## Sectoral Contribution to the Sensex - An Analysis

Dr. Cynthia Menezes <sup>1</sup> Anil Kumar <sup>2</sup>

#### **Abstract**

India has recorded an average growth rate of 8 per cent over the past four years. This consistency in the growth rate may not be possible in the coming year due to the ongoing global recession. International agencies are of the opinion that there is going to be a great dip in the growth rate of India. Yet India think tanks are of the opinion that that the growth rate of the country can still be maintained though a little lower than expected normally because the domestic demand would sustain it. The sensex has been watched with keen interest in this given scenario. If at all India has been affected by the global meltdown, the question is which could be the sectors that have taken a toll, specifically in relation to contributing to the sensex. A new trend of selisting from the stock exchanges is also evident recently in India and this requires serious considerations regarding its implications on the shareholders. This paper has been divided into sections such as the introduction, sectors expecting growth, sectors most affected, sectors affected moderately, sensex and the sectors correlated, the inference and the concluding remarks.

#### 1.1 Introduction:

Projections of India's growth rate by leading think tanks, institutions and policymakers has been that the country's economic expansion will be sharply lower than 9.1 percent logged during the last fiscal year. The International Monetary Fund (IMF) pegged the growth of India's gross domestic product (GDP) at 5.1 percent. "We now expect the global economy to come to a virtual halt," said IMF chief economist Olivier Blanchard as IMF released an update to its World Economic Outlook together with an update to its Global Financial Stability Report. Amidst such dire circumstances, Commerce Minister Kamal Nath exuded fresh confidence that the Indian economy would expand by 7-8 percent. The Economic Intelligence Unit (EIU) moderately assessed that the Indian economy would grow by 5.6 percent this fiscal year. While growth projections for India for 2009 have been lowered by 1.2 percentage points than predicted last November, its growth rate is still expected to go up to 6.5 percent in 2010, only .03 points lower than that forecast earlier.

These projections were made after the Reserve Bank of India (RBI) lowered its growth forecast for the current fiscal to 7 percent from 7.5-8 percent. Yet, senior ministers have been optimistic that the economy will maintain its momentum. "India's path to recovery will be faster than that of the rest of the world," Kamal Nath told the World Economic Forum "For example, after industrial downturn in October 2008, the November figure was positive at 2.4 percent. The financial situation has eased somewhat and liquidity is accessible in the domestic markets."

<sup>&</sup>lt;sup>1</sup> Canara Bank School of Management Studies, Bangalore University

Student, IV Sem. MBA, Canara Bank School of Management Studies, Bangalore University

External Affairs Minister Pranab Mukherjee, temporarily in charge of the finance ministry, maintained that the Indian economy will grow by 7 percent during this financial year. "Emerging markets like India have had a good run in recent years on the back of buoyant world trade growth and abundant global liquidity, which in turn drove strong domestic demand expansion," said Manoj Vohra, director of research at EIU. "However, the environment changed dramatically in the second half of 2008 and will deteriorate further in 2009," he added. "We expect India's GDP (gross domestic product) to grow by only 5.6 percent in 2008-09, compared to 9 percent last year..." (IANS)

Ashok Chawla, Secretary of the Department of Economic Affairs, said in his inaugural address at the third India China Financial Dialogue, "With the presence of strong domestic demand stimulus, India is expected to maintain a strong pace of economic growth despite continuation of global recession. The pace of growth next year is contingent upon how long the global recession lasts and how quickly capital flows return to normal. India has taken a number of steps to inject liquidity into the financial systems, recapitalised banks and other systemically important institutions to tide over the crisis. With overall investment climate becoming gloomy, private investment in developing countries would show a declining trend. Expanding investment in infrastructure by both the private and public sectors could act as an effective countercyclical device to stimulate demand and to create conditions conducive for faster growth," Chawla said. (IANS)

Commerce and Industry Minister Kamal Nath maintained that India's domestic demand will help it sustain economic growth despite the prevailing global downturn, which could not hit the country as much as it impacted other economies. "India's growth story is based on domestic demand. It is not based on the export market entirely...we can continue to keep our domestic demand-driven growth. We cannot insulate or isolate ourselves from it (global downturn) but we can continue to keep our domestic demand." Kamal Nath said on the first day of the five-day annual World Economic Forum (WEF) meet at Davos in Switzerland on January 28, 2009.

He stated that the Central government had announced four billion dollars for infrastructure projects, which would take off in the next couple of months. "That is creating domestic demand...and that is what is going to sustain(us) through. We are not going to get hit as (badly) as other countries." Nath claimed.

India's exports, worth around USD 200 billion, contribute about 20 per cent to its domestic production. The economy, which grew by over 9 per cent in the last three financial years in a row, has shown signs of weakness in the current fiscal year. Meanwhile, Kamal Nath during an interview remarked that the regulatory mechanism in India may be strengthened in view of the Satyam episode, but the global economy should not view this single incident as a "red flag". (ANI)

It would be naive to imagine that a recession in the United States would have no impact on India. The United States accounts for one-fourth of the world GDP and any significant slowdown is bound to have reverberations elsewhere. On the other hand, interdependencies between the US economy and emerging economies like India and China has reduced considerably over the last two decades. Thus, the effect may not be as drastic as would have been the case in the 1980s. Even so, fears of a US recession led to panic in the Indian stock market. January 21 and 22 saw a meltdown with a mind-boggling US\$450 billion in market capitalization being vaporized. An unprecedented interest cut by the Fed led to a bounce-back on January 23 and at the time of this writing, the benchmark index (BSE) has gained 2.5%, almost in line with Hang-Seng, Nikkei, and Kospi. (Krishnamurthy)

#### 1.2 Sectors expecting growth:

Even though every business sector has been affected by the present global crisis, in India there are a few sectors which will continue to grow even in this adverse situation as per a newspaper article, which shows the following as growth projected sectors.

Vol 2 Issue 1 March 2009 75

- 1. Food: Since basic food material like milk, vegetables and drinking water cannot be produced by consumers themselves, food processing companies will earn profits by increasing the prices. According to MFPI, the food processing industry in India was seeing growth even as the world was facing economic recession. According to the ministry, the industry is presently growing at 14 percent against 6-7 per cent growth in 2003-04. The Indian food market is estimated at over US\$ 182 billion, and accounts for about two thirds of the total Indian retail market. Further, the retail food sector in India is likely to grow from around US\$ 70 billion in 2008 to US\$ 150 billion by 2025.
- 2. Railways: The Railways registered 13.87% growth in revenue to Rs 57,863.90 crore in the first nine months ended December 31, 2008. While total earnings from freight increased by 14.53% at Rs 39,085.22 crore during the period, passenger revenue earnings were up 11.81% at Rs 16,242.44 crore.
- 3. PSU Banks: A report "Opportunities in Indian Banking Sector", by market research company, RNCOS, forecasts that the Indian banking sector will grow at a healthy compound annual growth rate (CAGR) of around 23.3 per cent till 2011.
- **4. Education:** D E Shaw, a US\$ 36 billion, global private equity firm is planning to invest around US\$ 200 million in the Indian education sector.
- 5. Telecom: The Telecom sector, according to industry estimates, year 2008 started with a subscriber base of 228 million and is likely to end with a subscriber base of 332 million. The Telecom industry expects to add at least another 90 million subscribers in 2009 despite recession. The Indian telecommunications industry is one of the fastest growing in the world and India is projected to become the second largest telecom market globally by 2010.

- 6. IT: The Indian IT sector is projected to grow 30-40% this year. As per a Confederation of Indian Industry (CII) report, the industry is growing at an annual rate of 35 per cent and India's outsourcing opportunities in the value-added and core services such as copy editing, project management, indexing, media services and content deployment will help make the publishing BPO Industry worth US\$ 1.46 billion by 2010.
- 7. Health Care: Healthcare, which is a US\$ 35 billion industry in India, is expected to reach over US\$ 75 billion by 2012 and US\$ 150 billion by 2017.
- **8. Luxury Products:** According to recent research on luxury trends, the number of families with annual incomes of more than \$230,000 will have more than doubled from 20,000 in 2002 to 53,000 by the end of 2005 and will grow to 140,000 by 2010.
- 9. M&A & Marketing Consultants: According to Ministry of Commerce and Industry's estimation, the current size of consulting industry in India is about Rs.10000/- crores including exports and is expected to grow further at a CAGR of approximately 25% in the next few years
- 10. Media and Entertainment: According to a report published by the Federation of Indian Chambers of Commerce and Industry (FICCI), the Indian M&E industry is expected to grow at a compound annual growth rate (CAGR) of 18 per cent to reach US\$ 23.81 billion by 2012. According to the PWC report, the television industry was worth US\$ 5. 48 billion in 2007, recording a growth of 18 per cent over 2006. It is further likely to grow by 22 per cent over the next five years and be worth US\$ 12. 34 billion by 2012. (Motiwala).

- 1.3 Sectors most affected: However there are certain reports that claim that some sectors are definitely affected by the recession. The severely hit industries are:. Banks: Some banks like the Punjab National Bank, Bank of India, State Bank of India and Bank of Baroda have been affected as they had an exposure to the instruments issued by Lehman and Merrill Lynch. However, if the overall Banking sector in India is considered, heavy regulation coupled with the tendency of banks to be cautious has protected the Indian banking industry.
- 2. Infrastructure companies: Ongoing projects may not be affected but future ones might, by both private companies and the government. Stocks of infrastructure companies will take a hit.
- Information Technology: IT companies with a lot of business abroad and in the US are safer. The negatives for Indian IT, is that two sectors, Manufacturing and Retail, will drastically cut their IT costs.
- Real Estate: With builders facing liquidity problems, their expansion plans have been hit and their present projects are being delayed.
- **1.4 Sectors affected moderately:** Sectors which have had a moderate effect of the economic meltdown are:
- 1. Power: Demand will decrease, but replacement demand will not be affected.
- 2. Automobiles: The auto companies bottom lines will suffer as their exports will take a hit, but even then as compared to other countries Indian Auto companies will suffer less as their sales from exports is less. Overall, exports are down. And this affects all industries with any export component, particularly textiles, jewellery and so on.

3 Hospitality, travel and tourism: Tourist flow from foreign countries is set to reduce. Hotels will have their profitability affected as they slash rates and give discounts.

There will be an indirect impact on all industries. For example, FMCG (Fast Moving Consumer Goods) companies will be affected indirectly as consumer spending will reduce. High spenders are believed to be those from the IT sector and this will affect spending, particularly of luxury items.

#### 1.5 Sensex and the sectors correlated:

A Times of India March 23 report states that Companies such as Bajaj Auto, Maruti Suzuki, Hindustan Zinc, National Aluminium Company (NALCO), Sterlite Industries and Infosys led the list of net cash companies whose stocks have given over 10 per cent return in 2009 even as the blue chip benchmark BSE sensex fell by 7 per cent in the same time as per an analysis. A select list of 20 companies having net cash position show that around 15 have out performed the sensex on an individual basis, meaning these firms have performed better than the benchmark index.

Given the above paradoxes, it was necessary to find out whether the thirty scrips included in the BSE sensex contributed positively to every increase or decrease in the sensex. Data on the closing market values of shares of these companies was taken from January 2008 to February 2009 for 12 months and correlated with the closing monthly average sensex values of the same period. The following table shows the results achieved.

# TABLE SHOWING THE COMPANIES UNDER DIFFERENT SECTORS, THE CORRELATION COEFFICIENT, THE COEFFICIENT OF DETERMINATION, THE PROBABLE ERROR AND THE SIGNIFICANCE OF CORRELATION

SECTOR	SL. NO.	CO. NAME	CODE	R	r²	PE	CORRELATION AND SIGNATURE
HOUSING RELATED	1.	ACC LTD.	500410	0.87	0.76	0.046 (6 PE, 0.276)	POSITIVE, CERTAIN AND SIGNIFICANT
HOUSING RELATED	2.	AMBUJA CEMENTS	500425	0.89	0.79	0.04 (6 PE, 0.24)	POSITIVE, CERTAIN AND SIGNIFICANT
HOUSING RELATED	3.	DLF LTD	532868	0.39	0.15	0.16 (6 PE, 0.96)	POSITIVE
TRANSPORT EQUIPMENTS	4.	BAJAJ AUTO LTD	500490	0.64	0.40	0.11 (6 PE, 0.68)	POSITIVE
TRANSPORT EQUIPMENTS	5.	MAHINDRA & MAHINDRA LTD.	500520	0.97	0.94	0.01 (6 PE, 0.06)	POSITIVE, CERTAIN AND SIGNIFICANT
TRANSPORT EQUIPMENTS	6.	MARUTI SUZUKI INDIA LTD.	532500	0.86	0.73	0.05 (6 PE, 0.3)	POSITIVE, CERTAIN AND SIGNIFICANT
CAPITAL GOODS	7.	TATA MOTORS LTD.	500570	0.98	0.96	0.08 (6 PE, 0.48)	POSITIVE, CERTAIN AND SIGNIFICANT
CAPITAL GOODS	8.	NHEL	500103	0.86	0.73	0.05 (6 PE, 0.3)	POSITIVE, CERTAIN AND SIGNIFICANT
CAPITAL GOODS	9.	LARSEN & TOUBRO LTD.	500510	0.97	0.94	0.01 (6 PE, 0.06	POSITIVE, CERTAIN AND SIGNIFICANT
TELECOM	10.	BHARATI AIRTEL LTD.	532454	0.92	0.85	0.03 (6 NPE, 5.52)	POSITIVE, CERTAIN AND SIGNIFICANT
TELECOM	11.	RELIANCE COMMUNICATIONS LTD.	532712	0.98	0.96	0.08 (6 PE, 0.48)	POSITIVE, CERTAIN AND SIGNIFICANT
HEALTHCARE	12.	CIPLA LTD.	50087	0.61	0.37	0.12 (6 PE, 0.72)	POSITIVE
HEALTHCARE	13.	RANBAXY LABS LTD.	500359	0.84	0.70	0.06 (6 PE, 5.04)	POSITIVE
DIVERSIFIED	14.	GRASIM INDUSTRIES LTD.	50030	0.96	0.92	0.02 (6 PE, 0.12)	POSITIVE, CERTAIN AND SIGNIFICANT
FINANCE	15.	HDFC	50010	0.98	0.96	0.007 (6 PE, 5.88)	POSITIVE

SECTOR	SL. NO.	CO. NAME	CODE	R	r²	PE	CORRELATION AND SIGNATURE
FINANCE	16.	HDFC BANK LTD.	500180	0.001	0.0001	0.19 (6 PE, 0.006)	POSITIVE
FINANCE	17.	ICICI BANK LTD.	532174	0.95	0.90	0.019 (6 PE, 5.7)	POSITIVE
FINANCE	18.	STATE BANK OF INDIA	500112	0.82	0.67	0.06 (6 PE, 0.36)	POSITIVE, CERTAIN AND SIGNIFICANT
METAL, METAL PRODUCTS & MINNING	19.	HINDALCO INDUSTRIES LTD.	500440	0.98	0.96	0.08 (6 PE, 5.88)	POSITIVE
METAL, METAI PRODUCTS & MINNING	20.	TATA STEEL LTD.	500470	0.96	0.92	0.02 (6 PE, 0.12)	POSITIVE, CERTAIN AND SIGNIFICANT
FMCG	21.	HINDUSTAN UNILEVER LTD.	500696	0.17	0.02	0.19 (6 PE, 1.02)	POSITIVE
FMCG	22.	ITC LTD.	500875	0.98	0.96	0.08 (6 PE, 5.88)	POSITIVE
INFORMATION TECHNOLOGY	23.	INFOSYS TECHNOLOGIES LTD.	500209	0.76	0.57	0.08 (6 PE, 4.56)	POSITIVE
INFORMATION TECHNOLOGY	24.	SATYAM COMPUTER SERVICES LTD.	500376	0.85	0.72	0.05 (6 PE, 0.3)	POSITIVE, CERTAIN AND SIGNIFICANT
INFORMATION TECHNOLOGY	25.	TATA CONSULTANCY SERVICES LTD.	532540	0.93	0.86	0.03 (6 PE, 0.18)	POSITIVE, CERTAIN AND SIGNIFICANT
INFORMATION TECHNOLOGY	26.	WIPRO LTD.	507685	0.94	0.88	0.02 (6 PE, 0.12)	POSITIVE, CERTAIN AND SIGNIFICANT
POWER	27.	NTPC LTD.	532555	0.52	0.27	0.14 (6 PE, 0.3)	POSITIVE, CERTAIN AND SIGNIFICANT
POWER	28.	RELIANCE ENERGY LTD,	500390	0.93	0.86	0.03 (6 PE, 0.18)	POSITIVE, CERTAIN AND SIGNIFICANT
OIL AND GAS	29.	ONGC LTD.	500312	0.84	0.70	0.057 (6 PE, 0.3)	POSITIVE, CERTAIN AND SIGNIFICANT
OIL AND GAS	30.	RELIANCE INDUSTRIES LTD.	500325	0.98	0.96	0.08 (6 PE, 0.48)	POSITIVE, CERTAIN AND SIGNIFICANT

Vol 2 Issue 1 March 2009 79

1.6 Inference: The following is the inference on the correlation between the market values of the thirty different shares and the sensex.

Bajaj Auto Ltd, Cipla Ltd, HDFC Bank Ltd, Mahindra and Mahindra Ltd, Maruti Suzuki India Ltd, Tata Motors Ltd, Larson and Toubro Ltd, Bharati Airtel Ltd, Reliance Communications Ltd, Grasim Industries Ltd, HDFC, , ICICI Bank Ltd, Hindalco Industries Ltd, Tata Steels Ltd, ITC Ltd, Tata Consultancy Services Ltd, Wipro Ltd, Reliance Energy Ltd, Reliance Industries Ltd all have a correlation coefficient of greater than 0.9 which goes to say that these share values have a perfect and positive correlation with the sensex.

ACC Ltd, Ambuja Cements, Maruti Suzuki India Ltd, BHEL, Ranbaxy labs Ltd, State Bank of India, Satyam Computer Services, ONGC Ltd, have a correlation coefficient of greater than 0.8 but less than 0.9 which again shows a positive correlation.

Infosys Technologies has a correlation coefficient of 0.76 showing moderate to high correlation. Bajaj Auto Ltd, Cipla Ltd, have a correlation coefficient of greater than 0.6 and less than 0.7 which shows a moderate to high correlation. NTPC has a correlation of 0.52 showing only moderate correlation. DLF ltd shows a low correlation of 0.39. Hindustan Unilever ltd has a low correlation of 0.17 and HDFC Bank ltd has an even lower correlation of 0.001.

According to the above analysis, all the various shares seem to grow positively against the sensex except that of NTPC, which is a power sector. Various indicators stated above from sources in newspapers have quoted the probable rise in the power sector. This analysis seems to indicate that out of the power sector represented by NTPC and Reliance Energy, NTPC has shown a lower correlation coefficient than Reliance which has shown a perfect and positive correlation with the sensex.

Out of the housing related sector represented by ACC Ltd., Ambuja Cements Ltd. And DLF Ltd., only DLF Ltd. seems to have a moderate correlation coefficient (0.39). Yet here, there is a pointer in the fact that given the recession, the housing related sector seems to have been affected. This trend should not be able to continue, in fact given the recent initiatives of the government of

India in reducing the CRR and Repo rates for banks the housing related sector should pick up adequately. It could also relate to the fact that people maybe spending less on housing related goods because construction people seem to have ceased many ongoing constructions.

The rather low correlation coefficient of HUL and the HDFC bank could be related to their individual company specific causes because there is no such low correlation in related sectors. DLF Ltd., Bajaj Auto Ltd., Cipla Ltd., HDFC, HDFC Bank Ltd., Ranbaxy Labs Ltd., ICICI Bank Ltd., Hindustan Unilever Ltd., Hindalco Industries Ltd., ITC Ltd., Infosys Ltd., have positive correlation but this correlation is not significant.

1.7 Concluding remarks: As said in a times of India report of March 24, as markets went for a toss and share prices dropped, in the past few months, many big names have expressed their desire to delist companies from the stock exchange. Companies can be voluntarily or involuntarily delisted if the promoter group crosses the 89.99 % mark, according to SEBI rules. Indian-focussed mining group, Vedanta resources, parent of Malco, announced plans recently to pay Rs. 115 per share to boost its stake in Malco from 80% to 93%, thereby triggering the need to delist the aluminium producer. Korean based Lotte Confectionary announced plans to delist its Indian subsidiary Lotte India by buying 19.61 % stake in the firm from non promoters. Delisting means the practice of removing the stock of a Company from a stock exchange so that investors can no longer trade shares on that exchange. Trends in the Indian capital market have recently indicated that more and more companies who are financially healthy intend to go private. This is a trend that certainly requires attention from market watchers.

### REFERENCES

1. BV Krishnamurthy, Impact of a Possible US Recession in India, 2.November 12, 2008.

Http://blogs.harvardbusiness.org/cs/2008/01/impact\_of\_ a\_possible\_us\_recess.html

- Sectors most affected by the slowdown in the Indian economy,, Article Source: <a href="http://EzineArticles.com/?">http://EzineArticles.com/?</a> expert=Azaz Motiwala
- 3. Recession evokes mixed reactions from Indian companies, November 20th, 2008 7:09 pm ICT by ANI www.thaindian.com/newsportal/india-news/recession-evokes-mixed-reactions-from-indian-companies.
- 4. India to grow at 7-7.5 percent: Ashok Chawla, January 17th, 2009 7:09 pm ICT by IANS. www.thaindian.com/newsportal/uncategorized/india-to-grow-at-7-75-percent-ashok-chawla
- 5. Domestic demand to help Indian economy despite global slowdown: Kamal Nath, January 28th, 2009 11:38 pm ICT by ANI, www.thaindian.com/.../world.../domestic-demand-to-help-indian-economy-despite-global-slowdown-kamal-nath
- 6. India's growth will retard, debate only over quantum (Roundup), January 29th, 2009 8:44 pm ICT by IANS, www.thaindian.com/newsportal/uncategorized/indias-growth-will-retard-debate-only-over-quantum-roundup

Vol 2 Issue 1 March 2009 81