



#### The Journey of Enabling 1.4 Billion Dreams

Cover photo: NSE Headquarters, Mumbai, Maharashtra

National Stock Exchange of India Limited, 2024

foreword

#### The National Stock Exchange

The National Stock Exchange of India (NSE) was incorporated on 27<sup>th</sup> November, 1992, was recognised as a stock exchange in April 1993 and commenced operations in 1994.

Before NSE was established, the stock exchanges in India were controlled and operated by brokerage firms that were family-owned, where lineage was more important than skills, knowledge and qualifications. This system was opaque and based largely in limits where experts were located, and the lack of technology closed it off to investors outside the cities. In addition to BSE (Bombay Stock Exchange), there were several relatively small regional exchanges which operated in a similar manner.

NSE was founded with a view of integrating stock trading in India. It originated out of the need to create a nationwide exchange that offered democratic and transparent access to all stakeholders. NSE was meant to be more than a national exchange; it aimed to ensure the financial well-being of investors. As India prospered and its economy evolved, new audiences and stakeholders began to participate in the India story. Along with revolutionising the capital markets, the Exchange introduced new products, new platforms, and new technologies – to keep the growth engine intact.

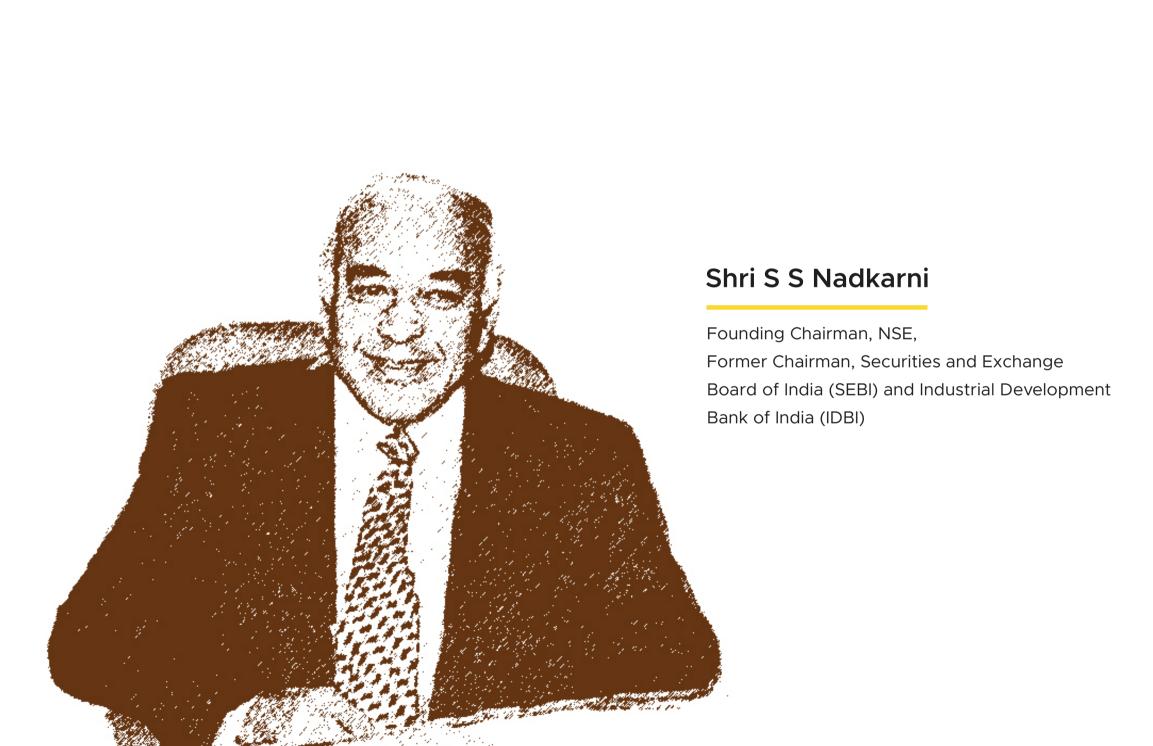
NSE commenced operations in 1994. It has consistently been ranked as the largest stock exchange in India in terms of total and average daily turnover for equity shares since 1995 (based on SEBI data). It is also the largest derivatives exchange globally in terms of the number of contracts traded and the third-largest exchange in the world in equity trading, as ranked by World Federation of Exchanges for several consecutive years. NSE is also the largest exchange in the world in terms of number of orders and trades per day.

30 years ago, NSE set out to be an entry point to the equity markets for millions of Indians. 30 years later, NSE is also a gateway to the world – we are acknowledged globally as the window to the Indian capital markets. The evolution of India as an economic powerhouse was, to a large extent, made possible by the strong foundation provided by NSE. India's future growth too will be catalysed by fair, efficient, transparent, orderly, continuous and low-cost markets provided by NSE.

Our highlight reel, over the last three decades, is studded with industry-defining milestones, proud moments and glorious memories.

This is us looking back as we look forward.

Here's our story.



Wealth Creation for the Nation



#### **Purpose**

Committed to improve the financial well-being of people.



#### Dr. R H Patil

Founding-Managing Director, NSE



#### NSE is committed to the following core values



Integrity



Respect and Care for the Individual



Customer-focused Culture



Passion for Excellence



Trust



Teamwork





## India's first



Digital Public Infrastructure (DPI)



Electronic stock exchange



Fintech



Hi-Tech regulator



Screen-based publicly available system at mass scale across all corners

- India is the 5<sup>th</sup> largest economy and the 4<sup>th</sup> largest capital market in the world.
- NSE is the world's largest exchange across all asset classes by activity, as measured by number of orders and trades.
- India's market cap has increased over 121 times from ₹4 lakh crore in March 1994 to ₹474 lakh crore (US\$ 5.6 trillion) in August 2024.
- Number of investors registered with NSE has increased from less than 20 lakhs in 1994 to over 10 crores as of August 2024. NSE has investors from 99.84% of all PIN codes in the country. Only 30 pincodes do not have a registered investor.
- Nifty 50 index gave absolute return of 2424% and CAGR of 11.85% since November 3,
   1995 (being the base date of the index). In USD terms, for the same period, the Nifty
   50 index gave absolute return of 943% and CAGR of 8.47%

#### List of Chairmen since NSE's Inception

Name of Chairman	Date of Appointment of the 1st term	Date of Completion of the 1st term
Shri S S Nadkarni	10 <sup>th</sup> March 1993	17 <sup>th</sup> January 1994
Shri S H Khan	15 <sup>th</sup> April 1994	14 <sup>th</sup> April 1999
Shri S H Khan	15 <sup>th</sup> April 1999	14 <sup>th</sup> April 2000
Shri G P Gupta	26 <sup>th</sup> July 2000	12 <sup>th</sup> February 2001
Shri G N Bajpai	12 <sup>th</sup> February 2001	26 <sup>th</sup> March 2002
Shri P P Vora	26 <sup>th</sup> March 2002	09 <sup>th</sup> December 2003
Shri M Damodaran	17 <sup>th</sup> February 2004	06 <sup>th</sup> December 2004
Shri S B Mathur	06 <sup>th</sup> December 2004	18 <sup>th</sup> August 2009
Dr. Vijay Kelkar	03 <sup>rd</sup> February 2010	01st September 2012
Shri S B Mathur	28 <sup>th</sup> March 2013	28 <sup>th</sup> March 2016
Shri Ashok Chawla	03 <sup>rd</sup> May-2016	11 <sup>th</sup> January 2019
Shri Girish Chandra Chaturvedi	06 <sup>th</sup> December 2019	27 <sup>th</sup> November 2023

#### Members of the Board of Directors at NSE



**Prof. S Sudarshan**Public Interest Director,
Professor at IIT Bombay



Shri Tablesh Pandey

Non-Independent Director,

Managing Director of LIC



Shri S Ravindran

Public Interest Director, Former

Executive Director at SEBI



**Shri Ashishkumar Chauhan** Managing Director & CEO



Shri Rajesh Gopinathan
Public Interest Director,
Professor at IIT Bombay,
Former MD & CEO of Tata
Consultancy Services



Justice (Retd.)
Smt. Abhilasha Kumari
Public Interest Director, Retired
Chief Justice of the Manipur
High Court, Former Judicial
Member, Lokpal of India



Shri Veneet Nayar

Non-Independent Director,
Founder Chairman of
Sampark Foundation, Former
Vice Chairman & CEO of HCL
Technologies



Prof (Dr.) Mamata Biswal
Public Interest Director,
Professor of Law & ICSSR
Senior Research Fellow,
GNLU

# **Building Pathways for India's Prosperity**

"IFSCA will not only become an enabler but will also support innovation and will also act as a catalyst for growth opportunities. This is being started today through the launch of NSE IFSC- SGX Connect in GIFT City."

Shri Narendra Modi, Hon'ble Prime Minister of India 29<sup>th</sup> July 2022





Shri Narendra Modi, Hon'ble Prime Minister of India (centre), Smt. Nirmala Sitharaman, Hon'ble Union Minister of Finance and Corporate Affairs (centre-right), and Shri Injeti Srinivas, Chairman, IFSCA (second-left), and other government dignitaries at the launch of the NSE IFSC-SGX Connect in Gujarat in 2022. The NSE IFSC-SGX Connect is a major step towards further connecting investors from all over the world to India.

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(From left to right): Shri S S Nadkarani, Chairman, SEBI, IDBI and NSE; Shri S H Khan, Chairman, NSE and IDBI; Dr. Manmohan Singh, Finance Minister, India; Dr. C Rangarajan, Governor, RBI and Dr. R H Patil, Founding-Managing Director, NSE, during the inauguration of NSE in 1994.



### **Memories**

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The Erstwhile Era

#### The Landscape Before

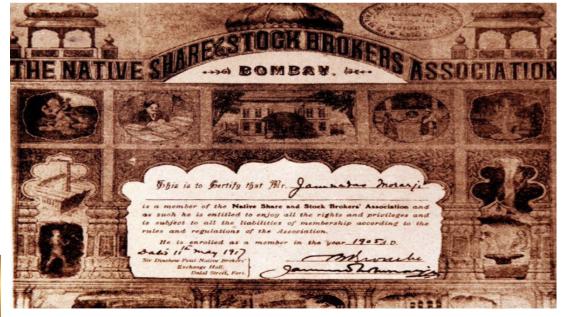
In India, stock market investing is rooted in a tradition that began under a banyan tree: in the mid-1850's, a group of 22 brokers traded in this picturesque setting opposite the Town Hall in Mumbai (now Asiatic Library). Each broker pledged a contribution of ₹1.

But the very first instance of trading a financial product in India took place decades before this. Loan securities of the East India Company were traded towards the close of the 18<sup>th</sup> century.

Trading in bank shares commenced in the early 19<sup>th</sup> century in Kolkata. The term 'broker' emerged in 1830, when six individuals referred to themselves as 'share brokers' in Mumbai. This number gradually increased. Up until 1850, they predominantly traded in bank shares and securities of the East India Company in Mumbai.



A banyan tree located in Horniman Circle, Mumbai was the meeting place for share brokers in the 1850's.

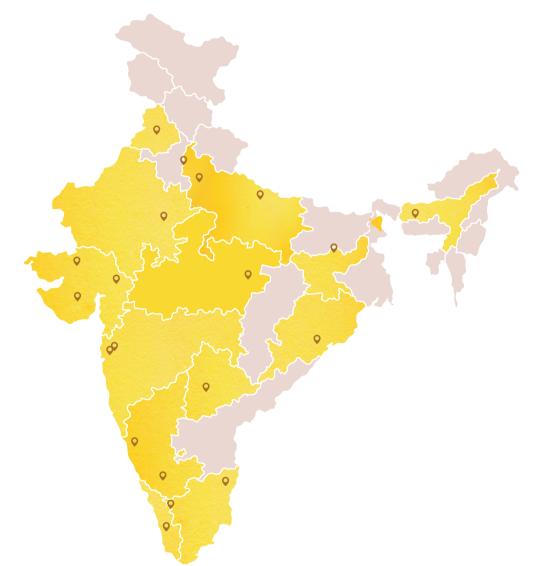


A membership certificate issued by the Native Share and Stock Brokers' Association. In 1850, the introduction of the Joint Stock Companies Act, which brought about limited liability, marked the onset of the modern joint stock company era, leading to a surge in trading volumes. This was an even more significant landmark as it was one of the earliest trading activities in Asia.

Eventually, the number of brokers trading under the famed banyan tree grew to 250, at which point they organised themselves as the Native Share and Stock Brokers' Association.

This group established the Bombay Stock Exchange (BSE) in 1875. 81 years after it was set up and nine years after Independence, BSE would go on to be recognised as the first stock exchange in the country under the Securities Contracts (Regulation) Act, 1956, post Independence.

The nature of business, as well as the old traditions of trading, made it an exclusive club. What's more, the law mandated that people could trade only through members of this exchange, and they charged brokerage for their services.



## List of Regional Stock Exchanges in the pre-NSE Era

Ahmedabad (1894) Bangalore (1963)	Madhya Pradesh (1919) Madras (1937)
Bhubaneswar (1989)	Magadh (1986)
Bombay (1875)	Mangalore (1984)
Calcutta (1908)	Meerut (1956)
Cochin (1978)	OTC Exchange of India,
Coimbatore (1991)	Mumbai (1990)
Delhi (1947)	Pune (1982)
Guwahati (1983)	Saurashtra Kutch (1989)
Hyderabad (1941)	Uttar Pradesh (1982)
Jaipur (1989)	Vadodara (1990)
Ludhiana (1983)	

Map for representative purposes only

The years in parentheses indicate the periods during which the respective stock exchanges were established.

The following decades saw the evolution of the stock markets and the rise of 22 stock exchanges across the country, in major cities and state capitals. Each one had a specific region in which it operated, and in no time, a sense of competition emerged among these exchanges. But this left the market fragmented.

## Soon enough, a regulatory framework evolved, as the protection of investors and the maintenance of government standards became priorities.

In 1956, the Securities Contracts (Regulation) Act was enacted, to govern all the stock exchanges in the country. This eventually led to the enactment of the Securities and Exchange Board of India (SEBI) Act, 1992, whose overarching goal was to promote healthy growth of the capital markets.

The history of the stock market appears to suggest that it was a ready platform for corporates to raise capital and expand their horizons — but this was not the case. The next few years saw individual investors and corporate entities participating in the stock market with new fervour. An increasing number of corporate enterprises began to rely on the primary market as the main source of their capital and the investing public responded eagerly. The tempo of market activity increased, generating a sense of great excitement.



#### The demand for stock-market investing was now high.

But, in some ways, the market had not progressed beyond its history of trading under a banyan tree. Acquiring membership in an exchange — a trading stipulation — was not easy. It could only be inherited or purchased from an existing member, or through the purchase of a new membership card issued by the exchange, subject to approval by its members.

This meant that most of the members of the exchanges were controlled by brokerage firms that were family-owned. Lineage mattered more than skills, knowledge and qualifications. The management teams of these exchanges comprised brokers, and elections were frequent. Conflicts of interest and inadequate professional standards marred the operations of these exchanges.



#### During this era, trading was chaotic.

Orders were executed on trading floors (also known as pits) by traders and brokers on behalf of investors. Floor traders used the open-outcry method to communicate trade orders in these pits. Communication was both verbal and in the form of hand signals – making stock trading a hectic and frenzied experience.

Trades were often disputed due to mismatches in the price and/or quantity of selling and buying entities. Further, practices such as 'Khangi na sauda' or 'curb trading' (trading of shares outside the official stock markets, or during hours when those markets were closed) made the running of these institutions unruly. We discuss the challenges in greater detail in the latter part of the book.

These organisational challenges and the lack of coordination resulted in frequent breakdown of operations and set the stage for fraudulent practices and scandals. There was a dire need to liberalise, regulate and develop the securities market.

"All shares were traded and transferred literally in physical form from one investor to another. But investors did not trust their brokers to safe keep their securities in a street name, that is in the name of brokers; there were no depository systems in the country, either.

Share certificates and accompanying documents had to have verification of both significant and trivial natures cleared by brokers, custodians, exchanges officials and registrars, each of whom often applied different criteria in accepting or rejecting the share certificates and accompanying documents. Their settlements were prone to errors, mistakes, delays and, in extreme cases, unethical or criminal practices at each step of the process. There were a few rigid timeframes in which each settlement procedure had to be completed and fully complied with."

Excerpts from 'The Indian Securities Market: A Guide for Foreign and Domestic Investors', by

Tadashi Endo, 1998

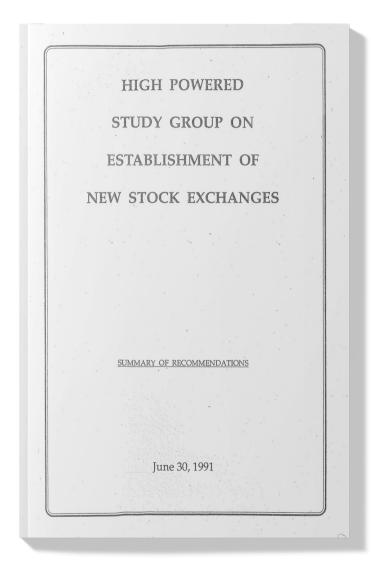
#### The Genesis

#### Change was in the air in the early 1990s.

A scandal had rocked the Indian financial markets (now known popularly as Harshad Mehta scandal), prompting the government and all stakeholders to push hard for greater transparency and bigger reforms. The scandal had resulted in thousands of investors suffering heavy losses. It compelled the authorities to address the fact that a more robust regulatory framework was needed if the stock market was to play a more substantial role in the economy.

Economic liberalisation and the opening up of the Indian economy in 1992 gave another impetus to the stock markets. This created a charged atmosphere, one that was full of promise. Suddenly, there was an urgent need to attract capital, both domestic and foreign. The exchanges had to up the ante to stay ahead of the curve and remain relevant.

India needed a catalyst to give it a boost and a makeover.



#### High Powered Study Group on Establishment of New Stock Exchanges, 1991

#### Head

Shri M J Pherwani

#### Goal

Promotion of a national stock exchange by financial institutions.

#### Reform

Formation of NSE

Against this backdrop, the Pherwani Committee, 1991, had already envisioned a model stock exchange that could play the role of a demonstrator.

According to its report titled 'High Powered Study Group on Establishment of New Stock Exchanges', this exchange could give investors across India access on an equal footing. Headed by Shri M J Pherwani, the committee recommended that financial institutions promote a national stock exchange.

Further, the report recommended the principal features that could help structure such an exchange. The goal was to decisively address the challenges that continued to plague the stock market.

"The capital markets will play an increasingly important role in the national economy as the mobilisers of resources for the development of the industrial sector. With the increasing cost of debt resources, and an intensely competitive marketplace, companies would perforce depend on the capital markets as the principal source of funds.

Exchanges thus need to provide investors with the degrees of service they require in a cost-effective and efficient manner, in order to meet the expectations of the corporate sector and fulfill their role in the national economy.

It is essential that stock exchanges be fully geared to meet the twin challenges of developing an active and healthy primary and secondary market, and in spearheading the equity cult."

Excerpts from the report of the 'High Powered Study Group on Establishment of New Stock Exchanges', 1991

#### Some of its recommendations were:

- At least 50% of the Managing Board of the exchange should comprise professionals who
  are not members. These professionals should be drawn from a cross-section of finance and
  industry, and must actively contribute to ensure that the Stock Exchange functions in a
  balanced and fair manner. Such a structure would ensure that the interests of investors are
  visibly safeguarded.
- The exchange should be completely automated in terms of both trading and settlement procedures. The implementation of automated trading and settlement procedures should be planned on a priority basis.
- In addition to the admission of professionals, corporate members and institutions, representation should be permitted from across the country and not be limited to the city of Mumbai. This would allow potential investors and professionals from other regions of the country direct access to the market.

To create a transaction-processing system that was streamlined and coordinated, the Pherwani Committee also recommended other drastic measures, such as the establishment of:

- A national clearing and settlement corporation to administer the clearing and settlement functions at a national level and arrange for payment against delivery as a counter-guarantor to participating members.
- A central depository trust to eventually usher in scripless trading.
- A securities facilities support corporation tasked with establishing and maintaining the network. All participants (i.e. members, stock exchanges, the clearing and settlement agency, central depository trust, etc.) would use the facilities established and maintained by this corporation.

Based on the recommendations of the Pherwani Committee, the government floated the idea of setting up a nationwide exchange using the latest computer technology, which would have no interference by stock brokers in either decision-making or management. For the first time in the history of stock exchanges in India, stock brokers were to be given only the right to trade; they could not dictate the functioning of the exchange itself.

The foundation of NSE thus started coming together and it brought great promise: it could serve as a model for regional stock exchanges to follow.

"The 1990's reforms were qualitatively different from those in the 1980's in that they represented a broad acceptance of the idea that entrepreneurs and markets were to be given priority over government in the conduct of economic activity and that government interventions required proper justification rather accepted by default.

The reforms in the 1990's were more systematic and systemic and they gave rise to a decidedly more stable and sustainable growth from 1992 on."

Excerpts from the 2004 report, 'India in the 1980s and 1990s: A Triumph of Reforms', by Dr. Arvind Panagariya

# It was amid these conditions that NSE was launched and its arrival was monumental.

After all, it was the first stock exchange in the country that did not have a trading floor. Instead, it connected the entire country through a Very-Small-Aperture Terminal (V-SAT) network, allowing brokers to buy and sell shares from the comfort of their offices. For the first time in Indian history an automated, screen-based trading was introduced.

Now, anyone and everyone interested in trading, across the country, had readily available access to real-time information on the markets. Consequently, trading on NSE was quicker, more efficient and transparent.

In many ways, this new Exchange reduced costs, improved the speed with which trades were executed, and created an environment less prone to manipulation.

Other exchanges followed in NSE's footsteps, adopting the technology that it had embraced. Beyond the stock markets, other financial sectors like the banking industry also felt the impact of this success, as they saw a remarkable escalation in their efficiency.

Since its formation nearly three decades ago, NSE has revolutionised retail investing in the stock markets. When NSE started its operations in 1994, India had a market capitalisation (m-cap) of ₹4 lakh crore. India's market cap has increased by nearly 121 times in rupee terms and 45 times in dollar terms, to ₹474 lakh crore (US\$ 5.6 trillion) in August 2024.

NSE was the mother of Information Technology (IT) revolution in India. It was also the pioneer of India's technical prowess. Indian technology companies became large after the advent of NSE. The successful nationwide implementation of IT infrastructure, made available to general public by NSE, paved way for the growth of Indian technology companies.

NSE served as a technology demonstrator for both private and public sectors, influencing the large-scale adoption of e-governance technologies. The implementation of e-payments, automation in banking, and many other IT advancements can be traced back to the technological advancements pioneered by NSE.

## The Challenges

# A sense of frenzied chaos ruled the trading ring as brokers shouted themselves hoarse when they transacted business.

They yelled and gestured frantically across the floor, as the entire process was manual and they had only two hours to trade.

This was a typical day at the stock markets in India, before the arrival of NSE.

During this time, BSE accounted for ~70% of transactions in Indian market, involving 2,600 listed scrips, with other exchanges following its pricing cues. Evidently, trading in this manner was fraught with many limitations.

### Lack of transparency

Investors had to work with brokers who took their buy/sell orders and traded them at the exchange on behalf of investors. However, during trading hours, investors did not always have real-time information about their trades and prices.

The precariousness of this situation was widespread. Although investors were interested in securities investments, they were apprehensive about the excessive speculation and the resulting abrupt fluctuations in stock prices. As a result, stock exchanges struggled to gain respectability among investors in the country and to enjoy their full confidence.

## Impediments to settlements

There was also the fear that when a trade was executed, it was likely executed at a price that was not optimal. Trades were settled every fortnight, when payments were made and physical securities had to be transferred. 'Vaanda' or 'disputed trades' were a frequent occurrence.

The long-drawn and complicated process of actually receiving the payment could take anywhere between one to three months. Investors were wary of problems such as bad deliveries, forgery, fake certificates, lost certificates and damaged or torn certificates when it came to the physical transfer of shares. These were grave issues that caused considerable heartburn for investors.

### Insufficient accessibility for investors residing in remote regions

Investors in remote areas faced major accessibility issues. Despite rising interest in stock markets, these regions lacked the necessary infrastructure for effective investment. They were often unaware of upcoming public offerings and lacked investment guidance.

Moreover, they had to pay extra for share application forms, and technological barriers restricted them from accessing exchanges outside their regions.

Furthermore, the trading process involved a complex chain of sub-brokers. Investors would contact their primary broker, who then relayed the trade request to a sub-broker. This sub-broker, in turn, passed the order along to another sub-broker or a dealer closer to the trading floor, each earning a share of the transaction.

This chain not only prolonged trade execution but also introduced complexity, errors, and communication issues. Investors had no direct or real-time visibility, leading to challenges in accountability and transparency.

## Absence of safeguards for investor protection

Investor protection, and the rules and regulations pertaining to it, were far from satisfactory. For example, there were no trade guarantees or investor protection funds during this era. Investor protection funds are set up to compensate investors up to a certain limit in case of a default. A broker or an investor, as the counter-party, defaulted when they shorted a trade, failed to pay for the shares purchased, enabled a bad delivery, or did not rectify these issues in time – resulting in losses for the investors. What's worse, investors had no way to recover this money from the defaulting intermediary.

This was especially challenging when brokers defaulted settlement houses – a systemic issue that could risk an entire investment cycle. Default settlements used to take up to 30-40 days to be resolved. Often, settlements would get cancelled due to frequent payment crises resulting from increased defaults by stock brokers.

## Frequent disruption of market activities

Market activities were also disrupted frequently due to practices such as excessive insider trading and speculative trading.

As Tadashi Endo says in his book, 'The Indian Securities Market: A Guide for Foreign and Domestic Investors', "Testimonies of such inefficiencies abounded: overwhelmed by settlement delays, sometimes many months long, the exchange periodically had to close to clean up house; after filling its vaults to the brim, an Indian custodial bank started storing share certificates in a trailer parked in an alley; and messengers queued up outside banks, each bearing one or more boxes stuffed with shares."

Retail investors became apprehensive owing to these factors, in addition to the lack of effective machinery for monitoring, surveilling and auditing market operations.













During the pre-NSE era, trading in India was paper-based and led by BSE in Mumbai.







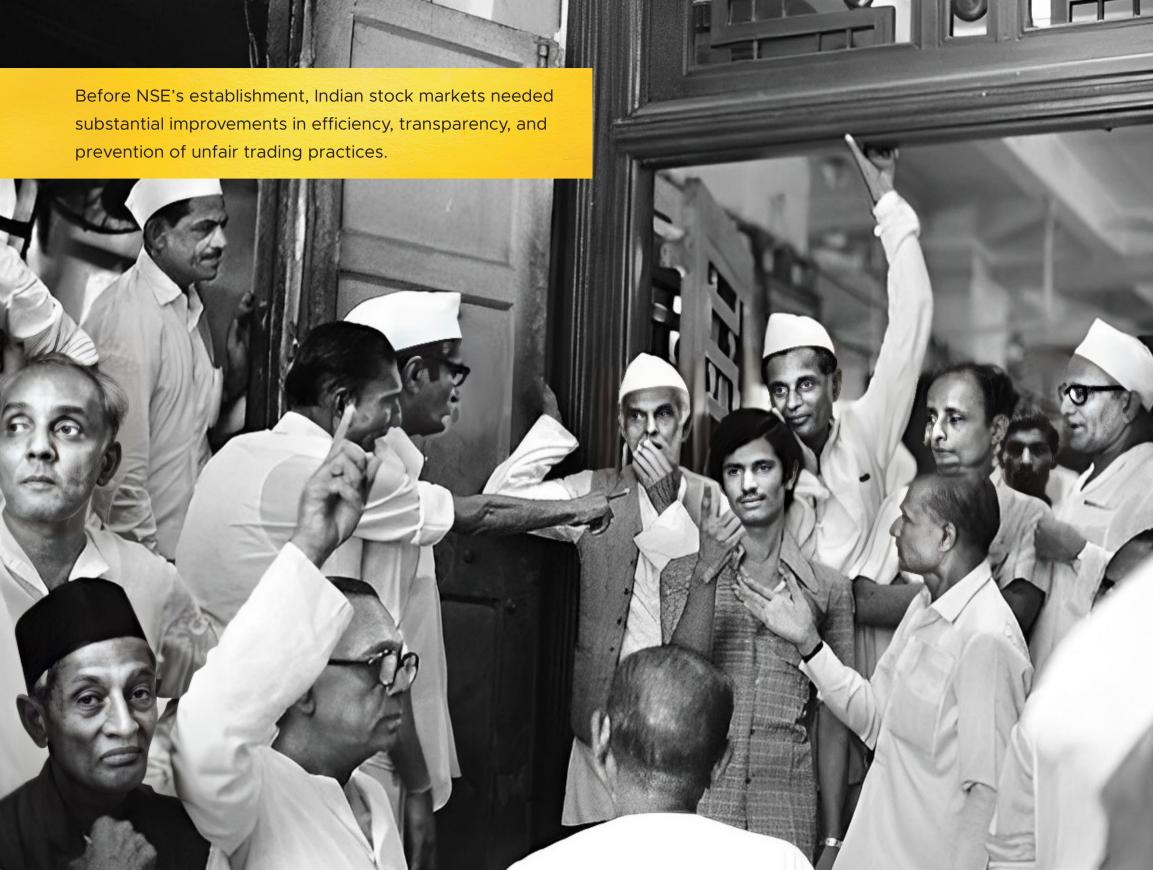




### Scrip classification

BSE, which was the largest stock exchange in India before the launch of NSE, classified equity shares into multiple groups such as 'A' and 'B'. Shares in the 'A' group were among the most liquid stocks of all the shares listed; they had higher trading volumes, and they fulfilled the compliances of the exchange. Companies listed in the 'A' category were backed by a clearing house with multilateral netting. All other stocks had to be settled bilaterally between the brokers who traded. There was no settlement guarantee. Any broker default woluld require other brokers and investors to bear losses.

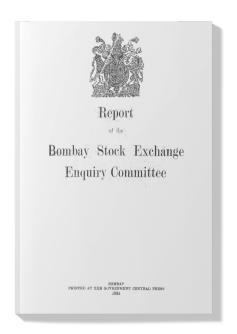
It would be a long journey before stock markets in India were at par with international standards. Evidently, much work needed to be done to improve market efficiency, enhance transparency, and prevent unfair trade practices.



## A Generation of Reforms

In the years before NSE was established, the stock markets in India saw the formation of a number of committees and the enactment of a variety of reforms.

Each decade brought conversations about finance and technology, as industry stalwarts put their heads together to propel India's economic development forward.



### **Bombay Stock Exchange Enquiry (Atlay) Committee, 1924**

#### Head

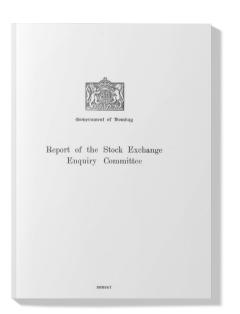
Sir Wilfrid Atlay

#### Goal

To enquire into the constitution, government customs, practices, rules and regulations of the Native Share and Stock Brokers' Association.

#### Reform

Bombay Securities Contracts Control Act, 1925



### The Stock Exchange Enquiry Committee, 1937

#### Head

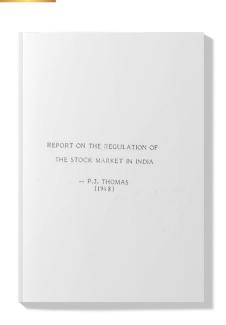
Mr. Walter B Morison

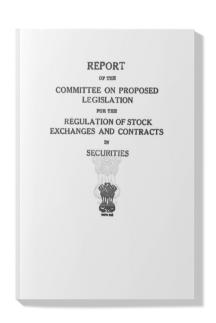
#### Goal

To study the existing rules regarding the listing requirements and admission of securities for dealing on the pattern of the Bombay Stock Exchange.

#### **Reforms**

Recommended the reservation of powers by the Government to impose rules on the exchange, abolition of exchanges' overriding power over the governing body in certain circumstances, among others.





## Report on the Regulation of Stock Exchanges in India, 1948

#### Head

Mr. P J Thomas

#### Goal

Legislations for the stock exchange after considering the recommendations of an expert committee represented by the heads of the Bombay, Calcutta and Madras stock exchanges.

#### Reform

Securities Contracts Bill, 1954

# Committee on Proposed Legislation for the Regulation of Stock Exchanges and Contracts in Securities, 1951

#### Head

Shri A D Gorwala

#### Goal

To provide for direct and indirect control of virtually all aspects of securities trading and the running of stock exchanges, and to prevent undesirable transactions in securities.

#### Reform

Securities Contracts (Regulation) Act, 1956

# The next few decades marked India's steps toward liberalisation and economic reforms.

The 1960's witnessed the first phase of liberalisation in India. It was the dawn of the Green Revolution, a period during which the agriculture sector underwent a transformation into a contemporary, industrial system through the implementation of technology, including the utilisation of high-yielding variety (HYV) seeds, mechanised agricultural equipment, modern irrigation infrastructure, pesticides and fertilisers.

The year 1973 saw the passage of the Foreign Exchange and Regulation Act (FERA), which mandated that multinational companies operating in India dilute their foreign shareholding to less than 40%. Other reforms from this period include the Companies (Temporary Restrictions on Dividends) Act, 1974 – a legislation to provide, in the interest of economic development, temporary restrictions on the power of certain companies to declare dividends out of their profits.

The 'High Powered Committee on Stock Exchange Reforms,' was appointed in 1984 under the leadership of Shri G S Patel, former Chairman of United Trust of India (UTI). Its goal was to review the functioning of the stock markets and make recommendations to streamline their operations. These led to the formation of new exchanges over the next few years.

India's first electronic exchange was established in 1990, under the chairmanship of Shri S C Bhargava. Named as the Over-The-Counter Exchange of India (OTCEI), it commenced operations two years later. Shri Ravi Mohan was the CEO. He later on became the CEO of CRISIL and was also a part of the NSE Board. The vision driving its creation was to enable small and medium businesses to raise capital, which they could not do on the national exchanges due to their inability to meet the exchange requirements. Recognised as a stock exchange under the Securities Contracts (Regulation) Act, 1956, OTCEI was based in Mumbai.

In the interest of facilitating greater transparency in transactions and curtailing long chains of sub-brokers, the National Stock Management System (NSMS) was proposed under the leadership of Shri Bhagirath Merchant, the then President of BSE.

Both the OTCEI and NSMS were modelled on the then contemporary American systems.

Another experiment was based on a 1996 report of the Inter-Connected Market System (ICMS) that found its way to the doorstep of the Federation of Indian Stock Exchanges (FISE). Two years later, the goal of turning small, fragmented and illiquid markets into large, liquid, nationwide ones led to the formation of the Inter-Connected Stock Exchange of India Limited (ICEL). Founded and led by Shri M R Mayya, former Executive Director of BSE, ICEL comprised the heads of all the major exchanges in the country, as well as representatives of regional stock exchanges.

Sadly, none of these initiatives worked out.

Lack of suitable technology, combined with the absence of clearly defined objectives, led to their failure. "Growth during the 1980's was also propelled by fiscal expansion financed by borrowing abroad and at home. But this was unsustainable and led to the crisis of June 1991," Dr. Arvind Panagariya, former Chairman of Asian Development Bank, points out in a research paper titled 'India in the 1980's and 1990's: A Triumph of Reforms'.

However, lessons were learnt from these decades and they contributed to a strong foundation for the establishment of NSE.

Consequently, NSE stood out as a successful experiment, amid initiatives that did not see the light of day. With NSE and BSE starting nationwide operations in the 1990's, regional stock exchanges lost their relevance and saw a migration of investors to the larger exchanges.

In 2012, SEBI formally implemented an exit strategy for these regional exchanges, setting the stage for their closure.



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The Making of a National Icon

Against the backdrop of a growing Indian economy, the nation's leaders wanted to ensure that the country left its mark on the world.

Before NSE was established, the average investor had to deal with multiple intermediaries

– as many as four or five of them – resulting in multiple steps and interactions, in order to gain access to the trading floor. Besides, each intermediary took a commission from the transaction, leading to increased costs and a long-drawn, complicated process.

Often, investors lacked all the details of the shares they were buying, or the prices at which they were selling them. The very process of placing trades was cumbersome. The opaque nature of the market, coupled with investors' lack of familiarity, created a dire need for transparency.

Indian and global investors were also looking for finiteness and assurance for their trades — they needed to be certain that they would receive what they had paid for, and be compensated for what they sold.

Thus, the newly emerging nationwide stock exchange had to be anchored by values and purpose in order to contribute to the country's economic progress. NSE was also India's first Digital Public Infrastructure (DPI).

Fuelled by these values, the idea, the dream, and the promise of NSE was born under the leadership of Shri S S Nadkarni, who was then the Chairman of IDBI; and Dr. R H Patil, who was chosen to head the project and became its Founding-Managing Director.

These values and principles have consistently inspired the work culture and employees at NSE.

'A modern enterprise', 'a dynamic entity' — this was the vision of the founding team of NSE.

The blueprint included a proposal for an 'order-driven' system rather than a 'market-marker' system. The idea was to boost liquidity and ensure a 'one-order book' for the nation.

Screen-based trading would be offered.

In the past, conflicts of interest were known to plague the industry. There needed to be a set of rules that applied to all individuals. The only way to bring order to the marketplace and foster a sense of integrity was to introduce regulations that were clearly defined, administered and followed.

To this end, NSE introduced practices such as the Know-Your-Customer (KYC) regulation for investors. It also prohibited cash dealings in trading. Today, if the Indian stock markets exhibit transparency in transactions and efficient structuring, it is due to these regulations.

## The Farsighted Duo



Shri S S Nadkarni, Chairman, SEBI, IDBI and NSE (left), and Dr. R H Patil, Founding-Managing Director, NSE (right), in 1994. Both the visionaries spearheaded the setting up of the new Exchange.

The markets also had to reflect the democratic spirit of India, so that all stakeholders, including the last in the chain, had information and power in their hands. It was crucial that information was accessible to all.

One of our noteworthy achievements was taking stock-market investing to households across India — to the remotest corners, free from interference by middlemen, and streamlined in its functioning. Today, NSE has an investor base comprising 10 crore Indians (as of August 2024), encompassing 99.84% of all pincodes in the country.

These were industry-defining decisions intended to lay a strong foundation for the institution's future. Ultimately, they would foster confidence in the relationship between investors and brokers.

But, these changes came with some challenges, ranging from the lack of nationwide telecom connectivity to the need for major changes in governance.





As India's integration with the rest of the world becomes stronger, critical economic data is captured on a constant basis on this ticker at the Exchange Plaza, NSE, Mumbai.

## **Democratising Opportunities**

India is a land of opportunities for everyone. It is a diverse, heterogeneous society, a country blessed with an abundance of resources and home to people with passion.

NSE mirrored this very essence of India from the very beginning, by welcoming people from different walks of life and supporting them in the pursuit of their dreams.

What made NSE a truly pan-India enterprise is its harnessing of technology, a move that was also its biggest competitive advantage. It made the markets accessible and inclusive by empowering a new generation of entrepreneurs and enabling the efficient use of capital. This was a place where companies could flourish, where brokers across the country came together, in order to break Mumbai's hegemony in the market.

But the journey to becoming a technology-first exchange was not easy.

"When we opted for the V-SAT model, the Department of Telecommunications was very powerful and had a highly restrictive policy. We were initially assured full support, but when we asked for the C-Band spectrum, they said, 'No we can't give you C-Band, because there is a lot of demand for it. We can give you extended C-Band.' Nobody was using that, but we agreed and when we asked for a transponder, we were told that there was limited space on the transponder. When we were finally given one-fourth transponder, it was on a satellite that had already started wobbling. We then started looking for V-SAT equipment, which was not readily available for extended C-Band.

Luckily, an Indian IT Company was in touch with an international firm, which had expertise in TDMA technology. But it did not have equipment for extended C-Band.

They said, technically, it was not difficult to manufacture such equipment; with a bit of experimentation, they would design equipment for that frequency and test it internationally. However, we were not conversant with all the issues involved. Such equipment requires thorough testing in live conditions. The international firm would contract an American firm to conduct the testing. Without testing, the equipment was shipped to us. When the equipment landed at Mumbai port, the Customs Department were on strike.

Fortune and luck very often favour the brave. At a seminar, I met a senior customs official. I explained how our project was integral to the larger national purpose and how the nation would benefit. He immediately grasped the paradigm shift this project would create and persuaded his team to help, notwithstanding the strike. If you are committed to the national cause, people will come forward to help.

The equipment was then installed at Mahindra Towers, Worli, Mumbai (NSE's first office) and we were waiting for DoT's approval. They said, 'You cannot set up the antenna here; it has to be set up in a place which is like a valley so that it does not interfere with telecom signals in the surrounding area.'

We had not sought their formal permission since they had already approved our proposed V-SAT system. There was another dimension to the problem. I don't think they ever took us very seriously. They were, perhaps, under the impression that we will not be able to operationalise such a complex project as no other satellite-based communication system of that sophistication had gone live in India until then. DoT itself was planning to set up 70-80 V-SATs as a commercial proposition on the extended C-Band, but it was stuck in a dispute with the equipment supplier. They were obviously keen that their project goes live before our project.

Dr. Manmohan Singh (who was the Finance Minister at the time) was highly supportive and was keen that the NSE project got implemented as early as possible.

He had told Dr. P J Nayak (who worked in the Ministry of Finance) to use his name if the project got stuck in any government department and that was of great help to us. We told DoT that Dr. Singh had given us the mandate to go live by Diwali of 1994; they then grudgingly gave us a temporary approval to start, on the condition that we would have to shift the mother-dish antenna to the outskirts of Pune if our system interfered with any other telecom network.

But everything worked fine.

We were also lucky that our extended C-Band system worked. Since we were in a hurry, it was not thoroughly tested before it went live. We were also not fully aware of the complexity of the communication system we had installed. Sometimes ignorance is bliss! It was almost a miracle that our V-SAT system did not face any glitches. It convinces me that if you are well-intentioned and are not doing things selfishly for yourself, there is a higher force up there that helps you."

The story of setting up of NSE's V-SAT network in the words of Dr. R H Patil, Founding-Managing Director, NSE

# Thus, NSE took affordable V-SAT connectivity to the doorsteps of homes in rural and semi-urban areas.

The India prosperity story was no longer the prerogative of the elite; rather, it was a narrative that everyone could participate in. It proved that the benefits of the capital markets could potentially reach every corner of the Indian society.

There is no better evidence of this than the story of the first day of trading on NSE: 60% of members were first-time brokers from outside Mumbai. Within a year of its commencement, NSE became the largest exchange in India, in terms of volumes transacted.

The pivotal automation of financial processes followed the introduction of screen-based transactions at NSE, with a lasting impact on the banking system. Further, the launch of this initiative set off a cascading effect, igniting an IT revolution that would shape the very future of India.

The integration of APIs and other technologies bolstered the entire IT ecosystem, laying the groundwork for our country's remarkable prowess in handling large-scale projects and becoming a global powerhouse in the technology landscape.

This ground-breaking endeavour extended far beyond its initial scope in the stock exchange, with utility for third-party entities such as brokers and their employees. This system's widespread adoption led to the creation of a national market – a feat that has left an indelible mark on world markets.

In multiple ways, NSE's journey was a captivating tale of ambition and adaptability, and this new era of progress would not have been possible without the courage to embrace change and implement never-seen-before frameworks.



A 30-feet diameter hub antenna was installed at NSE's first office in Mahindra Towers, Mumbai, in 1994.



(From left to right): Ms. Terry, GTE Spacenet, Shri Ravi Narain, former CEO, NSE, Shri Ashishkumar Chauhan, current MD & CEO, NSE, Mr. Michael Tsuk, Gilat Satellite Networks, Dr. R H Patil, Founding-Managing Director, NSE, Mr. Amiram, Gilat Satellite Networks, Shri Veneet Nayar, HCL Comnet, and Shri G T Rao, HCL Comnet at the former NSE headquarters located at Mahindra Towers in Mumbai.



(From left to right): Mr. Michael Tsuk,
Gilat Satellite Networks, Shri Sunil Mehta,
GTE Spacenet Corporation, Shri G T Rao,
HCL Comnet, Mr. Luis Nakpil, GTE
Spacenet, Ms. Terry, GTE Spacenet, Mr. Neil
Scott, Consultant, FSC, Shri Ashishkumar
Chauhan, current MD & CEO, NSE, Mr. Ketan
Patel, NSE, Shri Srinivasan and others at the
GTE Spacenet headquarters at
Mclean Virginia.

## A Catalyst of Global Change

## NSE did not see the absence of sophisticated telecom infrastructure in the 1990s as a hurdle.

Instead, it set up its own network of V-SATs, giving investors across the country an equal opportunity to participate in the markets. With this technology, the traditional open-floor trading system ended, giving way to an advanced electronic, screen-based trading system known as National Exchange for Automated Trading (NEAT).

This is a state-of-the-art, fully automated, screen-based trading system. It facilitated an automated online system that provided a nationwide, anonymous, order-driven, screen-based trading platform.

On the web, the system was called 'NOW' (NEAT on Web) and allowed users to trade in all products offered by NSE.

## The floor is imaginary, it's cyberspace . . .

#### BY KUSHALRANI GULAB

Bombay, Oct. 26: The National Stock Exchange is, even at first sight, different from any other stock exchange in the country.

For one thing, it's visually – and audibly – more appealing. Unlike the Bombay Stock exchange, which always looks like it's been hit by a hurricane and sounds like the hurricane itself, the National Stock Exchange is a quiet, ordered place.

For another, all the National Stock Exchange's officials dress corporate, as befits the country's first online stock exchange where brokers will seldom be visible and the trading ring is a mainframe computer.

"There is no floor at the National Stock Exchange," said Mr. Ashish Chauhan, who is the assistant vice-president at the new-look National Stock Exchange." "The floor is imaginary, it's cyberspace. Which means trading can take place without any noise."

The main computer is from Stratus Inc. and the software was originally developed by TCAM Inc. "Wherever this system was introduced, trading volumes went up dramatically," continued Mr. Chauhan...

...Unlike the stock exchanges, brokers stay in their offices and monitor... securities on the market via their computers, linked to the National Stock Exchange either by VSAT or leased lines.

"You can negotiate on screen, and the entire market will be watching," said Mr. Chauhan, explaining the advantages of the system. "On the floor-based system, everything has a specific location, so if you're asking for Reliance, you won't be able to check on Tisco..."

"Asian Age", Bombay, October 26, 1994

NEAT's success was a major win in the history of stock exchanges across the world, as a model that showcased how IT could be leveraged in the world of trading, finance, governance and compliance for public good.

Soon, the NYSE, NASDAQ and other exchanges followed suit. Closer home, NSE's pioneering work in setting up satellite networks for communication and a world class IT infrastructure for trading, clearing and settlement, played a catalytic role in catapulting Indian financial sector into a hi-tech domain.

It is crucial that the investor community feels a sense of security and uniformity. NSE responded to this need by setting up NSE Data & Analytics Limited (formerly known as DotEx International Limited). In 2011, SEBI initiated the use of the uniform Know-Your-Customer (KYC) system by all SEBI-registered intermediaries. NSE Data & Analytics was thus granted approval by SEBI to function as a KYC Registration Agency (KRA) for centralised storage/digitisation of the stock exchange's records in the securities market.

Undoubtedly, the integration of technology into the markets ushered in a new era of trading, characterised by accessibility, transparency, and enhanced security. India's capital markets are now among the most advanced and secured globally, thanks to the seamless implementation of cutting-edge technology, enabling traders to conduct transactions effortlessly from any corner of the world, with best-in-class corporate goverance regulations.

Trading in the stock markets has evolved from voice-activated trading, to bot trading, to algorithmic trading, to high-frequency trading and potential widespread use of Artificial Intelligence (AI), which is poised to redefine investment decisions and strategies, with logic and precision. Gone are the days when trading was restricted to a select few; today, anyone armed with a smartphone can actively participate in the stock market, regardless of their location.

The markets have literally been placed in the palm of every investor's hand, empowering individuals to take part in this dynamic world like never before. As a result, India has 10 crore investors today (as of August 2024), resulting in more than 20% India's households directly investing in stock markets.

The Institution

## A New Exchange is Born

### The early days at NSE were marked by a sense of purpose and enthusiasm.

The stakes were high but the founding team's commitment and resolve were even greater. The journey to becoming India's largest Exchange and the largest derivatives exchange in the world was paved with resilience and persistence. All challenges were met with an unshakeable belief in the team's core values, and the support of several parties.

The setting up of the Exchange was driven by entrepreneurial zeal. After all, the opportunity to innovate had arisen from a vacuum in the market. The goal of the Exchange, however, was clear from the beginning: it was a chance to create a platform that would allow the entire country, not just the elite, to participate in and benefit from the 'emerging India story'. The objective of the Exchange was to aid nation building.



(from left to right): Shri S H Khan, Chairman, NSE and IDBI, Dr. Manmohan Singh, Finance Minister, India, Shri S S Nadkarni, Chairman, SEBI, IDBI and NSE, Shri B V Bhargava, Chairman, CRISIL, Dr. C Rangarajan, Governor, RBI, and others at NSE's inauguration in 1994.

The heart and spirit of NSE continues to remain focused on the greater good. This can be credited to the role played by institutional shareholders in its founding. Although the Exchange was created in a for-profit milieu, it was never about building massive wealth, either for the corporate entity itself, that is, NSE, or for its managers.

The profits of NSE were envisioned as a by-product of a highly-regulated market that would go on to attract capital and grow. If the Exchange was profitable, it was in a sense validating the concept.



## The First Steps

### In order to be truly independent, the new Exchange required its own premises.

A hectic search was undertaken to find a space that could be home to the dynamic force that is NSE, and Mahindra Towers in Worli, Mumbai, was chosen as its first headquarters. The office space was successfully secured after facing challenges in finding a suitable location.

In line with the recommendations of the Pherwani Committee, the founding team conceptualised the setting up of the National Securities Clearing Corporation Limited (NSCCL) and the National Securities Depository Limited (NSDL). The first office of NSCCL was at Kala Ghoda, Mumbai. Subsequently, it was moved to Kamala Mills, Lower Parel, Mumbai which is where the NSDL premises were also located later on till 2024.



NSE headquarters at Mahindra Towers at the time of its inception in 1992.



An inside view of NSE's first headquarters at Mahindra Towers in Mumbai.

## 1992

## 1993

- NSE was incorporated on 27th November, 1992.
- NSE is recognised as a stock exchange under the Securities Contracts (Regulation) Act, 1956, in April.

# 1994

 Operations in the Wholesale Debt Market begin in June and in the Capital Market (Equities) in November.

## A Culture of Change

There was a time when a trade couldn't be made without using one's voice and hand signals.

That era was consigned to the past thanks to NSE's electronic trading interface, which introduced efficiency and transparency to transactions.

In a way, the story of the Exchange is one of transforming stock trading in India by doing away with the old and obsolete, and embracing the modern. Ever since it was recognised by SEBI in 1993, NSE's efforts have led to the evolution of various operations in the sector.

## Three years after it was set up, NSE linked its operations to the internet, making it a global forerunner in this regard.

This gave people across the globe access to data on the exchange at the click of a button. It was a time when setting up a LAN network was a novel idea and decisions about what kind of cable to choose to connect to the Internet were crucial.

NSE's foray into satellite connectivity, which facilitated a consistent, under-two-seconds order-matching response time for every trader across the country, was unprecedented. To streamline the wholesale debt market, NSE had to remove the then-existing irregularities in telecom connectivity.

Since telephone connections had certain limitations, it was proposed that NSE uses satellite connectivity for its operations. Not only would this save time and the cost required to lay cables, it also integrated the entire nation into a single platform.

The turn of the century brought many such innovations, including online trading. In several ways, NSE represented India's most extensive technology showcase, serving as a significant display of intellectual capabilities in the country.

With every stride that NSE took, the country's IT industry progressed too. Subsequently, with the advent of the Y2K issue, India's prowess in the field of information technology began to gain international recognition. During those times, virtually all IT companies would bring their prospective clients from around the world to NSE to demonstrate the immense potential that India had to offer.

NSE not only kickstarted the stock market revolution but also played a pivotal role in ushering in the IT and wireless telecommunication revolutions. In India, NSE also became the first successful fully automated, computerized order matching exchange in the world which was later on emulated by other markets in the US, Europe, Japan, Australia, etc. converting their traditional trading framework to computerized order matching system. In that sense, NSE revolutionized the way the world traded stocks since 1994.



## **Opening Moves**



Dr. Manmohan Singh, Finance Minister, India, inaugurates screen-based trading at NSE by giving a computer command in 1994.



Dr. R H Patil, Founding-Managing Director, NSE (centre), at the ground-breaking ceremony of NSE's current headquarters in Mumbai in the presence of other dignitaries in 1994.

## **A Tradition of Breaking New Ground**



Dr. R H Patil, Founding-Managing Director, NSE (right), ceremonially breaks the ground at the construction of NSE's current headquarters in Mumbai in the presence of Shri S H Khan, Chairman, NSE and IDBI (third-right), Shri Ashishkumar Chauhan, current MD & CEO, NSE (fourth-right), and others in 1994.



Shri S H Khan, Chairman, NSE and IDBI (right), ceremonially breaks the ground for the construction of NSE's current headquarters in 1994, as Shri Ashishkumar Chauhan, current MD & CEO, NSE (fourth-right), and other dignitaries look on.



### The Architect Behind NSE

A picture of modesty and composure, NSE's Founding-Managing Director Dr. R H Patil was one of the tallest leaders in the Indian financial services industry.

A true visionary and a path-breaking institution-builder, Dr. Patil spearheaded major financial market reforms in the 1990's. By setting up infrastructure, not only in the equities market but also in the government securities, money and forex markets, he revolutionised stock trading. His farsighted stewardship spawned products and instruments that have captured the imagination of market players in India and abroad.

Dr. Patil's greatest legacy, unarguably, is the vision of enabling every Indian to participate in and prosper from the nation's growth story.

"We wanted to do things differently. We discussed setting up a professional organisation with screen-based trading, a weekly settlement system, etc. We also decided not to give dominant shareholding to any single institution and capped it at a maximum of 14%. We later expanded the capital to bring in some new investors and reduced the maximum stake per institution to 12.5%.

We were a bit theoretical. We looked at markets that were the most efficient or competitive and how to bring their features into India. That is how we came up with the idea that we must not limit the number of brokers.

We felt, let as many people come. We would only prescribe conditions. We also used the deposit concept rather than the sale of membership cards. If anyone felt dissatisfied, he could take back his money: there would be no entry barrier and no exit barrier for NSE membership.

We realised that we cannot establish exchanges in different cities; we needed a fully interlinked national system, which alone could generate huge orders and encourage competition."

- Dr. R H Patil

Founding-Managing Director, NSE

## An Inspiring Leader and an Institution-Builder



Dr. R H Patil, Founding-Managing Director, NSE (second-right) with Shri Ashishkumar Chauhan, current MD & CEO, NSE (right), and others.



Dr. R H Patil, Founding-Managing Director, NSE (left), with Mr. Frank Wisner, American Ambassador to India (right), in 1994.

## **Setting Milestones Early On**

#### NSE was a pioneer in many ways.

In the past, all exchanges would act as entities that matched orders, or enabled investors to do so. Thereafter, there was a clearing house that became an agent, a facilitator for brokers to clear and settle their trades. NSE was the first exchange in India to conceive of a central counter-party that would effectively guarantee that securities would indeed be delivered, and cash for securities would indeed be paid.

One of NSE's pioneering reforms was the establishment of the Core Settlement Guarantee Fund (Core SGF) set up by the NSCCL (now NCL) in June 1996. Thanks to this fund, brokers or investors trading on NSE were significantly indemnified from the then conventional risks associated with stock market trading. The fund was the first of its kind in India, freeing trades from bad deliveries and objections of transfer by financially underpinning the guarantee against settlement risk.

This significantly reduced the risks that brokers undertook, resulting in lower brokerage rates. All the 200 stocks initially listed on NSE were cleared by NSCCL. Since the inception of the Core SGF, NSE's settlements have unfailingly taken place on every prescribed date.

Another feat was the introduction of demat-based trading. Although long since consigned to the archives, share certificates were once essential for settlements. They also brought a host of problems, including the risk of forgery or even entirely fake certificates. People would often travel back and forth between various cities to get their settlements done, which made this an inefficient system.

Revamping it was an important priority at NSE. In 1996, the exchange co-promoted the NSDL, which dematerialised securities, introducing paperless trading to India. This step ensured the electronic transfer of securities between buyers and sellers. To make the system truly robust, NSE offered the buyer a choice between demat and physical settlement of his trades, and the seller had to go with that choice. It wasn't long before the number of people using the demat format increased exponentially.

Further, demat-based trading eliminated cash transactions in the sale and purchase of shares. Now, the click of a button allowed investors to make decisions.



Shri Ashishkumar Chauhan, current MD and CEO, NSE (right), at NSE trading inauguration at Coimbatore in 1995. NSE's first terminal outside of Mumbai was located in Coimbatore.



NSE promoted NSCCL (now NCL) which offered a settlement guarantee, making NSE the first exchange in India to do so.



Currently, NSDL is one of the largest depositories in the world with Demat account holders present across 99.31% of all pincodes in India. The organisation has registered an average of 5,270 account openings every day since November 1996.

By April 1996, NSE had brought the cycle of settlement to T+7, on periodic settlement cycle becoming only the second exchange in the world, after Sweden, to achieve this milestone. To mitigate risk when volumes began to grow, NSE deployed modern, scientific risk-management principles. It also introduced margining, a concept that had never been used before.

Today, the cycle is between T+1 and T+2, depending on the kind of settlement (refer to table on next page). In January 2023, NSE announced that all securities – equity shares, including SME shares, Exchange-Traded Funds (ETFs), Real Estate Investment Trusts (REITs), Infrastructure Investment Trusts (InvITs), Sovereign Gold Bonds (SGB), Government Bonds, and Corporate Bonds trading in the equity segment – would henceforth be settled only on a T+1 basis. In March 2024, NSE introduced the Beta version of T+0 rolling settlement cycle on optional basis in addition to the existing T+1 settlement cycle in equity cash market.

India is one of the first countries to achieve the T+1 settlement cycle for all securities positions. It is also among the handful of countries to implement the shorter, T+0, trade settlement cycle, in early 2024. This is a remarkable feat, considering that most stock exchanges globally, both in developed and emerging markets, follow the T+2 settlement system.

## **Evolution of Trade & Settlement Cycles**

Settlement Cycle	Implementation Date
T+5 (Introduction of the weekly settlement market)	02 <sup>nd</sup> July 2001
T+5 (All securities migrated to compulsory rolling settlement)	31st December 2001
T+3	O1st April 2002
T+2	O1 <sup>st</sup> April 2003
T+1 (Start of phase wise implementation of T+1 settlement)	25 <sup>th</sup> February 2022
T+1 (All Securities migrated to T+1 settlement)	27 <sup>th</sup> January 2023
T+0 (Equity Cash Segment)*	28 <sup>th</sup> March 2024

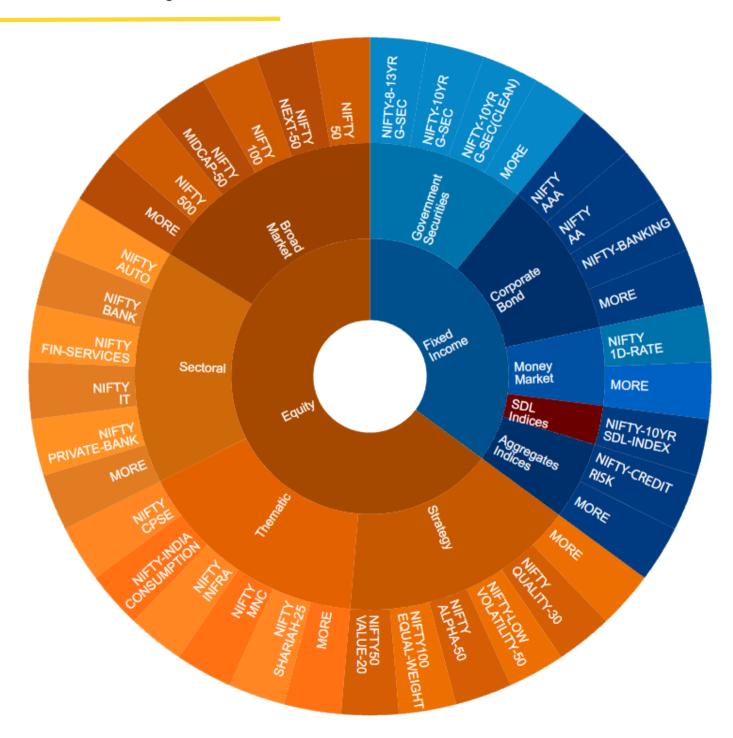
\*beta version

The 'NIFTY' Index (Nifty50) – 'National Stock Exchange Fifty' – was launched on 22<sup>nd</sup> April, 1996, with a base date of 03<sup>rd</sup> November, 1995, and index set at 1,000 on that date. Nifty50, the flagship index of NSE, is also called the stock of the nation.

It is computed using the free-float market capitalisation method, where the level of the index reflects the total free float market value of all the stocks in the index relative to a particular base market capitalisation value. Nifty Indices can be used for a variety of purposes, such as benchmarking fund portfolios, the launch of index funds, ETFs and structured products.

The Nifty brand comprises of over 400 indices as of August 2024. These indices are used as benchmarks for products traded on NSE.

## The World of Nifty Indices



### A Friend, Mentor and Guide to Investors

NSE was established during a time of new ideas, growing entrepreneurship and an increased appetite for risk-taking, all of which was being powered by new technology.

It was an unfamiliar terrain for the investor community, which needed help in understanding how to use this new technology. NSE responded, teaching and supporting stakeholders in their navigation of a new world.

The Exchange offered to coach old-time brokers. Young engineers were assigned to these brokers, who received hands-on training in using tech to make trades.

Interventions like these by NSE instilled further faith and trust among investors, who were initially sceptical of the role of technology and what it meant for them. It didn't take them long to realise that it was a game-changer. The conviction lay in the transparency, efficiency and speed that technology had introduced.



Shri Ashishkumar Chauhan, current MD and CEO, NSE, at The Future of India's Debt Market '98, Invest India Conference.



Monitoring the online trading platform-NSE trading floor in 1999.





## **Milestones**

## A Rich Heritage

- A History of Many Firsts
- Pioneers of New Horizons

## Stakeholder Empowerment

- An Agenda of Awareness and Inclusion
- Nurturing Tomorrow's Talent

## A Rewarding Journey

- Standing the Test of Time
- A Journey of Benchmark Achievements

A Rich Heritage

**A History of Many Firsts** 

## 1992

 Launched as the first de-mutualised stock exchange in India.

## 1993

 Recognised as a stock exchange by SEBI.

## 1996

 Launch of NIFTY 50 Index. National Securities
 Depository Limited (NSDL)
 established.

## 1994

 Started operations in the Wholesale Debt Market (WDM) space and in equities.

NSE Clearing Limited
 (then NSCCL) incorporated
 & commenced operations.

## 2000 2001 2002

 Launch of Equity Derivatives.

 Launch of trading in Index Options.

 Launch of Exchange Traded Funds (ETFs).

## **Pioneers of New Horizons**



Dr. R H Patil, Founding-Managing Director, NSE (right), interacts with the media at the launch of NSE's website. In 2000, NSE became the first Indian exchange to introduce Internet trading, thereby improving safety, transparency, speed, and the overall investor experience.



# 

• Launch of Currency Derivatives segment.

# 2010

• Launch of trading in Currency Options.

## Timeline of New Product Launches over the Years

Segment / Symbol	Launch Date
Nifty 50 Index Futures (Equity Derivatives)	12 <sup>th</sup> June 2000
Nifty 50 Index Options	04 <sup>th</sup> June 2001
Options on Individual Securities	O2 <sup>nd</sup> July 2001
Futures on Individual Securities	09 <sup>th</sup> November 2001
NIFTY Bank – Futures & Options	13 <sup>th</sup> June 2005
Currency Futures - USDINR	29 <sup>th</sup> August 2008
Currency Options - USDINR	29 <sup>th</sup> October 2010
Interest Rate Futures	21st January 2014
Cross Currency Derivatives (EUR-USD, GBP-USD & USD-JPY)	27 <sup>th</sup> February 2018
Commodity Derivatives Segment	12 <sup>th</sup> October 2018
Futures and Options contracts on FINNIFTY	11 <sup>th</sup> January 2021
Futures and Options contracts on Nifty Midcap Select Index	24 <sup>th</sup> January 2022
Derivatives on WTI Crude Oil and Natural Gas	15 <sup>th</sup> May 2023



Shri Ashishkumar Chauhan, current MD & CEO, NSE, speaks at a Futures & Options seminar in 1996. Operations in the derivatives segment commenced in 2000. In 2023, NSE emerged as the world's largest derivatives exchange, by the number of contracts traded, for the fifth time in a row.

Stakeholder Empowerment

## An Agenda of Awareness and Inclusion

## NSE was established as an agent of wealth creation for Indians.

Its goal was to evolve into an orderly, low-cost market and become a fair, compliant and well-regulated stock exchange.

Since 1994, the NSE has been actively pioneering innovative strategies to enhance retail investor engagement in India's capital market. Our endeavours have ushered in a remarkable transformation at the national level, transitioning India from a nation of savers to a nation of investors.

We are working towards adapting our value-creation model to the dynamic needs of our stakeholders. It is our aspiration to create tangible and meaningful impact by generating new opportunities and supporting the financial well-being of our people.

By amalgamating our technological prowess with our passion, we are working towards bringing best-in-class experiences to our customers. We endeavour to strengthen economic growth prospects by enabling efficient capital raising and capital allocation.

Our goal is to be a one-stop-shop for all financial market needs of investors, issuers and intermediaries. We also aim to provide multi-asset class and multi-platform offerings that address all niches in the exchange-trading world.

In addition to curating a comprehensive product portfolio tailored to a wide spectrum of investors, our innovative approach has streamlined and simplified client on-boarding through educational and awareness initiatives for investors.

Since its inception, India's market cap has increased by nearly 121 times in rupee terms and 45 times in dollar terms. It was ₹4 lakh crore in March 1994 and has increased to ₹474 lakh crore in August 2024.

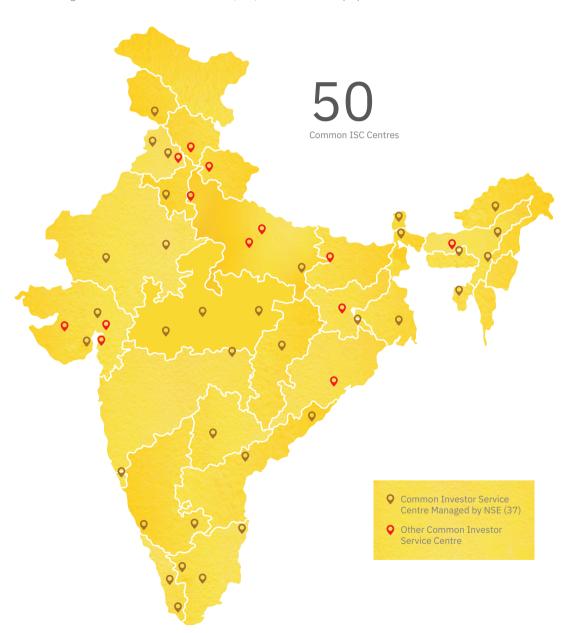
At NSE, we recognise that financial literacy is no longer an optional skill that some people can have and others can live without. In order to build a fulfilling, successful life, everyone needs to be in charge of their finances. Thus, creating, promoting and spreading thought leadership and financial literacy are a very important part of NSE's DNA.

Spreading financial literacy is key to the institution's effort to introduce people to the capital market and help existing participants navigate it better. From school children to adults from various walks of life, NSE's programmes reach out to all audiences who want to be invested in their financial lives.

Through this inclusive and growth-oriented approach, we aim to retain our position of market leadership while strengthening our global presence.

## **Overview Of Investor Services Centre**

The exchange provides various services to investors both electronically through its online platform and physically through dedicated Investor Service Centers (ISCs) established for this purpose.



## **Facilitating Investor Readiness through Education**



In 2013, NSE introduced NSE Young Pioneers, an innovative inter-school competition for students in grades 9-12.



Participants at a NSE-conducted seminar.



School children attending a NSE Training Programme.



A speaker addresses participants at a seminar for investors organised by NSE, one of many workshops customised for various types of audiences across the country.

## **20<sup>th</sup> Anniversary Celebrations**



Shri P Chidambaram, Finance Minister (second-right), shares the dais with other dignitaries during the 20<sup>th</sup> Anniversary Celebrations of NSE in 2013.



Shri P Chidambaram, Finance Minister (centre), engages in a panel discussion on 'Two Decades of Financial Sector Reforms' in 2013.

## **In Good Company**



Smt. Arundhati Bhattacharya, Chairperson, SBI (centre-left), with Shri Vikram Limaye, MD & CEO, NSE (second-left), along with other key dignitaries of SBI Life and NSE at the listing ceremony of SBI Life in 2017.

## **Nurturing Tomorrow's Talent**



Children's Day celebrations at NSE in 2017.



Engaging with bright young minds at the Machine Learning Hackathon in 2018.

## **Platforms for Thought Leadership**



Dr. Subir Gokarn, former Executive Director, IMF (second-right), and Shri Royston Braganza, CEO, Grameen Capital (right), with other dignitaries at the NSE-IMF Conference on Finance and Fintech.

## In Fond Memory: Glimpses of Dr. R H Patil Memorial Lectures



Prof. Robert C Merton, a Nobel Laureate in Economics, was the keynote speaker at the annual memorial lecture in honour of Dr. R H Patil, Founding-Managing Director of NSE, in 2018.



Prof. Robert F Engle, Nobel Laureate in Economics, was the keynote speaker at the annual memorial lecture in honour of Dr. R H Patil, Founding-Managing Director of NSE in 2019.

Hewarding Journey
Standing the Test of Time



To mark its 25<sup>th</sup> anniversary, NSE launched a new brand identity in 2018. This new identity reflects its multi-dimensional nature, multiple asset classes, multiple customer segments and its multiple roles, including that of an exchange, a regulator, an educator and a market developer.



## MESSAGE

I am happy to know that the National Stock Exchange of India Limited (NSE) is celebrating its Silver Jubilee in 2018-19.

The NSE is one of the largest and most important financial institutions in India. NSE has been playing a pivotal role in providing a stable, transparent and globally trusted market platform that has encouraged Indian and global investors to trust Indian capital markets. I hope NSE will continue to highlight the Indian growth story, improve investor awareness and, in the process, give a further fillip to the culture of household savings in India.

On this occasion, I extend my warm greetings and felicitations to all those associated with the National Stock Exchange of India Limited and wish the silver jubilee celebrations every success.

(Ram Nath Kovind)

New Delhi August 2, 2018

Message from Shri Ram Nath Kovind, President of India, in commemoration of NSE's silver jubilee in 2018.



"Honesty, transparency and credibility have been the main factors behind NSE's success in the financial world."

Shri Nitin Gadkari, Hon'ble Union Minister for Road Transport & Highways of India, shares his thoughts on the launch of the silver jubilee celebrations of NSE in 2018.



"The exchange pioneered a critical role in the development of Indian Capital Markets by launching electronic trading 25 years ago, and now will have an equally important role to play for realising the national dream of \$5 trillion economy." Smt. Nirmala Sitharaman, Hon'ble Union Minister of Finance & Corporate Affairs of India, at the closing bell ceremony of the silver jubilee celebrations of NSE in 2019.

# 

Declared world's largest derivatives exchange by the
 World Federation of Exchanges (WFE) for the first time.





NIFTY 50 old logo (top) and new logo (bottom).

The Nifty50 Index is the most traded index in derivatives in India today. The full form of 'NIFTY' is 'National Stock Exchange Fifty'. It represents the weighted average of 50 Indian company stocks in 13 different sectors of the Indian economy and offers investment managers exposure to the Indian market in one portfolio.

## The Making of Nifty

Ashish Chauhan<sup>1</sup>

I am often asked to explain the rationale underlying the NSE-50. In retrospect, the creation of NSE-50 was the first visible outcome of NSE's efforts in building a derivatives market. In my view, that is where the importance of Nifty, as it is now affectionately called, lies: as a harbinger of things to come. For me, personally, it signifies changes in the capital markets which are taking place around us every moment, which individually or as a group we have little control over. It gives me an idea of how far life has moved, up or down or sideways, since 22 April 1996, when Nifty was first published, or even before. For me, Nifty symbolises the three core values of diversification, of hedging, and of being patient.

Be that as it may, I am here today to explain the making of Nifty and motivate its existence.

<sup>1</sup>Vice President, National Stock Exchange.

Excerpts from the book 'The Future of Fund Management in India-1996'.

FIRST STEPS: THE NSE-100

When NSE commenced equities trading on 3 November 1994, traders voiced a need for a market index to reflect prices on NSE. To quickly respond to this need, we worked out an index of 100 securities within 15 days of the commencement of equities trading. The NSE-100 index was first published on 22 November 1994.

In the back of our minds, the NSE-100 was not satisfactory. The NSE-100 could perhaps be described as an ad-hoc effort like all other index construction projects of India have been. We knew that what was really needed was a thorough, scientific effort, which mixed sound empirical research with participation from the traders and fund managers who would actually use the index in trading and fund management. The NSE-100 was hence viewed by us as a stop gap arrangement, until we could replace it by a more scientific effort.

## MOTIVATIONS FOR A NEW INDEX

After the operations of the Capital Market segment stabilised in the middle of 1996, the index problem once again gained priority. There were two arguments suggesting that the time had come to do our thorough index development project:

- 1. NSE's equity market had become the most liquid market in the coun try. NSE's computerised trading offered a wealth of data about the functioning of the market, which could potentially be used for scientific research leading to an index.
- 2. The development of trading (NSE), clearing (NSCC) and settlement (NSDL) was falling into place, and the logical next destination for market development at NSE was the creation of a derivatives market. Our plans in this direction rapidly converged upon index derivatives

<sup>2</sup>The segment of NSE where equities trading takes place is called the 'Capital Market' (CM). The other major segment of NSE is the "Wholesale Debt Market' (WDM), where fixed income trading takes place.

## **Index Construction**

as the most important and most viable products which NSE's derivatives market should start with.

The second objective here emphasised that an index that we worked on was not intended to only be a barometer of market movements, but also to be a foundation of the new world of financial products based on the index like index futures, index options and index funds. In India, the index was traditionally something that you looked at. For the first time, the index was to be something that you would trade.

In most countries, where derivatives markets appear in an environment with well-established, fairly well-functioning indexes, and the only question faced by the derivatives exchange is the choice of which index should be used. In contrast, in India, we faced a situation where the existing indexes were not trusted, and were calculated using noisy prices from less liquid markets. Hence, the derivatives market perforce required a new index, which was both a constraint and an opportunity: Nifty is probably the only index in the world which has been designed for use in financial products.

## RULES VS. DISCRETION IN INDEX CONSTRUCTION

When we started working on the creation of the new index, we did not have any idea of how many securities there would be in the index, and of the criteria that should be used to include or exclude securities from the index. We wanted these to reflect a solid scientific understanding of the behaviour of the market and our objectives for this index, and we wanted these to benefit from the inputs of market participants on an ongoing basis.

Eventually, we turned to the expertise available in academics in the form of Dr. Ajay Shah and Dr. Susan Thomas, both of whom are economists at the Indira Gandhi Insitute of Development Research (IGIDR). We asked them to not just create a list of companies in

the index for us, but to create a methodology for index creation and maintenance, i.e. a set of rules governing the numerous choices that. any index construction project has got to make:

- How large should the index be?
- What securities should be included into the index?
- How should securities be added and dropped from the index on an ongoing basis? How often should such changes be made? How should these decisions weigh the tradeoff between making changes too often (which hurts practical applications of the index) versus making changes too rarely (which hurts the informativeness of the index)?
- How should the historical time series of the index, dating back to a period before the first publication of the index, be calculated?

We had an acute realisation that the empirical research would not accurately pin down these rules, and that the application of the rules would not unambiguously answer every decision in the life of the index. The empirical research often leaves many gray areas about how the rules should be done, and rules often throw up many "roughly equivalent" decisions. This is where the inputs, and the sanity checks, of market participants would enter the picture. We decided to constitute an Index Committee ceraisting of eminent market participants and academicians to ensure tant the decisions governing these gray areas are made in a sensible way.

It should be emphasised that these foundations - empirical research leading to rules, and operational control by the Index Committee - are applicable not just to Nifty, but to a wide variety of other index construction projects which could harness the same body.

## **Index Construction**

of skills and software. Nifty was the first application of these ideas. The Nifty Junior index is the second product of the same ideas, and a few other indexes are now in the pipeline.

## **RULES GOVERNING THE INDEX**

Rules about market capitalisation (size) and liquidity play a role in the rules used by many indexes abroad, and they have a clear economic foundation. It appears meaningful to only specify these rules, and not prespecify the number of stocks in the index; i.e., to allow the rules to guide the size of the index set, which can fluctuate from time to time. The choice of a fixed number, e.g. an index with 50 stocks, has little economic justification. In contrast, if a rule is established (e.g.) which says that the index must always have 66% of the market capitalisation of the country, then this has meaning, while generating an index where the number of stocks vary from day to day.

The index committee felt that this was an interesting perspective which was ahead of its time. The committee decided that the index would have a fixed number of securities, with pre-defined criteria for inclusion and exclusion of securities. The index would be market capitalisation weighted, and the evaluation of securities for inclusion dox cod of ta timer of sectie. the hadet hies for tackles and exclusion would be done every six months.

The two critical objectives which a good index had to satisfy were well understood: hedging effectiveness and liquidity. Hedging effectiveness is synonymous with the extent to which the index is correlated with a wide variety of portfolios in the economy, or the extent to which the index "reflects" the behaviour of actual portfo-lios. Liquidity pertains to the transactions costs faced when actually trading the index.

In order to obtain a better sense of how alternative choices about the rules governing an index would impact upon the hedging effectiveness and liquidity of the index, software was developed to create

<sup>&</sup>lt;sup>3</sup>The Index Committee is an institution which is widely prevalent in many markets. Among other things, the institution of the Index Committee helps eliminate commercial motivations from influencing decisions about index composition. It also improves the transparency of index maintenance.

nine different indexes, featuring different kinds of rules governing entry and exit from the index.

## **Quantifying hedging effectiveness**

Using the largest 1000 companies in the country, 10,000 equally weighted portfolios were created at random. Portfolios were created of size 1 company, 5 companies, 10 companies, 20 companies, 30 companies, 40 companies, 50 companies and 100 companies.

The average correlation seen between these portfolios and each of the nine indexes was measured. This gave quantitative feedback about how the size of the index impacts upon the hedging effective-ness.

It is well known that when the size of the index is increased, the improved diversification yields reduced volatility and better informa-tiveness, and that this effect rapidly experiences diminishing returns: i.e. an index with 300 securities is in a statistical sense, insignificantly different from an index with 200 securities. The empirical results obtained here were strongly suggestive of the same phenomenon being at work in the Indian data. This empirical work led to a focus on market indexes of between 50 to 70 securities as having good diversification (i.e. low volatility) while giving extremely good hedging effectiveness to investors holding a wide variety of portfolios in the economy.

## Quantifying liquidity

Liquidity affects the usefulness of an index in two ways: informative-ness and tradeability.

A liquid index is less contaminated by 'stale prices', where some components of the index have not traded recently and reflect old prices.

A liquid index imposes smaller transactions costs upon users who wish to trade the entire index as a portfolio, e.g. index funds or index

## **Index Construction**

derivatives.

Liquidity was quantified using the notion of 'impact cost' faced when trading the entire index. If a stock is trading at a bid/offer of 99/101, then we say that the 'ideal price' is Rs.100, and that the impact cost faced when buying 100 shares, at Rs.101, involves an impact cost of 1%. Impact cost is measured using snapshots of the limit order books from NSE, and the calculation of impect cost is always sensitive to the exact transaction that is attempted (unlike the bid-ask spread, which always only pertains to small transactions of one or a few market lots).

Our analysis of impact cost led us to focus on around 70 securities where liquidity was consistently good, i.e., where each component of the index reliably yielded transactions with an impact cost of under 1.5%.

## THE BIRTH OF NITY

Around ten trillion floating point calculations later, we were ready to talk about the new NSE index. The index committee was somewhat conservative about liquidity, partly on the grounds that the limit order book snapshots used in quantifying liquidity were then available only for a short period of time. Several securities were perceived as being intrinsically illiquid, but were responding to news announcements in the recent past.

This led to the choice of the number 50 for the size of the new index. Fifty liquid securities were thought to be reliably available, and the gains in terms of hedging effectiveness obtained by going beyond 50 securities were know to be quite minimal.

The rules governing Nifty may be aummarised as follows:

1. A security is only considered for inclusion into Nifty if the impact cost seen on the security (in index transactions of Rs.5 million) is under 1.5% in 90% of the snapshots of the last six months.

2. To prevent to the indes, displacin inder, a new security is only admitted into the index, displacing the smallest stock in the index, if the new security has two to three times the market capitalisation of the outgoing security.

## The impact of Nifty

Table 9.1 Nifty vs. BSD Senses A Comparison

Attribute	Nifty	BSE Sensex
Number of Stocks	50	30
Market Capitalisation		
Rs. Crore, as of 29/8/97	220904	195355
As percent of total	40.1%	35.5%
Volatility (9/96 to 8/97)		
Std. Devn. of daily returns	1.658%	1.723%
Impact Cost on NSE (Mar-Ang	g *97)	
Transaction Size		
Rs.5 Million	0.29	0.35
Rs.10 Million	0.36	0.46
Rs.20 Million	0.49	0.67

Prom July 8, 1996 onwards, Nifty has been calculated in realtime, and displayed on the NSE trading screen as also on international realtime information services. I have repeatedly met traders who think that their access to Nily in realtime has had a fundamental impact upon their perception of the market; they often wonder how they used to trade earlier without knowing what has happened to Nifty on a second to second basis.

The comparison between Nifty and the BSE Sensex is expressed in Table 9.1. Every index is a tradeoff between liquidity and inclu-siveness. For example, it is easy to construct a huge index, with hundreds of stocks, which is very inclusive, but this would be quite

## **Index Construction**

illiquid. Conversely, it is easy to make a very liquid index using twenty stocks, but this index would not capture the behaviour of portfolios in the economy.

In the comparison between Nifty and the BSE Sensex, a unique achievement is the fact that Nifty is both more inclusive and more liquid than the BSE Sensex. Thus Nifty is not just. a different tradeoff in liquidity vs. inclusiveness as compared with the BSE Sensex; it is superior on both counts.

Nifty was the first index in India where index based financial products could be realistically contemplated. One fruit of this is already visible as UTI's India Access Fund, an index fund based on Nifty. Nifty will also be the foundation of index futures and index options in NSE's upcoming derivatives market.

Nifty is now widely used as the indicator which captures the behaviour of equity portfolios in India. It is much used in performance evaluation of mutual funds, and in OTC index warrants which are being done offshore.

## **NIFTY JUNIOR**

Once Nifty was functioning well, there was a sense that there was a second rung of smaller, less liquid securities, who were not in Nifty but still represented a uniquely interesting part of India's equity market.

This led to the creation of Nifty Junior, an index with 50 securities governed by the following rules:

- 1. Any security not in Nifty is eligible for use in Nifty Junior. Nifty and Nifty Junior will never overlap in the stocks.
- 2. A security is only considered for inclusion into Nifty Junior if the impact cost seen on the security (in index transactions of Rs.5 million) is under 2.5% in 85% of the snapshots of the last six months.

## INDEX OF PROSPERITY

ITS JOURNEY SO FAR MIRRORS THAT OF A GROWTH-ORIENTED AND PROSPEROUS INDIA

## Nifty and the India story

HEN THE NIFTY 50 vaulted over the record 20,000-mark the day after the G20 summit in September 2023, it was a sign of an India surging forward, an aspirational India. The flagship index of the National Stock Exchange (NSE), the Niftywas mirroring the ambitions of an India eager to embrace her future in a growing and expanding economy.

Dubbed the 'stock of the nation', The Nifty' 50 is a well diversified 50 stock index and it represents important sectors of the economy. It not only provides a comprehensive snapshot of the equity markets, it is also a barometer of the overall health of the Indian economy. With the equity markets witnessing significant structural reforms in the past decade, the Nifty's composition too has undergone several changes in sync with the true dynamics of the economy and financial markets. So, when it hit 20,000 points recently, its journey northward was a sign of further economic prosperity.

It provides direct access to the benefits of this accelerated economic growth is the NSE. Established in 1992, one of the greatest achievements of the exchange has been the democratisation of wealth creation and financial inclusion. By introducing screen-based trading, the exchange has empowered every Indian by enabling them to invest in the capital markets and participate in India's growth story.

The response has been phenomenal. The last decade in particular has seen robust economic development, making India one of the world's fastest-growing economies. As a result, Indians have more disposable income and are investing in the equity markets with great enthusiasm.

That's not all. Consider how the Nifty's sectoral representation reflects the current India story. Occupying the top slot is **ASHISHKUMAR CHAUHAN** 

MD & CEO, NSE Views are personal

The Nifty's sectoral

representation reflects

India current growth.

Occupying the top

slot is financial

services, followed by

IT, oil & gas, FMCG,

auto, healthcare, and

construction



financial services, followed by information technology, oil and gas, FMCG, automobiles, healthcare, and construction. This speaks of a healthy, consumptioncentric and demand-driven economy with a significant improvement in the standard of living of the average Indian. It also speaks of a government that is prioritising infrastructure development and a digital economy.

Perhaps the most compelling sign of economic advancement

in an emerging economy like India's is a healthy financial services sector. Improved earnings, better credit facilities, digitising of payments and booming home ownership have driven up the weightage of the financial services sector in the Nifty 50 from 20% in 1995 to 38% in June 2023.

Another telling clue is that when it was

launched, the index had no representation from the IT sector. Today, IT is weighted at around 13% in the index. India is already a world leader in IT, a sector that will play a huge role in making the country future-ready. Other sectors that are well represented in the Nifty are telecommunications and power, suggesting that India is at par with global economies in terms of technology, engineering knowhow, and knowledge.

Here's another snapshot of India's eco-

nomic transformation reflected in the journey of the Nifty 50 over last 27 years. After the benchmark index was launched in 1995 with a base value of 1,000 points, it took almost 22 years to reach the 10,000 mark. The Nifty started to surge post-2017, taking just over 6 years to add another 10,000 points, hitting 20,000 on September 11 this year.

Over time, the Indian investor has matured, demonstrating patience and a better understanding

of the financial markets. During this time, the Nifty has consistently delivered excellent returns. This, together with its constituents accounting for more than half the total market cap of listed companies in India, shows Nifty's phenomenal potential for wealth creation.

The average, small investor is now seeing

mutual funds based on the Nifty as a very viable investment opportunity. Apart from delivering strong gains, these funds, called index funds or passive funds, are even more attractive as they provide exposure to a broad range of stocks, thus limiting risk and have low expense ratios.

Take a look at the numbers. As on August 31,2023 total assets under management (AUM) of passive funds worth ₹5.2 trillion is tracking Nifty indices in India. Nifty 50 is the flagship index of India which is tracked by 35 passive funds with total AUM of Rs 2.7 trillion. Incredibly, these funds have been demonstrating increased trust in Nifty Indices.

In July this year, the NSE took another ground-breaking step: NSE IX, NSE's wholly-owned subsidiary, unveiled a new and refreshed brand identity as a part of full-scale transition of SGX Nifty to Gift Nifty. This signifies the unique opportunity and new direction for the international investors to participate in India's growth story by having access to Nifty products through NSE IX at Gift City (Gujarat International Finance Tec-City), an international financial services centre at Gandhinagar. Gift Nifty will be a catalyst in achieving prime minister Narendra Modi's vision for Gift City to become a price-setter for the largest traded instruments in the world. It is bold and ambitious moves like this that will not only create further economic value domestically, but give India a bigger voice in world markets.

In the last ten years, India has grown as a global economic powerhouse, with considerable potential to grow and expand further. Helmed by a stable government that is future-focused, the country is set to become the world's third-largest economy by 2030. India has thus carved a position of strength globally.

India's surging confidence in the global arena arises from its ability to leverage its economic might. It is one of the world's youngest countries, with a median age of 28.2. This puts India in a particularly sweet spot as the country's rapid economic growth is being led by a youthful population intent on driving innovation, giving the country a strong edge in its march towards a brighter and more prosperous tomorrow. The forward journey of the Nifty continues to mirror our country's development.

## In Fond Memory: Glimpses of Dr. R H Patil Memorial Lectures



Shri Uday Kotak, Founder-MD & CEO, Kotak
Mahindra Bank (left), in conversation with
Prof. Eugene Fame, Nobel Laureate in Economics
(right), during the 2020 edition of the annual
memorial lecture honouring Dr. R H Patil, the
Founding-Managing Director of NSE. The event
was conducted in a virtual format.



Dr. Surjit Bhalla, Executive Director-India, IMF (left), interacts with Dr. Lawrence H Summers, President Emeritus, Harvard University (right), during the 2021 edition of the annual memorial lecture honouring Dr. R H Patil, the Founding-Managing Director of NSE. The event was conducted in a virtual format.

## A Journey of Benchmark Achievements

The Indian desire for trading in derivatives was measured through an important survey in the report put forth by Dr. L C Gupta Committee, appointed by SEBI in 1996.

This survey assessed the interest of various players, such as mutual funds, commercial banks, investment bankers and stockbrokers. What was discovered was a wide recognition of the need for all major types of financial derivatives - equity, interest rate and currency.

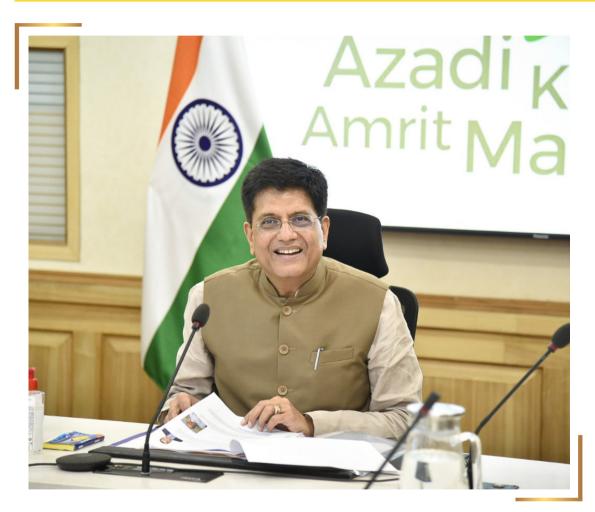
In April of the same year, the Nifty 50 Index was launched; it completed a quarter century in 2022. The Index, which represents 50 large capitalised and liquid stocks across 13 sectors, grew 25x in 29 years, delivering annualised returns of 11.8% during this period. The Nifty 50 Index was the foundation on which the first Exchange Traded Fund (ETF) was launched in 2002. It is also the first Index in the NSE's derivatives market.

NSE commenced trading in derivatives with the launch of Index Futures, benchmarked to the Nifty 50 Index in June 2000 in the equity derivatives segment. This was followed by the introduction of trading in Index Options (also based on the Nifty 50 Index) in June 2001 and Options on individual securities from 2<sup>nd</sup> July 2001.

For five consecutive years, from 2019 to 2023, NSE has been the largest derivatives exchange globally. During this period, India's per capita income has seen a growth of about 48% to ₹2.1 lakh in March 2024. The Index Options contract on the Nifty 50 Index, on the other hand, was the largest globally traded of its kind for many years. NSE's equity derivatives market is a large liquid market.

The availability of derivatives is a criterion used by various investors, particularly institutional investors, as the basis of their investment in a security or an asset class in jurisdiction. It provides an effective risk-management framework for investors and has propelled the growth of the underlying cash-equity segment.

# Silver Jubilee Celebrations of Nifty 50 Index and 20 years of Derivatives in Indian Capital Markets



Shri Piyush Goyal, Hon'ble Union Minister of Commerce & Industry, Consumer Affairs, Food & Public Distribution and Textiles, India, commemorating the completion of 25 years of the Nifty 50 index in 2022.

"As we celebrate 'Azadi ka Amrit
Mahotsav', PM said the next 25 years will
be 'Amrit Kaal' for both India and the NSE
also, in a way defining the future of India
and the future of investing in India. NSE
is adding to this momentum with its Nifty
50 index, which in a way has become the
'Stock of the Nation.'

The Index has grown by 15 times in the last 25 years symbolising the growth potential of the Indian economy. It has made the common man a part of India's growth story.

I'm sure the Nifty 50 will continue to play a very important role in making GIFT City an international financial hub. NSE symbolises New India's commitment for strong economic growth."

#### NIFTY 50 - An Investment Called India

CAGR - Nifty 50

YEAR	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024*
2012	6.76%	18.43%	10.40%	8.51%	12.27%	10.69%	10.88%	11.38%	12.72%	11.86%	12.57%	13.25%
2013		31.39%	12.27%	9.10%	13.69%	11.50%	11.58%	12.05%	13.49%	12.44%	13.17%	13.88%
2014			-4.06%	-0.59%	8.33%	7.01%	8.00%	9.12%	11.14%	10.27%	11.31%	12.20%
2015				3.01%	15.12%	10.98%	11.24%	11.96%	13.90%	12.48%	13.40%	14.26%
2016					28.65%	15.20%	14.13%	14.32%	16.22%	14.15%	14.97%	15.83%
2017						3.15%	7.50%	9.91%	13.30%	11.45%	12.83%	13.99%
2018							12.02%	13.45%	16.90%	13.62%	14.88%	16.06%
2019								14.90%	19.42%	14.16%	15.60%	16.96%
2020									24.12%	13.79%	15.84%	17.54%
2021										4.33%	11.90%	15.09%
2022											20.03%	22.45%
2023												26.44%

#### **Navigating the Post-Pandemic Work Landscape**







The NSE headquarters decorated to welcome employees as they returned to working from office in 2021 after working from remote locations for over a year.

# 2021

• NSE's registered investor base surpasses 5 crore unique investors.





## **Moments**

# **Nurturing Aspirations**

- A Motif of India's Progress and Prosperity
- A Tradition of Innovation and Good Governance

# **Building an Enabled Workforce**

- A Team of Nation Builders
- A Culture of Care

# Powering 1.4 Billion Dreams

- The Unstoppable India
   Story
- The Journey Continues...

Murturing Aspirations

#### A Motif of India's Progress and Prosperity

Ever since it commenced operations in 1994, NSE has been a driving force in India's economic growth.

It provides a platform to companies to raise capital and for investors to participate in the stock market. Technology, innovation and transparency are key priorities in NSE's market ecosystem.

NSE offers comprehensive coverage of the Indian capital markets across asset classes. The Exchange's fully integrated business model comprises exchange listing, trading services, clearing and settlement services, indices, market data feeds, technology solutions and financial education offerings.

The Exchange oversees compliances by trading, clearing members as well as listed companies in line with SEBI and exchange regulations. Its derivatives market offers trading opportunities in various types of derivatives, such as futures and options on stocks and indices, currency futures and options, interest rate futures and options, and commodities futures and options.

Our consistent year-on-year growth and record-breaking turnover bear witness to our commitment to align with and meet the economic aspirations of our nation. As of 2023, NSE had a dominant market share of nearly 93.6% in the cash segment and 98.5% in the derivatives segment. These numbers highlight NSE's leadership in the stock markets.

We take immense pride in our identity as a measure of our country's financial ascent.

This status also brings a sense of responsibility, which is at the core of all our business actions and collective efforts.

#### 2022-23: A Period of Many Milestones



 Largest Exchange in the World

in terms of number of order and trades.



World's Largest
 Derivatives Exchange

for the fifth year in a row.



Third-largest Equity
 Stock Exchange

in the world.



 5,889 Investor Awareness Programmes

conducted in FY 23-24.

# **Connecting Investors**with Opportunities



As on 31.03.2024

Note: For some Investors state mapping is not available

Map not to scale

#### Major Milestones in NSE's Market Capitalisation Journey

Market Cap	O5 <sup>th</sup> July 2007	13 <sup>th</sup> July 2017	26 <sup>th</sup> May 2021	O1st December 2023	31st August 2024
₹crore	41,08,075	1,29,23,019	2,18,40,475	3,34,72,374	4,61,09,616
\$trillion	1.02	2.01	3.00	4.02	5.5

 The journey of market capitalisation of listed companies rising from to \$2 trillion (in July 2017) to \$3 trillion (in May 2021) took about 46 months, whereas the last \$1 trillion i.e., from \$3 trillion to \$4 trillion took only about 30 months. The final leap from US\$4 trillion to US\$ 5 trillion by May 2024 occured in less than six months.

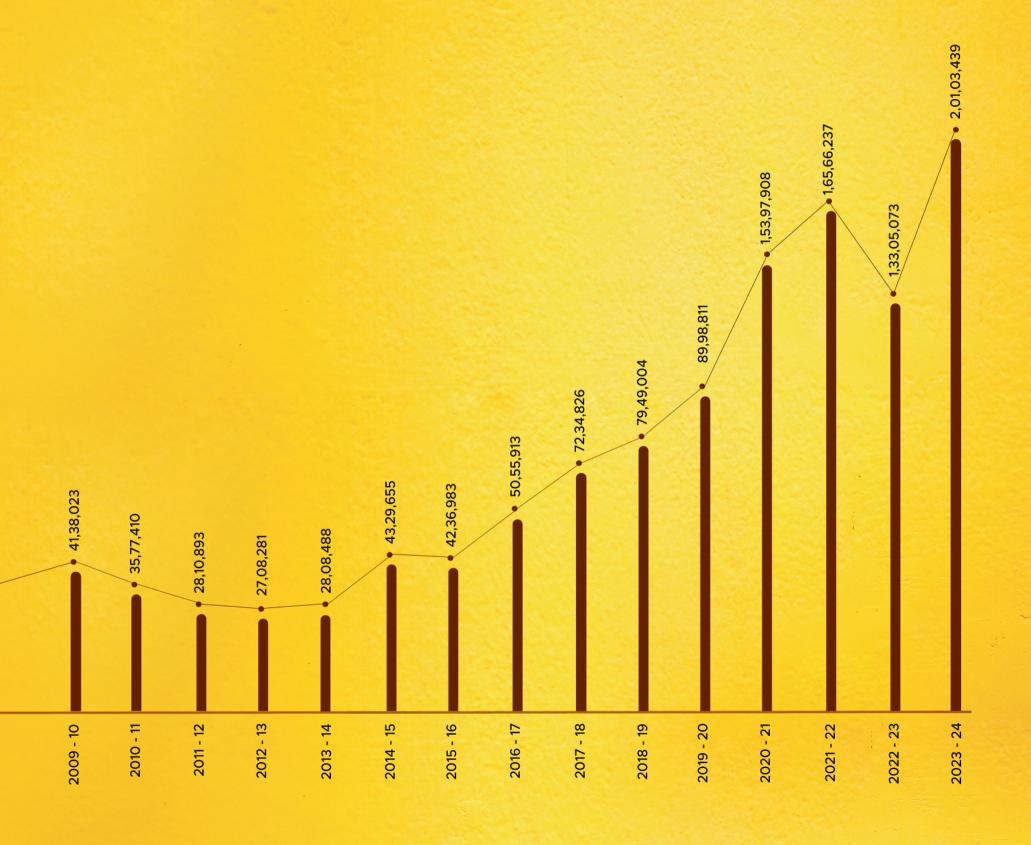
#### **Volume of Different Segments Over the Years**

#### **Equity**

Total Turnover (₹ crore)

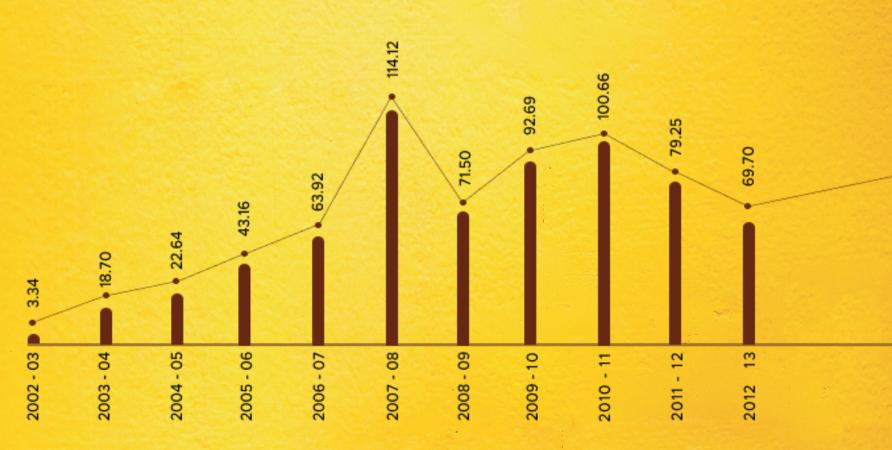


Source: NSE Data Data upto March 2024



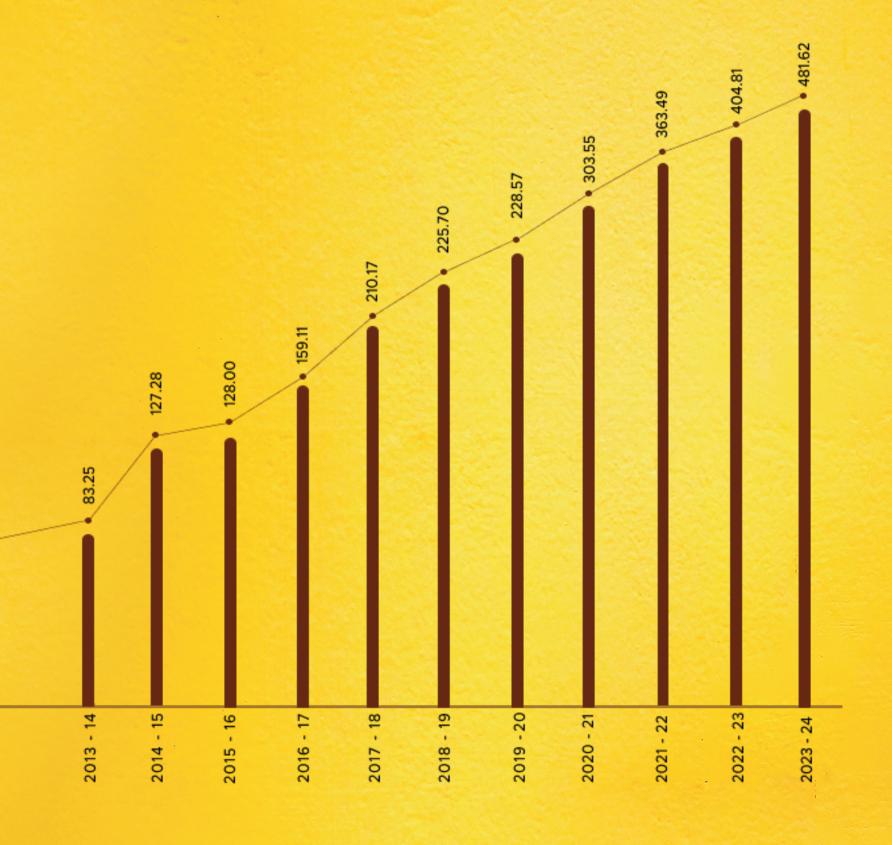
#### **Equity Derivatives**





Source: NSE Data Data upto March 2024

Note: Premium turnover in case of Options



#### 2023: An Era of New Beginnings



 Full-scale operation of the NSE IFSC (NSE IX)-SGX Connect.



 Launch of rupee-denominated NYMEX WTI crude oil and natural gas futures contracts.





 Social Stock Exchange (SSE) set up as a separate segment.  NSE Indices launches India's first Sovereign Green Bond Indices.

#### Taking India to the World



Mr. Loh Boon Chye, CEO, SGX Group (left), handing over a memento to Shri Ashishkumar Chauhan, MD & CEO, NSE (right), in the presence of Mr. Lawrence Wong, Deputy Prime Minister of Singapore (centre), during an event commemorating 22 years of partnership between the two stock exchanges.



Rt. Hon. Lord Mayor of London, Alderman Vincent Keaveny (left), with Shri Ashishkumar Chauhan, MD & CEO, NSE (right), at the NSE headquarters in 2022.



Mr. Robert Abela, Hon'ble Prime Minister of Malta (right), with Shri Ashishkumar Chauhan, MD & CEO, NSE (left), at WFE's 61st General Assembly & Annual Meeting in 2022.



Mr. Sandiaga Salahuddin Uno, Minister of Tourism and Creative Economy of the Republic of Indonesia (centre-right), with Shri Ashishkumar Chauhan, MD & CEO, NSE (centre-left), during a visit to the NSE headquarters in 2023. Also present are other dignitaries from Indonesia.

#### A Tradition of Innovation and Good Governance

### NSE is a respected and admired institution that has fulfilled and surpassed its mandate.

It also serves as a benchmark and role model for exchanges and financial institutions across the world.

A significant factor in this perception is the DNA of NSE, which successfully manages its many roles of being a credible and contemporary platform for companies and investors, imparting financial knowledge to create investment opportunities, and maintaining high standards of corporate governance.

NSE believes that it must serve as an ambassador and a role model, not just for stock exchanges around the world but also for the Indian business community – by practising what it recommends. Although its journey is compelling enough, public recognition has further enhanced its reputation and perception. The number of awards for innovation and good governance conferred on NSE over the years is proof that excellence is not just emulated, but also acknowledged.



India's Social sector become's part of the Exchange.



Shri Eknath Shinde, Hon'ble Chief Minister of Maharashtra (right), receives a memento from Shri Ashishkumar Chauhan, MD & CEO, NSE (left), during the CSR Journal Excellence Awards 2022 organised at the NSE headquarters.



Shri Bhupendra Patel, Hon'ble Chief Minister of Gujarat (right), with Shri Ashishkumar Chauhan, MD & CEO, NSE (left), at the Chief Minister's office, Sachivalaya, in Gandhinagar, Gujarat.



Shri Shivraj Singh Chouhan, former
Chief Minister of Madhya Pradesh
(current Hon'ble Minister of Agriculture
and Farmers Welfare of India) (left)
along with Shri Ashishkumar Chauhan,
MD & CEO, NSE (right) at the listing of
Indore Municipal Corporation's public
issuance of green bonds.

#### The NSE Bell: A Timeless Tradition

#### The ringing of the bell holds immense cultural significance in India.

Through its joyful vibrations, it channels positive energies. The auspicious tradition is practiced across numerous countries worldwide, interweaving culture and tradition into our daily lives.

The NSE Bell is an icon that resonates the rich tradition of the Exchange. Reverberating with historical significance, the Bell stands as an embodiment of the organisation's genesis. The ceremonial act of bell ringing epitomises NSE's role in the nation's economic narrative, channeling capital for enterprises.

Each company's listing is heralded by a bell ringing ceremony, marking the inception of a new chapter in their journey.

The Bell peals joyfully for NSE in honour of nascent enterprises as they embark upon their market journey. Moreover, it accords tribute to the dignitaries who have graced the Exchange with their presence, immortalising their influence in its sonorous echoes.



The NSE Bell is an icon that resonates the rich tradition of the Exchange. Reverberating with historical significance, the Bell stands as an embodiment of NSE's genesis. The ceremonial act of bell ringing epitomises NSE's role in the nation's economic narrative.

#### Ringing the Bell of Prosperity



Padmashri Sridhar Vembu, Founder & CEO, Zoho Corporation (centre-left), and Shri R Sundaram, National Convener, SJM (centre-right), ring the NSE Bell in the presence of Shri Ashishkumar Chauhan, MD & CEO, NSE (fourth-left), and others, during their visit to the NSE headquarters in 2022.



On the auspicious occasion of Diwali Muhurat trading, key dignitaries Mr. Michael Schreuder- Deputy Principal officer, Us Consulate General Mumbai, Padma Shri. Milind Kamble - Chairman of IIM Jammu, Navneet Munot - MD & CEO, HDFC AMC and the joyous team of Khichdi (Shri. Jd Majethia, Shri. Aatish Kapadia, Su. Shri. Supriya Pathak Kapoor, Shri. Anang Desai, Su. Shri. Vandana Pathak, Shri. Rajiv Mehta) ringing the NSE bell along with MD & CEO Shri Ashishkumar Chauhan.



Shri Injeti Srinivas, Chairman, International Financial Services Centres Authority (IFSCA) (right), along with Shri Ashishkumar Chauhan, MD & CEO, NSE (left), ring the NSE Bell during the former's visit to the NSE headquarters in 2022.



Shri Mohan Yadav, Hon'ble Chief Minister of Madhya Pradesh (left) with Shri Ashishkumar Chauhan, MD & CEO, NSE (right).



Shri Suresh Prabhu, former Union Minister for Railways (left), rings the NSE Bell in the presence of Shri Ashishkumar Chauhan, MD & CEO, NSE (right), during his visit to the NSE headquarters in 2023.



Shri Vijay Sampla, Chairman of the National Commission for Scheduled Castes (NCSC) (centre-left), rings the NSE Bell in the presence of Shri Ashishkumar Chauhan, MD & CEO, NSE (centre-right), and other dignitaries, during his visit to the NSE headquarters in 2023.



#### The Making of an Empowered Ecosystem

# In the three decades since it was established, NSE has emerged as an institution of national importance.

It has played a critical role in reshaping India's capital markets against the backdrop of a rapidly changing global marketplace. With more than 2,500 listed companies across a diverse range of sectors, we are proud to be the preferred stock exchange for some of the largest enterprises in the country today.

We firmly believe that our success is inextricably linked to the success of our stakeholders, whose unwavering trust has been a cornerstone of our record-breaking achievements.

This philosophy has not only allowed us to leverage our vast demographic dividend, but to also optimise the capabilities of our young population.

For instance, in FY23, ETFs achieved a significant upsurge in daily average turnover, reaching ₹486 crore, marking a substantial 38% year-on-year growth.

Similarly, Sovereign Gold Bonds, traded on the secondary market, saw a remarkable surge in daily average turnover, reaching ₹7 crore in FY23, reflecting an impressive 45% year-on-year increase.

With stakeholder empowerment forming the axis of all our efforts, we reiterate our commitment to improving the financial well-being of our nation and promise to remain steadfast as ever in our pursuit of establishing a global presence.



Shri Tapan Ray, MD & CEO, Gift City (centre-left), rings the NSE IX Bell to mark the commencement of trading of Gift Nifty in the presence of Shri Rajiv Mehrishi, Chairman, NSE IX (second-left), Shri Balasubramaniam V, MD & CEO, NSE IX (left), Mr. Nico Torchetti, MD & Head of Operations & Market Services, SGX (centre-right), Shri Injeti Srinivas, Chairman, IFSCA (second-right), and Shri Ashishkumar Chauhan, MD & CEO, NSE (right), in 2023.



In 2023, NSE International Exchange (NSE IX) unveiled a new brand identity of Gift Nifty as a part of the full-scale transition of SGX Nifty to Gift Nifty.

Seen here are Shri Balasubramaniam V, MD & CEO, NSE IX (right), Shri Injeti Srinivas, Chairman, IFSCA (second-right) and Shri Ashishkumar Chauhan, MD & CEO, NSE (third-right), at the brand identity unveiling ceremony.



Gift Nifty starts trading in the presence of Shri Ashishkumar Chauhan, MD & CEO, NSE (left), Shri Balasubramaniam V, MD & CEO, NSE IX (right), and other officials in 2023.

#### Contributing to the Welfare of Communities Around Us





Shri Manoj Sinha, Hon'ble Lieutenant-Governor of Jammu & Kashmir (centre), inaugurates a state-of-the-art CT Scan Centre in the presence of Shri Ashishkumar Chauhan, MD & CEO, NSE (left), in 2023. The centre is funded by NSE Foundation for the Indian Army 92 Base Hospital in Srinagar and will be used by army personnel and civilians.

#### **Enabling A Knowledge Economy**

In a highly dynamic and evolving world, staying constantly connected with emerging technology and trends is a universal challenge.

As India's leading stock exchange that sets benchmarks for the rest of the world, NSE hosts and participates in panel discussions and seminars for thought leaders, pioneers and future-gazers to collaborate on new initiatives.

Professionals from India and across the globe participate in these seminars to enhance their knowledge and create an environment of cooperation and sharing.

### **Shaping India's Financial Industry Landscape**



Shri Narendra Modi, Hon'ble Prime Minister of India (right), receives a memento from Shri Ashishkumar Chauhan, MD & CEO, NSE (left), on the occasion of the launch of NSE IFSC-SGX Connect in 2022.



Shri Ashishkumar Chauhan, MD & CEO, NSE (third-left), and other dignitaries at the World Investor Week (WIW) 2022, a week-long, global campaign promoted by International Organization of Securities Commissions (IOSCO) and coordinated by SEBI in India, to raise awareness about the importance of investor education and protection.



Shri Ashishkumar Chauhan, MD & CEO, NSE (third-left), with other board members at WFE's 61st General Assembly & Annual Meeting hosted by the Malta Stock Exchange in 2022.



Shri Ashwani Bhatia, Whole-time Member, SEBI (second-right), visits the NSE booth at *Bharath Ka Share Bazaar* at the 41<sup>st</sup> India International Trade Fair in 2022.



Smt. Madhabi Puri Buch, Chairperson, SEBI (fourth-left), along with, Shri Ashishkumar Chauhan, MD & CEO, NSE (third-right), and other delegates at the 20<sup>th</sup> Annual Capital Markets Conference organised by FICCI in 2023.



Shri Ashishkumar Chauhan, MD & CEO, NSE (centre), interacts with delegates from *Chhatra Sansad* during their visit to the NSE headquarters as part of the InternNation Leadership Tour 2022.



Shri Ashishkumar Chauhan, MD & CEO, NSE (left), speaking at a panel discussion, 'Building A More Inclusive Future: Advancing Financial Inclusion for Economic Empowerment', at the B20 Surat Meet in Gujarat in 2023.

# Representing India's Thought Leadership on Leading Global Platforms



A Global View on the Current State of Play

Moder Month Purchase

Made of Organization Roundup:

Moder Month Purch

Moder Month

Mr. Bill Herder, Head - Asia Pacific, FIA (left), in conversation with Shri Ashishkumar Chauhan, MD & CEO, NSE (right), at the FIA Asia Derivatives Conference 2022 in Singapore.

Shri Mukesh Agarwal, CEO, NSE Indices (centre), shares the dais with other panellists at the World Financial Information Conference in 2022.



Dr. Tirthankar Patnaik, Chief Economist, NSE (left), speaks during a panel discussion at the NSE - IMF World Economic Outlook Conference while discussing the regional economic outlook of APAC and implications for India in 2022.



Shri Sriram Krishnan, Chief Business
Development Officer, NSE (right),
participates in a panel discussion on 'Building
the Future: Built Environment' at the UK-India
Infrastructure Summit, 'Financing A
Sustainable Future', in 2023.

#### Innovation for the Greater Good

## Technology is the beating heart of NSE, the embodiment of its belief in transparency.

From being the first successful exchange in the world to implement electronic or screen-based trading with automatic order matching, to investing in world-class tech enterprises, we have consistently nurtured a proactive culture of innovation that brings robustness, safety and resilience to trading.

Over the years, we have built the largest private, nation-wide area network in India. Our vast infrastructural base has emerged as the lifeline of India's capital markets.

Our robust technology infrastructure setup includes 4 state-of-the-art data centres, 1,800+racks, 6,500+ servers and 13.2 PB storage capacity.

Our trading platform can now handle over 40,00,000 (4 million) orders per second. To ensure business continuity and robustness in challenging times, NSE took the lead in setting up disaster-recovery mechanisms. We have also employed infrastructural measures to support our Business Continuity Plan (BCP).

For instance, in 2022, NSE became the first among Market Infrastructure Institutions (MIIs) to fully implement the Disaster Recovery 45 (DR-45) protocol mandated by SEBI, allowing for a switchover of operations – from the Primary Data Centre (PDC) to the Disaster Recovery (DR) site within 45 minutes, in the event of service disruption. The result is the ability to deliver a resilient, accessible and secure, state-of-the-art technology platform to the market.

Our PDC and DR sites are each located on one of India's two coasts. The PDC site is situated in Mumbai, Maharashtra, on India's western coast, while the DR site is located in Chennai, Tamil Nadu, on the country's eastern coast. The low probability of simultaneous disasters on both coasts ensures greater resilience.

Our fine-tuned 'string of pearls' approach enables us to save considerable time that would otherwise have been expended in building capabilities from scratch, which we believe reinforces NSE's technological proficiency. By mastering different aspects, from connectivity to surveillance, we will continue to modernise the investor value chain.

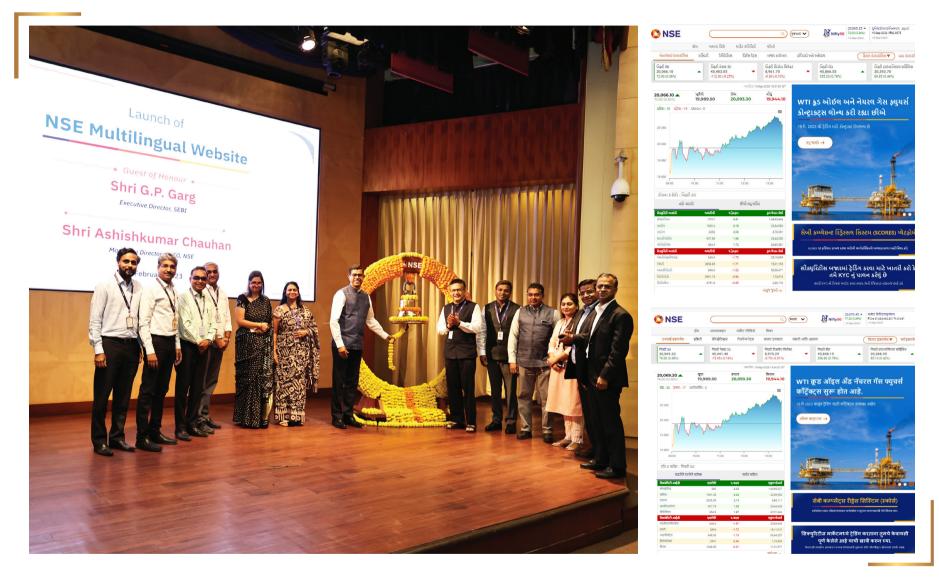
Ultimately, such initiatives help us serve our larger mission: addressing the rapidly evolving needs of the financial services sector.





The iconic ticker at the NSE headquarters in Mumbai has been an integral part of corporate India's journey over the last two decades.

#### NSE Apni Bhasha Mein



In 2023, the NSE website was made available in Hindi, Gujarati and Marathi to ensure greater accessibility to investors. Shri G P Garg, Executive Director, SEBI, (centre-left), rang the bell at the launch of the multi-lingual website in the presence of Shri Ashishkumar Chauhan, MD & CEO, NSE (centre-right), and other senior officials.

Building an Enabled Workforce

A Team of Nation Builders

The talent, passion and commitment of our employees are key enablers of the status and success that we have enjoyed over the years.

We have been committed to providing a work environment that helps our employees thrive and co-create next-generation solutions for our customers. Since our inception, we have worked towards creating an inclusive and innovation-oriented ecosystem, where each employee's voice is valued. Mutual respect and the drive to achieve shared goals are innate aspects of our ethos. We design programmes and interventions that reinforce these vital facets of our work culture.

At NSE, the welfare of our employees, including their personal well-being and their professional advancement and achievements, are a top priority. We are therefore committed to continuously enhancing our employee-centric initiatives, with a view to elevating overall employee satisfaction.

#### One for the Nation



NSE celebrates 'Swaraj Mahotsav' with employees singing the National Anthem at the NSE headquarters at Mumbai in 2022.



NSE employees celebrate the successful landing of Indian Space Research Organisation's (ISRO) lunar mission, Chandrayaan-3, in 2023.



A glimpse of the NSE headquarters illuminated in the tricolor in celebration of 75 years of India's Independence.



76<sup>th</sup> Independence day celebration at the NSE headquaters.

"India has come a long way since its freedom. Today it is one of the largest and fastest growing economy in the world.

We, at NSE, are committed to act as a catalyst for wealth creation, job creation and improving the financial well-being of people by developing the Indian Capital Markets."

Shri Ashishkumar Chauhan, MD & CEO, NSE

## A Culture of Care







Team NSE at a plantation drive (left) and at 'Heart Workshop'(right).

#### A Move for Gender Equality



NSE employees gather to 'Ring the Bell for Gender Equality' ceremony at the NSE headquarters during the Women's Day celebrations in 2023.



International Women's Day celebrations at the NSE headquarters in March 2024.

## **Celebrations at NSE**





NSE employees celebrate Ganesh Chaturthi at the NSE headquarters.





A glimpse of Christmas celebrations at the NSE headquarters in December 2023.

Dowering 1.7 Billion Dreams

#### The Unstoppable India Story

#### India is among the fastest-growing economies in the world today.

Alongside a stable and supportive policy environment that boosts fiscal growth as well as investor participation in the capital markets, the country's bullish graph speaks for its growing prosperity. And, at NSE, we are equipped to maximise the opportunities presented by this promising picture of a prospering India.

Driven by our long-standing aim of democratising the stock markets, our efforts are geared towards improving the financial well-being of the people. As always, we look forward to reinvigorating India's growth story and powering the dreams of its 1.4 billion people.



Shri Ashishkumar Chauhan, MD & CEO, NSE (second-left), participates in a panel discussion on 'Designing the Frameworks for the Future of Finance – Role of International Financial Centres' at the Vibrant Gujarat Global Summit 2024 held at GIFT City in January 2024.



In August 2024, Nifty50 reached a key milestone by touching 25,000 for the first time in its history. The rally was driven by strong performances in the financial sector, with several leading banking and financial services companies contributing significantly to the index's gains.

"Nifty50 - India's favourite stock index reached a historic and an important milestone of 25,000 mark today. Nifty50's progress over last 29 years, since it was launched at initial number of 1,000, shows that it is a testament to the trust Indian and foreign investors place in India's capital markets and its regulatory, legal system to provide fair, efficient, transparent, low-cost, always available, orderly market place that is better than the best in the world and thought as well as execution leaders in the world not only in terms of trading technologies but also in corporate governance.

More than 10 crore direct unique PAN numbers having investors are now registered with us suggesting that 7.5 crore households (account for more than 20% of all households in India), now directly invest a portion of their savings in equities market via the best in class, most automated, highly regulated markets provided by NSE consistently for several decades since its inception."

Shri Ashishkumar Chauhan, MD & CEO, NSE

## The Journey Continues...



Smt. Droupadi Murmu, Hon'ble President of India (left), with Shri Ashishkumar Chauhan, MD & CEO, NSE (right), in 2024.



Shri Narendra Modi, Hon'ble Prime Minister of India (left), receiving NSE bull momento from Shri Ashishkumar Chauhan, MD & CEO, NSE (right) at the NSE HQ.



Smt. Nirmala Sitharaman, Hon'ble Union Minister of Finance and Corporate Affairs (left), with Shri Ashishkumar Chauhan, MD & CEO, NSE (right), in June 2024.



A 'Post Budget Discussion' was held with Shri Piyush Goyal, Hon'ble Minister of Commerce & Industry, Government of India (Left), Shri Ashishkumar Chauhan MD & CEO, NSE (Right), along with other esteemed dignitaries.



Shri Ashishkumar Chauhan, MD & CEO, NSE (right) with Shri Arjun Ram Meghwal, Hon'ble MoS of Ministry of Law and Justice and Parliamentary Affairs (left).



Dr. S Jaishankar, Hon'ble Minister of External Affairs of India, addressed the seminar on 'Indian Capital Markets – Road Map for Viksit Bharat' at the NSE headquarters in May 2024.



In May 2024, Shri Ashwini Vaishnaw, Hon'ble Union Minister of Railways, Information & Broadcasting and Electronics & Information Technolgy, addressed the event *Viksit Bharat-Viksit Mumbai* at the NSE headquarters.



Shri Ashishkumar Chauhan, MD & CEO, NSE, presented a memento to to H.E. Mr. Dennis Francis - President of the United Nations General Assembly for its seventy-eighth session, during their visit to NSE HQ.



Shri Pema Khandu, Hon'ble Chief Minister of Arunachal Pradesh (left), felicitates Shri Ashishkumar Chauhan MD & CEO, NSE (right), at the O.N.E. India Award 2022.



The SGBS Unnati Foundation became India's first listing on NSE's Social Stock Exchange (SSE) in December 2023.



H.E. Taro Kono, Minister for Digital
Transformation at the Digital Agency,
Government of Japan (left), receives a
memento from Shri Ashishkumar
Chauhan, MD & CEO, NSE (right), during
his visit to the NSE headquarters in
December 2023.



Ms. Deborah Agyemfra, Deputy
Director-General, Securities Exchange
Commission, Ghana (centre-right),
Ms. Tucci Ivowi, CEO, Ghana
Commodity Exchange (centre-left),
with Shri Ashishkumar Chauhan, MD &
CEO, NSE (second from centre right),
and other key delegates during their
visit to the NSE headquarters in
February 2024.



In February 2024, officials from the Securities Commission Malaysia visited the NSE headquarters for a study tour of the Social Stock Exchange (SSE).

Additionally, they rang the NSE Bell in the presence of Dr. R Balasubramaniam, Chairperson of the Advisory Committee for the Social Stock Exchange, SEBI (centre-left), and Shri Ashishkumar Chauhan, MD & CEO, NSE (second from centre left).



Shri Pushkar Singh Dhami, Hon'ble
Chief Minister of Uttarakhand (centre),
accompanied by Shri Ashishkumar
Chauhan, MD & CEO, NSE (centre-left),
and other dignitaries at the MOU
signing ceremony of Project GAURAV –
Skill Development for Youth in the BFSI
sector in Dehradun in February 2024.



Shri Ashishkumar Chauhan, MD & CEO, NSE (second-right), participated in the 10<sup>th</sup> Asia Business Responsibility Summit in Mumbai in February 2024. He shared his thoughts on the 'Role of Stock Exchanges in Encouraging Businesses in Building a Green, Just & Inclusive Economy'.



Shri R N Ravi, Hon'ble Governor of Tamil Nadu (third-right), Shri Ashishkumar Chauhan, MD & CEO, NSE, (second-right), and other key delegates, unveiled the book titled "Grace, Glory, and Gaffe – India's North-Eastern Region @ 75" at a launch ceremony held at the University of Mumbai in March 2024.



Shri R N Ravi, Hon'ble Governor of Tamil Nadu (centre), rings the NSE Bell during his visit to the NSE headquarters in the presence of Shri Ashishkumar Chauhan, MD & CEO, NSE (centre-right), and other delegates in March 2024.



In March 2024, Shri Ashishkumar Chauhan, MD & CEO, NSE (centre), participated as a panellist on the discussions titled 'Navigating the Global Financial Landscape – Regulations, Risks and Opportunities' at the India Global Forum: Annual Investment Summit 'NXT 10' held in Mumbai.



In March 2024, a Belgian delegation visited the NSE headquarters.
Shri Ashishkumar Chauhan, MD & CEO, NSE (centre), presented a memento to Shri Amarjeet Singh, Whole-time Member, SEBI (left), who was a part of the delegation.



In March 2024, Shri Ashishkumar
Chauhan, MD & CEO, NSE (second-left),
was a key speaker at the 5<sup>th</sup> SEBI-NISM
Research Conference alongside Shri
Ananth Narayan G, Whole-time Member,
SEBI (left), Shri Amitabh Chaudhry, MD
& CEO, Axis Bank (third-left), Shri Sunil
Sanghai, Founder & CEO, Nova Dhruva
Capital (second-right), and Shri Nilesh
Shah, MD, Kotak Mahindra Asset
Management (right).



Smt. Smriti Irani, Union Cabinet
Minister of Women and Child
Development and Minority Affairs of
India (third-right), alongside
Shri Ashishkumar Chauhan, MD & CEO,
NSE (second-right), and other notable
dignitaries at the *Viksit Bharat*Ambassador Mumbai Meet-up 2024
held at the NSE headquarters in
March 2024.



In March 2024, Shri Ashishkumar Chauhan, MD & CEO, NSE (centre), was awarded the *Bhartiya Mahantam Vikas Puraskar* 2024 at the 22<sup>nd</sup> Edition of the Asian Business & Social Forum 2024 held in Mumbai.



In April 2024, Shri Ashishkumar
Chauhan, MD & CEO, NSE spoke on
'India's Higher Education Landscape' at
the workshop organized by the
University Grants Commission (UGC)
on Institutional Development Plan,
in New Delhi.



Shri Ashishkumar Chauhan,
MD & CEO, NSE speaking at the
National Conference on
'Dr. Babasaheb Ambedkar's
Contribution to India's Constitution
and Indian Economy', at the NSE
headquarters in May 2024.



Shri Pushkar Singh Dhami, Hon'ble Chief Minister of Uttarakhand (right), interacts with Shri Ashishkumar Chauhan, MD & CEO, NSE (left), during the former's visit to the NSE headquarters in November 2023.



In May 2024, NSE was awarded for 'Implementation of T+1 Settlement in India' at the Global Custodian's Leaders in Custody Awards 2024. Shri Ashishkumar Chauhan, MD & CEO, NSE accepted the award at a ceremony

held at Savoy Hotel in London.



Shri Ashishkumar Chauhan, MD & CEO, NSE presenting a memento to Smt Madhabi Puri Buch, Chairperson, SEBI.



In June 2024, Shri Ashishkumar Chauhan, MD & CEO, NSE (centre), addressed at the University of Cambridge as a part of Cambridge-India Conference.



In June 2024, Mr. Graham Paul Rouse, New Zealand Consul General and Trade Commissioner Mumbai (second-left), visited the NSE headquarters and rang the NSE Bell in the presence of Shri Ashishkumar Chauhan, MD & CEO, NSE (centre), and other senior delegates.



Shri Ashishkumar Chauhan, MD & CEO, NSE (centre), addressed the 8<sup>th</sup> Edition of India Maritime Awards in Mumbai and presented the awards as the Chief Guest in June 2024.



Mr. Niklas Wykman, Minister for Financial Markets, Government of Sweden (centre-left), rings the NSE Bell in the presence of Shri Ashishkumar Chauhan, MD & CEO, NSE (centre-right), Mr. Sven Östberg, Consul General, Consulate General of Sweden in Mumbai (second from centre left), and other key Swedish delegates, during their visit to the NSE headquarters in November 2023.



Shri Ashishkumar Chauhan MD & CEO, NSE, addressing the 21st Annual Capital Markets Conference, *CAPAM* 2024 - Capital Market Reforms 2.0 for Viksit Bharat, organised by FICCI India. The event took place at Mumbai in August 2024.

# Three Decades of Leading from the Front



1,000.00\*

\* As on November 03, 1995

#### 1994-95

 Commences electronic, screen based trading (NEAT\*) in equity and wholesale debt market segments

#### 1995-96

 Commences trading and settlement in dematerialised securities after Parliament passes the Depositories Act

#### 1996-97

- Launches NIFTY 50 Index
- National Securities Depository Limited (NSDL) established
- NSE Clearing Limited (then known as NSE Securities Clearing Corporation (NSCCL)) incorporated, commences operations in April 1996

#### 1999-2000

 Real-time risk management system established following recommendations of the J. R. Varma Committee

#### 2000-01

 Launches index futures based on the Nifty 50 Index for trading in 2000-01

#### 2001-02

- Launches ETF listings
- Launches index options based on the NIFTY 50 Index (then known as S&PCNX NIFTY) for trading
- Launches single stock futures and options on listed securities

#### 2003-04

 Settlement cycle reduced from T+5 to T+3 from April 2002, and to T+2 from April 2003

#### 2005-06

Number of listed companies crosses
 1.000 mark

#### 2007-08

- Market Capitalisation of listed companies touches US\$1 trillion
- Registered investor base touches 50 lakhs unique investors
- Nifty 50 Index crosses 5,000 mark

#### 2008-09

- Becomes the first exchange in India to offer trading in Currency Futures
- Securities Lending and Borrowing Scheme (SLBS) introduced

#### 2009-10

- Registered investor base touches 1 crore unique investors
- Launches Mutual Fund Service System (MFSS)

#### 2010-11

Launches trading in currency options

#### 2012-13

 Launches SME EMERGE platform for the listing and trading of SMEs

#### 2013-14

Launch of New Debt Segment (NDS)

#### 2015-16

• Launches platform for sovereign gold bond issuance

#### 2016-17

- Registered investor base surpasses
   2 crore unique investors
- Promotes NSE IX, the International Stock Exchange, in India's first IFSC SEZ at GIFT City, Gandhinagar
- Launch of Electronic Debt Bidding platform (NSE-EBP) for issuance of debt securities on private placement basis

<sup>\*</sup> National Exchange for Automated Trading



### # As on 30th August, 2024

#### 2017-18

- Market Capitalisation of listed companies touches US\$2 trillion
- Nifty 50 Index crosses 10,000 mark

#### 2018-19

- Commodity Derivatives segment, and Tri-Party Repo of corporate debt securities launched
- Launch of Weekly expiry on Nifty 50 Index options

#### 2019-20

- NSE celebrates its silver jubilee of operations
- Registered investor base touches 3 crore unique investors
- NSE IX-SGX Connect receives regulatory approval
- NSE EMERGE achieves 200th SME listing milestone

- Inter-operability among clearing corporations goes live, allowing settlement choice to investors
- Launch of Interest Rate Options on Government of India bonds
- Request for Quote (RFQ) Platform in debt securities launched
- Ranked number 1 by number of contracts in equity derivatives by WFE

#### 2020-21

- Registered investor base touches 4 crore unique investors
- Nifty 50 Index crosses 15,000 mark

#### 2021-22

- Registered investor base surpasses 5 crore unique investors
- Number of listed companies crosses 2.000 mark

- Market Capitalisation of listed companies crosses US\$3 trillion mark
- First exchange to implement T+1 settlement cycle in a phased manner beginning February 25, 2022
- NSE IX becomes the first international exchange at IFSC to physically settle US Stocks
- Silver Jubilee of NIFTY 50 Index and 20 Years of Derivatives in Indian Capital Market

#### 2022-23

- Social Stock Exchange (SSE) launched as a separate segment
- Registered investor base surpasses 7 crore unique investors
- NSE IX-SGX Connect Inaugurated by Hon'ble Prime Minister of India Shri Narendra Modi

#### 2023-24

- Market capitalisation of listed companies surpasses US\$4 trillion mark, closing the year at US\$4.61 trillion
- SME companies listed on the NSE Emerge platform crosses the ₹1 lakh crore Market Capitalisation mark
- Nifty 50 Index crosses 20,000 mark
- Registered investor base touches 9 crore unique investors
- Equity cash market turnover touches an all-time high of ₹1.68 lakh crores on November 30, 2023
- Launch of beta version T+0 settlement in the equity segment
- Equity IPO listing timeline reduced from T+6 to T+3
- Commodity derivatives on WTI Crude Oil and Natural Gas and base metals (Aluminium, Copper, Lead, Nickel, Zinc) launched
- Largest multi-asset exchange globally by number of trades
- Largest derivatives exchange globally for the fifth consecutive year in 2023 by number of contracts traded
- Third largest equity exchange globally in 2023 by number of trades



The statue of NSE Bull represents strength, power, and resilience—qualities that are key to India's economic growth. Surrounded by figures representing the People of India from diverse backgrounds — such as a school-going boy, a village woman, and professionals—the sculpture underscores the inclusivity and unity of India's investment landscape. This iconic creation reflects the collective efforts of the nation, working together towards a common goal of economic progress.



Unveiling of the NSE Bull by Shri C P Radhakrishanan, Hon'ble Governor of Maharashtra (left) and Shri Ashishkumar Chauhan MD & CEO, NSE (right) in September 2024.

## **Afterword**

## In the preceding pages, we gave you a ringside view of NSE's journey.

We hope you stopped to admire how a company, in its quest to change India, set a global standard for the world to admire and emulate.

NSE's story will continue to unfold as an engine that drives the aspirations of investors, the prosperity and financial well-being of all Indians, the hopes of entrepreneurs, and the dreams of workers. New challenges will be met, new boundaries will be breached, new highs will be scaled. 30 years ago, we set out to enable the dreams of every Indian. We may have fallen short of enabling 1.4 billion dreams but we have made an excellent start.

The wheels have been set in motion, and as long as the story of India progresses, so will the National Stock Exchange of India.



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111	In 2000, NSE launched the equity derivatives segment	https://www.nseindia.com/products-services/about-equity-derivatives
111	In 2001, NSE launched trading in Index Options	https://www.nseindia.com/products-services/about-equity-derivatives
112	In 2000, NSE became the first Indian exchange to introduce Internet trading	https://www.nseindia.com/products-services/emerge-institutional-trading-platform-internet-trad
114	2008: NSE launched the currency derivatives segment	https://www.nseindia.com/products-services/about-currency-derivatives
115	2010: NSE launched Currency Options	https://www.nseindia.com/products-services/about-currency-derivatives
116	Timeline of New Product Launches over the Years	NSE Data
118	NSE was established as an agent of wealth creation for Indians. Its goal was to evolve into an orderly, low-cost market and become a fair, compliant and well-regulated stock exchange.	Inputs from Shri Ashishkumar Chauhan MD & CEO, NSE, 2023
119	Since its inception, India's market cap (across exchanges) has increased by nearly 100 times in rupee terms and 38 times in dollar terms. It was ₹3.9 lakh crore in March 1994 and has increased to ₹394 lakh crore in March 2024.	NSE Data
121	In FY 23-24, NSE successfully organised 5,889 investor awareness programmes	NSE Records (NSE Annual Report 2024)
131	Quote by Shri Nitin Gadkari, Hon'ble Union Minister for Road Transport & Highways of India	https://www.nseindia.com/silver-Jubilee-celebration
132	Quote by Smt Nirmala Sitharaman, Hon'ble Union Minister of Finance & Corporate Affairs of India	https://www.nseindia.com/closing-bell-ceremony-to-commemorate-25-years-of-nse
133	Declared world's largest derivatives exchange by the World Federation of Exchanges (WFE) for the first time	https://www.nseindia.com/nse-is-now-worlds-largest-derivatives-exchange
142	Dr. L C Gupta Committee, appointed by SEBI in 1996	https://www.business-standard.com/article/specials/gupta-committee-frames-20-point-questionnaire-197051001059_1.html
144	Quote by Shri Piyush Goyal, Hon'ble Union Minister of Commerce & Industry, Consumer Affairs, Food & Public Distribution and Textiles	https://pib.gov.in/PressReleasePage.aspx?PRID=1787805
145	Nifty50 – An Investment Called India	NSE Records (NSE Coffee Table Book, 2015)
147	NSE's registered investor base surpasses 5 crore unique investors	https://nsearchives.nseindia.com/web/sites/default/files/2022-01/PR_cc_26102021.pdf
Moments		
150	Ever since it commenced operations in 1994, NSE has been a driving force in India's economic growth. It provides a platform to companies to raise capital and for investors to participate in the stock market. Technology, innovation and transparency are key priorities in NSE's market ecosystem.	https://www.nseindia.com/companies-listing/raising-capital-listing-benefits < comprehensive marketplace >
151	As of 2023, NSE had a dominant market share of nearly 93.6% in the cash segment and 98.5% in the derivatives segment.	https://nsearchives.nseindia.com/web/sites/default/files/inline-files/NSE Annual Report 2022-23_0_0.pdf Page 6
152-153	2022-23: A Period of Many Milestones	NSE Annual Report
154	Connecting Investors with Opportunities	NSE Data
155	Annualised Growth of NSE's Market Capitalisation	NSE Data
156-159	Volume of Different Segments Over the Years	NSE Data
160	2023: An Era of New Beginnings	NSE Annual Report

https://nsearchives.nseindia.com/s3fs-public/inline-files/NSE%20Annual%20Report%202022%20%281%29.pdf

174

Number of companies listed on NSE

186	Our robust technology infrastructure setup includes 4 state-of-the-art data centres, 1,800+ racks, 6,500+ servers and 13.2 PB storage capacity.	NSE Annual Report
187	We also have 6500 server-class computer systems, with non-stop, Fault-Tolerant Stratus and UNIX servers. These assets currently enable real-time trading for over 10,000 users at a given time. Our trading platform can now handle between 40,00,000 (4 million) orders per second.	Inputs from Shri Ashishkumar Chauhan MD & CEO, NSE, 2023
187	In 2022, NSE became the first among Market Infrastructure Institutions (MIIs) to fully implement the Disaster Recovery 45 (DR-45) protocol mandated by SEBI, allowing for a switchover of operations – from the Primary Data Centre (PDC) to the Disaster Recovery (DR) site within 45 minutes, in the event of service disruption, to enhance operational readiness.	NSE Annual Report
195	Quote by Shri Ashishkumar Chauhan, MD & CEO, NSE	NSE Annual Report
195	Quote by Shri Ashishkumar Chauhan, MD & CEO, NSE	https://www.businesswire.com/news/home/20230911700472/en/Shri-Ashishkumar-Chauhan-MD-CEO-NSE-shares-his-views-on-the-landmark-achievement-of-Nifty-50-crossing-20000-points
222-223	Three Decades of Leading from the Front	NSE Annual Report



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