CHAPTER 7

The Stock Markets Index

7.1 - Overview

If I were to ask you to give me a real time summary on the traffic situation, how would you possibly do it?

Your city may have 1000's of roads and junctions; it is unlikely you would check each and every road in the city to find the answer. The wiser thing for you to do would be to quickly check, a few important roads and junctions across the four directions of the city and observe how the traffic is moving. If you observe chaotic conditions across these roads then you would simply summarize the traffic situation as chaotic, else traffic can be considered normal.

The few important roads and junctions that you tracked to summarize the traffic situation served as a barometer for the traffic situation for the entire city!

Drawing parallels, if I were to ask you how the stock market is moving today, how would you answer my question? There are approximately 5,000 listed companies in the Bombay Stock Exchange and about 2,000 listed companies in the National Stock Exchange. It would be clumsy to check each and every company, figure out if they are up or down for the day and then give a detailed answer.

Instead you would just check few important companies across key industrial sectors. If majority of these companies are moving up you would say markets are up, if the majority is down, you would say markets are down, and if there is a mixed trend, you would say markets are sideways!

So essentially identify a few companies to represent the broader markets. So every time someone asks you how the markets are doing, you would just check the general trend of these selected stocks and then give an answer. These companies that you have identified collectively make up the stock market index!

7.2 - The Index

Luckily you need not actually track these selected companies individually to get a sense of how the markets are doing. The important companies are pre packaged, and continuously monitored to give you this information. This pre packaged market information tool is called the 'Market Index'.

There are two main market indices in India. The **S&P BSE** Sensex representing the Bombay stock exchange and **CNX Nifty** representing the National Stock exchange.

S&P stands for Standard and Poor's, a global credit rating agency. S&P has the technical expertise in constructing the index which they have licensed to the BSE. Hence the index also carries the S&P tag.

CNX Nifty consists of the largest and most frequently traded stocks within the National Stock Exchange. It is maintained by India Index Services & Products Limited (IISL) which is a joint venture of National Stock Exchange and CRISIL. In fact the term 'CNX' stands for CRISIL and NSE.

An ideal index gives us minute by minute reading about how the market participants perceive the future. The movements in the Index reflect the changing expectations of the market participants. When the index goes up, it is because the market participants think the future will be better. The index drops if the market participants perceive the future pessimistically.

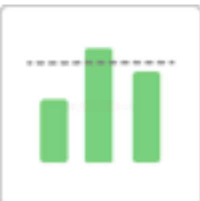
7.3 - Practical uses of the Index

Some of the practical uses of Index are discussed below.

Information – The index reflects the general market trend for a period of time. The index is a broad representation of the country's state of economy. A stock market index that is up indicates people are optimistic about the future. Likewise when the stock market index is down it indicates that people are pessimistic about the future.

For example the Nifty value on 1st of January 2014 was 6301 and the value as of 24th June 2014 was 7580. This represents a change of 1279 points in the index of 20.3% increase. This simply means that during the time period under consideration, the markets have gone up quite significantly indicating a strong optimistic economic future.

The time frame for calculating the index can be for any length of time.. For example, the Index at 9:30 AM on 25th June 2014 was at 7,583 but an hour later it moves to 7,565. A drop of 18 points during this period indicates that the market participants are not too enthusiastic.



Benchmarking – For all the trading or investing activity that one does, a yardstick to measure the performance is required. Assume over the last 1 year you invested Rs.100,000/- and generated Rs.20,000 return to make your total corpus Rs.120,000/-. How do you think you performed? Well on the face of it, a 20% return looks great. However what if during the same year Nifty moved to 7,800 points from 6,000 points generating a return on 30%?

Well suddenly it may seem to you, that you have underperformed the market! If not for the Index you can't really figure out how you performed in the stock market. You need the index to benchmark the performance of a trader or investor. Usually the objective of market participants is to outperform the Index.

Trading - Trading on the index is probably one of most popular uses of the index. Majority of the traders in the market trade the index. They take a broader call on the economy or general state of affairs, and translate that into a trade.

For example imagine this situation. At 10:30 AM the Finance Minister is expected to deliver his budget speech. An hour before the announcement Nifty index is at 6,600 points. You expect the budget to be favorable to the nation's economy. What do you think will happen to the index? Naturally the index will move up. So in order to trade your point of view, you may want to buy the index at 6,600. After all, the index is the representation of the broader economy.

So as per your expectation the budget is good and the index moves to 6,900. You can now book your profits, and exit the trade at a 300 points profit! Trades such as these are possible through what is known as 'Derivative' segment of the markets. We are probably a bit early to explore derivatives, but for now do remember that index trading is possible through the derivative markets.

Portfolio Hedging – Investors usually build a portfolio of securities. A typical portfolio contains 10 – 12 stocks which they would have bought from a long term perspective. While the stocks are held from a long term perspective they could foresee a prolonged adverse movement in the market (2008) which could potentially erode the capital in the portfolio. In such a situation, investors can use the index to hedge the portfolio. We will explore this topic in the risk management module.

7.4 - Index construction methodology

It is important to know how the index is constructed /calculated especially if one wants to advance as an index trader. As we discussed, the Index is a composition of many stocks from different sectors which collectively represents the state of the economy. To include a stock in the index it should qualify certain criteria. Once qualified as an index stock, it should continue to qualify on the stated criteria. If it fails to maintain the criteria, the stock gets replaced by another stock which qualifies the prerequisites.

Based on the selection procedure the list of stocks is populated. Each stock in the index should be assigned a certain weightage. Weightage in simpler terms define how much importance a certain stock in the index gets compared to the others. For example if ITC Limited has 7.6% weightage on Nifty 50 index, then it is as good as saying the that the 7.6% of Nifty's movement can be attributed to ITC.

The obvious question is - How do we assign weights to the stock that make up the Index?

There are many ways to assign weights but the Indian stock exchange follows a method called **free float market capitalization**. The weights are assigned based on the free float market capitalization of the company, larger the market capitalization, higher the weight.

Free float market capitalization is the product of total number of shares outstanding in the market, and the price of the stock.

For example company ABC has a total of 100 shares outstanding in the market, and the stock price is at 50 then the free float market cap of ABC is 100*50 = Rs.5,000.

At the time of writing this chapter, the following as per Table 7.1 are the 50 stocks in Nifty as per their weightage…

Table 7.1 - Nifty stocks as per their weightage

Sl No	Name of the company	Industry	Weightage (%)
1	ITC Limited	Cigarettes	7.60
2	ICICI Bank Ltd	Banks	6.55
3	HDFC Ltd	Housing Finance	6.45
4	Reliance Industry Ltd	Refineries	6.37
5	Infosys Ltd	Computer Software	6.26
6	HDFC Bank Ltd	Banks	5.98
7	TCS Ltd	Computer Software	5.08
8	L&T Ltd	Engineering	4.72
9	Tata Motors Ltd	Automobile	3.09
10	SBI Ltd	Banks	2.90
11	ONGC Ltd	Oil Exploration	2.73
12	Axis Bank Ltd	Banks	2.50
13	Sun Pharma Ltd	Pharmaceuticals	2.29
14	M&M Ltd	Automobiles	2.13
15	HUL Ltd	FMCG	1.87
16	Bharti Airtel Ltd	Telecom Services	1.70
17	HCL Technologies Ltd	Computer software	1.61
18	Tata Steel Ltd	Metal -Steel	1.42
19	Kotak Mahindra Bank Ltd	Banks	1.40

Sl No	Name of the company	Industry	Weightage (%)
20	Sesa Sterlite Ltd	Mining	1.38
21	Dr.Reddy's Lab Ltd	Pharmaceuticals	1.37
22	Wipro Ltd	Computer Software	1.37
23	Maruti Suzuki India Ltd	Automobile	1.29
24	Tech Mahindra Ltd	Computer Software	1.24
25	Hero Motocorp Ltd	Automobile	1.20
26	NTPC Ltd	Power	1.15
27	Power Grid Corp Ltd	Power	1.13
28	Asian Paints Ltd	Paints	1.10
29	Lupin Ltd	Pharmaceuticals	1.09
30	Bajaj Auto Ltd	Automobile	1.07
31	Hindalco Industries Ltd	Metal – Aluminum	0.95
32	Ultratech Cements Ltd	Cements	0.95
33	Indusind Bank Ltd	Banks	0.94
34	Coal India Ltd	Mining	0.93
35	Cipla Ltd	Pharmaceuticals	0.89
36	BHEL Ltd	Electrical Equipment	0.79

Sl No	Name of the company	Industry	Weightage (%)
37	Grasim Industries Ltd	Cements	0.79
38	Gail (India) Ltd	Gas	0.78
39	IDFC Ltd	Financial Services	0.74
40	Cairn India Ltd	Oil Exploration	0.72
41	United Sprits Ltd	Distillery	0.70
42	Tata Power Co.Ltd	Power	0.68
43	Bank of Baroda	Banks	0.63
44	Ambuja Cements Ltd	Cements	0.61
45	BPCL	Refineries	0.58
46	Punjab National Bank	Banks	0.55
47	NMDC Ltd	Mining	0.52
48	ACC Ltd	Cements	0.50
49	Jindal Steel & Power	Steel	0.38
50	DLF Ltd	Construction	0.34

As you can see, ITC Ltd has the highest weightage. This means the Nifty index is most sensitive to price changes in ITC Ltd, and least sensitive to price changes in DLF Ltd.

7.5 - Sector specific indices

While the Sensex and Nifty represent the broader markets there are certain indices that represents specific sectors. These are called the sectoral indices. For example the Bank Nifty on NSE represents the mood specific to the banking industry. The CNX IT on NSE represents the behavior of all the IT stocks in the stock markets. Both BSE and NSE have sector specific indexes. The construction and maintenance of these indices is similar to the other major indices.

Key takeaways from this chapter

1. An index acts as a barometer of the whole economy
2. An index going up indicates that the market participants are optimistic
3. An index going down indicates that the market participants are pessimistic
4. There are two main indices in India – The BSE Sensex and NSE's Nifty
5. Index can be used for a variety of purposes – information, bench marking, trading and hedging.
6. Index trading is probably the most popular use of the index
7. India follows the free float market capitalization method to construct the index
8. There are sector specific indices which convey the sentiment of specific sectors