# INDIAN FINANCIAL SYSTEM

# Financial System

- Finance refers to funds or monetary resources needed by individuals, business houses, government, farmers, etc.
- **Financial system** refers to the market for *borrowing and lending funds* or to *demand and supply of funds*.
  - Financial system thus consists of savers and investors.
  - Savers include banking system, insurance companies, mutual funds, investment funds, other institutions which promote savings.
  - Investors include individual investors, industrial and trading companies, etc.

# Capital Market

- Capital markets is a market for long-term funds.
- It refers to all the facilities and institutional arrangements for lending or borrowing medium and long-term funds.
- It does not deal with capital goods but is concerned with the raising of money capital for purposes of investment.
- It aims to mobilize long term savings to finance long-term investments, provide risk capital in the form of equity encourages broader ownership of productive assets.

### **Concepts of Capital**

#### **Authorized (or nominal) capital:**

- A company mentioned in its Memorandum of Association Rs. 10 lacs as its capital, divided into 10,000 shares of Rs. 100 each. The company was registered with this amount as its capital.
- In this case, the amount of Rs. 10 lacs is the authorized capital of the company.

#### **Issued Capital:**

- Now suppose that the company offers 8,000 shares to the public.
- The issued capital of the company is Rs. 8 lac (8,000 x 100).
- The balance of Rs. 2 lacs is the un-issued capital.

#### **Subscribed Capital:**

- Out of these 8,000 shares offered to the public, the company receives only 5,000 applications for the purchase of its shares.
- The subscribed capital of the company is Rs. 5 lacs (5,000 x 100).
- The balance of Rs. 3 lacs is the un-subscribed capital.

#### **Called-up Capital:**

- If the company requires, it can call the entire amount from the subscribers. However, the company calls Rs. 30 (Rs. 10 on application, Rs. 10 on allotment and Rs. 10 on first call) on each share subscribed by the public. The called-up capital of the company is Rs. 1,50,000 (5,000 x 30).
- The balance of Rs. 3.5 lacs (5,000 x 70) is the uncalled capital.

#### Paid-up Capital:

- Now suppose that a member to whom 100 shares were allotted does not pay the first call of Rs.10 on his shares.
- The 'paid-up' capital of the company would be Rs. 1,49,000 (1,50,000 1000).
- The amount of Rs. 1,000 is known as 'calls in arrears' and is still the part of uncalled capital.

ABC Ltd was registered with registrar with a registered capital of Rs. 20,000,000 where each share is of Rs. 10.

In response to the advertisements made by the company to buy shares in the company applications have been received for 10,00,000 shares but company actually issued 7,00,000 shares where company has called for Rs. 8 per share.

All the calls have been met in full except three shareholders who

still owe for their 6000 shares in total.

#### Solution:

Authorized capital = Rs. 20,000,000

If the number of shares subscribed is less than what is offered/issued, the company will allot only the number of shares for which subscription has been received. In case it is higher than what is offered, the allotment will be equal to the offer.

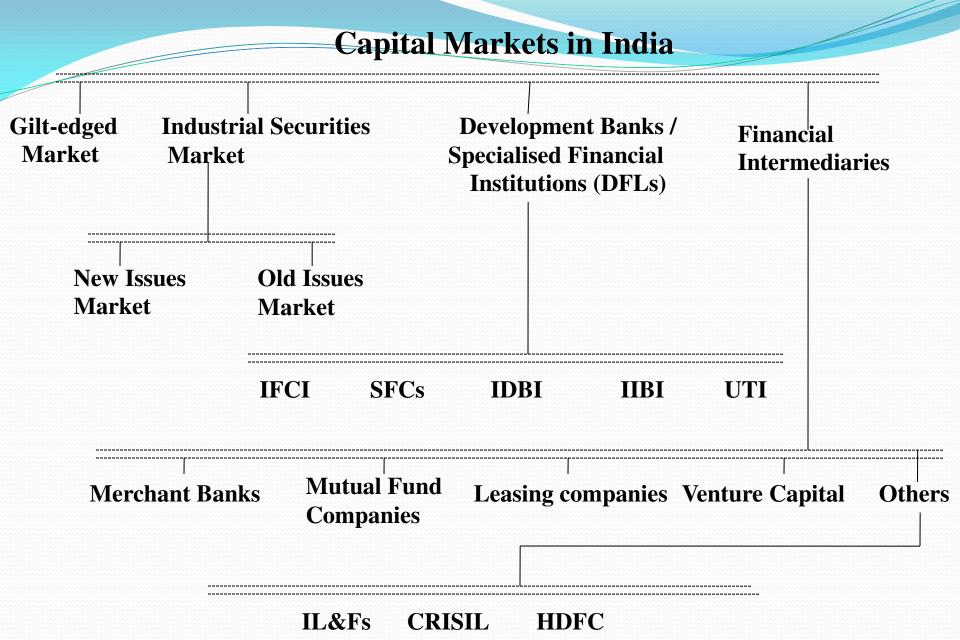
Hence, in case the subscriber capital is higher then, there is no difference between issued and subscribed capital.

Subscribed capital =  $1,000,000 \times Rs. 10 = Rs. 10,000,000$ 

Issued capital =  $7,00,000 \times Rs.10 = Rs. 70,00,000$ 

Called-up capital =  $700,000 \times Rs. 8 = Rs. 5,600,000$ 

Paid-up capital =  $5,600,000 - (6000 \times Rs. 8) = Rs. 5,552,000$ 



# Gilt edge market

- It is the market for government and semi-government securities, backed by RBI.
- Securities traded (borrowed or lent) in this market are stable in value (less volatile) and are much sought after by banks and other institutions.
- There are no uncertainties regarding yield management, addition to capital etc. therefore is much less speculation in this market.
- Investors in government securities are institutions like commercial banks, LIC, GIC and PFs.
- It is not an auction market, but is a market for shares.
- RBI plays a dominant role in gilt edge market through its open market operations.

# Industrial securities market

- It is the market for shares and debentures of old and new companies.
  - New issue market (primary market): refers to the raising of new capital in the form of shares and debentures.
  - *Old issue market (secondary market)*: refers to the market for stock exchange. It deals with securities already issued by companies. It is a market for stock exchange.
- More speculation and uncertainty (more volatile)
- Investors are mainly Development Financial Institutions (DFIs) like IDBI, IFCI, ICICI, UTI, etc.
- It is an auction market along with market for shares.
- RBI has a minor role to play in this market. SEBI plays role.

# Capital market

#### Gilt-edge market

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### Intermediaries in Capital Market

- Stock Exchanges
- Banks
- Investment Trusts and Companies
- Specialized Financial Institutions or Development Banks
- Mutual Funds
- Non-banking Financial institutions
- Merchant Banks
- International Financial Investors and Institutions.

#### Difference Between Investment Banks and Merchant Banks

#### Investment Banks facilitate:

- •mergers and acquisitions through share sales and also provide research to various companies;
- •manage initial public offerings (IPOs) and also public and private share offerings.
- •they also provide services like underwriting of shares and broking related services for their clients.

Investment bankers deal with companies which are big both in terms of size as well as capital and they need for expansion.

#### Merchant Banks perform:

•international financing activities such as foreign corporate investing, foreign real estate investment, and trade finance. This includes services like issuing letters of credit, transferring funds internationally, trade consulting and also co-investment in international projects of the companies.

As far as merchant banks are concerned their clients are mostly middle sized companies.

# **Investors in the Capital markets**

- Individuals
- Corporate
- Governments
- Foreign Countries
- Banks
- Provident funds
- Financial Institutions

# STOCK MARKET

Definition: "Stock" is a broader term that refers to the ownership certificates of any company. It represents the ownership interest of an individual or institution in all assets and earnings of the company.

Usage: Companies issue stock to raise capital. There are two main types of stock: common stock and preferred stock. Definition: "Shares" specifically refer to the individual units into which the ownership of a company is divided. When you buy shares, you are purchasing these individual units of ownership in the company.

Usage: Shares are the smaller units into which the total ownership of a company is divided. They are bought and sold on

# Definition

• Stock Exchange is an organized market for buying and selling financial instruments known as securities, which include stocks, bonds, options, and futures.

Bonds are debt securities that represent a loan made by an investor to a borrower, typically a corporation or government. When you buy a bond, you are essentially lending money to the issuer in exchange for periodic interest payments and the return of the principal amount at maturity.

Options provide the buyer with the right, but not the obligation, to buy (call option) or sell (put option) a specific asset at a predetermined price (strike price) within a specified period.

Flexibility: The buyer has the choice to exercise the option or not, depending on market conditions.

Risk: The buyer pays a premium to the seller for this right. If market conditions are not favorable, the buyer can let the option expire, losing only the premium paid.

Example: Call option if you expect the asset's price to rise, put option if you expect it to fall.

Futures are contracts that obligate the buyer to purchase, or the seller to sell, a specific asset at a predetermined price on a specified future date.

To enter into a futures contract, traders often need to deposit a margin, a fraction of the contract's value.

### Major Stock Exchanges in the World

#### **United States:**

New York Stock Exchange (NYSE),

American Stock Exchange (AMEX), both in New York City.

Far more corporations list their stock on the NYSE than on the AMEX. The AMEX lists small to medium-sized businesses, including many oil and gas companies. The NYSE primarily lists large, established companies.

The major over-the-counter market in the United States is the Nasdaq Stock Market (formerly, the National Association of Securities Dealers Automated Quotation [NASDAQ] system).

#### Nine smaller regional stock exchanges operating in US:

Boston, Massachusetts; Cincinnati, Ohio; Chicago, Illinois; Los Angeles, California; Miami, Florida; Philadelphia, Pennsylvania; Salt Lake City, Utah; San Francisco, California; and Spokane, Washington.

Among the larger international exchanges are those in London, England; Paris, France; Milan, Italy; Hong Kong, China; Toronto, Canada; and Tokyo, Japan.

The European Association of Securities Dealers Automated Quotation system (EASDAQ) is the major over-the-counter market for the European Union (EU).

Disclosure: The action of making new or secret information known. Disclosures, in a financial context, refer to the release or communication of relevant information by a company or individual. These disclosures are often made to provide transparency and ensure that stakeholders have access to accurate and timely information.

# and ensure that stakeholders have access to accurate and timely information. Why Capital Mobilization through Stock Markets?

- To encourage Public participation and mobilize savings for economic development; Facilitates growth as more capital could be mobilized through stock markets. They encourage investment by providing places for buyers and sellers to trade securities. This investment, in turn, enables corporations to obtain funds to expand their businesses.
- To ensure greater transparency,
- To make the funds accessible to the small scale and upcoming enterprises.
- To protect the interest of investors by ensuring full disclosures.
- They protect investors by upholding rules and regulations that ensure buyers will be treated fairly and receive exactly what they pay for.
- Exchanges also support state-of-the-art technology and the business of brokering. This support helps traders buy and sell securities quickly and efficiently.

### **About Stock Exchanges in India -1**

- BSE Ltd. (formerly known as Bombay Stock Exchange Ltd.) is Asia's first Stock Exchange and one of India's leading exchange groups was established in 1875.
- Popularly known as BSE, the bourse was established as "The Native Share & Stock Brokers' Association" in 1875.
- More than 5439 companies are listed on BSE with a total market capitalization of USD 3.5 Trillion as of January 2022.
- It is the 8<sup>th</sup> largest stock exchange in the world by market capitalization as of August 2022.
- BSE is the first exchange in India and second in the world to obtain an ISO 9001:2000 certification and Information Security Management System Standard BS 7799-2-2002 certification for its On-Line trading System (BOLT).
- BSE's popular equity index the S&P BSE SENSEX is India's most widely tracked stock market benchmark index. It is traded internationally on the EUREX as well as leading exchanges of the BRCS nations (Brazil, Russia, China and South Africa).

# **About Stock Exchanges in India -1**

**Total number of stock exchanges in India: 24.** Out of these, 10 stock exchanges contributing 98% of the trading volumes of the country are connected to National Securities Depository Limited (NSDL). A list of these 10 stock exchanges connected to NSDL is given below:

**BSE - The Stock Exchange, Mumbai** 

**NSE - National Stock Exchange of India** 

**ASE - The Stock Exchange, Ahmedabad** 

**BgSE - Bangalore Stock Exchange** 

**CSE - The Calcutta Stock Exchange** 

**DSE - The Delhi Stock Exchange** 

LSE - The Ludhiana Stock Exchange

**ISE - Interconnected Stock Exchange** 

**MSE - Madras Stock Exchange** 

**OTCEI - OTC Exchange of India** 

#### Evolution of BSE

- Kicking off in 1875 as the Native Share and Stock Brokers Association under a banyan tree, six people started trading in the stocks of the British East India Company and a few commodities.
- In 1956, it became the first stock exchange in the country to obtain permanent recognition from the government of India under the Securities Contracts (Regulation) Act.
- It turned into a corporate entity in 2005.
- The Sensex itself was born in 1986 as a representative index for Indian shares with a basket of 30 constituent stocks drawn from a sample of large, liquid and representative companies.
- The base value of the sensex is 100 on April 1, 1979, and the base year of BSE-SENSEX is 1978-79.

3 days will be taken for the whole transaction. Clearing house will verify the it in first day, funds got transfered in second and then on the third settlement process completes. Buyer will officially owns the securities now.

- There is also a National Stock Exchange (NSE), set up in 1993 and opened in 1994 which is located in Mumbai.
- Both BSE and NSE provide fully automated, screen based trading systems.
- The two Exchanges provide continuous trading from 9.00 a.m. to 3.30 p.m. Trading cycle is on a daily rolling basis with settlement on T+3 basis in the demat segment.
- Both Exchanges provide for settlement through the Clearing House / Clearing Corporation and have trade / settlement guarantee and investor protection funds.
- NSE has a market capitalization of around USD 2.27 trillion (April 2018) with 1952 listing.
- BSE also calculates a dollar-linked version of SENSEX (BSE-100) on 22 May 2006 and historical values of this index are available since its inception.
- The regulatory agency which oversees the functioning of stock markets is the Securities and Exchange Board of India (SEBI)
- Listing means admission of the securities to dealings on a recognized stock exchange. The securities may be of any public limited company, Central or State Government, quasi governmental and other financial institutions/corporations, municipalities, etc.

# **Stock Indices in India**

BSE Indices		NSE Indices
BSE Sensex	BSE Bankex	S&P CNX NIFTY
BSE100 Index	BSE CG	S&P CNX DEFTY
BSE 200 Index	BSE CD	S&P CNX 500
BSE 500 Index	BSE FMCG	NFTY MIDCAP 50
BSE MIDCAP	BSE HC	CNX IT
BSE SMLCAP	BSE IT	CNX100
BSE TECK	BSE Metal	BANK NIFTY
BSE PSU	BSE Oil & Gas	
BSE Auto		

A benchmark index is a representative selection of securities that reflects the overall market or a specific sector. It provides a baseline for comparing the performance of other investments.

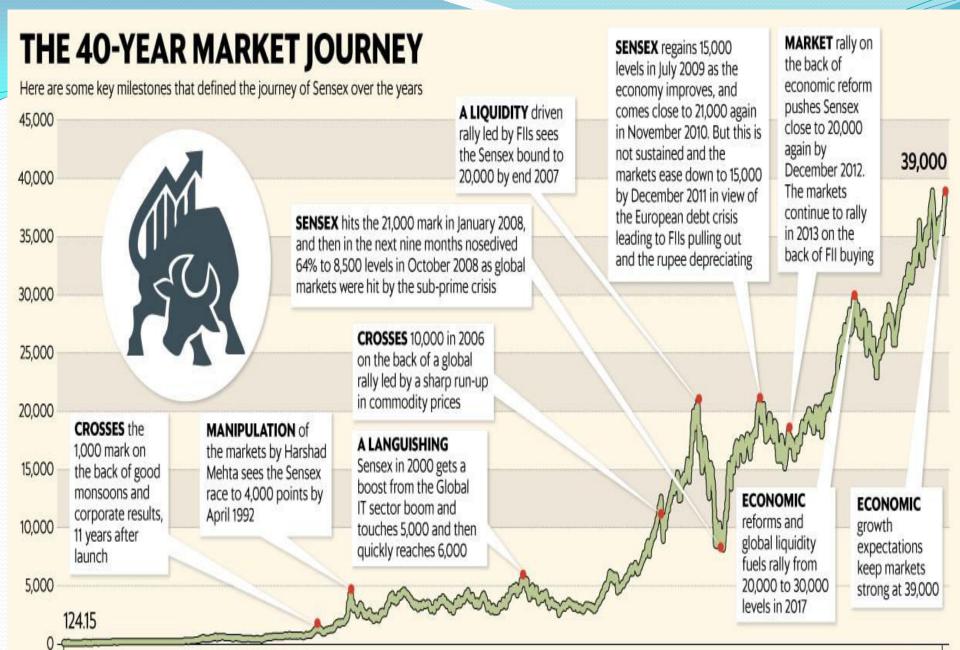
# What are the objectives of SENSEX?

The SENSEX is the benchmark index of the Indian Capital Markets with wide acceptance among individual investors, institutional investors, foreign investors and fund managers. The objectives of the index are:

To measure market movements given its long history and its wide acceptance, no other index matches the SENSEX in reflecting market movements and sentiments. SENSEX is widely used to describe the mood in the Indian Stock markets.

Benchmark for funds performance. The inclusion of blue chip companies and the wide and balanced industry representation in the SENSEX makes it the ideal benchmark for fund managers to compare the performance of their funds.

For index based derivative products Institutional investors, money managers and small investors all refer to the SENSEX for their specific purposes.



3 Apr 1979

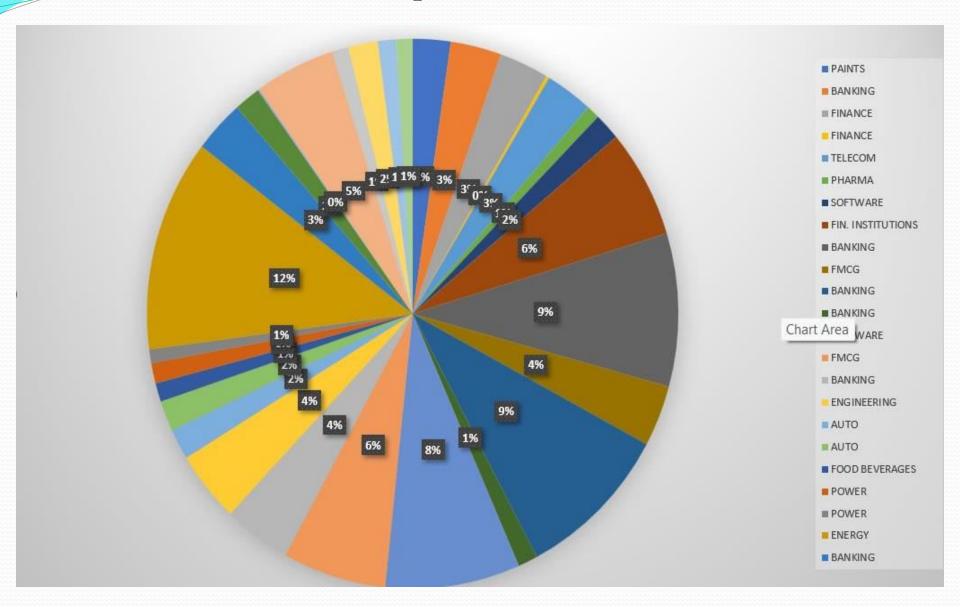
2 Apr 2019

#### **SENSEX Constituents**

Sensex is a basket of top 30 stocks representing a sample of large and liquid companies. Sensex constituents as on Oct 07, 2022.

COMPANY	INDUSTRY	MARKET PRICE (Rs)	CHANGE (%)	NO OF SHARES (m)	MARKET CAP.** (Rs m)	FREE FLOAT ADJ. FACTOR	WEIGHTAGE (%)
ASIAN PAINTS	PAINTS	3,344.8	0.5% ↑	959.2	3,208,277	0.5	2.3
AXIS BANK	BANKING	755.9	0.1% ↑	3,061.5	2,314,161	0.9	3.1
BAJAJ FINANCE	FINANCE	7,343.0	-0.8% ↓	602.6	4,424,769	0.4	3.0
BAJAJ FINSERV	FINANCE	1,699.3	-0.6% ↓	159.1	270,422	0.4	0.2
BHARTI AIRTEL	TELECOM	793.4	0.7% ↑	5,455.6	4,328,439	0.4	2.9
DR. REDDYS LAB	PHARMA	4,373.0	-0.6% ↓	166.3	727,213	0.7	0.8
HCL TECHNOLOGIES	SOFTWARE	957.4	-0.7% ↓	2,713.7	2,598,063	0.4	1.6
HDFC	FIN. INSTITUTIONS	2,326.6	0.4% ↑	1,800.2	4,188,246	1.0	6.4
HDFC BANK	BANKING	1,430.7	-0.4% ↓	5,507.7	7,879,805	0.7	9.0
HUL	FMCG	2,598.9	-0.5% ↓	2,349.6	6,106,144	0.4	3.6
ICICI BANK	BANKING	882.0	-0.4% ↓	6,903.7	6,089,058	1.0	9.4
INDUSIND BANK	BANKING	1,213.4	1.1% ↑	757.1	918,671	0.9	1.2
INFOSYS	SOFTWARE	1,451.8	-0.2% ↓	4,259.6	6,183,857	0.9	8.2
ITC	FMCG	334.0	-0.8% ↓	12,305.1	4,109,293	1.0	6.3
KOTAK MAHINDRA BANK	BANKING	1,825.7	0.4% ↑	1,980.5	3,615,661	0.7	4.1
L&T	ENGINEERING	1,924.4	0.6% ↑	1,404.3	2,702,352	1.0	4.2
M&M	AUTO	1,239.3	-1.4% ↓	1,243.2	1,540,626	0.8	1.8
MARUTI SUZUKI	AUTO	8,783.0	0.9% ↑	302.1	2,653,154	0.4	1.8
NESTLE	FOOD BEVERAGES	19,321.5	0.1% ↑	96.4	1,862,891	0.4	1.1
NTPC	POWER	164.3	1.0% ↑	9,696.7	1,593,162	0.5	1.2
POWER GRID	POWER	209.3	1.5% ↑	5,231.6	1,094,972	0.5	0.8
RELIANCE IND.	ENERGY	2,433.3	0.4% ↑	6,762.1	16,453,801	0.5	12.5
SBI	BANKING	530.4	-1.3% ↓	8,924.6	4,733,168	0.4	3.1
SUN PHARMA	PHARMA	955.3	0.2% ↑	2,399.3	2,292,085	0.5	1.6
TATA STEEL	STEEL	103.2	-0.2% ↓	1,204.1	124,266	0.7	0.1
TCS	SOFTWARE	3,065.0	-1.3% ↓	3,752.4	11,500,872	0.3	4.9
TECH MAHINDRA	SOFTWARE	1,023.9	-0.7% ↓	967.4	990,496	0.6	1.0
TITAN	CONSUMER DURABLES	2,730.5	5.3% ↑	887.8	2,424,100	0.5	1.8
ULTRATECH CEMENT	CEMENT	6,203.3	-1.3% ↓	288.6	1,790,487	0.4	1.1
WIPRO	SOFTWARE	408.1	-0.5% ↓	5,715.3	2,332,429	0.3	1.0
TOTAL				97,857	111,050,940		100.0

### Sectors/Industries representation in Sensex



# History of Replacement of Scrips in SENSEX-1/5

Date	Scrips Included	Scrips Excluded
Aug. 2011	Coal India	Rel. Infra
	Sun Pharma	Rel. Comm.
Oct. 2010	Bajaj Auto	ACC
May 2010	JSPL	Grasim
April 2010	Cipla	Sun Pharma
29.06.2009	Hero Honda Motors Ltd	Ranbaxy Lab. Ltd.
12.01.2009	Sun Pharmaceutical Ind. Ltd.	Satyam Computers Ltd.
28.07.2008	Sterlite Industries Ltd.	Ambuja Cements Ltd.
	Tata Power Co. Ltd.	Cipla Ltd.
14.03.2008	Jai Prakash Associates Ltd.	Bajaj Auto Ltd.
19.11.2007	DLF Ltd.	Dr. Reddy's Lab. Ltd.
09.07.2007	Mahindra & Mahindra Ltd.	Hero Honda Motors Ltd
12.06.2006	Reliance Comm. Ventures Ltd.	Tata Power Ltd.

# History of Replacement of Scrips in SENSEX-2/5

Date	Scrips Included	Scrips Excluded
06.06.2005	NTPC	HPCL
	Tata Consultancy Services Ltd.	Zee Telefilms Ltd.
27.09.2004	Larsen & Toubro Ltd.	MTNL
19.05.2004	Maruti Udyog Ltd.	Larsen & Toubro Ltd.
10.11.2003	Bharti-Tele-Ventures Ltd.	Castrol India Ltd.
	HDFC Bank Ltd.	Colgate-Palmolive (India)
	ONGC Ltd.	Glaxo Smithkline Pharma
	Tata Power Company Ltd.	HCL Technologies Ltd.
	Wipro Ltd.	Nestle (India) Ltd.
10.10.2002	HDFC Ltd.	Reliance Petroleum Ltd.
31.05.2002	ICICI Bank Ltd.	ICICI Ltd.
07.01.2002	HCL Technologies Ltd.	NIIT Ltd.
	Hero Honda Motors Ltd.	Mahindra & Mahindra

# History of Replacement of Scrips in SENSEX-3/5

Date	Scrips Included	Scrips Excluded
08.01.2001	Cipla Ltd.	Novartis
10.04.2000	Dr. Reddy's Laboratories Reliance Petroleum Satyam Computers Zee Telefilms	IDBI Indian Hotels Tata Chem Tata Power
16.11.1998	Castrol Infosys Technologies NIIT Ltd. Novartis	Arvind Mills G.E. Shipping IPCL SAIL

# History of Replacement of Scrips in SENSEX-4/5

Date	Scrips Included	Scrips Excluded
19.08.1996	Arvind Mills	Ballarpur Inds.
	Bajaj Auto	Bharat Forge
	BHEL	Bombay Dyeing
	BSES	CEAT Tyres
	Colgate	Century Text.
	Gujarat Ambuja Cement	GSFC
	HPCL	Hind Motors
	ICICI	Indian Organic
	IDBI	Indian Rayon
	IPCL	Kirloskar
19.08.1996	MTNL	Mukund Iron
	Ranbaxy Lab.	Philips
	State Bank of India	Premier Auto
	SAIL	Siemens
	Tata Chem.	Voltas
03.08.1992	Bharat Forge	Zenith Ltd.

### History of Replacement of Scrips in SENSEX-5/5

Date	Scrips Included	Scrips Excluded
01.01.1986	Voltas	Bombay Burmah
	Peico	Asian Cables
	Premier Auto.	Crompton Greaves
	G. E. Shipping	Scinda

"Scrips" is a colloquial term for a company's shares or securities. It is often used to refer to the listed stocks or equities that are traded on stock exchanges.

Traders, investors, and financial professionals may use the term "scrips" when discussing or referring to individual stocks or securities in the market. For example, someone might say, "I'm looking to invest in a few good scrips," meaning they are interested in purchasing shares of specific companies.

# **Index Specification**

**Base Year:** 1978-79

• Base Index: Value 100

• **Date of Launch:** 01-01-1986

Free Float Shares: These are the shares that are available for trading on the open market. They exclude shares held by insiders, promoters, and other entities that are not actively traded.

• **Method of calculation:** Launched on full market capitalization method and effective September 01, 2003, calculation method shifted to <u>free-float market capitalization</u>.

Free float market capitalization is often

• Number of scrips: 30 Index Constituents

• Index calculation frequency: Real Time

Free float market capitalization is often considered a more relevant measure than total market capitalization because it focuses on the portion of the company's equity that is actively bought and sold by public investors. It is particularly important for investors and analysts assessing a company's liquidity, volatility, and overall market performance.

• The SENSEX was last revised in June 2009. Over the last decade, Indian economy has made successful transition, first from a manufacturing economy to a service economy and now towards a predominantly knowledge economy. To reflect this, in November 1998, Infosys Technologies and NIIT were included in the SENSEX to give representation to the emerging software sector.

# Frequency of the Calculation of SENSEX

During market hours, prices of the index scrips, at which trades are executed, are automatically used by the trading computer to calculate the SENSEX every 15 seconds and continuously updated on all trading workstations connected to the BSE trading computer in real time.

### Qualification Criteria for Selecting company for Sensex

#### A. Quantitative Criteria:

- Final Rank: The scrip should figure in the top 100 companies listed by Final Rank. The final rank is arrived at by assigning 75% weightage to the rank on the basis of six-month average full market capitalization and 25% weightage to the liquidity rank based on sixmonth average daily turnover & six-month average impact cost.
- Trading Frequency: The scrip should have been traded on each and every trading day for the last six months. Exceptions can be made for extreme reasons like scrip suspension etc.
- Market Capitalization Weightage: The weight of each scrip in SENSEX based on six-month average Free-Float market capitalization should be at least 0.5% of the Index.
- Industry Representation: Scrip selection would take into account a balanced representation of the listed companies in the universe of BSE. The index companies should be leaders in their industry group.
- Listed History: The scrip should have a listing history of at least 3 months on BSE. However, the Committee may relax the criteria under exceptional circumstances.

#### B. Qualitative Criteria:

• Track Record: In the opinion of the Committee, the company should have an acceptable track record.

# Criteria for Selection and Review of SENSEX Constituents

- The scrip selection and review policy for BSE Indices is based on the objective of:
  - Improvement
  - Transparency
  - Simplicity

### SENSEX Vs World Indices

### Based on Market Capitalisation

Rank	Name	Market cap.
1	Nasdaq – US	12.460.028
2	Japan Exchange Group	5.369.952
3	Shanghai Stock Exchange	4.932.172
4	Hong Kong Exchanges and Clearing	4.625.373
5	LSE Group	3.616.558
6	Shenzhen Stock Exchange	3.552.471
7	Saudi Stock Exchange (Tadawul)	2.247.368
8	TMX Group	2.233.879
9	BSE India Limited	2.046.999
10	National Stock Exchange of India	2.028.192

#### SENSEX Vs World Indices

### • Based on total companies

Rank	Name	Total companies
1	Japan Exchange Group	3.701
2	TMX Group	3.401
3	Nasdaq – US	3.156
4	Hong Kong Exchanges and Clearing	2.466
5	LSE Group	2.386
6	Korea Exchange	2.283
7	Shenzhen Stock Exchange	2.214
8	National Stock Exchange of India	1.961
9	Shanghai Stock Exchange	1.599
10	Taiwan Stock Exchange	955

#### Free-float Market Capitalization

- Specifically, the following categories of holding are generally excluded from the definition of Free-float:
  - Shares held by founders/directors/ acquirers which has control element
  - Shares held by persons/bodies with "Controlling Interest"
  - Shares held by Government as promoter/acquirer
  - Holdings through the FDI Route
  - Strategic stakes by private corporate bodies/individuals
  - Equity held by associate/group companies (cross-holdings)
  - Equity held by Employee Welfare Trusts
  - Locked-in shares and shares which would not be sold in the open market in normal course.

The remaining shareholders fall under the Free-float category.

## Calculating Market Capitalization, Weightage of an individual Company and the SENSEX

Free float market capitalization Free float factor\*Full Market Capitalization = Closing price of Share\*Total no. of Shares\*Free float factor **=Closing Price\*Free float shares** 

FREE FLOAT

Market Cap. of the Individual company

Weightage of an Individual Company = -----\* 100

FREE FLOAT

Market Cap. of All Firms in the SENSEX

FREE FLOAT

Market Cap. on March 19, 2010

SENSEX on March 19, 2010= ------ X SENSEX on March 12, 2010

FREE FLOAT

Market Cap. on March 12, 2010

# Major advantages of Free-float Methodology

- A Free-float index reflects the market trends more rationally as it takes into consideration only those shares that are available for trading in the market.
- Free-float Methodology makes the index more broad-based by reducing the concentration of top few companies in Index.
- Free-float Methodology improves index flexibility in terms of including any stock from the universe of listed stocks. This improves market coverage and sector coverage of the index.

Free float market capitalization is often considered a more relevant measure than total market capitalization because it focuses on the portion of the company's equity that is actively bought and sold by public investors. It is particularly important for investors and analysts assessing a company's liquidity, volatility, and overall market performance.

# Major advantages of Free-float Methodology

- Globally, the Free-float Methodology of index construction is considered to be an industry best practice and all major index providers like MSCI, FTSE, S&P and STOXX have adopted the same.
  - MSCI, a leading global index provider, shifted all its indices to the Free-float Methodology in 2002.
  - The MSCI India Standard Index, which is followed by Foreign Institutional Investors (FIIs) to track Indian equities, is also based on the Free-float Methodology.
  - NASDAQ-100, the underlying index to the famous Exchange Traded Fund (ETF) QQQ is based on the Free-float Methodology.

# **Determining Free-float Factors of Companies**

% Free-Float	FF Factor	% Free-Float	FF Factor	
>0-5%	0.05	>50-55%	0.55	
>5-10%	0.10	>55-60%	0.60	
>10-15%	0.15	>60-65%	0.65	
>15-20%	0.20	>65-70%	0.70	
>20-25%	0.25	>70-75%	0.75	
>25-30%	0.30	>75-80%	0.80	
>30-35%	0.35	>80-85%	0.85	
>35-40%	0.40	>85-90%	0.90	
>40-45%	0.45	>90-95%	0.95	
>45-50%	0.50	>95-100%	1.00	

# Snapshot of calculation of BSE power sector. Data as at end of trade hours 16th Jan 2009.

Last updated on Friday, January 16, 2009

Scrip	Company	Close			Free-Float Mkt. Cap	Weight in
Code		Price	Cap.(Rs. crore)	Factor	(Rs. crore)	Index (%)
500103	BHEL	1,397.65	68,417.76	0.35	23,946.22	24.38
532555	NTPCLTO	179.85	148,294.68	0.15	22,244.20	22.63
500400	TATA POWER	773.35	17,121.02	0.70	11,984.71	12.19
500390	REL INFRA	541.20	12,299.87	0.65	7,994.91	8.13
500002	ABB LTD	458.45	9,714.94	0.50	4,857.47	4.94
532939	RPOWER	100.90	24,183.71	0.20	4,836.74	4.92
532898	POWER GRID	75.35	31,713.62	0.15	4,757.04	4.84
532754	OMR INFRASTR	72.75	13,245.29	0.30	3,973.59	4.04
500550	SIEMENS LTD	214.70	7,238.63	0.45	3,257.47	3.31
500093	CROMPTON GRE	128.45	4,708.55	0.65	3,060.56	3.11
532667	SUZLCHENERGY	50.55	7,573.66	0.35	2,650,86	2.70
532779	TORNT POWER	73.15	3,455.96	0.50	1,727.98	1.76
513683	NEYVELIUG.	75.15	12,607.99	0.10	1,260.80	1.28
532708	GYK POWERINE	19.50	2,741.41	0.40	1,096.56	1.12
532778	LANCO INFRA	115.95	2,578.29	0.25	844.57	0.66

TOTAL 365,895.80 98,293.68

# How is the closing Index calculated?

- The closing SENSEX is computed taking the weighted average of all the trades on SENSEX constituents in the last 15 minutes of trading session.
- If a SENSEX constituent has not traded in the last 15 minutes, the last traded price is taken for computation of the Index closure.
- If a SENSEX constituent has not traded at all in a day, then its last day's closing price is taken for computation of Index closure.
- The use of Index Closure Algorithm prevents any intentional manipulation of the closing index value.

#### What is the beta of SENSEX scrips?

Beta = d(y)/d(x)

- Beta measures the sensitivity of a scrip movement relative to movement in the benchmark index i.e. SENSEX.
- A Beta of one means that for every change of 1% in index, the scrip moves by 1%. Statistically Beta is defined as: Covariance (SENSEX, Stock )/ Variance (SENSEX)

Note: Covariance and variance are calculated from the Daily Returns data of the SENSEX and SENSEX scrips.

### Listing & Grouping of Companies

#### LISTING

Listing of shares, on a stock exchange, means, such shares can be bought and sold, in stock exchange.

• The detailed and elaborate procedure of getting the shares listed on a stock exchange is monitored by SEBI. The SEBI, issues guidelines and notifications, from time to time, with regard to listing of securities.

Once the shares are listed, the are divided into two categories:

- 1. GROUP "A" SHARES
- 2. GROUP "B" SHARES

In some financial systems, companies can carry forward losses from one accounting period to the next.

If a company incurs a net loss in a particular financial year, it may be allowed to offset this loss against profits in future years for tax

• GROUP "A" SHARES: are referred to as " Cleaned Securities " or " specified shares". The facility for carrying forward a transaction from one account period to another is available for these shares. Group "A" shares represent companies, with huge amount of capital, and equally a large scope for investment. These shares are frequently traded and command higher price.

GROUP "B" SHARES: are referred to as, Non-cleaned securities or non-specified shares. For these groups facility of carrying forward is not available.

# **Benefits of Listing**

- Listing provides an opportunity to the corporates / entrepreneurs to raise capital to fund new projects/undertake expansions/diversifications and for acquisitions.
- Listing also helps generate an independent valuation of the company by the market.
- Listing raises a company's public profile with customers, suppliers, investors, financial institutions and the media. A listed company is typically covered in analyst reports and may also be included in one or more of indices of the stock exchanges.
- An initial listing increases a company's ability to raise further capital through various routes like preferential issue, rights issue, Qualified Institutional Placements and ADRs/GDRs/FCCBs, and in the process attract a wide and varied body of institutional and professional investors.
- Listing leads to better and timely disclosures and thus also protects the interest of the investors.
- Listing provides a continuing liquidity to the shareholders of the listed entity. This in turn helps broaden the shareholder base.

#### What is a demat

- Demat refers to a dematerialised account.
- it is just like a bank account where actual money is replaced by shares.
- You have to approach the DPs to open your demat account. DP is an authorized body which is invloved in dematerialization of shares and maintaining of the investors accounts.
- Let's say your portfolio of shares looks like this: 40 of Infosys, 25 of Wipro, 45 of HUL and 100 of ACC. All these will show in your demat account.
- So you don't have to possess any physical certificates showing that you own these shares. They are all held electronically in your account. As you buy and sell the shares, they are adjusted in your account.
- Just like a bank passbook or statement, the DP will provide you with periodic statements of holdings and transactions.
- Broker is separate from a DP. A broker is a member of the <u>stock exchange</u>, who buys and sells shares on his behalf and on behalf of his clients. A DP will just give you an account to hold those shares.

# Advantages of Trading in Demat Shares

- Earlier, shares would not be transferred easily due to problems of bad deliveries, difference in signatures, theft, fire, and mutilation of shares.
- There is no stamp duty incurred while trading in demat shares.
- Brokers charge lower brokerage fee (due to less paperwork).
- There is a status report provided to the client, and there is periodic inspection of depository participants records/books (who operate the demat account for you).
- No minimum balance is required in demat accounts.
- One can choose the Depository Participant based on its history, charges and services provided.

Company	Close Price	No.of Shares (normal)	Full Mkt. Cap. (Rs. crore)	Free-Float Adj. Factor	Free-Float Mkt. Cap (Rs. crore)	*Weight in Index (%)*
RELIANCE	879.6	3274230107	288001.28	0.55	158400.7	10.97
INFOSYS LTD	2829.1	574203082	162447.79	0.85	138080.62	9.56
I T C LTD	210.35	7773036720	163505.83	0.7	114454.08	7.93
ICICI BANK L	885.2	1152447612	102014.66	1	102014.66	7.06
HOUSING DEVE	682.9	1469093501	100324.4	0.95	95308.18	6.6
HDFC BANK LT	482.1	2335493765	112594.15	0.8	90075.32	6.24
LARSEN & TOU	1392.85	611161097	85125.57	0.9	76613.02	5.31
TCS LTD.	1099.1	1957220996	215118.16	0.3	64535.45	4.47
STATE BANK O	1964.25	634998991	124729.68	0.45	56128.35	3.89
BHARTI ARTL	397.95	3797530096	151122.71	0.35	52892.95	3.66
ONG CORP LTD	277.65	8555490120	237543.18	0.2	47508.64	3.29
MAHINDRA & M	835.05	613974839	51269.97	0.8	41015.98	2.84
HIND UNI LT	378.85	2160326258	81843.96	0.5	40921.98	2.83
TATA MOTORS	188	2691485485	50599.93	0.7	35419.95	2.45
TATA STL	467.9	959214779	44881.66	0.7	31417.16	2.18
NTPC LTD	179.55	8245464400	148047.31	0.2	29609.46	2.05
BHEL	333.65	2447600000	81664.17	0.35	28582.46	1.98
BAJAJ AUTO	1743.1	289367020	50439.57	0.5	25219.78	1.75
JINDAL STEEL	577.3	934509595	53949.24	0.45	24277.16	1.68
WIPRO LTD.	371.55	2457457840	91306.85	0.25	22826.71	1.58
SUN PHARMACE	511.55	1035550385	52973.58	0.4	21189.43	1.47
HEROMOTOCO	2116.2	199687500	42257.87	0.5	21128.93	1.46
COAL INDIA	326.35	6316364400	206134.55	0.1	20613.46	1.43
HINDALCO IN	139	1918551613	26667.87	0.7	18667.51	1.29
STERLITE IN	123.15	3360700478	41387.03	0.45	18624.16	1.29
TATA POWER	103.3	2373072360	24513.84	0.7	17159.69	1.19
MARUTISUZUK	1123.35	288910060	32454.71	0.5	16227.36	1.12
CIPLA LTD.	293.7	802921357	23581.8	0.65	15328.17	1.06
DLF LIMITED	246.8	1698001797	41906.68	0.25	10476.67	0.73
JAIPRAK ASSO	79.25	2126433182	16851.98	0.55	9268.59	0.64

FREE FLOAT Market Cap. on Nov 4, 2011

**SENSEX on Nov 4, 2011= ----**

FREE FLOAT Market Cap. on March 12, 2011

X SENSEX on March 12, 2011

Sensex on Nov 4, 2011= (1443987/1350000)\*15000= 16044.3

Volatility is variance of finance.