

Personal Finance

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What is personal finance?

- We are always worried about money
- Worry about – not having enough, not making “ smart” decisions, missing money-making opportunities which our neighbors so effortlessly seem to get right, not having enough for our children and ourselves in retirement, aging parents and their long-term care
- How to pay for living costs, school fees, rent, Equated Monthly Installments (EMI) , taxes, insurance, vacations – short term needs
- How to pay for kids' higher education, marriages and buy a home – medium term needs
- How to pay for retired life needs and old age health care – long term needs

What is personal finance?

- Financial planning is not just about investments which meet your consumption needs but is also to prepare you to face emergencies – health, accident, and God forbid, death of a bread winner – its about insurance and managing the risks
- How to organize our finances without worries? There is no “**silver bullet**” but certainly a reasoned approach based on decades of research and understanding of finance
- The financial management which an individual or a family unit performs to **budget, save, and spend monetary resources** over time, taking into account various financial risks and future life events

What is personal finance?

- The key component of personal finance is financial planning, which is a dynamic process that requires regular monitoring and re-evaluation. In general, it involves five steps
 1. **Assessment:** A person's financial situation is assessed by compiling simplified versions of financial statements including balance sheets and income statements. A personal balance sheet lists the values of personal assets (e.g., car, house, clothes, stocks, bank account), along with personal liabilities (e.g., credit card debt, bank loan, mortgage). A personal income statement lists personal income and expenses
 2. **Goal setting:** Having multiple goals is common, including a mix of short- and long-term goals. For example, a long-term goal would be to "retire at age 65 with a personal net worth of Rs 100,00,000," while a short-term goal would be to "save up for a new computer in the next month."

Setting financial goals helps to direct financial planning. Goal setting is done with an objective to meet specific financial requirements.

What is personal finance?

- 3. Plan creation:** The financial plan details how to accomplish the goals. It could include, for example, reducing unnecessary expenses, increasing the income, or investing in the stock market.
- 4. Execution:** Execution of a financial plan often requires discipline and perseverance. Many people obtain assistance from professionals such as accountants, financial planners, investment advisers, and lawyers.
- 5. Monitoring and reassessment:** As time passes, the financial plan is monitored for possible adjustments or reassessments.

Saving and investments options

- Banks
 - Savings Bank Account, **Fixed Deposit and Recurring Deposit**
 - Tax implications : The interest that you receive from a savings account is taxable under the head “Income from other sources”.
 - Interest earned beyond Rs 10,000 only is taxable.
- Post office Schemes
 - Recurring Deposit, Time Deposit, and Monthly Income Scheme
- Small Savings Scheme
 - Public Provident Fund, Sukanya Samriddhi Yojana, Senior Citizen’s saving scheme , National Savings Certificate, Kisan Vikas Patra, PM Vaya Vandana yojana
- Insurance
 - Health and other insurance
 - **Life Insurance**

Saving and investments options

- Pension
 - Pension and annuity
 - National Pension System
 - Atal Pension Yojana
- Other Investments
 - **Stocks and Equity**
 - **Mutual Funds**
 - Company deposits
 - Capital Gains tax exemption bonds
 - Sovereign gold scheme
- Real estate
- Gold

Saving and investments options – Fixed deposits – why is it a poor idea?

- This is the type of financial instrument where a certain amount of money is kept with a bank for a specified period at a fixed interest rate. This is what our parents and grandparents did when they retired. What was a prudent choice 50 years ago is no longer so.
- First, the principal reason why the money was put in a bank fixed deposit was the **safety and security** of the investment i.e., there is no risk of losing the money. The returns are also guaranteed. Today, we have multiple avenues for safe investments which are guaranteed by the government and there is no **default risk**.
- For instance - Senior Citizen's Saving Scheme (SCSS), Pradhan Mantri Vaya Vandana Yojana (PMVVY) and Post Office Monthly Income Schemes (POMIS) , Government Securities etc.
- In fact, the bank deposits are technically do not have a sovereign guarantee and the amount is limited by the Deposit Insurance and Credit Guarantee scheme of India up to Rs 5 lakhs only.
- We have seen that several private sector and cooperative banks fail and depositors losing money. In case of public sector banks, there may be an implicit government guarantee but certainly no statutory backing.

Saving and investments options – Fixed deposits – why is it a poor idea?

- Even with a modest rate of 6% inflation, the rupee value depreciates by half every 12 years. When one is looking at returns, you should consider post inflation returns.
- In the case of fixed deposits, the returns at present for one-year FDs are around 6% to 6.5%. This essentially means that post inflation, we are looking at 0% to 0.5% returns only.
- There are other attractive options available such as equities, bonds and mutual funds which can give a decent return over inflation. From a real return perspective, a FD is not a viable option
- Third, from a taxation perspective, interest on FDs above Rs 50,000 per year, for senior citizens is taxed as per the person's tax slab. In case of equities, the long-term (holding period of more than one year) capital gain is taxable above a threshold gain of Rs 1,00,000 at 10%. And on debt funds long term capital gain is 20%. So, if you are in the highest tax bracket already, FD is a poor option.

SBI Fixed Deposit Rates of interest as on 18th of August 2021

	Tenors	Interest Rates for Public	Interest Rates for Senior Citizens
1	7 days to 45 days	2.90%	3.40%
2	46 days to 179 days	3.90%	4.40%
3	180 days to 210 days	4.40%	4.90%
4	211 days to less than 1 year	4.40%	4.90%
5	1 year to less than 2 years	5.00%	5.50%
6	2 years to less than 3 years	5.10%	5.60%
7	3 years to less than 5 years	5.30%	5.80%
8	5 years and up to 10 years	5.40%	6.20%

Debt Fund Name	3-year period – Annualized returns (%) as on 18 th August 2021
IDFC Government Securities Fund - Constant Maturity Plan - Direct Plan	12.15%
IDFC Government Securities Fund - Investment Plan - Direct Plan	11.85%
ICICI Prudential Constant Maturity Gilt Fund - Direct Plan	11.66%
DSP Government Securities Fund - Direct Plan	11.39%
Nippon India Nivesh Lakshya Fund - Direct Plan	11.12%
Nippon India Gilt Securities Fund - Direct Plan	10.90%
Edelweiss Government Securities Fund - Direct Plan	10.81%
Kotak Gilt Investment - Direct Plan	10.78%
Kotak Gilt Investment Provident Fund and Trust Plan - Direct Plan	10.78%
Axis Gilt Fund - Direct Plan	10.75%
Aditya Birla Sun Life Government Securities Fund - Direct Plan	10.71%
IDFC Dynamic Bond Fund - Direct Plan	10.69%
SBI Magnum Gilt Fund - Direct Plan	10.65%
SBI Magnum Constant Maturity Fund - Direct Plan	10.44%

Saving and investments options Fixed deposits

- An example is worked out and shown in the table.
- We invest an amount of Rs 5 lakhs in fixed deposits and a debt mutual fund for 3 years. To compare, we have taken the same return rate of 7%.
- For debt funds, it can even be higher. Both funds give the same amount as pretax returns of Rs 1,05,000.
- However, post tax the FD is giving Rs 73,500 and a debt fund yields Rs 94,662.
- So, a debt fund gives a significantly higher return on post tax basis.

Particulars	Debt Funds	Fixed Deposits
Invested sum (Year of purchase-2018)	5,00,000	5,00,000
Return rate	7%	7%
Holding period	3	3
Fund worth at the end of tenure	6,05,000	6,05,000
Inflation	Adjustment available	Adjustment not available
Cost inflation Index in 2018	272	
Cost inflation Index in 2021	301	
Indexed Cost of Acquisition (Year of sale-2021)	5,53,309	–
Taxed Amount $= (6,05,000 - 5,53,309)$	51,691	1,05,000
Tax to be paid (highest tax bracket of 30%) & LTCG tax on debt funds is 20%	10,338	31,500
Returns after tax	94,662	73,500
Post tax return % - 3 years	18.9%	14.7%

Life Insurance

- Life insurance is mostly bought for all wrong reasons – fear, greed, pity, frustration, taxes
- Only right reason to buy is to protect the financial health of family from the death of a bread earner
- An untimely death can bring lots of hardships – children’s education, marriage, dependent parents and spouses who don’t earn, home loans, education loans, personal loans, credit card debt
- The way insurance is sold in India, many of us end up with policies which do not meet our financial goals
- A “**pure life**” or term policy is the only one to have quite often is not the one our friendly neighbourhood agent is selling hard



Key things to consider while choosing a life-insurance policy

Premium

The lower the better

Claim-settlement ratio (CSR)

The higher the better

The number of policies:

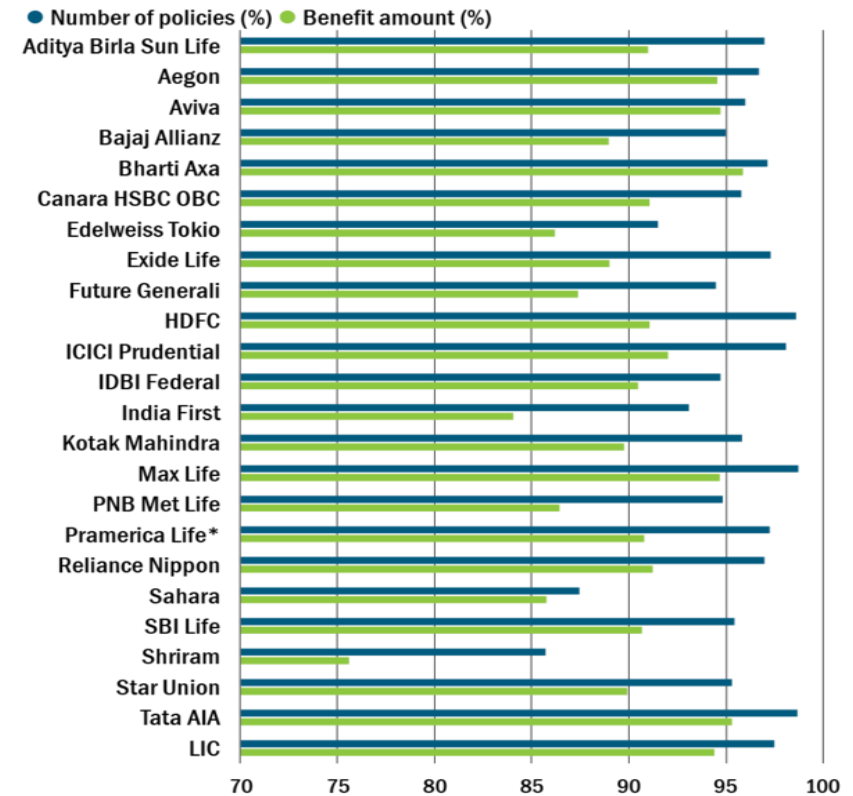
It indicates how many death claims have been settled as against the number of claims received.

The benefit amount paid:

It indicates the amount of money paid as against the total death claim received by the company.

3-year average claim-settlement ratio of major Indian insurers

In terms of per cent of policies settled and per cent of claim amount paid



Source: IRDA. Average of FY18, FY19 and FY20. FY21 data not available yet.

*Erstwhile DHFL Pramerica

Life Insurance – endowments, money back and ULIPs – the great policy zoo!

- In a term policy the premium is the price that is paid for buying a life cover – the sum assured gets paid to the nominee in case of death and no money gets paid if the insured person lives beyond the assured period of insurance
- Many people think that the premium paid in term policy is a “waste” as there is no further return and it’s a sunk cost; One should think of it as a cost and not an investment
- The other popular policies in the market – endowment, money back or unit linked insurance policies – typically mix investment and insurance in the ratio 90% to 10% and do a poor job
- Typical examples of endowment policy – You invest Rs 50,000 per year for 5 years and you will get back Rs 5,00,000 or double the money invested in another fifteen years – wow – it looks amazing!
- **Do the math – the rate of return is 4.15% !**

Years	Amount	4.15%
19	50,000	108,296
18	50,000	103,979
17	50,000	99,835
16	50,000	95,855
15	50,000	92,035
	Total	500,000

Life Insurance – endowments, money back and ULIPs – the great policy zoo!

- Another mistake people do is to think that the poor returns of endowment policies are due to life insurance cover but it is not true
- Whether it is a term policy or endowment policy, the mortality price is the same and is calculated from actuarial tables based on person's gender, age, smoking habits, health status
- Typically , in a Rs 50,000 premium per year bundled product just Rs 1,000 goes towards your life cover and the bulk Rs 49,000 is investment
- **Endowment / money back / ULIP policies, are wealth destroyers – its in ones own best interest to separate insurance and investment products – or else you are building wealth of insurance agents and insurance company**

Life Insurance – endowments, money back and ULIPs – the great policy zoo!

- The bundled products get sold hard because of incentives – The first year commission can be up to 35% of your premium – On top of that, insurance companies find ways of paying the “ agents” (**A total of 22.78 lakhs who were paid Rs 30,384 Cr only**)
- After the first year, the commissions fall to 7.5% and who cares about servicing the policies and annual renewals?
- **How much cover?** Eight to ten times your annual take home income ; So if your monthly income is Rs 40,000 , per annum it is Rs 4,80,000 ; so the insurance cover should be around Rs 40 lakhs to Rs 50 lakhs
- **Good time to buy ?** As soon as you have dependents – around age 30 years
- A term cover of Rs 1 crore for a 30 year old person is around Rs 8,000 to Rs 10,000 per annum and increases dramatically with entry age
- Tax incentives – better options are Public Provident Fund (PPF), National Pension Scheme, or tax saving ELSS (mutual fund)

Hierarchy of investment needs

LEVEL 1: Basic contingency funds

This is the money that you may need to handle a personal emergency. It should be available instantly, partly as physical cash and partly as funds that can be easily and immediately liquidated. Sweep-in fixed deposits and liquid funds are appropriate avenues for your emergency corpus, and online banking and ATMs make it relatively simple to get this organized.

LEVEL 2: Term insurance

Calculate a realistic amount which allows your dependents to finance at least short and medium-term life goals if you were to drop dead or be struck with a debilitating injury or disease. You should have adequate term insurance before you think of any savings.

LEVEL 3: Savings for foreseeable short-term goals

This is the money needed for expenses that you plan to make within the next two to three years. Almost all of this should be in minimal risk avenues that allow you to withdraw your funds when you need to.

LEVEL 4: Savings for long-term foreseeable goals

This is like level 3, except the planned expenses are more than three to five years away. To meet needs at this level, you should be invested in equity and equity-backed investments like equity mutual funds.

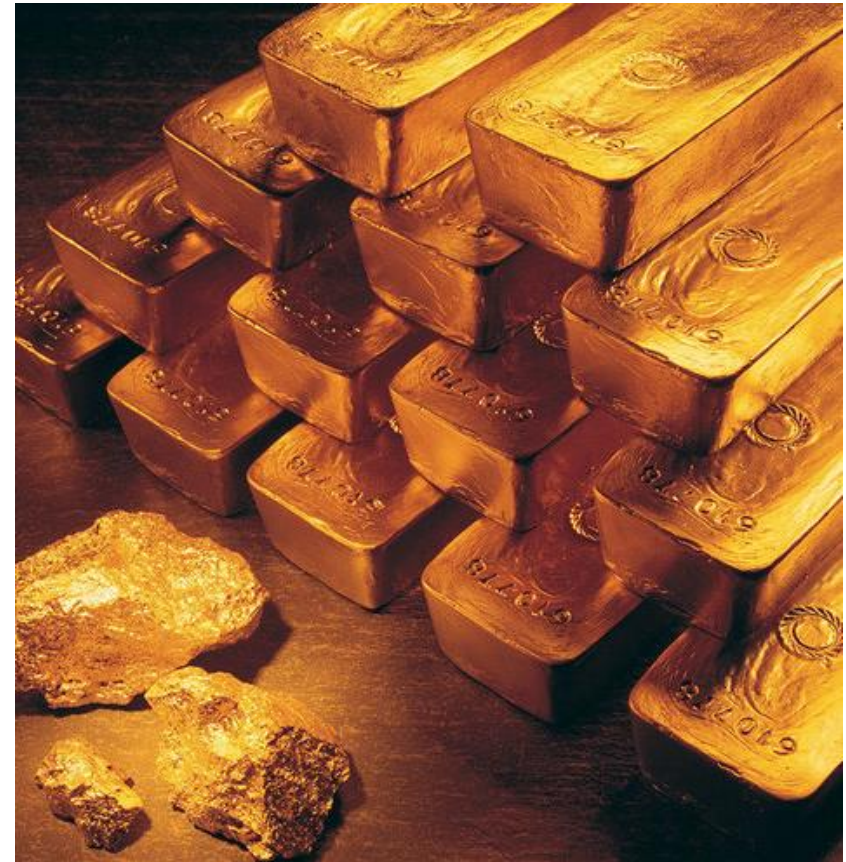
Gold as an asset class

- Buying gold is the oldest kind of investing activity and yet it's the one about which opinions are the most polarised.
- There's the traditional Indian view of gold, that gold is an excellent passive investment, protection in bad times and households should invest in it. In this view, gold is seen as an easily bought and easily liquefied asset that can be relied upon to appreciate well.
- The second view is that gold is a commodity to be traded like other commodities.
- The third view, is that while gold can certainly be viewed as an investment, it's just not a very good one. **Not only do the returns tend to be poorer than other investments, but there are also fundamental reasons why this will always be the case.**
- The reason that gold cannot be an investment is that it belongs to a class of investments that will never produce anything. Any growth in its value depends entirely on the belief that someone else will pay more for it eventually. Gold is an unproductive asset.
- Unlike shares or bonds or deposits, money that you invest in it does not contribute to any kind of economic growth.
- An equivalent amount of money deployed in a business, or any other productive economic activity will generate actual wealth and will grow larger in a very fundamental way. The only use of gold is some industrial applications but those are satisfied by just a small part of its production and this demand plays no role in its price.
- Does that mean that no one should ever invest in gold?
- If you have access to a modern financial system with all its options of a large variety of asset classes, then you should not invest in gold. Gold makes sense only for those who have no access to or no trust in the financial system. Gold is best viewed as an alternate currency.



Gold as an asset class

- This is an extension of the 'bad times' reason for keeping gold. Within the last 100 years, many different parts of the world have undergone some kind of an upheaval that has led to a breakdown of society and institutions. In these circumstances, physical gold is a currency that can survive when paper currencies do not. **It's essentially a currency which is somewhat better, in some ways, than actual currencies.**
- Of course, in India physical gold has served yet another purpose which is a variation on this, that of keeping wealth away from taxation. In the hours immediately after the Prime Minister announced demonetisation, the crowds of customers that materialised at jewellery shops are testament to this.
- If you are unable to overcome the lure of gold and want to invest in it, then there are more modern, trouble-free forms of 'paper gold' available.
- There are gold-backed mutual funds available from many mutual fund companies which closely track the value of gold. However, if you don't mind locking money away for up to eight years, then the Government of India's gold bonds are a great option. These are issued from time to time and their value increases exactly with gold, plus there's an extra interest of 2.5 per cent per year. Moreover, unlike gold mutual funds, the gains from the gold bonds are tax-free. This makes them the exact equivalent of holding gold, except with a 2.5 per cent a year bonus.
- It's hard for people to accept that gold is not a good investment. Thousands of years of human culture certifies gold as wealth, as a currency that survives all the vicissitudes of history and economics, and not without reason. Gold is a kind of social construct--it has value because everyone thinks it has value. Pointing out that such a belief is irrational or that its rate of return is poor is not going to make a big dent in such beliefs.



Investments

A current commitment of money in the expectation of reaping future benefits

Financial assets a. Fixed income b. Equity and c. Derivatives

Fixed Income – also called as debt securities – they promise to the investor either a fixed stream of income or one determined by a specific formula

Equity – they represent an ownership share in a corporation; the equity holders are not promised to pay any specific payment

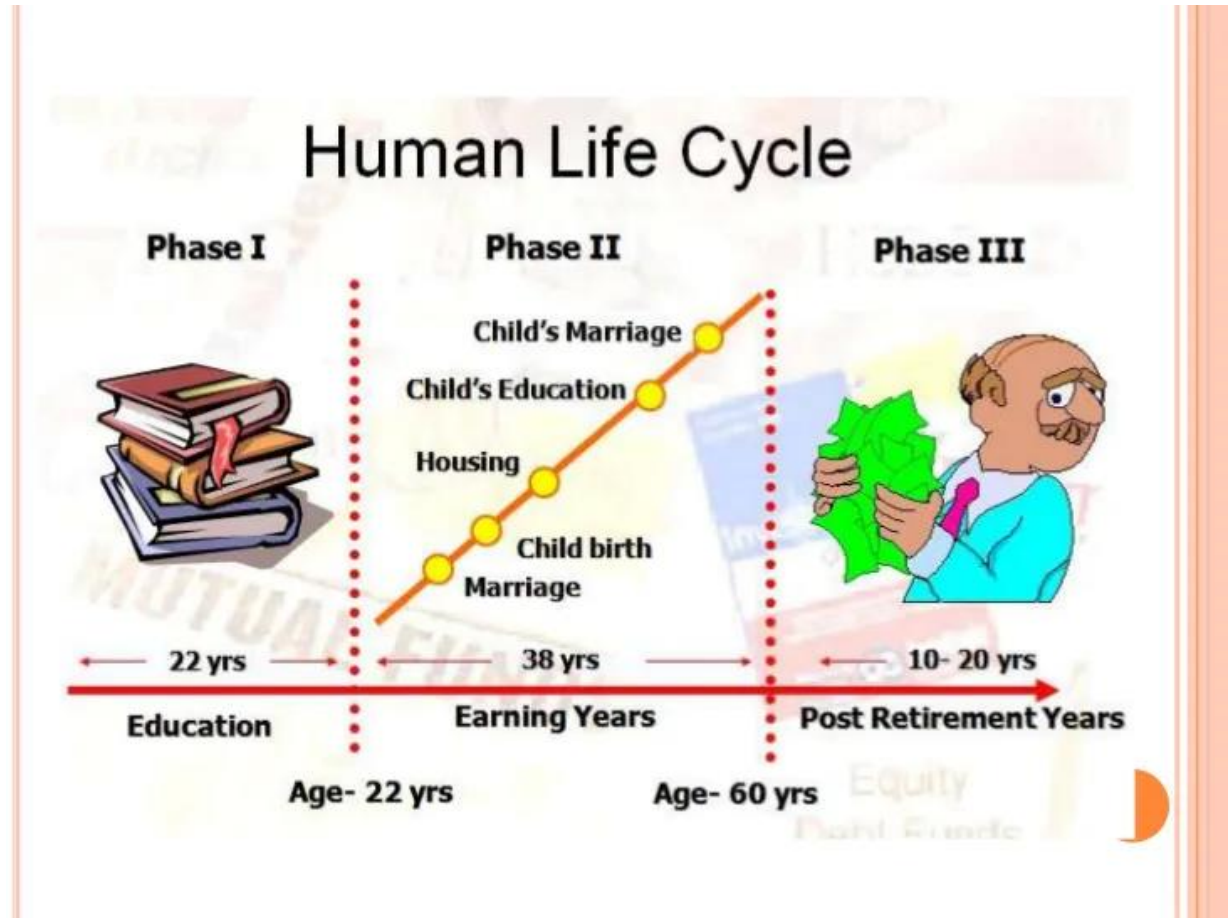
Equity – If the firms do well, then equity holders may get paid a dividend or else the value of the equity will increase

Equity – they are last in the order of precedence when the business goes bankrupt so inherently equity investments are risky compared to debt

Derivatives – they pay based on how an underlying asset such as bond or stock does – futures, options are some example – primarily used for risk management purpose

Life cycle of investments

- An individual earns more than he wishes to spend during the earning or working years of life – this phase of life known as savings or accumulation phase
- Once he retires, he has to draw down the accumulated savings as he will not have a regular source of income such as salary – this phase is known as withdrawal phase
- By storing his savings in financial assets, he can provide the needed for consumption during retirement phase – so financial assets provide for consumption smoothing over the life cycle of the individual



Investment Portfolio

- A portfolio is collection of investment assets in broad categories such as stocks, bonds, real estate, commodities etc.
- Asset allocation means how the money is divided amongst these broad asset classes
- Security selection means which particular securities to hold in each class
- Top down portfolio construction – First decide proportion of money which will be put in each asset class based on risk and returns of these asset classes and then decide securities i.e., which bonds, stocks etc. to invest in based on their suitability in meeting the investment goals
- Bottom up portfolio construction - First pick securities which are attractively priced from the risk and return perspective irrespective of resulting asset allocation

Risk reward trade off

- When an investment is made, it is always with an expectation of return
- However, no one can predict the returns precisely and hence there is always risk associated with any investment

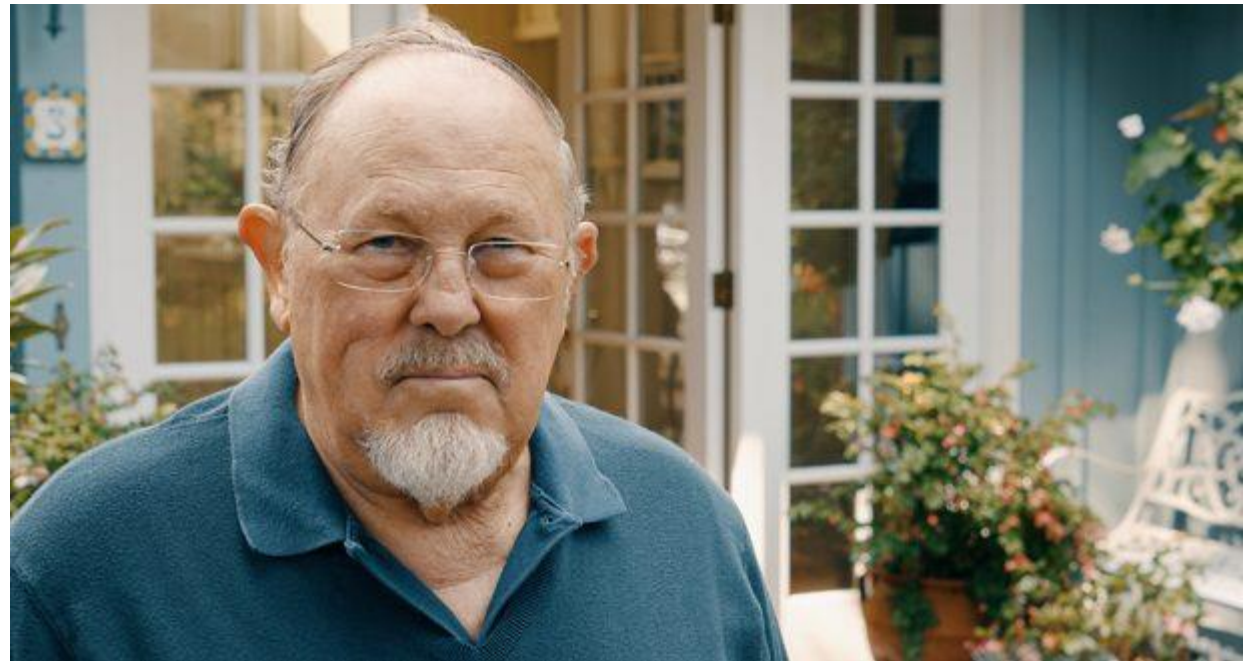
- Much of modern Finance is about developing a nuanced understanding of this risk
- Who would have thought in March 2020, when the markets crashed due to Corona that they would recover and give 70% returns in one year?
- Markets fell by 50% during Global Financial Crisis (GFC) – booms and busts are a part of the market

- Investors prefer investments with highest expected returns for a given level of risk
- Expected return is defined mathematically – its the average rate of return across all possible future economic scenarios ; It is not what investors believe that will get or the most likely return

- **The price to be paid for higher return is accepting of higher risk – The iron law of investment**
- **One can't expect higher returns without higher risk and vice versa in securities markets**

Measuring risk – Modern Portfolio Theory

- Risk is related to the volatility of the security – This is true for a single security but for a portfolio the risks do not simply add up
- Risk of a portfolio is not a simple average or a weighted average
- Two of the pioneering academics who formulated the theory of risk measurement of the portfolios Harry Markowitz and William Sharpe got Noble Prizes
- Their theory known as Modern Portfolio Theory (MPT) is the basis for much of modern Finance



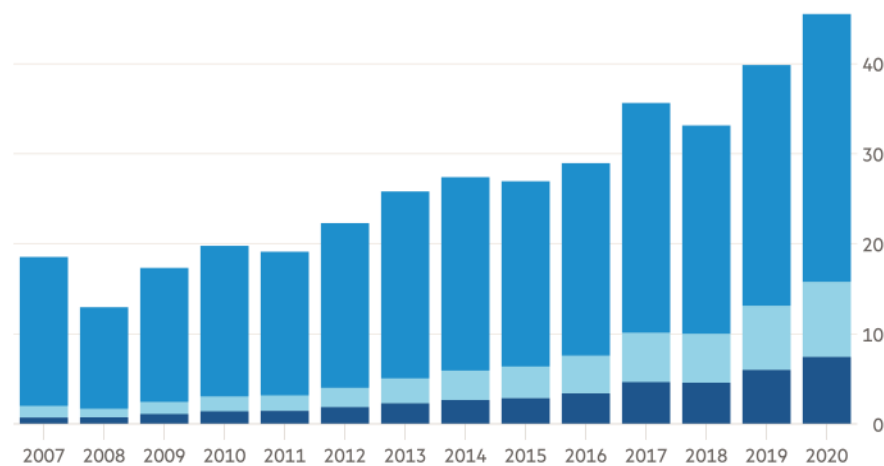
Efficient Markets

- It is difficult to find bargains in securities markets
- Financial markets use all available information to the investors to price a security
- The only way in which the price of a security changes is with the availability of new information
- Insider trading – profit making by those who are privy to information which has an impact on firm's profits and hence share price before all the others in the market is illegal and securities regulator (SEBI) has the power to penalize the inside traders
- Markets are efficient which means that all the information is assimilated quickly so that the security prices reflect all the available information – Eugene Fama got Nobel Prize for this insight and an entire multi billion dollar index fund industry started

Passive attack

Global assets under management (in trillions of dollars)

ETFs Index funds Other mutual funds



Source: Morningstar Direct
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Active and passive management of securities

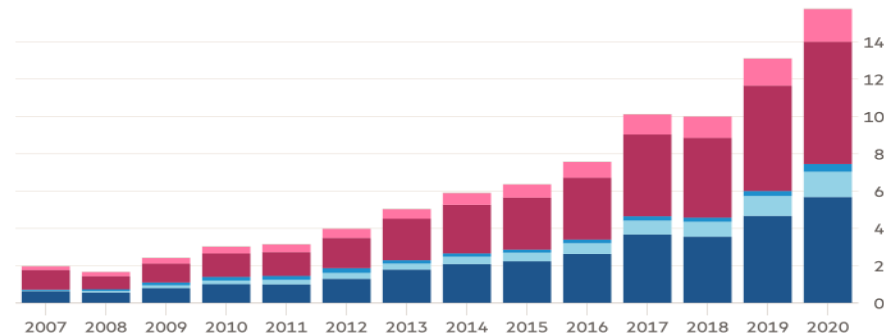
- If markets are efficient, is there a value addition done by portfolio managers who pick up stocks actively ?
- Active management means that an effort is made find out mispriced securities and profit from them.
- This can be at the asset allocation level such as being overweight in stocks in a bullish market or at individual security level such as a particular stock.
- In other words the active securities pickers give the return which is better than the random selection of securities?
- If markets are completely efficient, it is obvious that there is no role for active management. But how do prices “correct” themselves if there are no active managers who are looking for securities either overpriced or underpriced and actively trading them so that security prices are pushed towards their correct prices.
- Therefore, even in highly competitive and well-regulated markets, the markets are *near* efficient and profit opportunities do exist for diligent and creative investors.



The index fund universe by asset class

Assets under management (\$tn)

Equity ETFs Bond ETFs Other ETFs Equity index funds
Bond index funds Other index funds



Source: Morningstar Direct

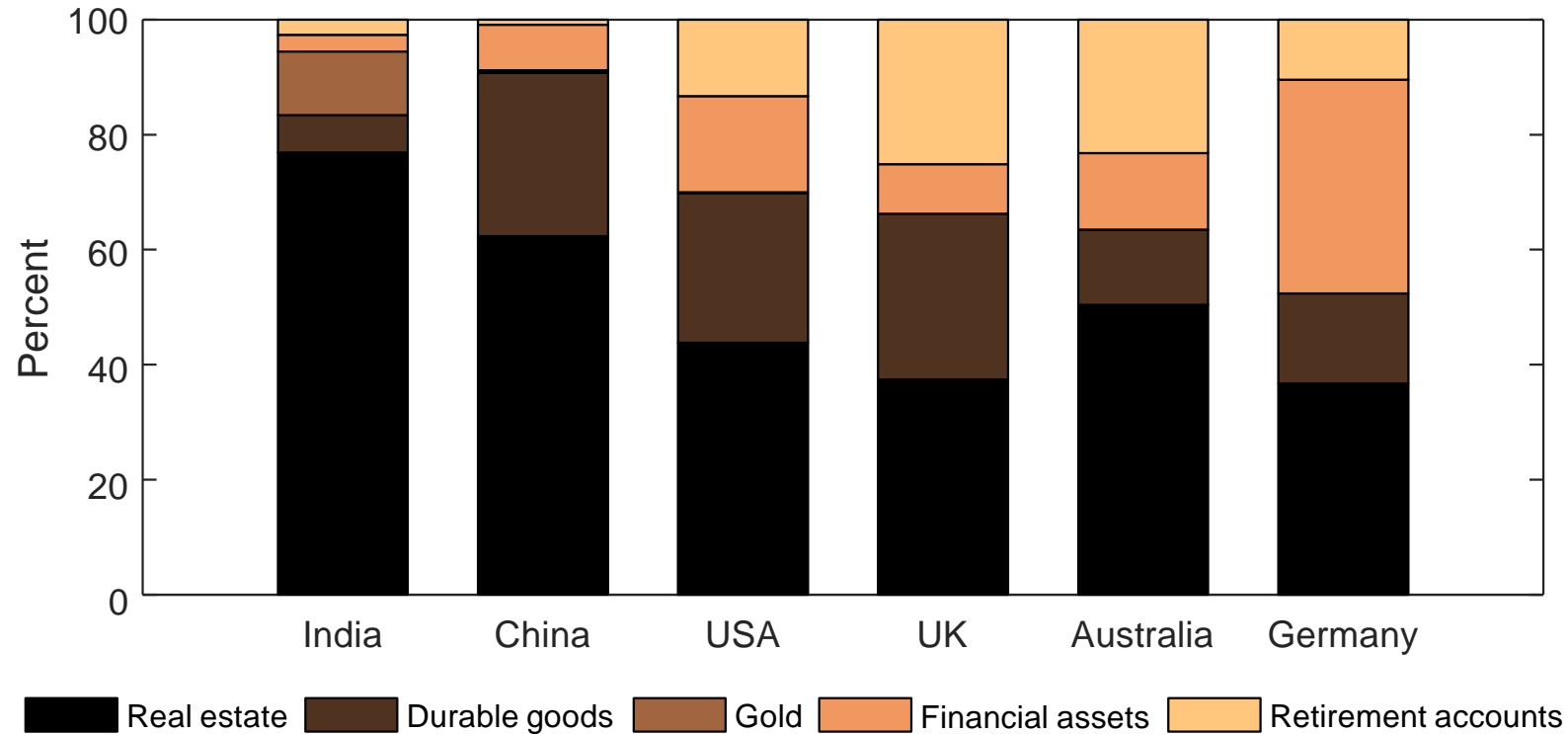
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Indian Household Financial Decisions – Tarun Ramadorai

- Four broad features visible in the All-India Debt and Investment Survey, 2012:
- High allocation to non-financial assets (gold and real estate).
- High levels of non-institutional-source borrowing.
- Near complete lack of pensions.
- Low levels of insurance penetration (life and non-life).

Allocation of household wealth

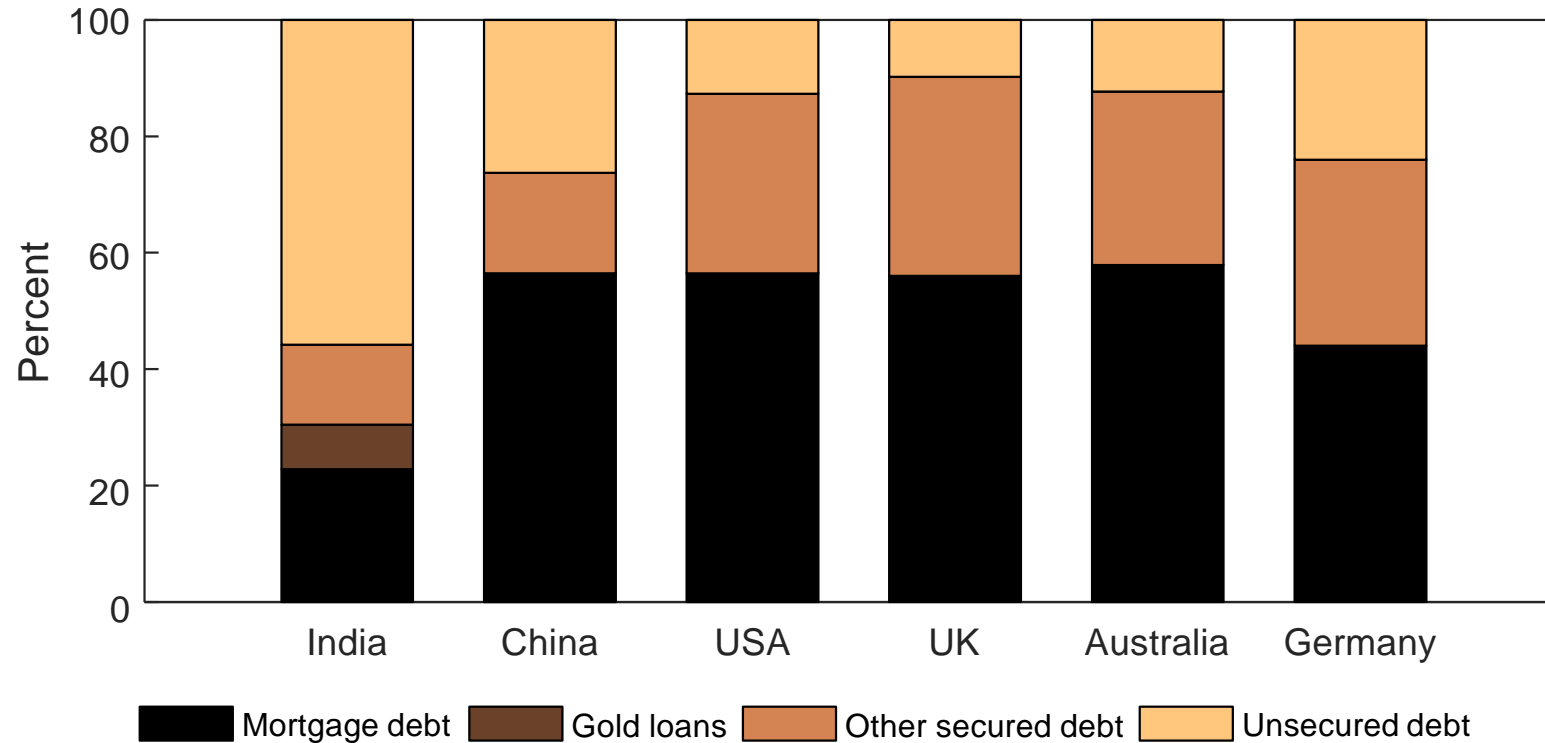
Equal-weighted average



- The average Indian household holds 77% of total assets in real estate, 11% in gold, 5% in financial assets, 7% in durable goods (vehicles, livestock, agriculture machinery etc.) and hardly any retirement assets/pensions.

Allocation of household liabilities

Equal-weighted average



-Mortgages are households' largest liability in China, the US, the UK, and Australia, but account for a small part of total liabilities (23%) of Indian households. Most debt is unsecured (55%).

Equity Securities

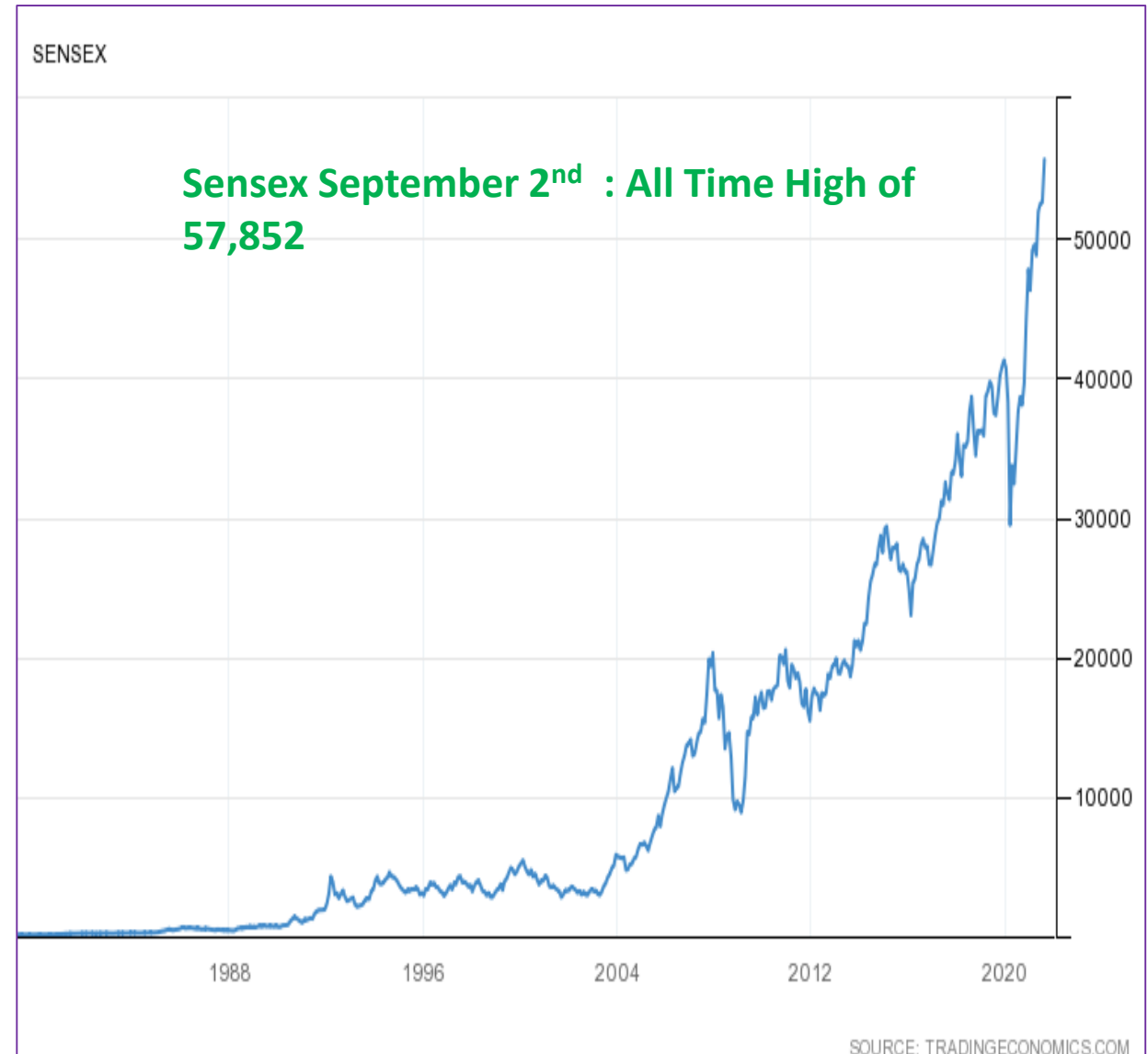
- Common stocks also known as equity securities or equities represent an ownership share in a corporation.
- Each share of common stock gives the owner the right to one vote on any matters of corporate governance that are put to vote at the corporation's annual meeting and more importantly to a share in financial benefits of ownership.
- The common stock of most large corporations can be bought or sold on a stock exchange. A corporation whose stock is not listed in an exchange for trade is said to be private.
- The two important characteristics of common stock as an investment are : residual claim and limited liability.

Equity Securities

- **Residual claim** means that stockholders are the last in the line of all those who have claim on the assets of the corporation. In case a corporation gets liquidated, its assets are sold and the balance proceeds if any leftover after meeting the claims of tax authorities, employees, suppliers, bondholders, and other creditors.
- In case of an ongoing concern, equity holders can be paid a part of the operating income after interest and taxes have been paid. These cash payouts are known as **dividends**.
- The other way is that the operating income is reinvested in the corporation to enhance its future profits and there by the value of the stock.
- **Limited liability** means that at most the stockholders can lose in the event of failure of the corporation is the original investment. The owners' personal assets such as house, car etc., cannot be touched in case of corporation getting winded up.

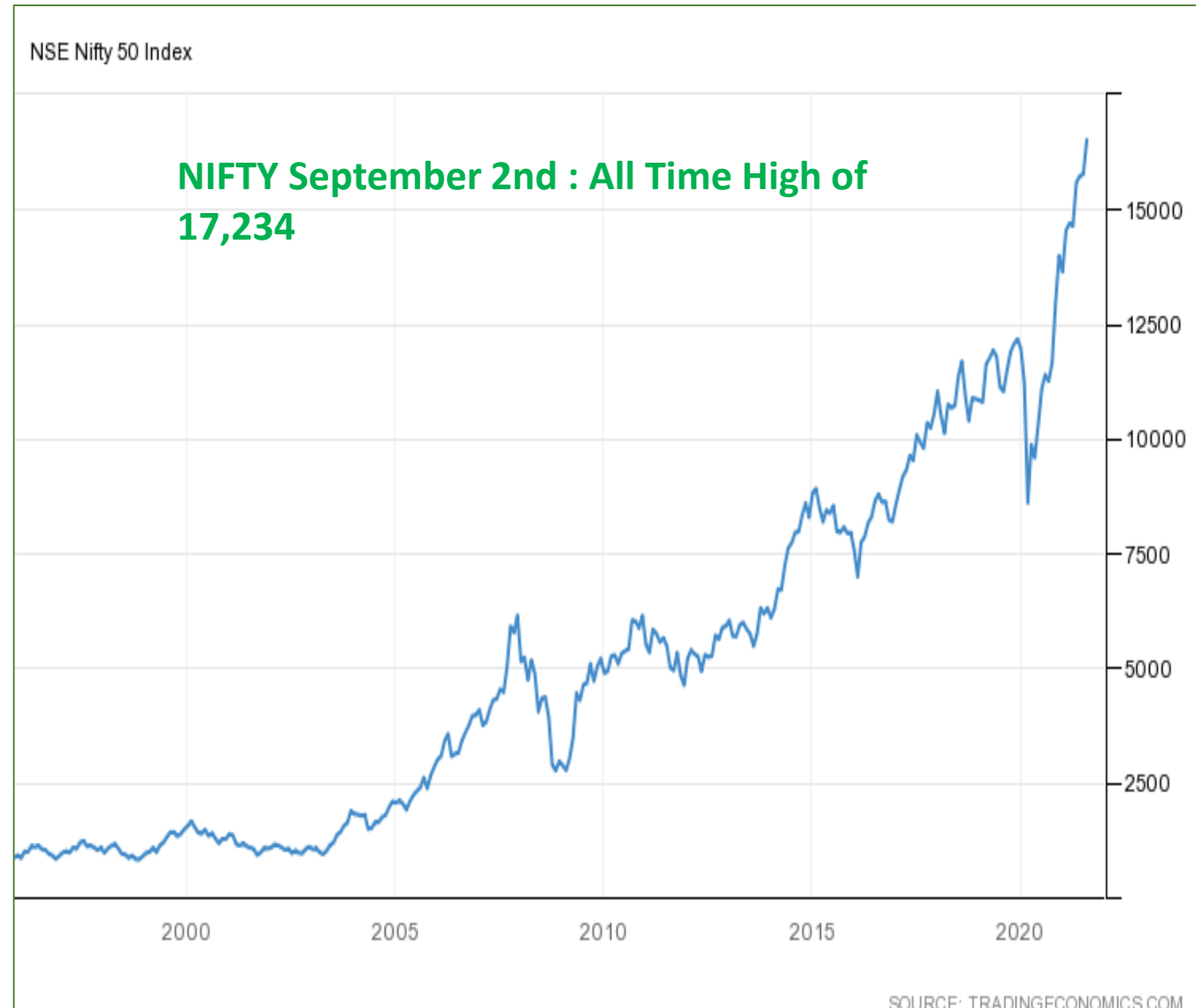
Bombay Stock Exchange – Sensex

- In India, there are two major stock exchanges – BSE (Bombay Stock Exchange) and NSE (National Stock Exchange).
- Each exchange has a well-known index – Sensex in the case of BSE and Nifty in case of NSE. The BSE SENSEX (also known as the S&P Bombay Stock Exchange Sensitive Index or simply the SENSEX) is a [free-float market-weighted stock market index](#) of 30 well-established and financially sound companies listed on [Bombay Stock Exchange](#).
- The 30 constituent companies which are some of the largest and most actively traded stocks, are representative of various [industrial sectors](#) of the Indian economy.
- Published since 1 January 1986, the S&P BSE SENSEX is regarded as the pulse of the domestic stock markets in India.
- The base value of the SENSEX was taken as 100 on 1 April 1979 and its base year as 1978–79. As on 1st April 2021 the value of Sensex is 50,029. A growth of 500 times in 42 years or a CAGR of 16%.



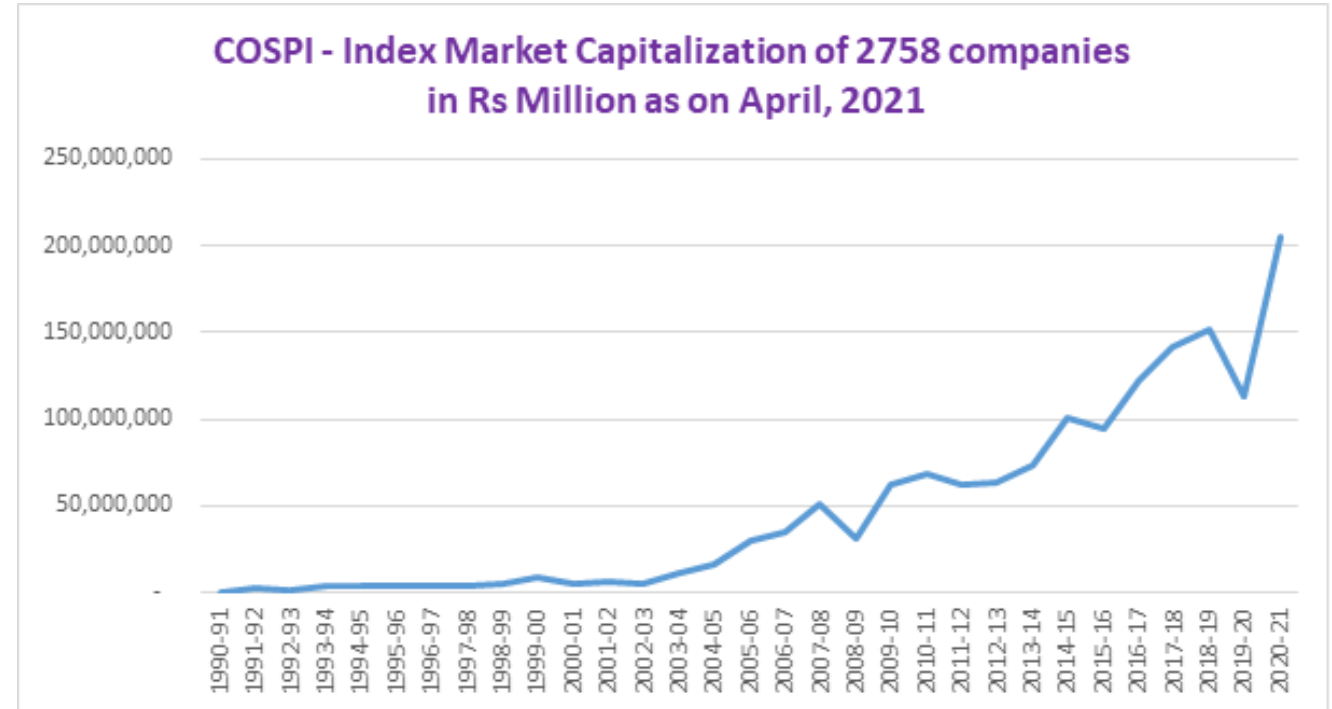
NIFTY 50 Index

- The NIFTY 50 is a benchmark Indian [stock market index](#) that represents the weighted average of 50 of the largest Indian companies listed on the [National Stock Exchange](#).
- The Nifty 50 index was launched on 22 April 1996. The NIFTY 50 index is a [free float market capitalization weighted index](#).
- The base period for the NIFTY 50 index is 3 November 1995, which marked the completion of one year of operations of the National Stock Exchange Equity Market Segment.
- The base value of the index has been set at 1000 and a base capital of ₹ 2.06 trillion. The return on NIFTY ever since its inception in 1996 till March 2021 is 11.15% with a standard deviation of 23.86%.
- As on 1st April 2021, NIFTY 50 closed at 14,867.
- The index has grown by 14.8 times in a period of 26 years or a CAGR of 11%.



CMIE – COSPI Index

- The size of the equity markets in India can be seen from a broader all market index – CMIE Cospi index of 2758 listed companies.
- As of April 2021, the market value of the companies in the index is Rs 204.45 trillion.
- In 1991, there were 899 listed companies with a capitalization of Rs 0.61 trillion.
- The market has grown by 336 times in twenty years or a CAGR of 21.4%, an astonishing growth rate.



Fixed income securities

- The fixed income securities are debt securities of various tenors.
- The size of the treasury bills held by various entities in India is Rs 7,93,693 cr as of January 2021.
- The bigger market is that of government bond market which is made up of what are known as dated securities. These are issued by both state and central governments.
- The money market is a sub sector of fixed income market consisting of very short-term debt securities. These securities are highly traded as many corporations use them to park their excess cash for short periods.
- Further banks and other financial institutions and state and central governments use them to manage the mismatches in day-to-day liquidities or treasury operations.
- There are various securities known as – treasury bills, certificate of deposit, commercial paper, repo and reverse repo agreements.

Ownership Pattern of Central and State Governments Securities			
Central and State Government Dated Securities			
Dec-2020	Central	State	Total
(A) Total (in ₹. Crore)	73,57,111	37,21,573	1,10,78,684
1 Commercial Banks	37.81	34.19	36.59
2 Non-Bank PDs	0.25	0.36	0.29
3 Insurance Companies	25.64	30.25	27.19
4 Mutual Funds	2.62	1.92	2.38
5 Co-operative Banks	1.83	4.11	2.60
6 Financial Institutions	1.00	1.88	1.30
7 Corporates	1.05	0.45	0.85
8 Foreign Portfolio Investors	2.10	0.02	1.40
9 Provident Funds	4.61	21.20	10.18
10 RBI	15.71	0.81	10.70
11. Others	5.61	4.64	5.28
11.1 State Governments	1.76	0.18	1.23

Fixed income securities

- Treasury bills or T-bills, which are money market instruments, are short term debt instruments issued by the Government of India and are presently issued in three tenors, namely, 91 day, 182 day and 364 day.
- Treasury bills are zero coupon securities and pay no interest. Instead, they are issued at a discount and redeemed at the face value at maturity.
- For example, a 91 day Treasury bill of Rs. 100/- (face value) may be issued at say Rs 98.20, that is, at a discount of say, Rs 1.80 and would be redeemed at the face value of Rs 100/-.
- The return to the investors is the difference between the maturity value or the face value (that is Rs100) and the issue price.
- To calculate the yield of the bill, the return to the investor of $\text{Rs } 1.80 / \text{Rs } 98.20 = 1.83\%$. To get the annual yield, a factor of $(365/91) = 4.01$ is applied to 1.83% and we get an annual yield of 7.35%.

Treasury Bills (in Rs Cr)	Jan. 29, 2021
1 91-day	
1.1 Banks	2,964
1.2 Primary Dealers	20,930
1.3 State Governments	62,912
1.4 Others	92,430
2 182-day	
2.1 Banks	68,922
2.2 Primary Dealers	31,222
2.3 State Governments	3,816
2.4 Others	68,945
3 364-day	
3.1 Banks	1,54,467
3.2 Primary Dealers	1,36,064
3.3 State Governments	15,855
3.4 Others	1,35,156
4 14-day Intermediate	
4.1 Banks	
4.2 Primary Dealers	
4.3 State Governments	1,93,438
4.4 Others	198
Total Treasury Bills (Excluding 14-day Intermediate T Bills)	7,93,683

Mutual Funds

- Mutual funds are financial intermediaries that collect funds from individual investors and invest them in a wide range of securities. Pooling of assets is the key idea behind these funds.
- Each investor has a claim to the portfolio established by the asset management company (AMC). The AMCs perform several important functions for the investors:
 1. Record keeping and administration – AMCs issue periodic status reports, keep track of dividend distributions, investments, redemptions and reinvestment of dividends.
 2. Diversification – By pooling investor's money, the AMC enable them to hold fractional ownership of shares and many other securities. The AMC acts as a large investor on behalf of all the small investors. In fact, the lowest investment can be as small as Rs 1000.
 3. Professional management – The AMC engages full time security analysts and investment managers to generate superior returns.
 4. Lower transaction costs – As AMC trades in large block of securities, they can achieve substantial savings in brokerage fees and commissions.

Mutual Funds

- Each fund publishes what is known as Net Asset Value (NAV). The NAV is very similar to stock price.
- Instead of the stock which relates to a single corporation, NAV captures the unit value of the portfolio of securities of the fund net of liabilities.
- Net Asset Value = $(\text{Market value of assets} - \text{liabilities}) / (\text{Total units of mutual fund outstanding})$

Mutual Funds

- The total AUM of all the worldwide regulated open-ended funds is US \$ 68 trillion as on the end of December 2020. (<https://www.ici.org/node/836806>)
- Mutual funds industry is a behemoth which has grown massively over the last few decades.
- In India, the total AUM of all the mutual funds is Rs 31.02 trillion or \$ 413billion (<http://portal.amfiindia.com/spages/QDACVolQ3-2020-2021.pdf>) as on end of December 2020.

AUM/ AAUM REPORT FOR THE QUARTER ENDED 31-December - 2020			
		Rs. in Crore	Proportion
	Category of the Scheme	AUM as on 31-Dec-2020	%
1	Liquid Fund/Money Market Fund/ Floater Fund	5,28,549	17.0%
2	Gilt Fund/ Glit Fund with 10-year constant duration	20,200	0.7%
3	Remaining Income/ Debt Oriented Schemes	9,82,334	31.7%
4	Growth/ Equity Oriented Schemes (Other than ELSS)	8,14,363	26.2%
5	ELSS Funds	1,22,442	3.9%
6	Hybrid Schemes	3,17,572	10.2%
7	Solution Oriented Schemes	22,283	0.7%
8	Index Funds	15,259	0.5%
9	GOLD ETF	14,174	0.5%
10	Other ETF	2,56,237	8.3%
11	Fund of Fund investing overseas	9,062	0.3%
	Total	31,02,475	100.0%

Categorization of Mutual Funds

- Each mutual fund has a specific investment policy which is described in the fund's prospectus. For instance, money market funds hold short term low risk instruments in the money market. Gilt funds hold government securities and so on.
- AMCs manage a group of mutual funds for a management fee for operating them. Some of the well-known international AMCs are – Fidelity, Vanguard, Barclays and T. Row Price. Some Indian AMCs are – HDFC mutual fund, SBI, Axis, Nippon India, Canara Robeco etc. There are more than 2500 mutual funds in India managed by 43 AMCs.
- **Debt or fixed income securities**
 - Money market funds or liquid funds invest in securities such as commercial paper and other money market instruments with maturity up to one year.
 - Within the debt funds considerable variation is there – some funds will focus on corporate bonds, treasury bonds, municipal bonds, mortgage-backed securities.
 - The term also can vary from – liquid (< 91 days), ultra-short (> 3 months but < 6 months), low duration (> 6 months but < 12 months), short duration (> 1 year but < 3 years), medium duration (> 3 year but < 4 years), medium to long (> 4 year but < 7 years) and long (> 7 years) and also varying by the credit risk of the issuer etc. Around 49% of the AUM in Indian mutual fund industry are invested in debt securities.

Categorization of Mutual Funds

- **Equity funds** invest primarily in stock, although at times a portion may also be invested in fixed-income or other type of securities. A small portion of the fund is held in liquid securities to meet the redemption needs.
 - Equity funds are further classified based on the market capitalization of the funds that they hold – large cap, medium cap and small cap, flexi cap.
 - Dividend yield funds invest in stocks who traditionally give dividends and value funds invest in growth-oriented stocks where the focus is on appreciation in the value of the stock.
 - Equity linked savings schemes have a lock in period of three years to get the tax benefits. Sectoral or thematic funds focus on certain sectors such as technology, media, telecom, utilities etc. International funds invest in securities worldwide. Around 30% of the AUM in India are in equity schemes.
- **Hybrid or balanced schemes** invest money in a balance of equity and debt securities. Life cycle funds are balanced funds where their asset mix can range from aggressive equity (aimed at younger investors) to conservative (aimed at older investors).
- Static allocation life cycle funds maintain a stable mix across stocks and bonds whereas target maturity funds become more conservative as the investor ages. These life cycle funds are particularly important for subscribers to the New Pension Scheme (NPS) as their money contributed to the pension fund is managed by PFRDA through AMCs as life cycle fund.

Categorization of Mutual Funds

- **Index funds** tries to match the performance of a broad market index. They buy shares in securities included in a particular index in proportion to each securities representation in the index.
- Some examples of index funds are – UTI Nifty Index Fund, HDFC Sensex Index Fund etc.
- UTI Nifty Index fund prospectus says that – *“The scheme seeks to invest in stocks of companies comprising Nifty 50 Index and endeavor to achieve return equivalent to Nifty 50 Index by passive investment.”*
- In India, they are not a very popular category as only 0.5%, against around 20% in USA, of total funds in the industry are invested in them. Considering their very low expense ratios, typically in the range 0.1 % to 0.2%, it is only a question of time before they become popular.
- **Direct vs. regular plans – how can one invest in mutual funds?**
 - Mutual fund investments can be made through a broker – who is an intermediary and will charge a certain fee to the AMC which is included in the expense ratio of the fund - or directly through the AMC office or website.
 - Investors who buy through a broker should be aware that there can be a conflict of interest – the broker will try to push those funds which provide highest fees and commission to him rather than what is best suited to the investor. The difference between direct and regular plans in expense ratios is in the range of 1% to 2% of funds per annum. So over long periods of time, the fees paid to the broker can become substantial.

Costs of investing in Mutual Funds

- **Expense Ratio** You can consider the expense ratio as the cost that a fund company charges you for the services it is providing. Besides, there could be certain additional costs added to it. For example, the distributor's commission in the case of regular plans. So, to put it in a nutshell, that's what an expense ratio is.
- Now, the expense ratio is not charged on a particular day in a year. It is charged on a drip-by-drip basis every single day from the NAV and the NAV that the fund discloses every day is after charging the expense ratio.
- Other than expense ratio, there are a few other nominal charges that you would have to bear. At the time of buying the fund, you will have to incur a stamp duty which is at a rate of Rs 5 for an investment worth Rs 1 lakh.
- Likewise, at the time of selling, there is a securities transaction tax that has to be paid, which is at the rate of 0.001 per cent in the case of equity funds. So, those are the pretty nominal charges which sit outside of the expense ratio. Otherwise, the expense ratio factors in your overall ownership costs of mutual fund units.
- **Entry and Exit loads** – When an investor puts his money into mutual funds, a part of the money used to be charged as entry load at the time of investing. This has been abolished by SEBI from 2009 onwards. Exit loads are the fees which are charged by the AMC to discourage investors from quickly moving in and out of mutual funds. Typically, these are in the range of 1% for redemptions before 1 year of investing. The exit load is not part of expense ratio

Fund	Axis Focused 25
Plan	Regular
Amount invested	100,000
Expense ratio – as % of AUM	1.50%
Exit load – as % of AUM	1.00%
Stamp Duty	5
Securities transaction tax	0.001%
Net of stamp duty	99,995
NAV as on 1st June 2020	25.65
NAV as on 23rd April 2021	37.03
Number of days invested	326
Number of units	3,898.44
Redemption amount before exit load	144,359.25
Exit load	1,443.59
STT	1.44
Total paid to investor	142,914.22
Rate of return	42.91%
NAV rate of return	44.37%

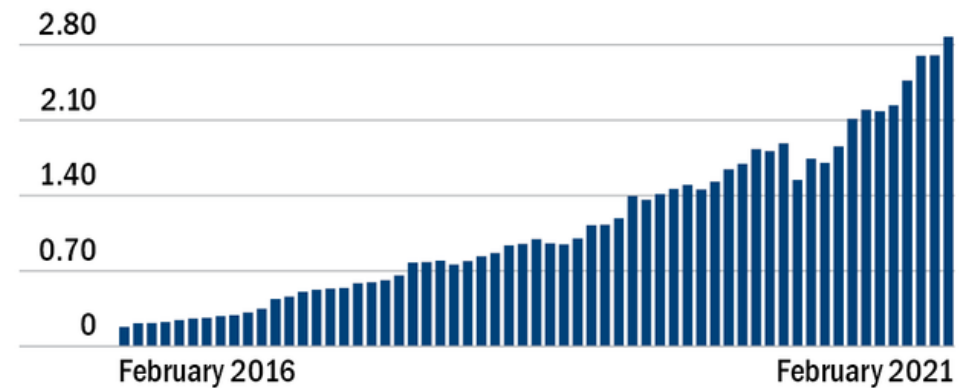
Exchange Traded Funds (ETF)

- Exchange-traded funds (ETFs) are a basket of stocks that trades just like an individual company's stock. An ETF usually tracks an index, such as the Nifty or the Sensex.
- Thus, ETFs combine the features of a stock and a fund. The first ETF was launched in India in 2001, but it was not until 2015 that ETFs started gaining traction.
- Over the last five years, the assets managed by them has grown at an annual rate of 75 per cent, from over Rs 17,600 crore in February 2016 to over Rs 2.87 lakh crore in February 2021.

Gaining prominence

The assets managed by ETFs have been steadily increasing over the last five years.

₹3.50 lakh crore



Exchange Traded Funds

- The Indian mutual fund industry today has 100 ETFs across three different asset classes - equity, debt and gold. Equity ETFs are the most popular and manage assets worth over Rs 2.40 lakh crore across 78 schemes.
- These are followed by 12 debt ETFs that manage assets of over Rs 33,700 crore and gold ETFs with an AUM of Rs 14,000 crore across 10 ETFs. In USA, the total AUM under ETFs is more than US \$ 2 trillion.
- **Benefits of an ETF**
 - **Simplicity:** Since ETFs track an index, they are a simple way to get market-like returns. If you are positive about the Indian economy and want to profit from its potential, buying a Sensex or Nifty ETF is the simplest way to realise this goal.
 - **Low cost:** One of the major advantages of ETFs is their cost efficiency vis-à-vis actively managed funds. Since ETFs just mimic an underlying index, they don't involve any active decision-making by a fund manager. Also, transactions in an ETF are much less as compared to an actively managed fund. Hence, this greatly reduces their cost.
 - **Diversification:** If you invest in individual stocks, you will have to buy a sufficient number of companies to achieve optimum diversification. When you invest in an ETF, you instantly get diversification. What's more, you get this diversification irrespective of the amount you invest. With individual stocks, you will need to have a certain scale to reach that level of diversification.
 - **Transparency:** ETF prices are available in real time and their portfolios are the same as the underlying index. That helps you know what you are getting and how your investment is doing.

How is your mutual fund return taxed?

In mutual funds, your returns will be taxed as below

Holding Period	Less than 1 year	1-3 years	More than 3 years
Types of funds			
Equity / Hybrid	15% tax applicable	10% tax applicable if gains are more than 1 lakhs	10% tax applicable if gains are more than 1 lakhs
Debt	Taxed as per income tax slab	Taxed as per income tax slab	20% tax applicable with benefit of indexation

SIP - Each installment is considered as an individual investment. Tax will be applicable as per the above table.

Additional slides

Stocks and Equity

- A stock is a share in the ownership of a business
- Investment objectives
 - a) Capital gains – buy low sell high and pocket the difference
 - b) Dividends – part of the company profit distributed by the company
- Stocks have the highest risk and highest potential returns – risk and reward go together in Finance
- Stocks are suitable for investors who have time horizon of five years are more to accumulate wealth
- Stocks are not for less time horizon – day traders etc., and those who lack the skill, time, inclination to research the stocks on a regular basis
- Option – Equity Mutual Funds

Stocks and Equity

- Stocks or mutual funds ?
 - Investing in mutual funds is a better way of getting gains of stock investing with lower risk and less hard work as professional managers do the investment for you
 - Mutual funds however carry fees and certain limitations depending on the fund
 - Sophisticated investors may not like passive investing in mutual funds
- Invest or trade?
 - Investment is the art of identifying fundamentally sound companies and investing in them for long term i.e., fundamentalists
 - Trading is the art of identifying trends in stock prices and trading in them for short periods in the hope of large and quick profit i.e., chartists

Stocks and Equity

- There are no guaranteed returns on stock investments
- Stocks are liquid investments – they can be sold at any time during the trading hours and money is realised within three days
- All trading is done through a stockbroker who is a member of stock exchange
- Bombay Stock Exchange (BSE) <https://www.bseindia.com/>
- National Stock Exchange (NSE) <https://www.nseindia.com/>
- Basic prerequisite to trade is to have a DEMAT account – just like a bank account it holds stocks instead of cash – two depositories are there – NSDL and CDSL – stock broker will help open an account based on KYC norms

Stocks and Equity

- Dividends up to Rs 10 lakhs per year are not taxable in the hands of the investor; however they are liable to pay 10% dividend distribution tax (DDT) by the company
- Dividends above Rs 10 lakhs are taxable at the rate of 10%
- Post deletion of DDT, dividend income will be taxed in the hands of all shareholders at applicable tax rates.
- Capital gains are taxable at 15% if the stock is sold within one year and there is a 10% tax on gains exceeding one lakh for stocks sold after an year
- There is a 0.1% Security Transaction Tax (STT) on the stock either on sale or purchase

Mutual Funds

- Mutual funds combine savings of large pool of investors and manage them as a single pool of money
- Professional fund managers decide where to invest the money
- The assets are run by AMC – Asset Management Company
- Each AMC makes an offer of multiple schemes to cater to different type of investment requirements
- They are highly liquid and withdrawals are easy and take very little time

Financial Assets of Households (Stock) – RBI

Dec-2020	(₹ Crore)	As per cent to GDP
Gross Financial Assets (a+b+c+d)	18,809,807	97.5
(a) Bank Deposits (i+ii)	10,340,637	53.6
i. Commercial Banks	9,544,023	49.4
ii.Co-operative Banks	796,614	4.1
(b) Life Insurance Funds	4,302,271	22.3
(c) Currency	2,547,408	13.2
(d) Mutual funds	1,619,492	8.4