S&P CNX *NIFTY*

Frequently Asked Questions

NATIONAL STOCK EXCHANGE OF INDIA LTD.

S&P CNX Nifty – Frequently Asked Questions

Basics
1. What are the essentials of a stock market index ?
2. What do the ups and downs of an index mean?
3. What is the basic idea of an index?
4. What kind of averaging is done?
5. What is the portfolio interpretation of index movements?
6. Why are indices important?
7. What kinds of indices exist?

Index construction .
1. Isn't averaging like diversification; cancelling out vulnerability to one stock?
2. Then a larger number of stocks in an index will give more diversification -- isn't that a good thing? Why don't we put all the stocks of the country into the index?

Component illiquidity contaminates index
1. What is wrong with the price information for illiquid stocks?
2. A stock may be liquid on one exchange and illiquid on another -- what price do you take when calculating the index?
3. What are 'stale prices'?
4. What is 'bid-ask bounce'?
5. What about market manipulation - how would manipulation of an index take place, and how would an index be made less vulnerable to manipulation?
6. So diversification yields diminishing returns, and illiquid stocks are best kept out of an index..... what is the ideal middle road?

The S&P CNX Nifty
1. How does the S&P CNX Nifty work?
2. What is 'impact cost' ?
3. What do you mean by 'an S&P CNX Nifty trade' ?
4. What's the impact cost on Rs. 5 million of the full S&P CNX Nifty ?

Index revision
1. Why does the index keep changing from time to time?
2. When a stock goes out and a new stock comes in, doesn't that make index levels non-comparable ?
3. Index revision sounds dangerous in terms of political pressures. Won't speculators try to push a stock they have purchased into the index? Or remove a stock from the index when they are going short on it ?

Basics

Q: What are the essentials of a stock market index ?
A: A stock market index should capture the behaviour of the overall equity market.

Movements of the index should represent the returns obtained by "typical" portfolios in the country.

Q: *What do the ups and downs of an index mean?*

A: They reflect the changing expectations of the stock market about future dividends of India's corporate sector. When the index goes up, it is because the stock market thinks that the prospective dividends in the future will be better than previously thought. When prospects of dividends in the future become pessimistic, the index drops. The ideal index gives us instant-to-instant readings about how the stock market perceives the future of India's corporate sector.

Q: *What is the basic idea of an index?*

A: Every stock price moves for two possible reasons: news about the company (e.g. a product launch, or the closure of a factory, etc.) or news about the country (e.g. nuclear bombs, or a budget announcement, etc.). The job of an index is to purely capture the second part, the movements of the stock market as a whole (i.e. news about the country). This is achieved by averaging. Each stock contains a mixture of these two elements - stock news and index news. When we take an average of returns on many stocks, the individual stock news tends to cancel out. On any one day, there would be good stock-specific news for a few companies and bad stock-specific news for others. In a good index, these will cancel out, and the only thing left will be news that is common to all stocks. The news that is common to all stocks is news about India. That is what the index will capture.

Q: *What kind of averaging is done?*

A: For technical reasons, it turns out that the correct method of averaging is to take a weighted average and give each stock a weight proportional to its market capitalisation. Suppose an index contains two stocks A and B. A has a market capitalisation of Rs.1000 crore and B has a market capitalisation of Rs.3000 crore. Then we attach a weight of 1/4 to movements in A and 3/4 to movements in B.

Q : *What is the portfolio interpretation of index movements?*

A : It is easy to create a portfolio, which will reliably get the same returns as the index. i.e. if the index goes up by 4%, this portfolio will also go up by 4%. Suppose an index is made of two stocks, one with a market cap of Rs.1000 crore and another with a market cap of Rs.3000 crore. Then the index portfolio will assign a weight of 25% to the first and 75% weight to the second. If we form a portfolio of the two stocks, with a weight of 25% on the first and 75% on the second, then the portfolio returns will equal the index returns. So if you want to buy Rs. 1 lakh of this two-stock index, you would buy Rs. 25,000 of the first and Rs 75,000 of the second; this portfolio would exactly mimic the two-stock index. A stock market index is hence just like other price indices in showing what is happening on the overall indices. The wholesale price index is a comparable example. In addition, the stock market index is attainable as a portfolio.

Q : *Why are indices important ?*

A : Traditionally, indices have been used as information sources. By looking at an index

we know how the market is faring. This information aspect also figures in myriad applications of stock market indices in economic research. This is particularly valuable when an index reflects highly upto date information (a central issue which is discussed in detail ahead) and the portfolio of an investor contains illiquid securities - in this case, the index is a lead indicator of how the overall portfolio will fare. In recent years, indices have come to the fore owing to direct applications in finance, in the form of index funds and index derivatives. Index funds are funds which passively 'invest in the index'. Index derivatives allow people to cheaply alter their risk exposure to an index (this is called hedging) and to implement forecasts about index movements (this is called speculation). Hedging using index derivatives has become a central part of risk management in the modern economy, These applications are now a multi-trillion dollar industry worldwide, and they are critically linked up to market indices. Finally, indices serve as a benchmark for measuring the performance of fund managers. An all-equity fund should obtain returns like the overall stock market index. A 50:50 debt:equity fund should obtain returns close to those obtained by an investment of 50% in the index and 50% in fixed income. A well-specified relationship between an investor and a fund manager should explicitly define the benchmark against which the fund manager will be compared, and in what fashion.

Q : *What kinds of indices exist ?*
A : The most important type of market index is the broad-market index, consisting of the large, liquid stocks of the country. In most countries, a single major index dominates benchmarking, index funds, index derivatives and research applications. In addition, more specialised indices often find interesting applications. In India, we have seen situations where a dedicated industry fund uses an industry index as a benchmark. In India, where clear categories of ownership groups exist, it becomes interesting to examine the performance of classes of companies sorted by ownership group.

Index construction

Q : *Isn't averaging like diversification ; cancelling out vulnerability to one stock ?*
A : Yes, the averaging that takes place in an index is equivalent to diversification. Diversification cancels out individual stock fluctuations. From an investment perspective, diversification reduces risk, the only thing left after good diversification is the common factor -- news such as nuclear bombs -- which hits all stocks and cannot possibly be removed by diversification.

Q : *Then a larger number of stocks in an index will give more diversification - isn't that a good thing ? Why don't we put all the stocks of the country into the index ?*
A : It is, indeed, the case that putting more stocks into an index yields more diversification. However, two things go wrong when we do this too much : First, there are diminishing returns to diversification. Going from 10 stocks to 20 stocks gives a sharp reduction in risk. Going from 50 stocks to 100 stocks gives very little reduction in risk. Going beyond 100 stocks gives almost zero reduction in risk. Hence, there is little to gain by

diversifying, beyond a point. The more serious problem lies in the stocks that we take into an index when it is broadened. If the stock is illiquid, the observed prices yield contaminated information and actually worsen an index.

Component illiquidity contaminates index

Q : *What is wrong with the price information for illiquid stocks ?*
A: There are three problems: 'stale prices', 'bid-ask bounce' and vulnerability to manipulation. Through these problems, an index is actually worsened when illiquid-stocks are put into it.

Q : *A stock may be liquid on one exchange and illiquid on another -- what price do you take when calculating the index ?*
A : Illiquid stocks yield bad price data; so the best quality data will come from the most liquid exchange. In India, that is NSE. The S&P CNX Nifty uses price data from NSE for calculations.

Q : *What are 'stale prices' ?*
A : Suppose we look at the closing price of an index. It is supposed to reflect the state of the stock market at 3:30 PM on NSE. Suppose an illiquid stock is in the index. The last traded price (LTP) of the stock might be an hour, or a day, or a week old! The index is supposed to show how the stock market perceives the future of the corporate sector at 3:30 PM. When an illiquid stock injects these 'stale prices' into the calculation of an index, it makes the index more stale. It reduces the accuracy with which the index reflects information.

Q : *What is 'bid-ask bounce' ?*
A : Suppose stock trades at "bid 1440 ask 1490". Suppose no news appears for ten minutes. But, over this period, suppose ,that a buy order first comes in (at Rs.1490) followed by a sell order (at Rs. 1440). This sequence of events makes it seem that the stock price has dropped by Rs.50. This is a totally spurious price movement. Even when no news is breaking, when a stock price is not changing, the 'bid-ask bounce' is about prices bouncing up and down between bid and ask. These changes are spurious. This problem is the greatest with illiquid stocks where the bid-ask spread is wide. When an index component shows such price changes it contaminates the index.

Q : *What about market manipulation - how would manipulation of an index take place, and how would an index be made less vulnerable to manipulation ?*
A : The index is a large entity and is intrinsically harder to manipulate when compared to individual stocks. Obviously, larger indices are harder to manipulate than smaller indices. The weak links in an index are the large, illiquid stocks. These are the "achilles heel" where a manipulator obtains maximum impact upon the index at minimum cost. Index manipulation involves attacking these stocks. This is one more reason why illiquid stocks should be excluded from a market index: indeed, this aspect requires that the liquidity of a stock in an index should be proportionate to its market capitalisation.

Q : So, diversification yields diminishing returns, and illiquid stocks are best kept out of an index ; what is the ideal middle road ?

A : S&P CNX Nifty.

S&P CNX Nifty

Q : *How does the S&P CNX Nifty work ?*

A : S&P CNX Nifty is based upon solid economic research. A trillion calculations were expended to evolve the rules inside the S&P CNX Nifty index. The results of this work are remarkably simple: (a) the correct size to use is 50, (b) stocks considered for the S&P CNX Nifty must be liquid by the 'impact cost' criterion, (c) the largest 50 stocks that meet the criterion go into the index. S&P CNX Nifty is a contrast to the adhoc methods that have gone into index construction in the preceding years, where indices were made out of intuition and lacked a scientific basis. The research that led up to S&P CNX Nifty is well-respected internationally as a pioneering effort in better understanding how to make a stock market index. See Market microstructure considerations in index construction by Ajay Shah and Susan Thomas, CBOT Research Symposium Proceedings, Summer 1998, page 173-193.

Q : *What is 'impact cost' ?*

A : Suppose a stock trades at bid 99 and ask 101. We say the "ideal" price is Rs. 100. Now, suppose a buy order for 1000 shares goes through at Rs.102. Then we say the market impact cost at 1000 shares is 2%. If a buy order for 2000 shares goes through at Rs.104, we say the market impact cost at 2000 shares is 4%. Market impact cost is the best measure of the liquidity of a stock. It accurately reflects the costs faced when actually trading an index. For a stock to qualify for possible inclusion into the S&P CNX Nifty, it has to reliably have market impact cost of below 0.75% when doing S&P CNX Nifty trades of half a crore rupees.

Q : *What do you mean by 'an S&P CNX Nifty trade'?*

A : Earlier, we said that the index assigns weightages to index components, and the weight of a stock is proportional to its market capitalisation. This idea can be applied to buying the S&P CNX Nifty. If you buy all 50 stocks in the S&P CNX Nifty, in correct proportions, that would be called" an index trade".

Q : *What's the impact cost on a trade for Rs. 5 million of the full S&P CNX Nifty?*

A : It is safe to think that the impact cost is 0.1% or so. This means that if S&P CNX Nifty is at 1000, a buy order goes through at 1001 and a sell order gets 999. NSE's NEAT software has special facilities to enable buying or selling the entire the S&P CNX Nifty at one shot. The impact cost is not something fixed. It changes, depending upon the liquidity of the market. Indeed, the time-series of the S&P CNX Nifty impact cost is one of the best measures of changes in market liquidity over the years.

Index revisions

Q : *Why does the Index keep changing from time to time?*

A : Think of a liquid stock as a good thermometer, one which gives accurate data about the true price of the stock, because it trades actively with a tight spread. The prices observed for an illiquid stock are like readings from a low quality thermometer, which reports noisy data about the phenomenon of interest (the true price of the security). We try to find the fifty best thermometers in the country and average their values to make the S&P CNX Nifty. As time passes, better thermometers become available (in the form of large, liquid stocks that are not in the S&P CNX Nifty). We would like that S&P CNX Nifty always uses the best thermometers possible. So we remove the weakest thermometer from inside the S&P CNX Nifty and accept the new stock into it. The world changes, so the index should change. Yet, the change should not be sudden - for that would disrupt the character of the index. S&P CNX Nifty uses clear, researched and publicly documented rules for index revision. These rules are applied regularly, to obtain changes to the index set. Index reviews are carried out every quarter to ensure that each security in the index fulfills all the laid down criteria. SBI was once illiquid; Infosys was once a startup software company. The world changes, and one by one, these stocks have come into the S&P CNX Nifty. Each change in the S&P CNX Nifty is small, so the continuity of the index is maintained. Yet, at all times, S&P CNX Nifty represents the 50 most important liquid stocks in the country, the best thermometers to build an index out of.

Q : *When a stock goes out and a new stock comes in, doesn't that make index levels non-comparable?*

A : No. There are mathematical formulas, which ensure that yesterday's value and today's value are comparable, even if a change in a composition takes place in-between. Think of an index as a portfolio. The composition of the portfolio changes, but it is still meaningful to keep measuring the overnight returns on the portfolio from day to day. These returns, cumulated up, are the index level.

Q : *Index revision sounds dangerous in terms of pressures. Won't speculators try to push a stock they have purchased into S&P CNX Nifty? Or remove a stock from the index when they are going short on it ?*

A : Of course they will. Hence there are no speculators on the internal committee of IISL, (Index maintenance Sub - Committee) which manages the index revisions. Further, there are objective, publicly defined rules which determine when stocks come in and go out of the index. There isn't any room for discretion here.

High quality information

Q : *How is the S&P CNX Nifty closing price calculated?*

A : The Nifty closing prices are calculated by taking the last half an hour weighted average closing prices of the constituents of the index.

Q : *What is special about the NSE closing price?*

A : NSE has the best surveillance procedures in India, so the extent of market manipulation is minimized to the most possible extent there. In NSE, the professional staff of the surveillance department has no positions on the market. This elimination of conflict of interest generates a more honest focus upon eliminating market manipulation. On a day to day basis millions of shares get traded on the NSE generating huge order flows. Due to the liquidity and order flow from numerous market players, manipulation of the closing price becomes very hard. NSE is the most liquid exchange in India. Hence, the prices observed there are the most reliable. NSE has the highest trading intensity (reducing stale prices) and their bid-ask spreads are the tightest (reducing bid-ask bounce). This is assisted by the fact that the NSE tick size is Re.0.05 for all stocks, which encourages tight bid-ask spreads.

Q : *What about dividends?*

A : What is commonly reported as S&P CNX Nifty on TV and in the newspapers is actually the S&P CNX Nifty Price Index. It only reflects changes in prices. IISL also calculates something called the S&P CNX Nifty Total Returns (TR) index. This shows the returns on the index portfolio, inclusive of dividends. This is the appropriate benchmark for mutual funds, which do earn dividends. Both S&P CNX Nifty and S&P CNX Nifty TR use a base of 3 November 1995 as 1000. On December 30, 2005 i.e. nearly ten years later, S&P CNX Nifty was at 2836.55 while S&P CNX Nifty TR was at 3353.36. The difference in the two levels is the return obtained on reinvestment of dividends through the investing period.

Q : *You say that buying a S&P CNX Nifty portfolio yields the same returns as percentage changes on the S&P CNX Nifty index. But the weights will have to keep on changing from day to day when 'market caps change? '*

A : No: The market-cap weighted index is "self weighting". i.e. when weights change because prices change, yesterday's index portfolio continues to be today's index portfolio. Hence a buy and hold strategy is all that is required to replicate index returns under normal circumstances. Note that someone who buys and holds a S&P CNX Nifty portfolio earns dividend ; this should be compared with the S&P CNX Nifty TR index and not plain S&P CNX Nifty.

Q : *So when do weights in an index change?*

A : When corporate actions take place, the market capitalisation changes and weights have to be adjusted. Rights issues, public issues and mergers ; all leads to such situations. Of course, when index changes take place, the portfolio has to be adjusted and weights get modified. This requires elaborate, and consistently - applied policies. These policies have been the subject of great attention and care at IISL and are fully disclosed to the public.

Q : *What historical data for S&P CNX Nifty is available?*

A : S&P CNX Nifty and S&P CNX Nifty-TR are available from 3 July 1990 and 6 November 1995 respectively. The historical data is calculated in an intelligent way, i.e. the index set steadily evolves even through the older years. The historical Nifty and Nifty - TR value are very useful for research purposes.

Q : *Where do I get data for S&P CNX Nifty?*
A : At http://www.nseindia.com click on the 'Indices' icon. [There you will find: Historical time-series, the current index composition, weightages and impact cost analysis. 'Beta' estimates for all index stocks. Composition of the index policy committee.]

Index funds

Q : *Which index should be used for index funds?*
A : From a mutual fund investor's point of view, the reward-to-risk ratio is important. S&P CNX Nifty yields better rewards per unit risk as its reward-to-risk ratio is 4.34. From a mutual fund investors point of view, the fund manager should accurately replicate returns on the index. The liquidity filtering in S&P CNX Nifty and numerous operational details about index management, help ensure accurate tracking. When investors see that an index fund is unable to replicate the returns on an index, they would have dark fears and would abandon the product. S&P CNX Nifty is the best index in India in terms of the accuracy of tracking possible.

Q : *What's the risk/return tradeoff of investing in S&P CNX Nifty?*
A : The long-run (10 year) return on S&P CNX Nifty is 21% per annum. The long-run daily standard deviation is 1.60% per day. In recent times, i.e. over the last calendar year, the daily standard deviation was 1.11% per day.

Q : *What index funds are available on S&P CNX Nifty and other indices?*
A : The publicly accessible products based on S&P CNX Nifty and other indices are :-

(A) Index Funds: -

1. IDBI Index I-NIT'99, an index fund scheme on S&P CNX Nifty launched by IDBI-Principal Mutual Fund in July 1999 (now Principal PNB)
2. UTI Nifty Fund launched by Unit Trust of India in March 2000.
3. Franklin India Index Fund launched by Franklin Templeton Mutual Fund in June 2000.
4. Franklin India Index Tax Fund launched by Franklin Templeton Mutual Fund in February 2001.
5. Magnum Index Fund launched by SBI Mutual Fund in December 2001.
6. Prudential ICICI Index Fund launched by Prudential ICICI Mutual Fund in February 2002.
7. HDFC Index Fund - Nifty Plan launched by HDFC Mutual Fund in July 2002.
8.. Birla Index Fund launched by Birla Sun Life Mutual Fund in September 2002.
9. LIC Index Fund - Nifty Plan launched by LIC Mutual Fund in November 2002.
10. Tata Index Fund launched by Tata TD Waterhouse Mutual Fund in February 2003
11. ING Vysya Nifty Plus Fund launched by ING Vysya Mutual Fund in January 2004.
12. Canindex Fund launched by Canbank Mutual Fund in September 2004
13. Reliance Index Fund launched by Reliance Mutual Fund in Jan 2005
14. Principal Junior Cap fund launched by Principal PNB in May 2005

(B) Exchange Traded Fund:

1. <u>NIFTY BeES</u> an Exchange Traded Fund launched by Benchmark Mutual Fund in January 2002.
2. <u>Junior BeES</u> an Exchange Traded Fund on CNX Nifty Junior, launched by Benchmark Mutual Fund in February 2003.
3. <u>SUNDER</u> an Exchange Traded Fund launched by UTI in July 2003.
4. <u>Liquid BeES</u> an Exchange Traded Fund launched by Benchmark Mutual Fund in July 2003.
5. <u>Bank BeES</u> an Exchange Traded Fund (ETF) launched by Benchmark Mutual Fund in May 2004.
6. Benchmark Split Capital launched by Benchmark Mutual Fund in August 2005

Index Futures

Q : *What are index futures?*

A : NSE was gearing up from 1995 onwards to start an index futures market. With NSE's expertise, this futures market has now become reliable and liquid. S&P CNX Nifty is uniquely equipped as an index for the index futures market owing to (a) low market impact cost and (b) high hedging effectiveness. The good diversification of S&P CNX Nifty will generate low initial margin requirements. Finally, S&P CNX Nifty is calculated using NSE prices, and NSE is the most liquid exchange in India, thus making it easier to do arbitrage for S&P CNX Nifty index futures.

Q : *What is hedging effectiveness?*

A : Suppose you have some portfolio, and you use index futures for hedging. A good index is one, which gives high hedging effectiveness, i.e. the index should correlate well with your portfolio -- whatever it may be. A good index would give a very high risk reduction when a portfolio owner short sells the index futures. S&P CNX Nifty correlates better with all kinds of portfolios in India as compared with other indices. This holds for all kinds of portfolios, not just those that contain index stocks.

Q : *Why not form a small portfolio of the ten most liquid stocks, and work to ensure that the small portfolio is maximally correlated with the S&P CNX Nifty?*

A : This can, indeed, be done. Is it worth doing? That depends upon the cost and benefit. Calculating the weights, in the ten, stocks with the lowest market impact cost, so that the correlation with S&P CNX Nifty is maximised, is not easy to do. (See Risk structure of Indian stocks by Dr. John Blin of APT for a calculation of a 10-stock portfolio which is maximally correlated with S&P CNX Nifty. This is found in the book The future of fund management in India, edited by Dr. Tushar Waghmare, Invest India - Tata McGraw Hill Series, 1997.) The gains from such an activity are not large. S&P CNX Nifty is explicitly designed to make it convenient to trade complete index

portfolios. This is in contrast with other markets, where indices have arisen before index futures came about, and ways had to be found to trade them. For example, the S&P 500 index was there before index futures came about. When index futures started trading, arbitrageurs had to find ways to trade the index - trading 500 stocks on the floor-based New York Stock Exchange was highly cumbersome. This led to great creativity in finding 250-stock portfolios which correlate well with the S&P 500. In India, there is no need to undergo these kinds of problems. S&P CNX Nifty is the base of the index futures, and S&P CNX Nifty is designed to be convenient to trade directly.

Alternatives

Q : *How does S&P CNX Nifty compare with other indices?*
A : The S&P CNX Nifty is favourable on various parameters.

Diversification: S&P CNX Nifty is a more diversified index, accurately reflecting overall market conditions. The reward-to-risk ratio of S&P CNX Nifty is higher than other leading indices, making it a more attractive portfolio hence offering similar returns, but at lesser risk.

Liquidity: The 'liquidity ratio' is defined as trading volume over one year divided by, market capitalisation today. Nifty's liquidity ratio during the last one year is approx. 105%, which is high compared to other indices.

Hedging effectiveness : The basic risk of Nifty futures will be lower owing to the superior liquidity of Nifty stocks and of NSE. Nifty has higher correlations with typical portfolios in India as compared to any other index. These two factors imply that hedging using Nifty futures will be superior.

Governance: S&P CNX Nifty, is managed by a professional team at IISL, a company setup by NSE and CRISIL. There is a three-tier governance structure comprising the board of directors of IISL, the Index Policy Committee, and the Index Maintenance Sub-committee. S&P CNX Nifty has fully articulated and professionally implemented rules governing index revision, corporate actions, etc. These rules are carefully thought out, under Indian conditions, to dovetail with operational issues of index funds and index arbitrageurs. The extent of manipulation related to S&P CNX Nifty is minimized due to the following reasons : (a) the index levels are calculated from a highly liquid exchange with superior surveillance procedures (b) S&P CNX Nifty has a large market capitalisation so the consequence (upon the index) of a given move in an individual stock price is smaller and (c) S&P CNX Nifty calculation intrinsically requires liquidity in proportion to market capitalisation, thus avoiding weak links which a manipulator can attack. Users of the S&P CNX Nifty benefit from the research that is possible owing to the long time-series available: both S&P CNX Nifty and S&P CNX Nifty Total Returns Index series are observed from July 1990 and November 1995 onwards respectively. S&P CNX Nifty is backed by solid economic research and three most respected institutions: NSE, CRISIL and S&P.

Parents

Q : *How did the S&P CNX Nifty come about?*

A : Equities trading at NSE began in November 1994. By late 1995, NSE became India's largest equity market and was looking for a market index to utilise this unique information source. NSE also wanted to have a vehicle for the futures and options market. NSE approached the economists Dr. Ajay Shah and Dr. Susan Thomas, then at CMIE (and now at IGIDR), to do research on methods in index construction. This work was funded by the USAID FIRE project and led to the S&P CNX Nifty. Some of their research is visible over the Internet at http://www.igidr.ac.in/-ajayshah

Q : *Where does IISL come in?*

A : In 1998, NSE and CRISIL launched a joint venture named IISL to focus on index management. This pools the index development efforts of CRISIL and NSE into a coordinated whole, India's first specialised company focussed upon the index as a core product. Today, the S&P CNX Nifty is owned and operated by IISL. It is a global phenomenon where an independent company calculates and maintains the index.

Q : *Who is Standard & Poor's, and why does their name appear with the S&P CNX Nifty ?*

A : S&P owns the most important index in the world, the S&P 500 index, which is the foundation of the largest index funds and most liquid index futures markets in the world. When S&P came to India to look at market incides, they focussed upon the S&P CNX Nifty as opposed to alternative incides. They now stand behind the S&P CNX Nifty, as is evidenced by the name" S&P CNX Nifty".

Q : *What does 'CNX' in S&P CNX Nifty stand for?*

A : CNX stands for CRISIL NSE Indices.

Q : *We sometimes hear the term 'Nifty fifty' used in the US to denote a certain set of growth stocks. Is there any connection?*

A : No. It's purely coincidental. It was research that led to the choice of 50 stocks as the optimal size of an index in the Indian equity market. One day, a clever leap was made from NSE-50 to 'S&P CNX Nifty'.

Siblings

Q : *What's S&P CNX Defty?*

A : S&P CNX Defty is S&P CNX Nifty, measured in US dollar terms. If the S&P CNX Nifty rises by 2% it means that the Indian stock market rose by 2%; measured in rupees. If the S&P CNX Defty rises by 2%, it means that the Indian stock market rose by 2%, measured in US dollars. The S&P CNX Defty is calculated in realtime. Data for the S&P CNX Nifty and the dollar--rupee note is absorbed in realtime, and used to calculate the S&P CNX Defty in realtime. When there is currency volatility, the S&P

CNX Defty is an ideal device for a foreign investor to know where he stands, even intraday.

Q : *What's S&P CNX 500 ?*

A : The S&P CNX 500 is India's first broadbased benchmark of the Indian capital market. The S&P CNX 500 represents about 93% of total market capitalisation and about 94% the total turnover on the NSE. The S&P CNX 500 companies are disaggregated into 72 industries, each of which has an index - The S&P CNX Industry Index. Industry weightages in the index dynamically reflect the industry weightages in the market. So for e.g. if the banking sector has a 5% weightage among the universe of stocks on the NSE, banking stocks in the index would have an approx. representation of 5% in the index. The S&P CNX 500 is a market capitalisation weighted index. The base date for the index is the calendar year 1994 with the base index value being 1000. Companies in the index are selected based on their market capitalisation, industry representation, trading interest and financial performance. The index is calculated and disseminated real-time.

Q : *What's CNX Nifty Junior?*

A: S&P CNX Nifty is the first rung of the largest, highly liquid stocks in India. CNX Nifty Junior is an index built out of the next 50 large, liquid stocks in India. It is not as liquid as the S&P CNX Nifty. It may be useful to think of the S&P CNX Nifty and the CNX Nifty Junior as making up the 100 most liquid stocks in India. S&P CNX Nifty is the front line blue-chips, large and highly liquid stocks. The CNX Nifty Junior is the second rung of growth stocks, which are not as established as those in the S&P CNX Nifty. A stock like Satyam Computers, which recently graduated into the S&P CNX Nifty, was in the CNX Nifty Junior for a long time prior to this. CNX Nifty Junior can be viewed as an incubator where young growth stocks are found. As with the S&P CNX Nifty, stocks in the CNX Nifty Junior are filtered for liquidity, so they are the most liquid of the stocks excluded from the S&P CNX Nifty. Buying and selling the entire CNX Nifty Junior as a portfolio is feasible. The maintenance of the S&P CNX Nifty and the CNX Nifty Junior are synchronised so that the two indices will always be disjoint sets; i.e. a stock will never appear in both indices at the same time. Hence it is always meaningful to pool the S&P CNX Nifty and the CNX Nifty Junior into a composite 100 stock index or portfolio.

Q : *What's CNX Midcap ?*

A : The medium capitalised segment of the stock market is being increasingly perceived as an attractive investment segment with high growth potential. The primary objective of the CNX Midcap Index is to capture the movement and be a benchmark of the midcap segment of the market.

Q : *What are CNX Segment Indices?*

A : For effectively researching the market, IISL has segregated the market in many ways. One of the ways is based on ownership. The CNX MNC Index comprises 50 listed

companies in which the foreign shareholding is over 50% and / or the management control is vested in the foreign company. The index is a market capitalisation weighted index with base period being the month of December, 1994 indexed to a value 1,000. Companies in the index should be MNCs and are selected based on their market capitalisation, industry representation, trading value and financial performance. As part of its agenda to reform the Public Sector Enterprises (PSE), the Government has selectively been divesting its holdings in public sector enterprises since 1991. With a view to provide regulators, investors and market intermediaries with an appropriate benchmark that captures the performance of this segment of the market, as well as to make available an appropriate basis for pricing forthcoming issues of PSEs, IISL has developed the CNX PSE Index, comprising of 20 PSE stocks. The Index is a market capitalisation weighted index with base period being the month of December 1994 and base index value being 1,000. Companies selected in the index have to be PSEs, which should rank high in terms of market capitalisation and trading value. Companies selected in the index have to be PSEs, which should rank high in terms of market capitalisation and trading value.

Q : *What's CNX IT SectorIndex?*

A : With the Information Technology (IT) sector in India growing at a fast rate, there is a need to provide investors, market. intermediaries and regulators an appropriate benchmark that captures. performance of this sector. Companies in this index should have more than 50% of their turnover from IT related activities like software development, hardware manufacture, vending, support and maintenance. The index is a market capitalisation weighted index with its base period being December 1995 with base value 1,000 subsequently w.e.f. 28 May 2004, the base value of the India was revised from 1000 to 100.