# DSP EXPLORER SERIES

# Peeling the inflation onion

JULY 2021

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A widespread debate has raged on inflation for quite a while now. Many observers are concerned about a rise in inflation and believe that this will persist and lead to massive central bank action.

In this note, we take a look at three factors

- Why has inflation been on a declining path for decades?
- What are the post-recession inflation trends of the past, and thus the present one?
- Are we in for a Central Bank tantrum?

We expect inflation surge to subside by the next two to three months and subsequently the base effects will turn against higher rate of inflation. The drivers of inflation or more appropriate 'disinflation' from pre-covid era remain firmly entrenched and are likely to persist. We don't see inflation as a threat for the near future and see this as a repetition of the previous post-recession recoveries. A more normalised level of inflation driven by COVID induced resets is the most likely scenario and not the feared high rates of inflation.

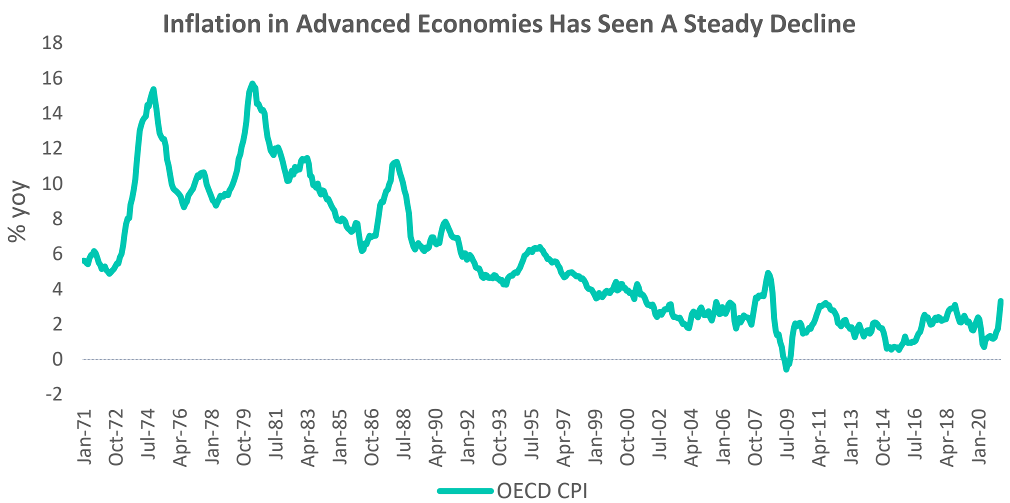
**It's neither transitory, nor permanent. It's cyclical.**

Inflation, especially in the developed world has been on a declining path. Since 1990 the trend has been particularly more 'dis-inflationary' than otherwise.

Following is the key

1. Trends in commodity prices, which describe headline inflation trends
2. Inflation targeting adoption by central banks
3. A negative demand shock defined by the rise in savings rate relative to the investment rate
4. A positive supply shock defined by slower increase in wage growth relative to labour productivity
5. An aging population

The disinflation in developed countries has been stark.




Source - OECD

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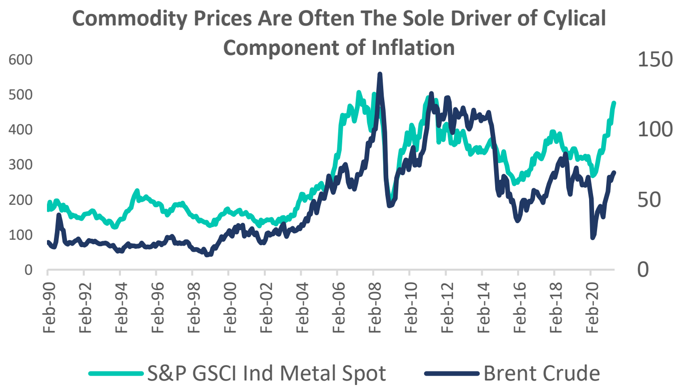
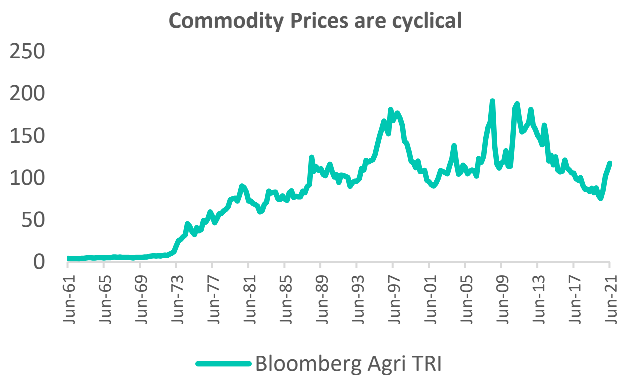
## Commodity prices

They usually are inflation. The changes in commodity prices reflect the cyclical component while the core inflation is the structural component driven by other exogenous factors. Commodity prices have contributed to inflation causing phases of discomfort for policy makers. But they have been anchored for decades now.

Take a look at the aggregate commodity price index. At this time the Commodity prices index is at a level similar to that in 1978. Accounting for rise in disposable income and change in the consumption basket, this trend is dis-inflationary for headline inflation.



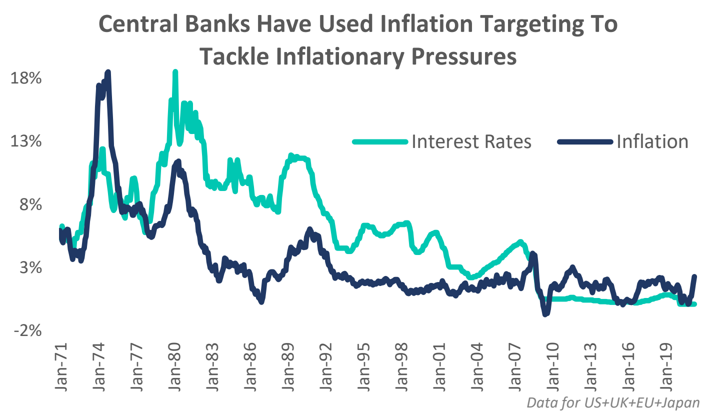

Source - Bloomberg

## Inflation targeting by central banks-

In the last two decades, many central banks have adopted a technique called inflation targeting to control the general rise in the price level. In this framework, a central bank **estimates** and makes public a projected, or "target," inflation rate and then attempts to steer actual inflation toward that target, using such tools as interest rate changes. Because interest rates and inflation rates tend to move in opposite directions, the likely actions a central bank will take to raise or lower interest rates become more transparent under an inflation targeting policy.

This meant that Central Banks slowed incremental pace of second level effects of cyclical inflation on wages and salaries. By raising cost of borrowing and transmitting it through the financial system, central banks opted for slower and longer business cycles than for many short volatile ones. The longer-term trend on wages reflects this trend in relation to productivity.

| Country | Inflation Targeting Adoption Date | Target Inflation at the time of adoption |
|---|---|---|
| Canada | 1991 | 2 +- 1 |
| UK | 1992 | 2 |
| Brazil | 1999 | 4.5 +- 2 |
| South Africa | 2000 | 3--6 |
| Japan | 2013 | 2 |
| India | 2015 | 2--6 |
| Russia | 2015 | 4 |
| Indonesia | 2005 | 5 +-1 |
| Newzealand | 1990 | 1--3 |
| Australia | 1993 | 2--3 |
| Thailand | 2000 | 0.5--3 |
| Israel | 1997 | 2 +- 1 |
| US | 2020 (avg target) | 2 |




Source - IMF, OECD

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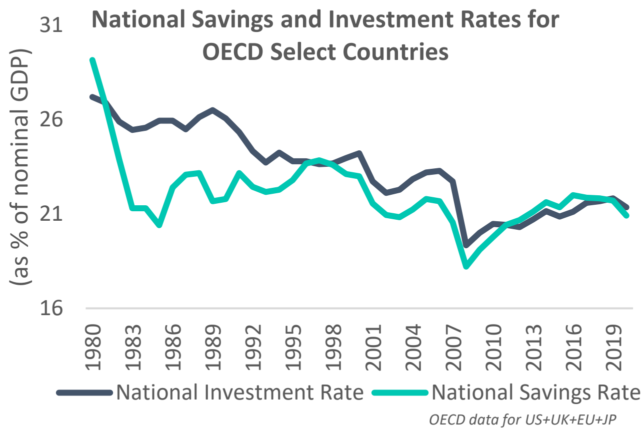
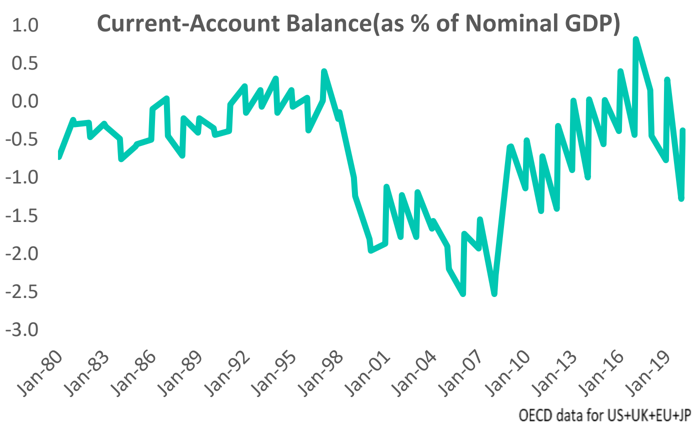
**A negative demand shock**

Demand has been structurally weak with savings rate rising at a faster pace than the rate of investment. This feature repeats in a number of economies where inflation peaks and trends lower. Higher capacities created in boom periods allow for lower inflation trajectory even when demand is running near or above long-term trends at an aggregate level.

Most modern economies are consumption driven. A steady rise in national savings relative to investments creates a negative demand trajectory. Countries that run current account surpluses must save more than they invest, and countries that run current account deficits must save less than they invest. In countries where these two trends begin to incrementally slow witness a tapering demand and therefore also explain the declining trajectory of core inflation, devoid of the cyclical factors.

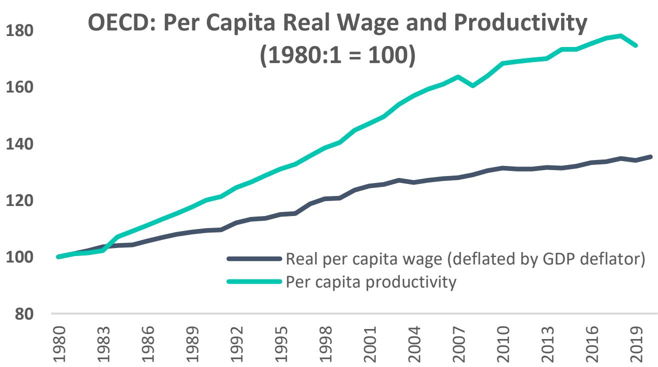


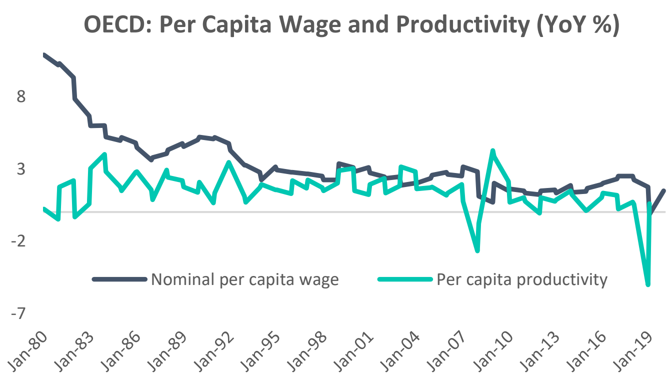




**Labour productivity outstripping wage growth, a positive supply shock**

Several countries have been grappling not only with slow productivity growth but have also experienced a slowdown in real average wage growth relative to productivity growth, which has been reflected in a falling share of wages in GDP. In addition, the growth in low and median wages have been lagging behind median wage growth. This has resulted in rapid decline in wage earners bargaining power leading to decoupling of wage growth and productivity.

This means that at an aggregate level the rise in output creates a smaller rise in wages. This itself is a disinflationary spiral where volumes rise faster than input prices. The record low level of unemployment rates has also been unable to create price pressure largely reflecting poor wage growth dynamics.



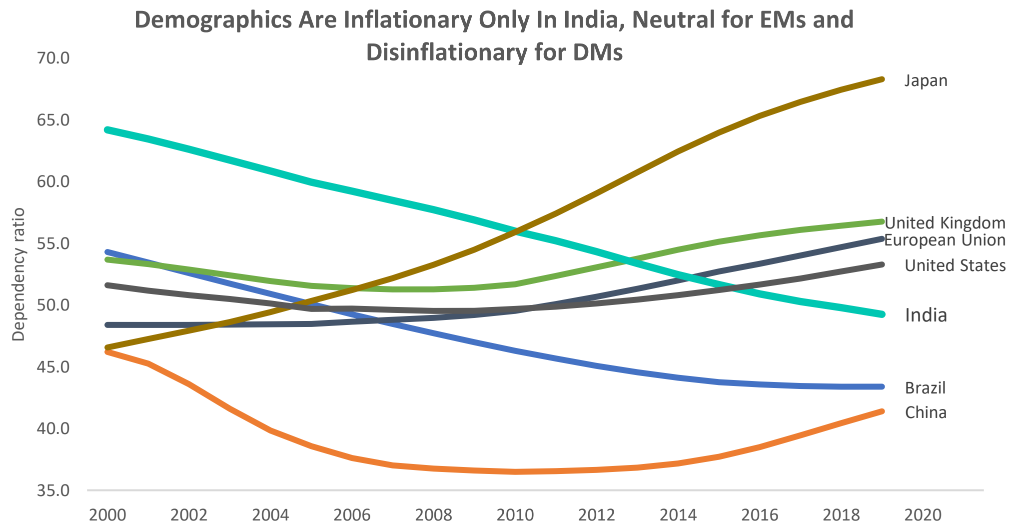

Source - OECD

The 'Uberization' of sectors means lower entry barriers for sellers, emergence of superstar firms which cut prices to compete and lower requirement for investments creates a circle for lower prices ahead. Harvard Business School professor Alberto Cavallo shows, for example, that with the advent of online retail and sophisticated pricing algorithms, firms began to update their prices much more frequently than in previous decades. In addition, prices for goods have become significantly more uniform across retailers in the last decade.

Digitalization, Pandemic induced work from home trends and emergence of more avenues to work from anywhere has increased the possibility of technology driving 'Uberization' of more sectors and trends. That would leave another headwind for structural inflation to tackle.

**An Aging Population**

Although the most recent research by Charles Goodhart and Manoj Pradhan indicates that an aging population can be inflationary. This is true in case of an increase in less productive population of over 65 years. The set consumes more healthcare services and resources. As the dependency ratio rises, the productive working age population declines. (Dependency Ratio = Dependents/Working age population)




Source - OECD

However, to our understanding this trend is more than offset by productivity gains, especially those which are technologically led. Therefore, the demographic drag on growth and inflation is here to stay as a headwind.

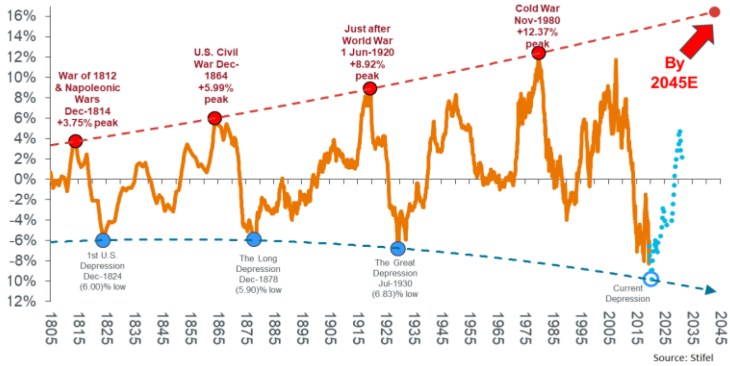
These five factors represent a strong hold of deflationary or disinflationary trends somewhat untouched by the current pandemic or even the monetary policy response to it, which we will highlight in later part of this note.

Infact some of the trends accelerated by COVID like high levels of savings, negative interest rates and work from home trends support lower demand, higher productivity, and lesser incremental needs of incremental capex. These factors are themselves disinflationary.

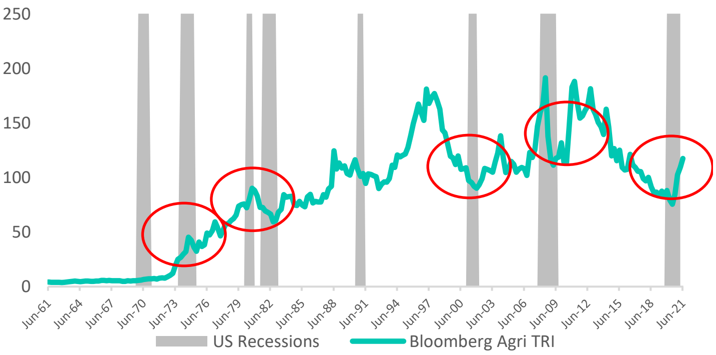
## Post-recession Inflation trends

In most post-recession economic recovery phases, we witness higher levels of inflation. But these inflationary readings are quite normal and have a repetitive pattern across recessions. Key drivers that contribute to this trend are the fall of commodity prices at the beginning of recession and the rapid recovery which sets in during the bottoming of businesses cycle. In case of recessions where supply chains are hit, like the COVID induced pandemic, the wholesale prices and input prices cause a spectacular rise in inflation. These fast-moving price trends are painful adjustments which are more often intermediate in nature. As supply bottlenecks ease, prices mean revert.

Commodity Prices are Cyclical And The Cycles Are Long




Commodity Prices Rebound During Recession Recovery

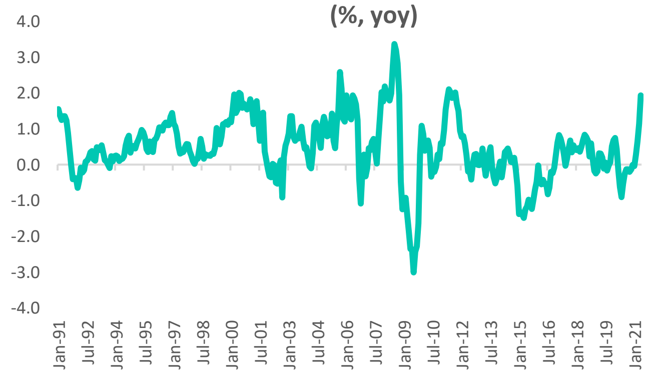



Source - Bloomberg

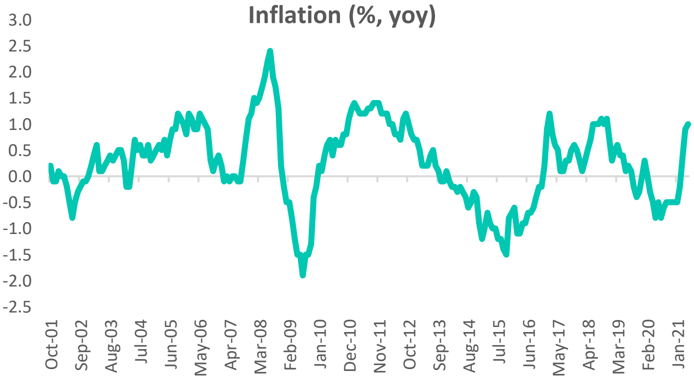
The third source of post-recession inflation is the base effect. During recession most businesses are unable to raise prices and they do so once recovery sets in. Apart form the headline inflation where base effect of commodity price declines is visible, the core inflation reflects the more important part of base effect.

Commodity price rise rapidly in most post-recession periods. Since commodity prices are cyclical in nature the subsequent recovery readings taper off as the 'Base effect' fades and supply chains comeback. The pronounced effect of 'Base effects' through pass-on of higher prices by business during the post-recession economic recovery is visible in the difference between the headline and core inflation.

US Inflation Spread: Headline - Core Inflation (%, yoy)




Eurozone Inflation Spread: Headline - Core Inflation (%, yoy)




Source - Bloomberg

**Can post-recession inflation turn from a cyclical trend to a structural rise in prices?**

This is the most important question and holds the key to the global debate on inflation and the possibility of it being a structural threat.

The structural threat of inflation could be real in case the escalation in prices is passed on into higher employment combined with higher wages and salaries. In most post- recession recoveries, it takes years to revert to pre-recession wages growth rates. Combine this with our earlier argument on productivity gains the net impact of post- recession recoveries have been more deflationary than inflationary.

The current post COVID recovery has an added vector of accelerating the more productive, lower cost and lesser investment expenditure cycle. This in itself provide credible headwinds to inflationary argument on a sustain level.

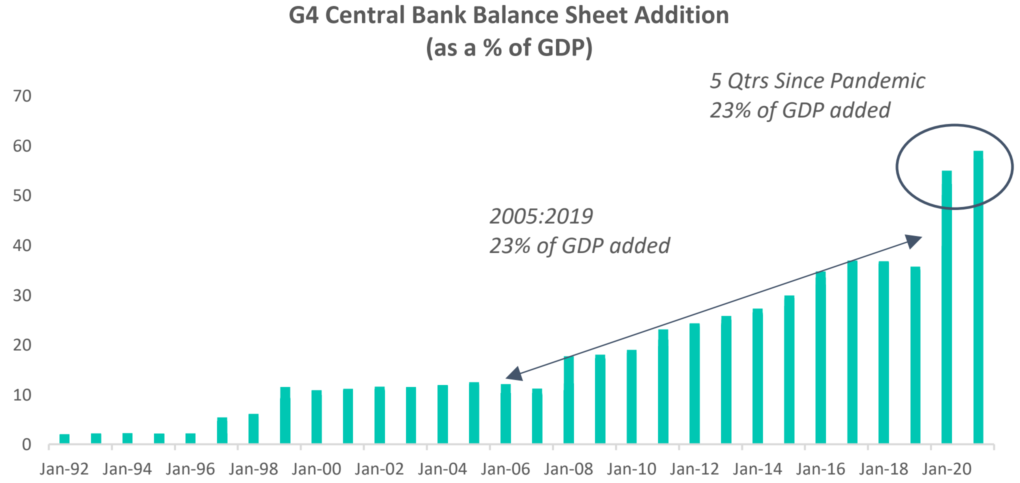
This makes us believe that inflation will remain fairly under-control and would probably revert to its normal trajectory of very low levels of inflation once global supply chains begin to normalize. Some markets and commodity prices have begun to revert to mean. For instance, lumber prices have declined more 50% in US over the last few weeks.

Post pandemic inflation is a normal, recurring phenomenon. Most global policies and changes are designed to keep inflation trajectory lower than higher. Inflation is not a threat is likely to revert mean revert probably slightly higher than pre-COVID levels for a while.

**Can Central Banks throw another Taper Tantrum?**

G4 Central Bank balance sheets have expanded by 66% from $15trn to $25trn since the start of the pandemic. The balance sheets are likely to expand further as we move over to second half of 2021. This has created many dislocations. The real yield on junk bonds in US recently turned negative for the first time.

However, most of the expansion in central bank balance sheet has been a demand replacement exercise. The stimulus enacted by most government across the world has come been financed by Central Banks through quasi monetization of deficits.




Source - Bloomberg

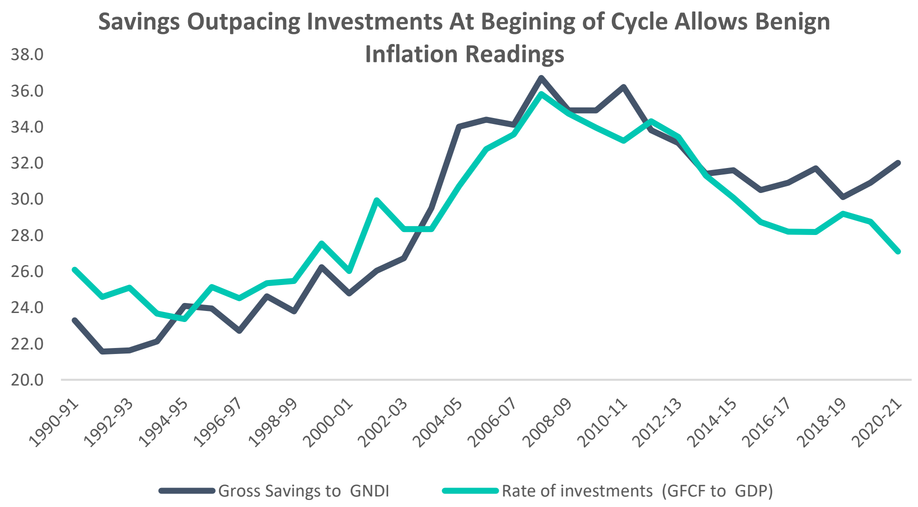
But for most countries the money multiplier, the velocity of money continues to remain subdued for lack of increase in credit. Households and firms remain in a better shape reflecting precautionary savings and sharp cut in costs. Most central banks are likely to taper their bond purchases as economic growth normalizes, although zero interest rate policies are likely to persist for longer reflecting poor growth dynamics in most of the world.

In conclusion a ‘Taper Tantrum’ is highly likely but may not pose a disruption to economic recovery overtime. It is likely to reset financial market dislocations and correct froth in pockets of financial markets.

The story of inflation in India is, on the contrary, not of disinflation. There is a possibility of India benefiting from a period of inflation within the tolerance band.

Key to a manageable food inflation is a more robust supply side response for domestic agriculture market, especially for pulses. The measured pace of increase in minimum support price for agriculture produce has also allowed slower pass through. This has led to benign levels of inflation helped by a benign trend in global food prices.

The core inflation in India has also remained stable. Higher capacity utilization levels and an increase in savings rate has led to a period of subdued inflationary pressure.




Source - CMIE

Government’s promise to keep investment expenditure robust and this is likely to keep some headroom in capacity utilization. This has been a key driver of contained level of inflation in many countries growing at a fast clip. More on India inflation in a detailed note later.

**In conclusion** – We expect India inflation to remain broadly under control with shallower cyclical upticks and contained trajectory.

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