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Sensex a true reflector of economic growth – myth or reality: a case of India

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Abstract: Stock exchange indices are often considered as a reflector of nation's economic wellbeing, but the point is that how closely are the two associated to one and another and does growing Sensex actually guarantees rapid growth of economy, is something needs to be analyzed. The present paper is aimed to find if any relationship exists amid economic growth and Sensex and also to see whether Sensex is reflective of national growth or other factors are more instrumental to set the direction of Sensex even though the economy is not performing as per the expectations. For this purpose, a retrospective study was carried out. BSE Sensex growth rates for the last 10 years have been taken into consideration and corelated with Gross Domestic Product (GDP). Statistically there was no significant correlation established between Sensex and Economic Growth. Most of the times it has been found that even though the Sensex is zooming still the economic growth is lagging the reason been that Sensex is guided more by the performance of select companies which form the Sensex basket while the performance of economy is a result of many more factors which gives direction to economy rather than the Sensex alone. The paper tries to highlight the various factors which gives direction to economic growth than the Sensex itself alone. The paper is based on secondary source of information derived from reliable websites, research papers, government sites etc.

Keywords: Stock Exchange, Sensex, Economic Growth, Gross Domestic Product

INTRODUCTION

Stock Exchange came into existence in the year 1875 when 318 persons became members of what today is called "Bombay Stock Exchange Limited" by contributing a princely amount of Re1. Since then, the stock market in the country has seen both the good and bad phases of growth. The journey in the 21st century has not been an easy one. Till the decade of eighties, no proper measures were introduced to precisely record the ups and downs in the Indian stock market. It was only in 1986 when Bombay Stock Exchange Limited (BSE) introduced a Stock Index which ultimately became the indicator of the Indian Stock Market. Initially, Sensex was based on "Market Capitalization Weighted" methodology of 30 stocks of well established, financially sound large companies taking 1978-79 as base year. Since September 2003, the Sensex is based on free-float market capitalization methodology which is followed by majority of markets worldwide.

Over a period, India has witnessed an impressive growth in stock markets. Ever after opening of Indian economy in 1991 there has been tremendous confidence of investors on the stock market and the market has experienced increased activities from Domestic Institutional Investors (DIIs), Foreign Institutional Investors (FIIs) and public in particular. The SENSEX comfortably sailed through the bad times to experience good times i.e. have seen the booms and bust of the markets and survived effectively.

To further continue with Sensex journey, in the year 1989 BSE National Index -100 was introduced comprising of 100 stocks listed at five major stock exchanges in India at Mumbai. Calcutta, Delhi, Ahmedabad and Madras. In October 14, 1996 the BSE National Index was renamed as BSE-100 and since then the stocks listed in BSE are taken into consideration for calculation of Sensex.

Normally we say that if the stock market of any country is rising consistently it means the country's economic growth should also be progressing on strong footing. A strong stock market is considered to reflect the emerging strength of national economy whereas a weak stock market is indicative of a poor economy. If this approach is adapted, then there must be an association between stock index (SENSEX) and economic growth of country. Today when the Sensex has crossed 50000 mark it is necessary to understand whether there exists any correlation between the performance of Stock markets and economic growth or the two work independently and no corelation exist between them. The present paper is an effort to explore this correlation between the two.

REVIEW OF LITERATURE

Chavda Kishorsinh N., Kumar Tarsariya Mahendra S (2018) highlighted in their paper the relationship between BSE Sensex and GDP growth rate. The paper is webbed around the hypothesis that the economic growth of a country depends upon the capacity to produce goods and services. The paper also highlighted the fact that parameter of evaluating economic growth is Gross Domestic Product (GDP). The main indicators of economic growth have been considered are Unemployment rate, price index, fiscal and monetary policy and forex exchange rate BSE Sensex of 10 years period was taken as supportive variable to GDP. The outcome of the study was that it suggested positive relationship between Sensex and GDP growth rate in India.

Abubakar Attahir Babaji (2016) in his paper investigates the Impact of stock market on economic growth of India. The study included various variables like investment, education, labour and their relationship with GDP along with the relation between stock market and GDP. The study came up with the finding that there is positive relation between education, labour, investment variable on GDP while there is negative impact between stock market and GDP.

Paramati Sudharshan Reddy, Gupta Rakesh (2011) tried to find out whether the performance of stock market affects the economic growth rate of country with special focus on India. The analysis was based on Index of Industrial Production, Stock Market and quarterly Gross Domestic Product covering the period April 1996 to March 2009. The outcome of the study suggested no relationship between the performance of GDP and Stock Market – BSE.

Azarmi Ted (2005) in his paper tried to find out any association do exist between stock market and economic development taking into consideration 10 years around post liberalization period and 10 years period pre liberalization period. It also compared the post liberalization era with the pre liberalization era in terms of Stock market and economic growth in India. The outcome of the study were interesting indicating that there exists corelation between pre liberalized era of 1981-9991 but in the post liberalised era covering 10 years from 1991 to 2001 there existed negative association between stock market performance and economic growth. Overall for the period 1981-2001 the hypothesis do not hold good that there existed correlation between stock market development and economic growth.

AIMS AND OBJECTIVES

1.To see whether a correlation exists between GDP and SENSEX.
2.To see whether SENSEX is reflective of national growth.
3. To have an insight into the various policy decisions undertaken by Government related to Indian economy and its impact on the economic growth of country.

RESEARCH METHODOLOGY

The paper is an exploratory retrospective study based on annual change in SENSEX starting from year 2010 till year 2020 and the corresponding change in GDP. The data has been collected from secondary sources, mainly from Economic Surveys. Variables included for the study are:
1. GDP growth rate
2. SENSEX growth rate

DATA PRESENTATION AND ANALYSIS

Table 1: Data Related to GDP Growth and Sensex

Year	GDP	% Change	Sensex	% Change
2010	8.50		21109	
2011	5.24	-3.26	20665	-2.10
2012	5.46	0.22	19612	-5.10
2013	6.39	0.93	21483	9.54
2014	7.41	1.02	28822	34.17
2015	8.00	0.59	30025	4.17
2016	8.26	0.26	29078	-3.15
2017	7.04	-1.21	34138	17.40
2018	6.12	-0.92	38990	14.21
2019	4.18	-1.94	41806	7.22
2020	-4.50		47897	14.57

Source: bseindia.com and various government websites

An analysis of above table reveals that there has been no significant correlation between economic growth performance and the Sensex. Since 2010 in the period of ten years the growth rate has been sluggish and could not reach even near two digit growth as the policy makers have been striving hard to achieve and the occurrence of COVID-19 made all the growth strategies being derailed not only in India but world wide the reason being complete lockdown being observed by almost all the major economies of the world. On the contrary the stock market has marched smartly and continued to achieve new milestones at regular intervals unshackled by the poor economic growth of the country. Point to be noticed is that after year 2016 the economic growth has been falling continuously while in the same time period from 2016 to 2020 the stock market has increased by 64.72 percent from 29078 points to 47897 points.

The above analysis and data has come up with the result that the strength of stock market not necessarily reflects that the economy is also showing growth in terms of GDP, but mostly it has been observed that the two are performing in opposite directions, however the booming stock market can indicate that the undercurrent of the economy are strong and have potential to grow strong in times to come.

Th question then arises that are there other factors which effect the performance and growth of the economy in general and stock markets. We will try to find out the same under following head.

OTHER FACTORS IMPACTING ECONOMIC GROWTH AND SENSEX

The Indian economy today is treated as one of the fastest growing economies of the world with the potential of direction and pace of world economic growth as well. India has progressed a lot since the introduction of economic reforms in 1991 and has continuously moved ahead, not only in terms of emergence of strong economy but also enjoying the confidence of world economies and being one of the strong constituent of BRICKS nations. To keep continuing on the growth and development path it was imperative to initiate measures to cleanse the economy and bring it out of huge black money (parallel economy), simplify the tax structure and promote uniformity in tax rates and promote ease of doing business to mention a few. Let us now try to find out how these reforms impacted the economic growth and the stock markets of India.

A. DEMONETIZATION

Replacing old national currency with the entirely new one is known as demonetization. The objective of demonetization is to check inflation, control and flush out black money and hit the corruption along with making a big dent to corruption activities by hitting at the financial chain supporting the terrorist activities

As far as India is concerned demonetization had been introduced earlier also when decision related to withdrawal of Rs 1,000 and Rs 10,000 denomination notes was announced on 12th January 1946, which were replaced by new currency notes of denominations of Rs 1,000, Rs 5,000 and Rs 10,000. These new denominated currencies were again withdrawn from circulation by the Janta party in 1978 in order to curb black money from the system.

On 8th November 2016 with the announcement of demonetization Rs. 500 and Rs. 1,000 notes lost their legal status with immediate effect leaving no time for people to respond. With the current demonetization the entire scenario related to currency in circulation changed drastically as the economy was left only with 14 percent legal tender money squeezing the cash available in the hands of people to be utilized for transactions.

Table 2: Status of Currency in Circulation – Post Demonetization

Money in Circulation (8th November 2016)	17.77 lakh crore			
Money Becoming Invalid (86% of Legal Money)		14.18 lakh crore	7.85 lakh crore (Rs 500/- Note)	6.33 lakh crore (Rs 1000/- Note)
Currency Back with Banks (97% of Invalid Currency)		13.75 lakh crore		
Govt Expectations (Failed)			3 lakh crore will not come back to banks	

Source: Compiled from various government websites

Table 3: Sensex Movement and Economic Growth (Impact of Demonetization)

	Sensex	Quarter Ending	GDP Growth Rate
1st April 2016	25606	July 2016 - September 2016	7.3 percent
8th November 2016	27591	October 2016 – December 2016	7.0 percent
21st Nov 2016	25765	January 2017 – March 2017	6.1 percent
31st March 2017	29620		

Source: Compiled from bseindia.com and various government websites

Analysing the above table, we find that as on 8th November 2016 when demonetization was announced total money in circulation was Rs 17.77 lakh crores which was reduced to Rs 3.59 lakh crore a reduction by 86 percent leaving only 14 percent of currency represented by small currency denominations. The act of demonetization resulted in flushing out of undeclared and hidden black money back into the banking channels and as on 28th December 2016 almost 97 percent i.e. 13.75 lakh crore of demonetized currency had been deposited with banks.

The bold decision of the government was well taken by the stock market as it appreciated the effort of the government in spite if the fact that almost all the money 97 percent of the invalid currency came back to with banks the point of appreciation was that now all the money of public which is now with banks is accounted money and at least a big dent has been made on the black money and now all was converted into white money and will be part of recorded transactions in future. The Sensex which closed at 27591 on 8th November 2016 almost stabilised there with minor range bound variation of 1800 points downside to close at 25765 points on 21st Nov 2016 and from there again started northward journey to attain a high of 29620 points on 31st March 2017 the last day of financial year 2015-16. The Sensex which was at 25606 points on 1st April 2016 closed at 29620 on 31st March 2017 showing a rise of 4014 points within the financial year in between demonetization was announced as well. This shows how welcoming was the move of the government for the stock markets to demonetize high value currency notes.

On the other hand due to lack of money left for disposal almost all the economic activities came to halt and the economy felt the burnt of it which squeezed from 7.3 percent economic growth in quarter July – September 2016 (pre demonetization) to 7.0 percent in quarter October-December 2016 (after demonetization) and further to 6.1 percent for quarter ending January-March 2017.

The analysis shows that GDP and Sensex took over the demonetization decision in all together different manner opposite to each other.

B. GOODS AND SERVICE TAX (GST)

With the objective of bringing uniformity in indirect tax system across the country it was empirical to introduce indirect tax reforms. With this objective Value Added Tax (VAT), Excise Duty, Sales tax, Customs Duty, Entertainment Tax and other variety of indirect taxes imposed by central and state governments have been replaced by one tax known as Goods and Service Tax (GST) with effect from 1st July 2017. However, petrol and alcohol have been kept out of the scope of GST as of now.

Main Objectives of GST

1. To eliminate the incidence of double tax system i.e. to protect the goods of service being taxed twice thereby eliminating cascading effect.
2. To promote the philosophy of one nation one tax and thereby replacing number of indirect taxes imposed by central and state governments by a single tax i.e. GST.
3. To reduce the chances of tax evasion and corruption.
4. Increasing Tax-to-GDP ratio and revenue surplus.

Table 4: Sensex Movement and Economic Growth (Impact of GST introduction)

	Sensex	Quarter Ending	GDP Growth Rate
3rd April 2017	29911	July 2017 – September 2017	6.3 percent
30th June 2017	30922	October 2017– December 2017	7.2 percent
3rd July 2017	31222	January 2018 – March 2018	5.8 percent
28th March 2018	32969		

Source: Compiled from bseindia.com and various government websites

Once again it was witnessed that the stock market welcomed the tough decision undertaken by the government relating to promotion of uniformity of indirect tax system across the country by way of introduction of Goods and service Tax (GST) replacing all other indirect taxes of varying nomenclature and dimensions.

BSE Sensex which closed at 30922 points on 30th June 2017 the last trading day before implementation of GST responded positively to close at 31222 on 3rd July 2017 a rise of 300 points. The Sensex during the financial year 2017 – 2018 completed its journey on positive note to move from 29911 on 3rd April 2017 (closing) to 32969 points on 28th March 2018 a rise of 3058 points which further underlines the fact that Sensex is more governed by the tough steps intended to cleanse the economy and make the system better.

On the other hand GDP growth showed mixed response as in the Quarter July – September 2017 GDP increase from 5.7 percent in the previous quarter to 6.3 percent and further to 7.2 percent in quarter October 2017 – December 2017 which showed that the move to implement GST has also a positive impact on the Growth of economy, but since unclear on the implementation part followed by too many GST meetings and revision of GST rates ultimately confused the traders and service providers resulting in fall in Tax collection and also on the business performance resulting a big fall in GDP growth to 5.8 percent in quarter January – March 2018.

We find that where the Sensex almost showed a steady growth to GST implementation the GDP again witnessed roller coaster ride.

C. THE COVID -19 PANDEMIC

The uncertainties have always loomed over the biotic world and mankind have always been exposed to it. The Coronavirus this time has hit the entire world with its emergence in China and by 2020 it spread almost to all countries. India too is not an exception. To save lives and to minimise the adversity of risk posed by the deadly Coronavirus a complete lockdown was observed for months bringing all economic activities to halt. Since world was struggling for survival and all major economic activities coming to stand still it was but obvious that the economic growth off all countries will be hit badly and will even reflect negative growth. The same happened as well when the economic data were released there was negative growth throughout, and India showed a negative growth of – 4.5 percent in 2020-2021 as compared to positive 4.18 percent in the preceding year 2019-2020.

Since world economy was in shackles it was expected that the Sensex will break out completely and will not be able to move northward in near times to come. But it acted otherwise, as with the strict implementation and monitoring of lockdown followed by expansion of adequate health facilities and pharma companies showing their strength to provide enough medical facilities and drugs along with worldwide commitment to develop effective vaccine to hit Coronavirus the Sensex once again zoomed and reached a milestone to surpass 50000 mark on 1st March 2021 and achieving the highest closing of 51444points on 3rd March 2021. This again indicates that stock markets are run not on the current state and affairs of economy but by the responses and policies implemented by the government to face any adversities and the underlying strength of the economy.

Table 5: Sensex Movement and Economic Growth (Covid-19 Impact)

	Sensex	Quarter Ending	GDP Growth Rate
20th March 2020	29916	January 2019 – March 2019	5.2 percent
23rd March 2020	25982	April-2019 – June 2019	4.4 percent
31st March 2020	29469	July 2019 – September 2019	4.0 percent
3rd March 2021	51444	October 2019 – December 2019	3.1 percent

Source: Compiled from bseindia.com and various government websites

OBSERVATIONS

- There is no doubt that a general belief is that if the stock market is rising over a period consistently it means that the economy is strong and performing well. This, however does not stand correct always as the stock market is based on performance of select basket of scripts and the basket also keeps changing as per requirement thus it may happen that even though the stocks representing different sectors may be such which in given situation are performing well and lifting the Sensex though the overall affairs of economy may not be satisfactory hence the stock market be rising but economy may not be representing economic growth.
- The economy is more governed by the quantum of goods and services produced and the picking up of income and purchasing power of people with time, thus if because of any reason the purchasing power, demand for goods and services and production volume gets a setback the economic growth slows down, on the other hand if tough decisions introduced by the government results in cleansing the economy and makes the system smooth it is always welcomed by the stock market even though not liked by public in general and may result in squeezing of income and demand for the time being. Thus, stock market may rise but economic growth may be retarded.
- The decision of the government to go for sudden demonetization took away almost all the purchasing power from the people as only 14 percent of the currency was left into circulation and the rest 86 percent of the currency lost its legal status. This caused a lot of hardships to people and they were made to exchange the Rs.500 and Rs. 1000 notes into small denominations through banks that they have with them in cash and that too up to a certain limit. Thus, demonetization decision almost shackled the entire economic activities and the economic growth derailed in quarters to come. The move was appreciated by the stock market as the decision resulted in flushing out the black money and was now the part of banking channel, all recorded with huge potential of tax revenue generation over it, thus the stock market acted in different direction to show a rise. The Sensex which was at 25606 points on 1st April 2016 closed at 29620 on 31st March 2017 showing a rise of 4014 points within the financial year in between demonetization was announced as well. This shows how welcoming was the move of the government for the stock markets to demonetize high value currency notes.
- Another important decision taken by the government relates to introduction of single tax system of indirect taxes in the name of Goods and Service Tax (GST). This tax replaced several indirect taxes being implemented by central and state governments. Since this was completely a new tax regime trader were not in tune with it as it also was to reduce the unrecorded transactions being everything now recorded properly that too through IT technology and internet recording. Too many meetings on the part of GST council to determine GST rates and frequent change in GST slabs created more confusion among small traders and manufacturers. The impact of this was that the economic growth slowed down drastically. On the other hand, the stock market found this decision as one of the most awaited reforms in the sphere of indirect tax and thus continued to zoom.

- Need not to mention that the present pandemic destroyed the entire world, people were under immense pressure of fear and lockdown was witnessed all around resulting in negative growth of economy. However, the way government tackled the crisis and challenging situation by imposing successfully the lockdown, assuring distribution of basic necessities to needy, generating employment for dwellers and also developing make shift hospitals and providing medical facilities to the needy apart prom promoting research for development of Vaccine on top priority was hailed by the share market and it zoomed to cross 50000 landmark in March 2021.

CONCLUSION

The paper was a result of curiosity to check whether rising Sensex guarantees and supports the gaining growth of economy measured in terms of Gross Domestic Prodiuct (GDP), further while reviewing the research papers the picture was still not clear as few papers proved negative relation between Sensex and GDP while others proved positive relationship. In this background the authors themselves tried to find out the relation between the two variables. The study proved that GDP and Sensex both respond with economic and policy decisions being implemented by the government but in opposite direction. As Sensex gets the direction with the intention of policies implemented by the government to smoothen the system, whereas GDP is more affected by the immediate impact of such policy decisions on purchasing power of people, income generation, demand creation and industrial output. If the decisions result in immediate dent to these parameters though in long run these decisions may bring greater development, the economic growth of country may shrink in present times however the stock market may zoom. Thus, it is imperative to say that rising Sensex do not guarantee economic growth and that the two are not positively corelated.

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