIG 49 – SHORT-TERM DEBT AS PER RESIDUAL MATURITY



Source: RBI, Ministry of Finance Bank of Baroda Research | *Data as of 31 Dec 2020

It was then that India launched a three-year bond which aggregated US\$ 26.6bn. This brought much needed confidence in the currency. Since then, India’s forex reserves have more than doubled to US\$ 580bn, standing at 21.7% of GDP compared with 16% in FY13. India is now the fourth largest holder of forex reserves after China, Japan and Switzerland. The ratio of short-term debt (residual maturity) has declined to 43.1% in Dec’20 compared with 59% in FY13.

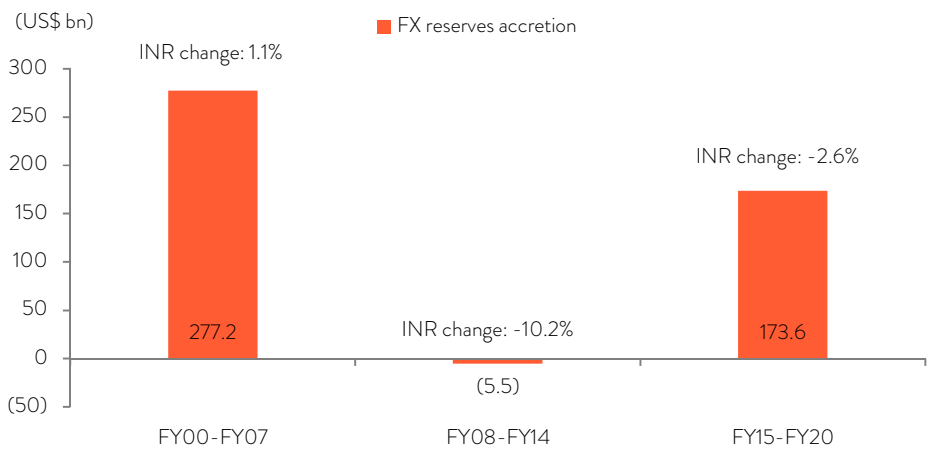
FY21 has seen a record US\$ 106.5bn accretion in India’s forex reserves because of large foreign equity inflows and direct investments. This has been helped by a current account surplus as the trade deficit fell on the back of a sharp decline in domestic demand amid Covid-19. We do see forex inflows falling to US\$ 45bn in FY22. While this is for the year as a whole, there may be episodes where dollar demand could increase if the EM basket sees outflows. This implies potential for short periods of volatility in the currency market.

Higher oil prices remain a key risk

India imported 84% of its fuel requirement in FY19. Given the high dependence on oil imports, the country’s trade deficit moves in tandem with oil prices. A US\$ 10/bbl increase in oil price implies India’s trade deficit will increase by US\$ 16.7bn, CAD will be rise to 1.6% of GDP from 1.1% of GDP in our base case.

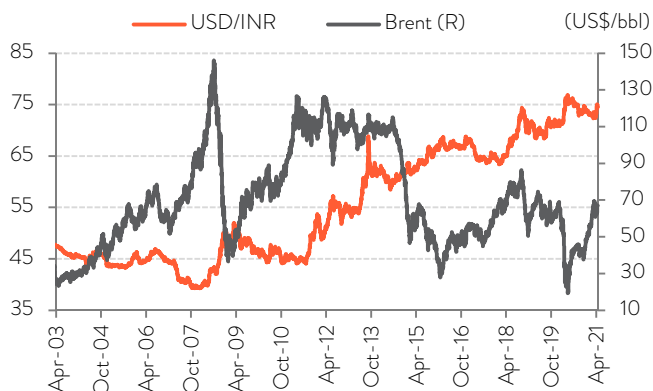
The INR and oil are inversely related. During FY09-FY14, oil prices averaged US\$ 95.9/bbl, before dropping to US\$ 62.5/bbl on average since then. Even now, prices are at US\$ 64/bbl compared with US\$ 45.7/bbl in FY21 - implying downward pressure for the INR. At this level, India’s trade deficit is estimated at US\$ 169.6bn in FY22 and CAD at US\$ 33.6bn.

FIG 50 – HIGHER OIL PRICES PUT DEPRECIATION PRESSURE ON INR



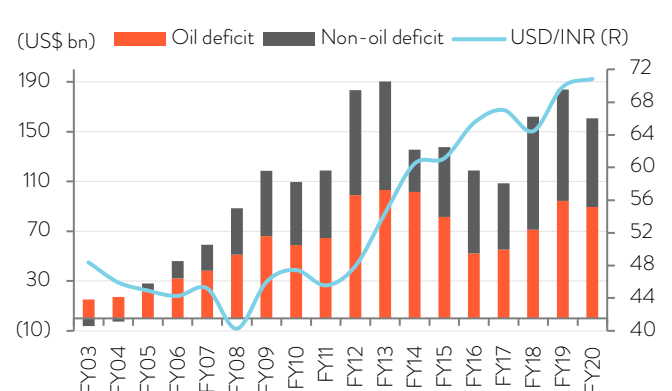
Source: Bloomberg, CEIC, Bank of Baroda Research

FIG 51 – OIL PRICES AND INR ARE INVERSELY RELATED



Source: Bloomberg, Bank of Baroda Research | Data as of 27 Apr 2021

FIG 52 – HIGHER OIL PRICES WILL INFLATE TRADE DEFICIT

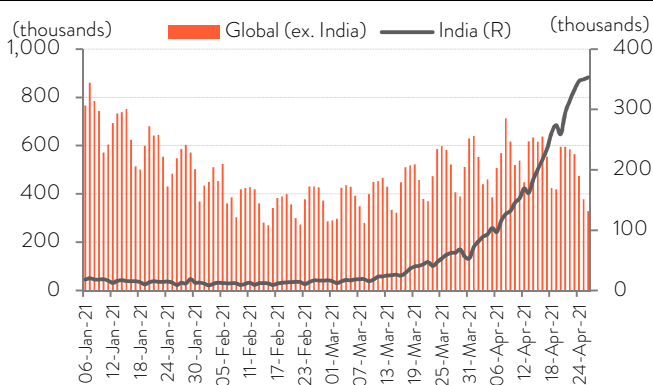


Source: CEIC, RBI, Bloomberg, Bank of Baroda Research

Surge in domestic Covid-19 cases risk to INR

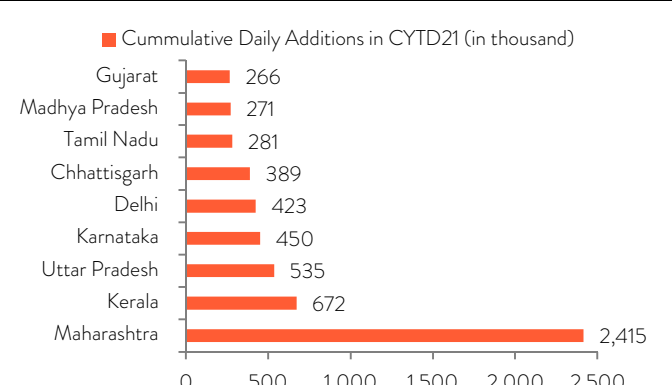
India has been experiencing a second-wave of Covid-19 infections this year. Several states such as Maharashtra (13.9% of India’s GDP), Tamil Nadu (9.1%), UP (8.8%), Karnataka (8.3%), Rajasthan (5%), Delhi (4.2%) and Punjab (2.8%) which account for a majority of the caseload have imposed restrictions on movement of people and also economic activity to curb the spread of the virus. This is not only negative for growth but for INR also.

FIG 53 – COVID-19 CASES IN INDIA ARE RISING AT A FAST PACE

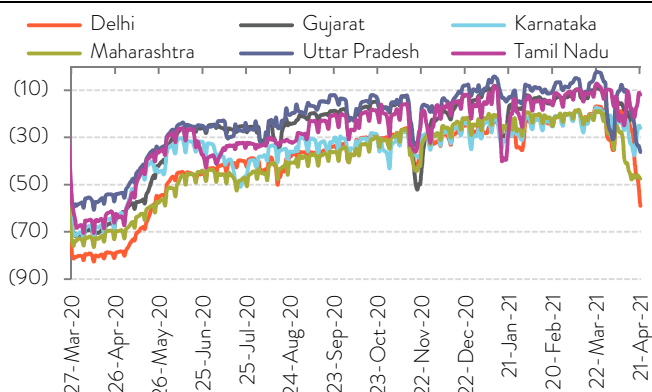


Source: CEIC, Bank of Baroda Research | Data as of 26 Apr 2021

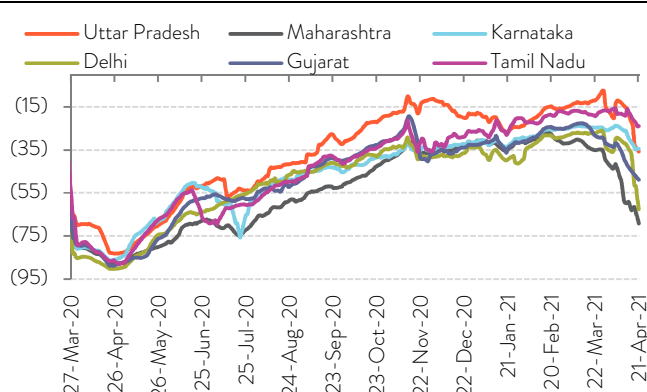
FIG 54 – A FEW STATES ACCOUNTING FOR MAJORITY OF THE TOTAL CASELOAD IN THE COUNTRY



Source: CEIC, Bank of Baroda Research | Data as of 26 Apr 2021

FIG 55 – WORKPLACE MOBILITY HAS STARTED TO DIP AGAIN

Source: CEIC, Bank of Baroda Research | Data as of 21 Apr 2021

FIG 56 – SIMILAR TREND IN RETAIL AND RECREATION

Source: CEIC, Bank of Baroda Research | Data as of 21 Apr 2021

INR should stabilise in 73-75/USD range

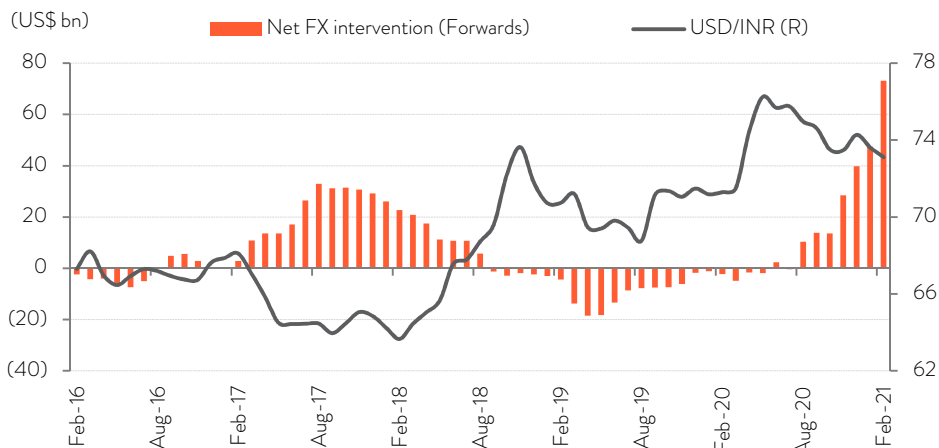
We note that the RBI has steadily built a forward cover of US\$ 73.2bn which can be used in case of a sudden reversal in FII inflows and resulting pressure on the INR. A combination of manageable CAD, moderate inflation and buoyant FII inflows suggest that the INR should stabilise in the range of 73-75/USD in FY22. The biggest risk is EM flows and movement of the USD. A rising dollar led by higher US yields implies all EM currencies will be under pressure, including India.

FIG 57 – SUMMARY TABLE

FY	USD/INR (avg.)	Oil prices (US\$/bbl)	CPI (% YoY)	Fiscal deficit (% of GDP)	Current account deficit (% of GDP)	Trade deficit (US\$ bn)
FY06	44.3	58.9	4.2	4	(1.2)	(51.9)
FY07	45.2	65.1	6.8	3.3	(1.0)	(61.8)
FY08	40.3	82.0	6.2	2.5	(1.3)	(91.5)
FY09	46.0	86.2	9.1	6	(2.3)	(119.5)
FY10	47.4	70.4	12.4	6.5	(2.8)	(118.2)
FY11	45.6	87.3	10.5	4.8	(2.9)	(127.3)
FY12	47.9	114.1	8.6	5.9	(4.3)	(189.8)
FY13	54.4	110.2	9.9	4.9	(4.8)	(195.7)
FY14	60.5	107.6	9.4	4.5	(1.7)	(147.6)
FY15	61.2	86.6	6.0	4.1	(1.3)	(144.9)
FY16	65.5	48.7	4.9	3.9	(1.1)	(130.1)
FY17	67.1	49.9	4.5	3.5	(0.6)	(112.4)
FY18	64.5	57.9	3.6	3.5	(1.8)	(160.0)
FY19	69.9	70.9	3.4	3.4	(2.1)	(180.3)
FY20	70.9	60.9	4.8	4.6	(0.9)	(157.5)
FY21E	74.2	45.8	6.2	9.5	1.2	(102.2)
FY22E	73-75	65.0	4.8	6.8	(1.1)	(169.6)

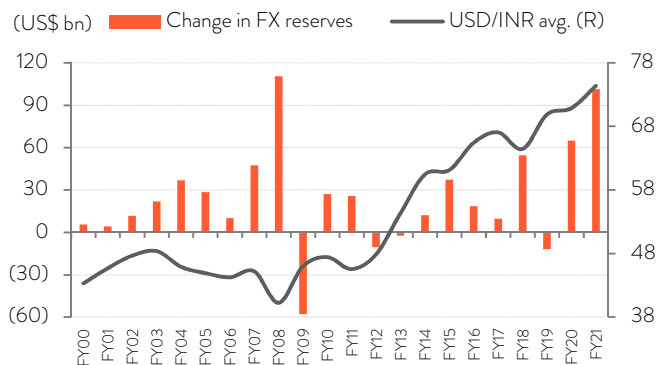
Source: CEIC, Bloomberg, Bank of Baroda Research | E: Bank of Baroda estimates

FIG 58 – RBI’S FORWARD COVER AT US\$ 73.2BN IN FY21 (APR-FEB’21)



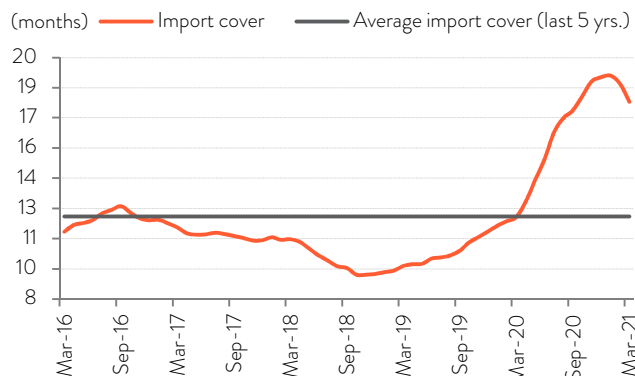
Source: Bloomberg, CEIC, Bank of Baroda Research

FIG 59 – FX RESERVES HAVE RISEN SHARPLY IN FY21...



Source: CEIC, Bloomberg, Bank of Baroda Research

FIG 60 – ...IMPORT COVER ALSO AT HISTORIC HIGH



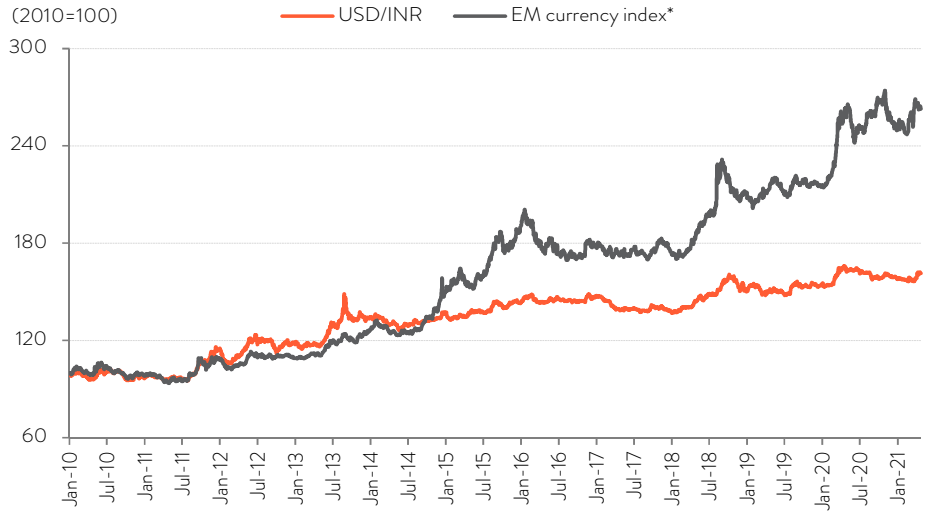
Source: CEIC, Bloomberg, Bank of Baroda Research

FIG 61 – CROSS CURRENCY MATRIX (LAST 5 YEARS)

	INR	JPY	CNY	IDR	PHP	KRW	THB	MYR	RUB	BRL	TWD	ZAR	TRY
INR	1.0												
JPY	(0.5)	1.0											
CNY	0.4	0.1	1.0										
IDR	0.8	(0.3)	0.3	1.0									
PHP	(0.2)	0.5	0.1	0.2	1.0								
KRW	0.5	(0.1)	0.9	0.4	(0.1)	1.0							
THB	(0.5)	0.7	0.1	(0.3)	0.2	(0.1)	1.0						
MYR	0.1	0.3	0.7	(0.0)	(0.2)	0.6	0.6	1.0					
RUB	0.9	(0.6)	0.2	0.8	(0.4)	0.3	(0.5)	(0.0)	1.0				
BRL	0.9	(0.7)	0.2	0.7	(0.5)	0.4	(0.6)	(0.0)	0.9	1.0			
TWD	(0.2)	0.6	0.6	(0.0)	0.7	0.4	0.4	0.4	(0.5)	(0.6)	1.0		
ZAR	0.9	(0.5)	0.6	0.7	(0.3)	0.7	(0.3)	0.3	0.8	0.8	(0.2)	1.0	
TRY	0.9	(0.7)	0.2	0.7	(0.4)	0.4	(0.7)	(0.1)	0.9	0.9	(0.4)	0.8	1.0

Source: Bloomberg, Bank of Baroda Research | Data as of 27 Apr 2021

FIG 62 – INR HAS OUTPERFORMED OTHER EM CURRENCIES



Source: Bloomberg, Bank of Baroda Research | Data as of 27 Apr 2021 | Note: Includes IDR, KRW, BRL, TRY, ZAR and RUB

Disclaimer

The views expressed in this research note are personal views of the author(s) and do not necessarily reflect the views of Bank of Baroda. Nothing contained in this publication shall constitute or be deemed to constitute an offer to sell/ purchase or as an invitation or solicitation to do so for any securities of any entity. Bank of Baroda and/ or its Affiliates and its subsidiaries make no representation as to the accuracy; completeness or reliability of any information contained herein or otherwise provided and hereby disclaim any liability with regard to the same. Bank of Baroda Group or its officers, employees, personnel, directors may be associated in a commercial or personal capacity or may have a commercial interest including as proprietary traders in or with the securities and/ or companies or issues or matters as contained in this publication and such commercial capacity or interest whether or not differing with or conflicting with this publication, shall not make or render Bank of Baroda Group liable in any manner whatsoever & Bank of Baroda Group or any of its officers, employees, personnel, directors shall not be liable for any loss, damage, liability whatsoever for any direct or indirect loss arising from the use or access of any information that may be displayed in this publication from time to time.

Visit us at www.bankofbaroda.in



For further details about this publication, please contact:

Economics Research Department

Bank of Baroda

+91 22 6698 5713

chief.economist@bankofbaroda.com