Impact of Covid 19's on the performance of Indian Equity Market in 2020

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Abstract: Covid-19 was declared as the "Black Swan event" going down in history where the global economies experienced the worst ever economic recession. Almost all the countries of the world announced lockdowns in March 2020. Due to the disruptions in global market the financial markets of India also reacted and experienced uncertainties which started in March 2020. This had a significant impact on the first quarter of the Financial Year 2020-21. It was predicted that India would perform severely in April-June and July-September quarter as result of decrease in manufacturing and service sector activities. However, what followed was entirely ironical as Indian & global stock markets witnessed a rise. This research attempts to provide the similarities in performance of global & Indian stock markets in 2020; disconnect in real economy & stock markets in India; possible Overvaluation & monopolization of stock markets in 2020 & reasons behind the outperformance of stock markets in 2020.

1 Introduction:

The Covid-19 outbreak resulted in unprecedented volatility in financial markets of the world. Eventually, th Indian economy quickly came out of its technical recession & stock markets created high benchmarks. The smoot functioning of stock markets has a substantial effect on growth of an economy, especially in the case of developing nation. ***The financial market turmoil of March 2020 due to the Covid-19 shock tested the resilience of the global financial system***. A financial crisis occurs when the worth of financial institutions or assets drops rapidly. It often results in a panic or a run on the banks, where investors sell off assets or withdraw money from bank accounts with the assumption that the value of those assets will decrease if they remain in the financia system. A similar situation appeared in March 2020 when the Indian & global equity market dipped to a unprecedented level. The last such dip was witnessed more than a decade before during the Global Financial Crisis (GFC) in 2008.

The pandemic along with government containment restrictions led to a sudden sharp pullback in actual economic activity and placed the financial system under stress. Some parts of the economy, especially banks and financia market institutions, were able to absorb rather than intensify the macroeconomic shock, supported by the pos t crisis reforms. It is expected that with every recession and subsequent economic recovery, financial market become more resilient to the economic downslide. In this case, the stock markets became more resilient after the Global Financial Crisis of 2008. But the significant difference in Covid-10 Crisis & GFC was that of liquidity. I GFC, there was a liquidity crunch; 2020 witnessed surplus liquidity in financial markets, which was never see before. The difference between to the 2008 financial crisis & the current Covid-19 crisis was that the origination o the shock. The Covid-19 crisis originated outside the financial system, whereas the GFC was initiated within the financial system. This study is organised as follows: Part 1 starts with an introduction, Part 2 is the literatur review used to analyse the topic, Part 3 is the Research Methodology, Part 4 identifies the similarity betwee Indian and Global stock markets, Part 5 is about the disconnect between Real Economy & Equity Market in India Part 6 states that there is an overvaluation of the stock market in India, Part 7 states that there is an expecte monopolisation of certain companies in Indian stock markets, Part 8 gives the reason of outperformance of India stock markets in 2020 and finally Part 9 gives possible scenarios for 2021.

2 Literature Review:

3 The impact of Covid-19 on the financial market as well as the stock market has been subject to many empirical studies both in India and world economies. Existing literature found diverse results in these

regards. Ozili and Arun (2020) have conducted an empirical study on the effect of social distancing policy that and found that 30 days of social distancing policy or lockdown hurts the economy through its negative impact on stock prices. Raja Ram (2020) in his study has found that Covid-19 crashed the entire global stock market system. Indian stock market also experienced sharp volatility due to the collapse of the global financial market and fall in FPIs also reduces the return of the Indian stock market. According to Harris (2003) financial market volatility has a direct impact on macroeconomic and financial stability. Some studies have focused on comparing the outcome of the stock markets of India and the world before Covid-19 and during the Covid-19 situation. The focus of this study is to analyse the reasons of rising Indian stock markets despite falling economic activity due to Covid-19 containment measures, resemblance of Indian stock markets with world market, monopoly of few companies in Indian stock market & overvaluation of Indian stock market in 2020.

4 Research Methodology:

The research has been a secondary research by collecting the data from websites of National Stock Exchange (NSE); Bombay Stock Exchange (BSE); Wall Street Journal; London Stock Exchange and Central Banks of other countries which was used to compare the similarities in Indian and world stock market comparing the performance with real economy of India. For overvaluation of stock markets Nifty Price Equity Ratio from NSE and market capitalisation data from BSE and World Bank was used. To determine the monopoly of few companies in Indian stock market and the data from BSE was scaled down to compare with BSE Sensex index. For the other parts of the study like the reasons of outperformance of stock markets and possible outcomes for 2021, journals and working papers of RBI; World Bank; IMF; BIS and other economic reviews were analysed. Data from Bloomberg, NSDL and SEBI website have also been used to analyse parameters like Foreign Portfolio Investments (FPI) and Exchange Rate.

5 The similarity in performance of Indian stock markets & Global stock market:

In 2020, the Indian stock market's performance and recovery were similar to other major economies of the world except for the UK. (Refer to figure 1). Comparing the growth of stock markets as on 31st Dec 2020 with i) Pre-Pandemic level in January 2020 & ii) with the crash of 25th Mar both Indian and world stock markets have shown an increase (other than the UK). By the end of 2020, the Indian stock markets were 16.7% higher than the pre-pandemic level and 67.3% higher than the March Turmoil level. The development of the Covid-19 vaccine with high effectiveness had raised hopes of faster recovery than expected in the global economy with a boost the world morale. Markets during the last quarter of 2020 created new benchmarks with Sensex crossing 44000 & 47000 levels for the first time, in congruence with Wall Street, which busted its milestone when the US's Dow Jones Industrial Average crossed 30,000 mark for the first time in November 2020.

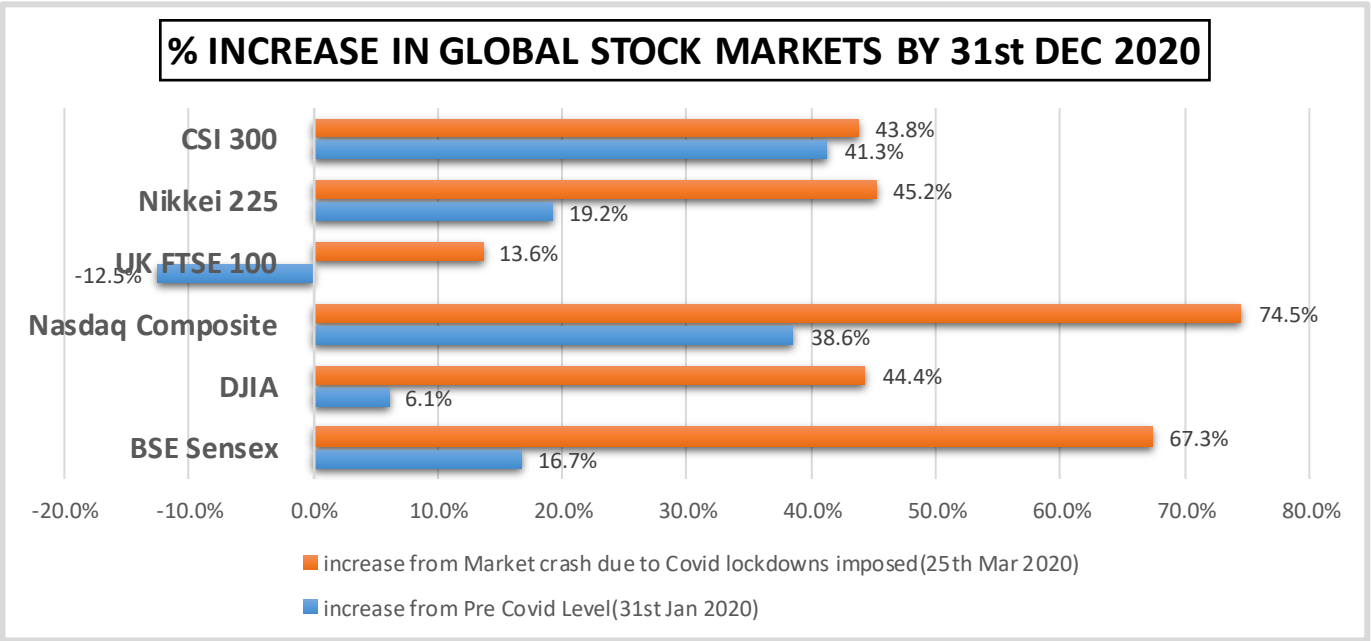
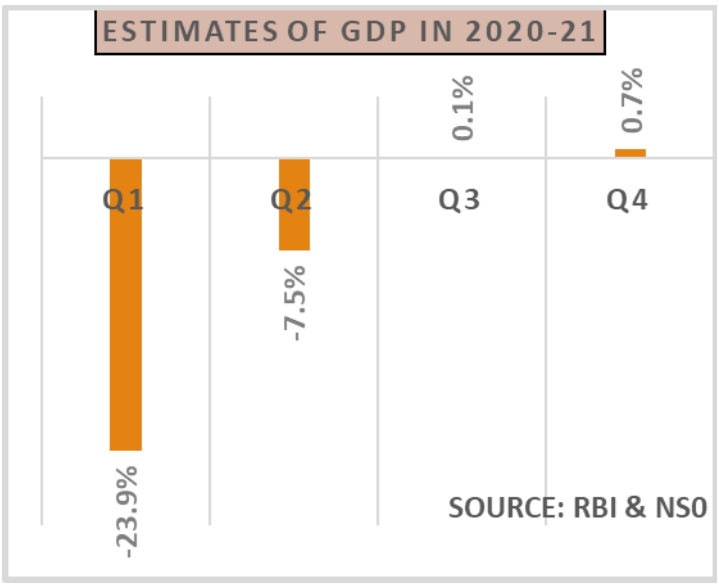


Figure 1: Global Stock Markets in 2020
Data Source: BSE, WSJ, Nikkei, CBOE & LSE websites

6 The disconnect of Real Economy & Equity Market in India:

Despite the negative growth in GDP, India's stock markets had performed remarkable and had reached all time high-level benchmarks, surpassing the pre-pandemic levels. A V-shaped recovery (refer to figure 2) in economic activity was observed despite contracted GDP estimates, falling financial data, and other Key Performing Indicators. It means that when indices crashed in March 2020 they had already absorbed in the bad news. The subsequent V-shaped recovery was not due to the expected economic activity resumption but due to the fiscal & monetary stimulus packages announced during this time. India was among the economies worst affected by Covid-19 as stated almost all International agencies like IMF, World Bank, ADB, etc. In Q1 of 2020, the Gross Domestic Product (GDP) of India shrank by 23.9% – the worst contraction ever in our history, followed by negative growth of 7.5% in Q2 of 2020, leading to a technical recession 2020.



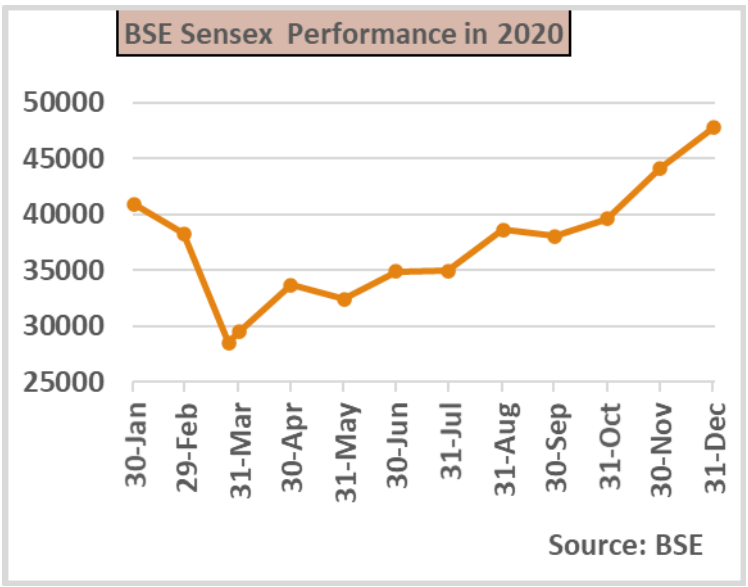


figure 2: GDP Estimates & stock performance of 2020

7 Is there an Overvaluation of the stock market in India?

Nifty Price Equity (PE) Ratio is broadly used to identify how cheap or expensive a particular Nifty index is. The stock market capitalization-to-GDP ratio is a measure used to determine whether an overall market is undervalued or overvalued with respect to a historical average. ***Post stock market recovery, the PE ratio was higher than the pre-pandemic level and considered to be overpriced than its fundamental or intrinsic value. Similarly, the Market Cap to GDP Ratio, a significant determinant of market sentiment, was almost 100 % by the end of 2020 and reached 103 by Jan 2021.*** *(See figure 3) A similar trend was observed with the Global Financial Crisis of 2008 and can cause a similar impact on financial stability with the current crisis. The total market capitalization of all listed companies in India had crossed the country's GDP for the very first time in more than 10 years by start of 2021. This essentially means that all listed companies' value at current share prices is now more than India's GDP. Among its emerging market peers, India is the only country to command such a high market cap to GDP ratio in a worrying sign for investors who are concerned about the valuations of stocks and the creation of a stock market bubble in India.*

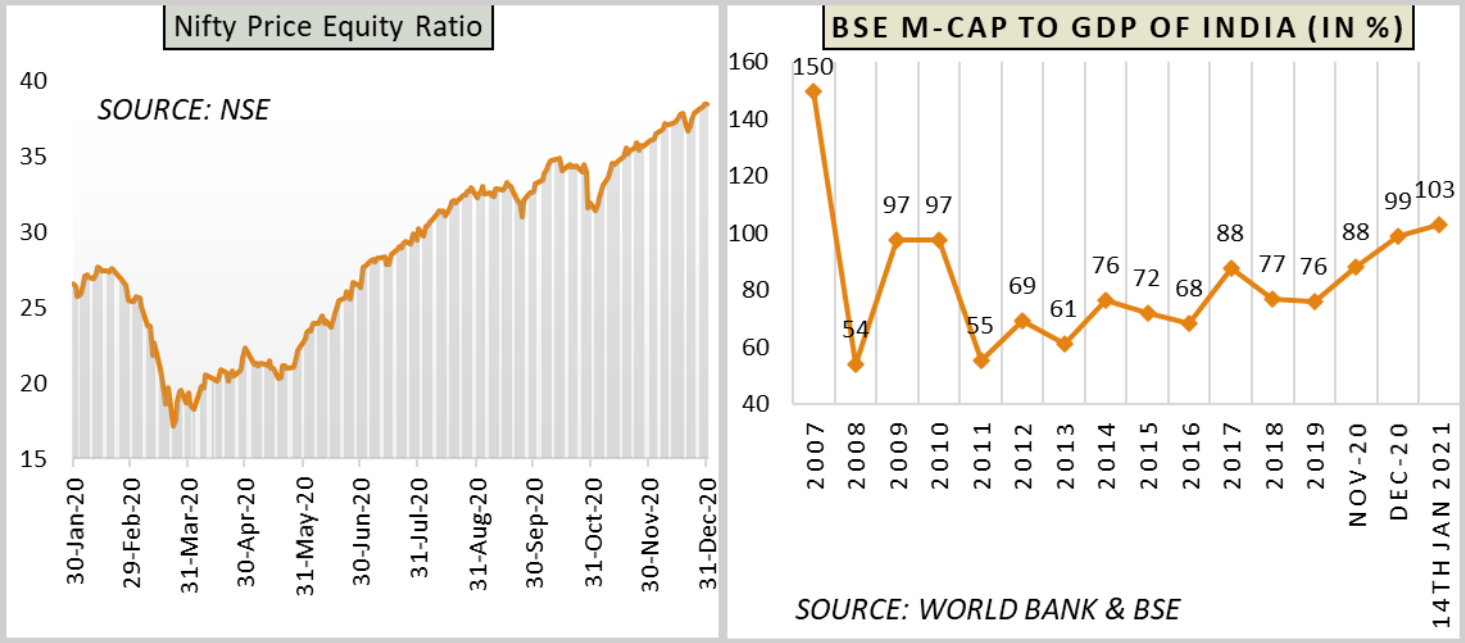


figure :3 Overvaluation of stock markets in 2020

Comparison of Nifty PE Ratio & NSE VIX (Volatility index) (figure 4): The Volatility Index acts as a barometer of financial risk or uncertainty surrounding investments in financial assets and hence it is of genuine interest to individual investors, mutual fund managers, financial industry regulators as well as policymakers. ***The Covid-19 pandemic had the most significant impact on stock market volatility in pandemics' history. A substantial increase in stock market volatility was observed when governments took rigorous actions to curb the spread of Covid-19.*** In March 2020, Global financial markets experienced significant corrections, and even countries that had not reported cases were subject to considerable selling pressure. There was a substantial drawdown in stocks during March 2020, with the major indices all down 30% and more, with volatility for Indian indices shooting to more than 80 points. Nevertheless, a volatile market does not always imply losses but risk. A sharp slump in stock markets brought the PE Ratio from 25-28 in February 2020 to 15-17 March 2020. But within four months, it not only breached the 27-mark but also crossed the 30-point mark effortlessly by October 2020. Though the rising PE Ratio concerns equity markets as it reflects a possible bubble creation, lower volatility indexes may signal that the worst may be behind us.

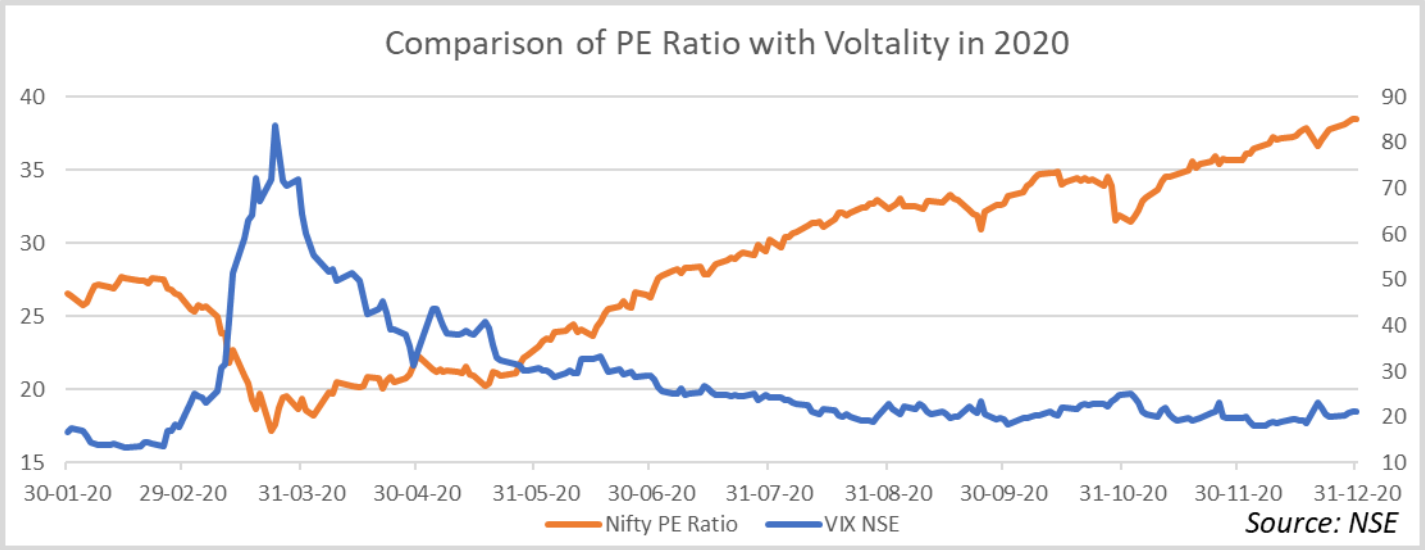


figure 4: Comparison of NSE PE Ratio & NSE VIX

8 Is there a monopoly of certain companies in the Stock market?

The top five dominant stocks in Nifty 50 & Sensex belong to Banking, IT, Refineries & Infrastructure. (table 1) Despite the pandemic hitting a significant part of the economy, these companies or sectors remained least affected. Good corporate earnings for Hosing Development Finance Corp.; ICICI Bank & HDFC Bank; Reliance's global deals & boost to IT sector in pandemic had driven the stock indices performances in an upward direction. (figure 5) These companies were believed to have influenced he overall performance of the Indian Stock market.

S No.	*Companies*	*Weightage in BSE Sensex*	*Weightage in NSE Nifty 50*
1	HDFC Bank	12.41%	10.29%
2	Reliance Industries	10.89%	10.13%
3	Housing Development Finance Corp.	8.74%	7.27%
4	Infosys	8.42%	7.81%
5	ICICI Bank	7.58%	6.31%

table 1: Weightage of top 5 companies Benchmark Indices
Source: NSE & BSE

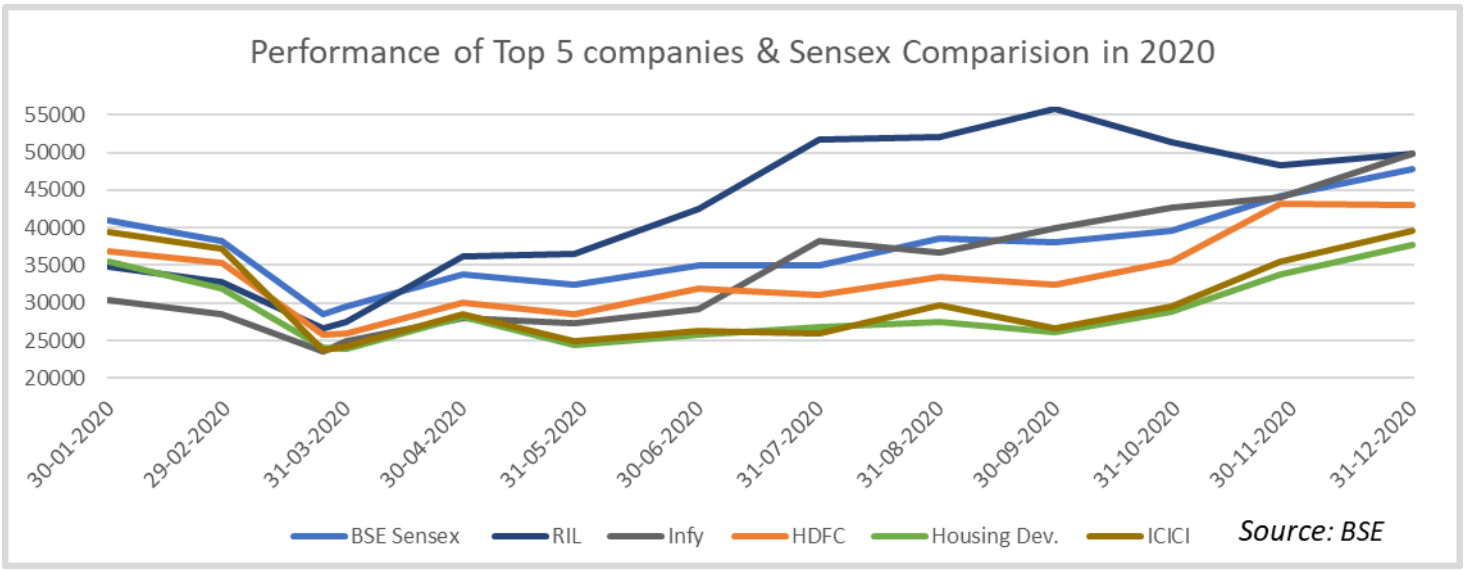


figure 5:Scaled-down Performance Comparison of top 5 Companies with Sensex, Source: BSE & NSE

9 Reasons for the outperformance of stock markets:

Surplus Liquidity in Financial System: In 2020 Central Banks across the globe announced monetary easing policies (Table 2) by reducing the interest rates leading to surplus liquidity in the financial system to support the demand in the economies. ***Due to worldwide lockdowns, this surplus liquidity flowed towards the equity markets with low consumer spending.*** In 2020 India also experienced a flow of surplus liquidity from other countries. With RBI's LTROs & TLTROs average domestic monthly liquidity of India has also increased by the end of 2020 (figure 6).

Bank-Country	Current Rate	Previous Rate	Last Changed
RBI-India	4%	4.40%	May 2020
BACEN-Brazil	2%	2.25%	June 2020
FED-US	0.25	1.25%	March 2020
Bank of Korea-South Korea	0.5%	0.75%	May 2020
RBA-Australia	0.10%	0.25%	March 2020
Banxico-Mexico	4.25%	4.50%	September 2020
SARB-S Africa	3.50%	3.75%	August 2020

Table 2: Decrease in Policy Rates in 2020
Data Source: RBI, Federal Reserve, BOK, Banxico, RBA, BACEN

Interest rates have been reduced to almost zero to overcome the impact of the Covid-19 pandemic on the economy. Hence massive liquidity led to a disconnect between the economy and stock markets. The effects of low interest rates and continued accommodative monetary policy are pushed up asset prices, including stocks.

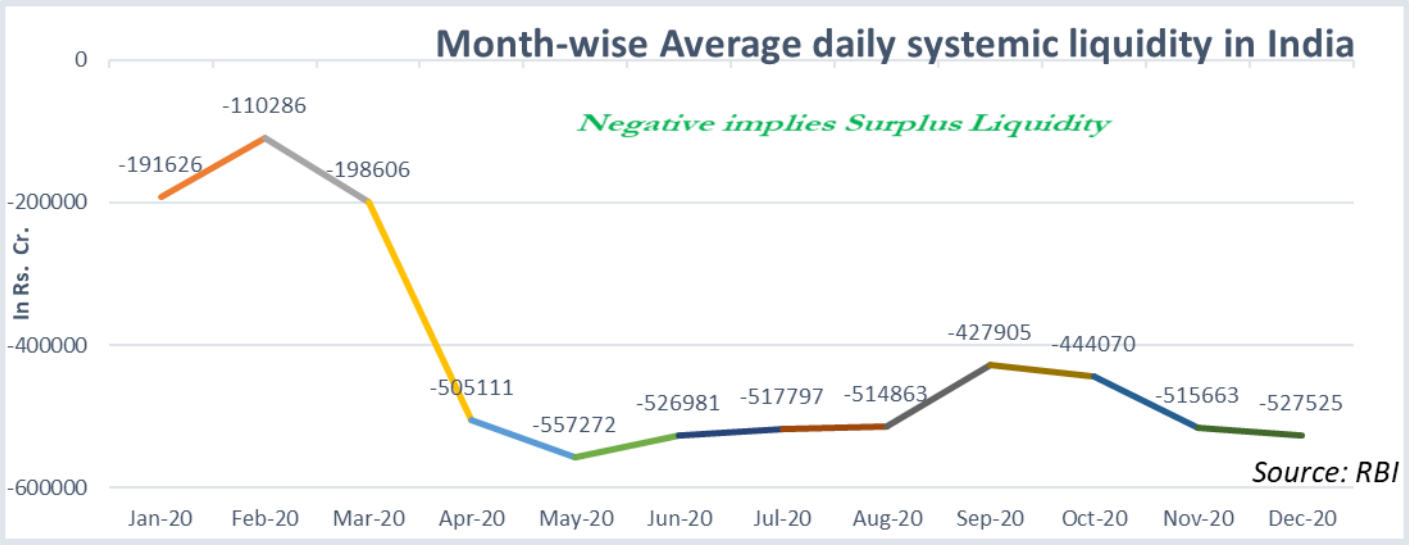


figure 6: Surplus Liquidity in Financial System

Rising Foreign Exchange Reserves: Foreign exchange reserves indicate real or future economic strength. ***There is a significant positive impact of foreign exchange reserves on stock market capitalization, with liquidity acting as a catalyst***. Foreign exchange reserves of India achieved a new high of USD 580.8 billion on 25th Dec 2020, capping more than 16 months of imports coinciding with increasing stock markets at

the same time. RBI has continued its measures to enhance India's Forex Reserves in 2020 (table 3) to support & cushion the balance sheet of India.

Foreign Exchange Reserves				
Item	As of 25th Dec 2020		End-March 2020	
	₹ Cr.	US$ Mn.	₹ Cr.	US$ Mn.
1 Total Reserve	4272332	580841	670177	103034
1.1 Foreign Currency Assets	3955337	537474	619522	95261
1.2 Gold	270026	36711	39499	6133
1.3 SDRs	11108	1510	308	78
1.4 Reserve Position in the IMF	37862	5145	10849	1562

Table 3: Forex Reserves of RBI
Data Source: RBI website

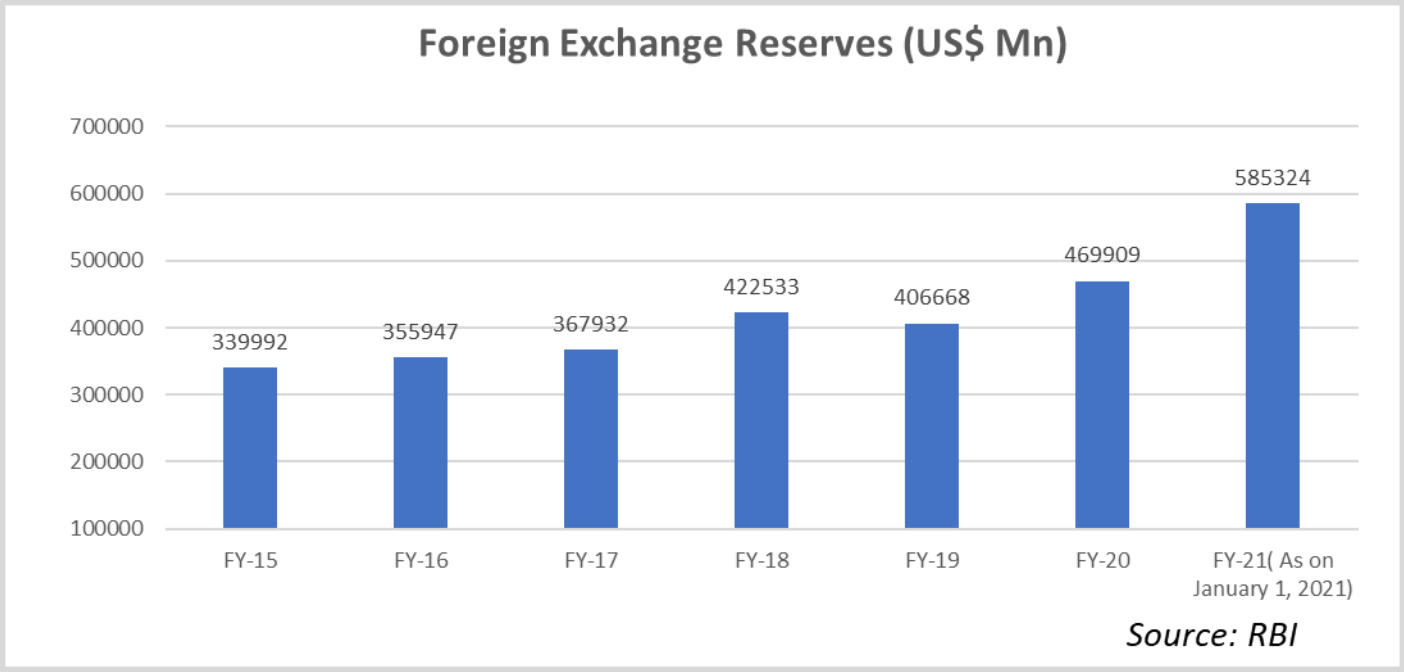


figure 7: Foreign Exchange Reserves increasing trend

Increasing FPI inflow to India: Portfolio flows into Indian stock markets had resumed from May 2020 onwards due to the economy's reopening. With China & India being the largest emerging markets, which have an appetite for FPI flows, India has been the highest recipient of FPI. For 2020 ***Indian equity market had displayed strong investors' sentiment,*** with FPI inflows reaching a historic high of Rs. 60,000 Cr. in November and Rs. 62,000 Cr. in December (figure 8). Primary factor could be that the markets had observed a ***macro shift of assets into equities worldwide, even more in the equities of Emerging Market (EM).*** Expectations of a faster recovery in emerging economies and possible growth prospects pushed by availability of vaccine had also improved market behaviour. Portfolio flows to emerging markets and developing economies remained negative in 2020, made India the highest recipient of FPI in 2020 (figure 9).

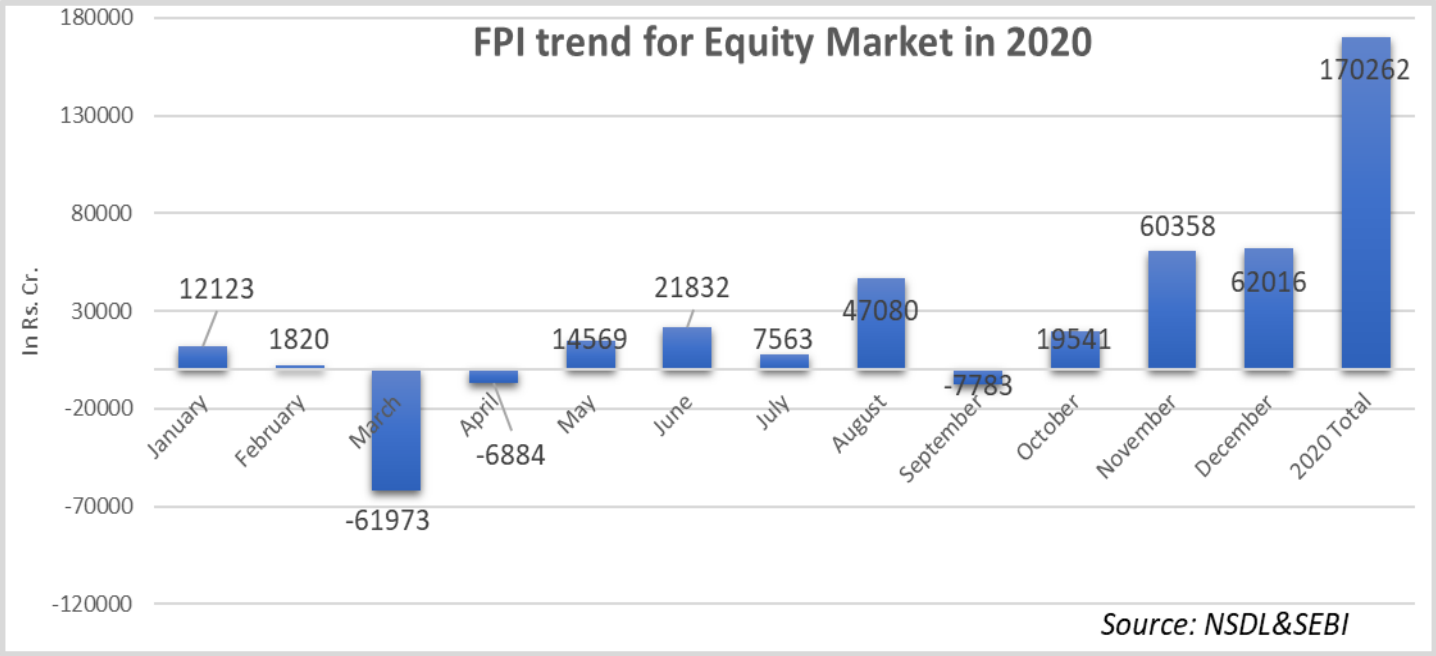


figure 8: FPI trend into Equity Market in 2020

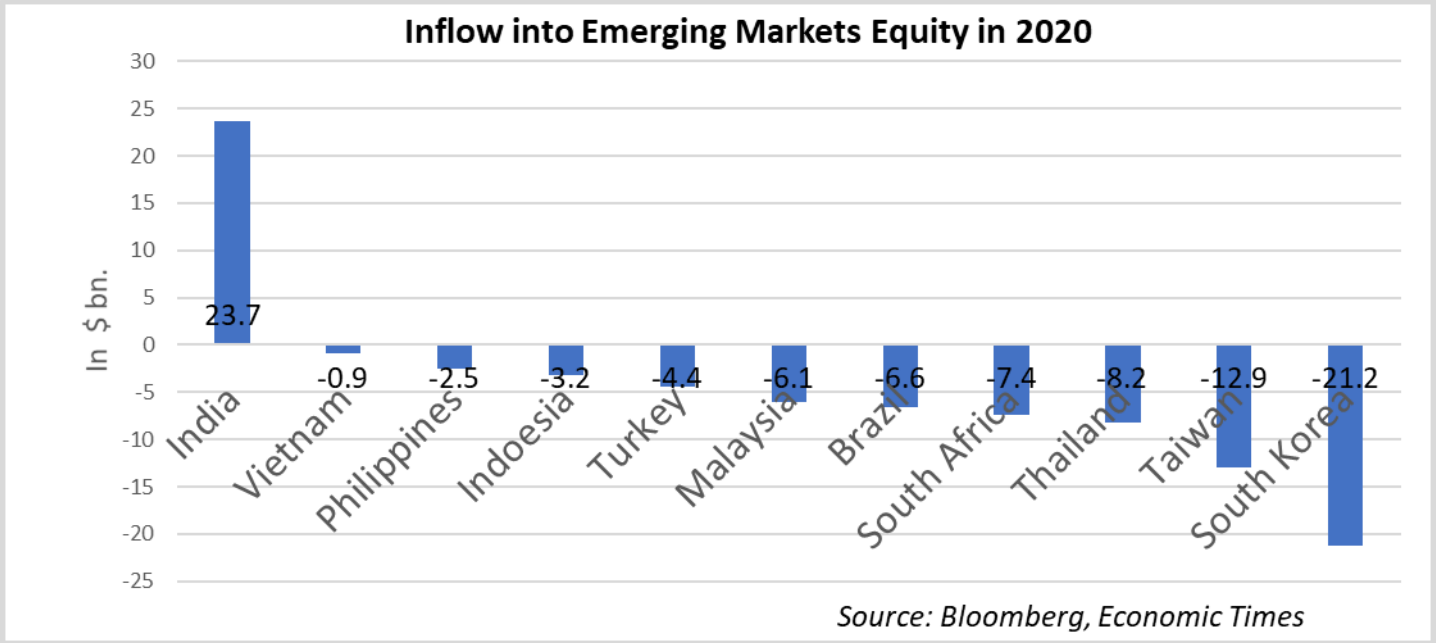


figure 9: FPI trend of Emerging Markets in 2020

Decrease in stock market volatility: Global financial markets experienced notable corrections due to uncertainty even in countries that had not reported cases of Covid-19 & were subject to reasonable selling pressure, and an outflow of funds had been observed, leading to a crash by the end of March 2020. Concerns surfaced in Feb-March with a rising number of coronavirus cases globally, intensifying investors' fears. At this point, a general "risk-off" sentiment began to spread through markets as investors adjusted their expectations for the possibility of a significant slowdown in economic activity leading to high volatility, which rose substantially and suddenly. ***With volatility decreasing and the markets eventually stabilizing from the beginning of April 2020, there were net inflows into equity markets***. Higher volatility

corresponded with a higher probability of a declining market, while lower volatility compared to a higher likelihood of a rising market.

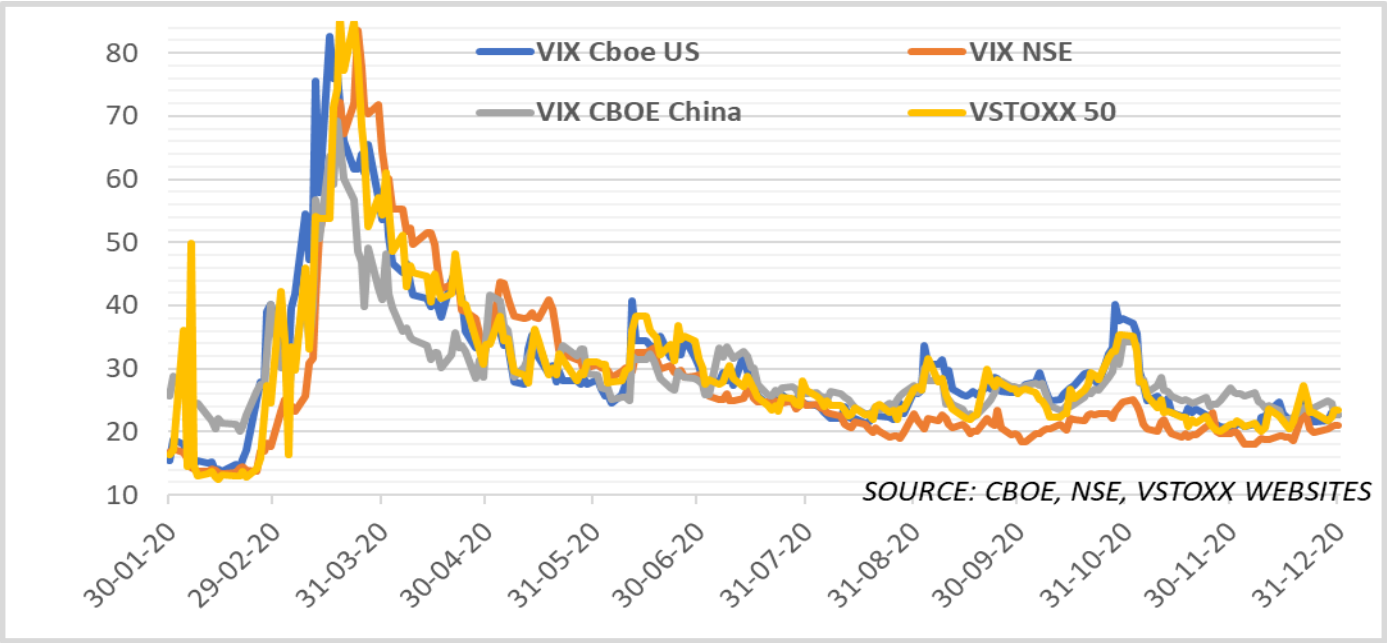


figure 10: Decrease in Stock Market volatility Indices of US, China, Europe & India in 2020

Appreciation of Indian Rupee: RBI's purchases of Dollar in the foreign exchange market kept the Rupee largely in the range of 73.1-73.9 INR/USD in December 2020. ***Rupee appreciated against USD is in line with continued foreign equity flows. After the 2008 global financial crisis, the relation between stock markets and the currency become directly correlated, with the stock market moving in the same direction as the currency.*** This change has primarily been attributed to a shift in market sentiment, as investors began to look at the emerging markets' currency more positively after the crisis. The idea that firms' market value can be significantly affected by the health of the national currency. With the US dollar weakening, chances of higher allocations to emerging markets had increased. Within emerging markets economies, China and India are the only dominant economies that can take this kind of allocation. Indian firms have attracted foreign fund inflows given the flood of liquidity & Current account surplus in Q4 of FY 2020 & possible surplus in Q1of FY2021, contributing to overall flows with the Rupee's strengthening (figure 11). The global liquidity surplus and low-interest rates is expected to continue for a long time and asset markets are expected to continue to be supported by such measures. According to the Bank for International Settlement (BIS) database for credit growth, there was an increase of 8.7% (y-o-y) in Q2 of 2020 in the emerging Asia Pacific region for credit. Dollar depreciation and a massive amount of liquidity impact fund flow to emerging economies.

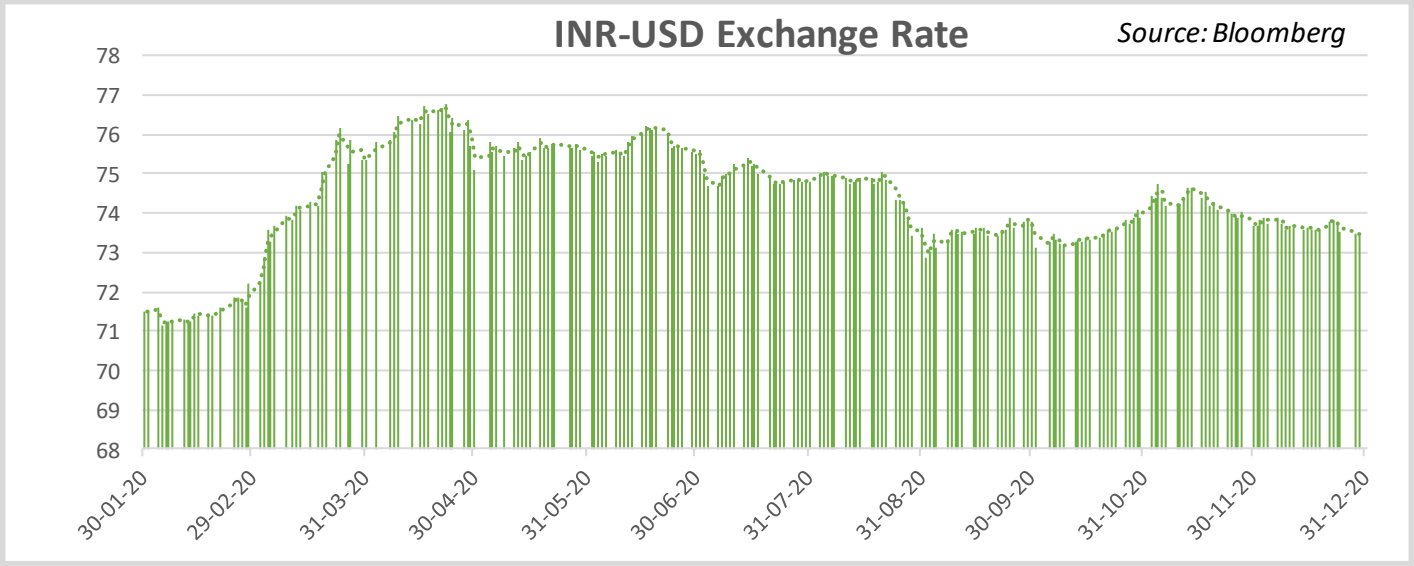


figure 11: Depreciation of Dollar against Rupee since March 2020
Data Source: Bloomberg

Fall in Government Securities Yield: ***Equity markets usually have negative relation with bond markets.*** That implies as bond yields go down, the equity markets are expected to outperform by a more consequential margin, and as bond yields rise, equity markets tend to fluctuate. ***As bond yields go down, the opportunity cost of equity investments falls, and hence equities become more attractive***. US Dollar accumulation had enhanced liquidity in the banking system, keeping a check on bond yields along with supporting effective transmission. The fall in Govt. & Corporate Bond yield had led to investment flow in equity markets in 2020. Bond prices and the stock market had shown movement in opposite directions in 2020 because they were vying for capital. When there is optimism about the economy, investors move funds in the stock market as it benefits more from economic growth.

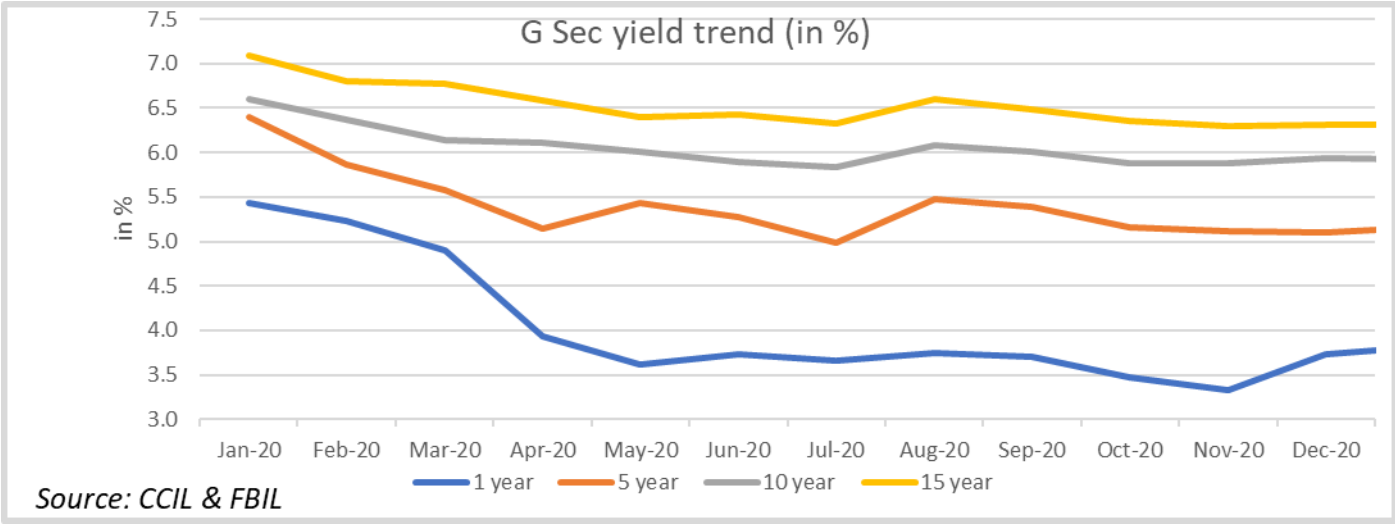


figure 12: Fall in G sec yields in 2020

10 **Potential Scenarios for 2021:** Although there has been a rapid recovery in economic activity from March and April's lows, major non-financial indicators remain below pre-pandemic levels. The pandemic is expected to alter behavior and business models fundamentally. The pandemic effect on financial markets needs precautionary and long term measures by the world policymakers like:

Unprecedented Investors' Participation: We have seen ***record-high retail investor participation & flow in India's markets, which can turn negative eventually if the international investors pull back and investment outflow is seen towards developed economies.***

Capital Flight: Because of the forceful policy response by advanced economies, Emerging Economies were not compelled to adopt policies to prevent capital outflows, unlike in previous crises. Measures that support economic activity and employment tend to create positive spillovers in other economies, for example, through export demand and remittance channels. However, these positive spillovers may raise questions about avoiding negative spillovers if policy measures are adapted or withdrawn in the future. It is important to remember that the forex market is highly volatile, so any impact upon the stock market tends to lag. ***The effect of 'capital flight,' which is when capital flows out of Emerging Markets and back to the Advanced economies, can cause a negative trend in the equity market.***

Performance of the Corporate Sector may not match the Liquidity in the system: A significant part of this recovery rally was caused due to the influx of liquidity in the economy. Liquidity may cause a reversal pattern if the **earnings don't follow and match the liquidity infused**. Aggressive policy actions by central banks had kept the global financial system from falling into crisis last year and maintain momentum. Moreover, while easy financial conditions are intended to support growth prospects, they can have unintended consequences in encouraging leverage, inflating asset prices, and fuelling financial stability threats. Indian economic recovery has been sharp given high liquidity and low interest rates which are here to stay. While valuations do look expensive on specific parameters, they are justifiable on certain others. Overall, they indicate that the market expects an intelligent recovery after negative growth in FY21. So, while it appears that there is a disconnect between the economy and markets, it is just the difference between the current reality and the expected future.

Exit Strategy for Fiscal & Monetary Policy: Low interest rates create incentives to delay the necessary adjustment, both on the economy's financial and real side. Like for example, low rates enable banks to extend lending. Asset prices, with interest rates, are central to allocating resources in an economy. To **exit highly accommodative monetary policy** is even more complex. Given the side effects of financial stability risks, it is difficult to think that the current persistently low interest rates re equilibrium. We might be at risk of getting used to low rates; they may become routine, but they cannot represent equilibrium.

Deteriorating Asset Quality: Financial & Banking sector stress remains an area of concern – with **asset quality**. With the economy taking a hit in the wake of the pandemic and "a multi-speed recovery struggling to gain traction," bad loans, or gross non-performing assets (NPAs), of the banking sector are expected to shoot up to 13.5 percent of advances by September 2021, from 7.5 percent in September 2020, with the baseline scenario, the Financial Stability Report (FSR) of the Reserve Bank of India. The deteriorating credit quality of non-financial borrowers poses risks to the financial sector. The pandemic's intensification, uncertainty about its duration, and associated necessary government containment measures are increasing vulnerabilities in the non-financial sector.

Large-scale and swift policy intervention (including fiscal, monetary and prudential) succeeded in stabilizing markets. Markets will need strong earnings in FY22, apart from steady flows from local and global investors. Some small businesses collapsing will be seen as part and parcel of the broader economic restructuring that the pandemic has triggered. However, plenty of otherwise viable businesses will fail, leaving large, publicly traded companies with an even **stronger market position than they already had and creating a monopoly.** The **Indian Government has begun to implement far-reaching fiscal and policy steps to keep investor sentiment positive** viz. reduced tax for new investments, production-linked incentives for more than 10 identified sectors (Make-In-India), support for medium and small enterprises, privatization of crucial PSUs, and continued support to the rural economy, indigenization of defense production, labor reforms, and farm sector reforms. These support measures are long-term structural

positives for the economy. While fiscal policy helped to shield the actual economy from the effects of the pandemic and maintain credit supply, central bank actions eased liquidity strains. The importance of significant bank announcement effects suggested risk aversion of market participants (and related unwillingness to supply or redistribute liquidity) was an essential driver of the turmoil. Concerns about side-effects include distortions to price discovery in financial markets and a further build-up of financial risks. The stock market trends have never mirrored economic downturn or recovery. **Stock markets are generally futuristic.** This means the stock markets always crash with the slightest indication of an economic downturn and latches on any positive news to move towards recovery. This has happened during the current bullish rallies in Indian, US, and European stock markets.

Stock market returns in 2020 resembled the trend in 2009 i.e, the strength of the first year emerging from a plunging stock market recession. While past performance does not predict future results, history gives us valuable lessons. In 2021, as the market recovered from its drop in March, many investors were way too bearish, generating surplus liquidity on the sidelines. Once the rally began, volatility dropped, and the markets climbed significantly due to the bullish segment. Now in 2021, stock market volatility is expected to return; amid the hope that the pandemic might soon be behind us with vaccines are being distributed, investors may find it tougher to generate the kind of stock market returns seen last year amid Covid-19.

All views expressed are of my own and do not represent the opinions of any entity whatsoever with which I have been, am now, or will be affiliated.

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