

Essentials of Financial Wellness

Dr. Abhijit Phadnis

This document is made available FREE to all who are keen to become independent in managing their own money and improve their return by understanding the underlying simple principles. Feel free to share it with others too. This is my humble attempt to help all who are keen to manage their money and do it well!! ... Dr. Abhijit Phadnis

Do give me feedback by connecting with me through LinkedIn

<https://www.linkedin.com/in/drabhijitphadnis/>

The context of the note can be better understood by watching the YouTube videos of the 4 presentations I gave in a series titled 'Essentials of Financial Fitness' organized by Utkarsh Mandal, Vileparle. I thank their leadership (particularly my friend Shri Ajay Sapre) for suggesting me to do this series and for arranging to video record these talks and allowing me to make them available for a wider audience through my YouTube channel and also uploading on theirs. All the charts shown in the note are as of the respective dates in November/ December 2021 when they were covered in my 4 presentations at Utkarsh Mandal, Vileparle. I have shared the links to the videos on Page 8 of this material.

Disclaimer: This note is based on the views of the author and readers are requested to use their judgment before taking their investment decisions. While every care is taken to communicate the ideas clearly & effectively, the author would not be held responsible for the financial misjudgement of any reader or resultant losses. 😊

Table of contents

| | |
|--|----|
| My motivation for this learning note | 6 |
| About Dr. Abhijit Phadnis | 7 |
| Links to YouTube Videos covering these topics | 8 |
| Discussing some basics | 9 |
| What is saving? What factors influence savings? | 9 |
| What is investing?..... | 9 |
| Why has prudent investing become critical in India? | 9 |
| Interesting quote: Peter Lynch, Former Legendary Fund Manager, Fidelity:..... | 9 |
| How is investing different from savings?..... | 9 |
| How is investing different from trading? | 10 |
| How is investing different from speculation? | 10 |
| How is investing different from lending?..... | 10 |
| What are important investment criteria..... | 10 |
| Principles of financial well being | 10 |
| Principle 1: Have adequate insurance cover when you are vulnerable..... | 10 |
| Principle 2: Investing and insurance should never be mixed up | 11 |
| Principle 3: Take loans judiciously | 11 |
| Principle 4: Be aware about trends that impact investments | 12 |
| Principle 5: Trusting the power of Indian economy is more valuable than trusting any institution in India..... | 16 |
| Principle 6: Realize the power of compounding | 17 |
| Principle 7: Learn the dynamics of markets and their impact on us | 19 |
| Principle 8: There is no investment without risks, be aware about risks in different assets | 20 |
| Principle 9: Gradually climb the risk, return tree; do not hurry | 26 |
| Principle 10: Understand the factors that influence investment returns in different assets..... | 27 |
| Factors influencing Indian equities (shares) | 27 |
| Factors influencing bonds in India | 28 |
| Factors influencing gold prices in India..... | 28 |
| Principle 11: Focus on graduating to higher overall return | 28 |
| Principle 12: Investing through mutual funds is a great option | 29 |
| Principle 13: Create simple portfolios by following the below principles: | 30 |
| Principle 14: Learn & factor time value concept to take appropriate investment decisions | 32 |
| Principle 15: Cash management and mind management are key to successful investing | 35 |
| Savings accounts | 35 |
| How do we handle our credit cards? | 36 |

| | |
|--|-----------|
| Time deposits vs. Liquid Funds | 36 |
| Mind management..... | 36 |
| Principle 16: Trusting the power of Indian economy is more valuable than trusting any institution in India | 38 |
| Principle 17: Learn the dynamics of markets and their impact on us | 38 |
| Principle 18: Equities is a surely way to build wealth; within that there are simpler ways too ... | 39 |
| Features of equity investing..... | 39 |
| Principle 19: Impeccable record-keeping is vital to investing decisions..... | 40 |
| Principle 20: Learn the dynamics of markets and their impact on us | 40 |
| Principle 21: What are the features of equity investing? | 42 |
| Principle 22: Critical success factors in equity investing..... | 42 |
| Principle 23: Understand the animal called as market | 42 |
| Principle 24: It is important to understand the limitations of retail investors | 43 |
| Principle 25: Be clear about your positioning while taking exposure on equities..... | 43 |
| Principle 26: Beware of mistakes in equity investing | 43 |
| Principle 27: Understanding concepts of value, price & cost is critical in equity investing..... | 44 |
| Principle 28: We need to be on the right side of greed and fear | 45 |
| Principle 29: Ways to manage equity risks | 45 |
| Principle 30: We need to examine the potential of a company to create, protect & grow value before we invest in its shares | 45 |
| Principle 31: Fundamental & technical analysis | 46 |
| Quick recap of important points about care while investing in equities..... | 47 |
| Principle 32: Explore investing through holding & investment companies..... | 47 |
| Principle 33: We need to understand why share prices behave the way they behave..... | 49 |
| Principle 34: Know the difference between weak hands & strong hands..... | 49 |
| Principle 35: Understand the principles of managing fear | 50 |
| Principle 36: Important financial parameters to look for while investing in equity shares..... | 50 |
| Principle 37: Important financial parameters to look for while investing in equity shares..... | 51 |
| Principle 38: Watch for leverage & its impact | 51 |
| Principle 39: Principles for exiting from markets: market signal is strong to exit | 51 |
| Principle 40: Exit from stocks..... | 52 |
| Principle 41: Principles related to corporate actions..... | 52 |
| Principle 42: Switch & create more value..... | 53 |
| Principle 43: Exposure to high-risk assets such as equities should be built slowly | 53 |
| Appendix 1: Asset classes and different criteria for investing..... | 54 |
| Bank Deposits:..... | 54 |

| | |
|--|-----------|
| Company Deposits: | 55 |
| Traded bonds | 55 |
| Real Estate..... | 56 |
| Gold..... | 56 |
| Appendix 2: Tax implications of investing..... | 57 |
| Pre-tax data points..... | 57 |
| Tax implications of time deposits | 57 |
| Tax implications of bonds | 57 |
| How is indexation done?..... | 58 |
| Taxation of equity shares..... | 58 |
| Taxation of bond (debt) funds | 59 |
| Taxation of equity funds | 59 |
| Pipeline idea..... | 59 |
| Why liquid funds are better than time deposits?..... | 60 |
| Tax saving obsession and investing..... | 60 |
| Importance of record-keeping..... | 61 |
| Appendix 3: Time value arithmetic and exercises | 62 |
| Exercise 1 | 63 |
| Exercise 2 | 64 |
| Exercise 3 | 64 |
| Exercise 4 | 66 |
| Exercise 5 | 67 |
| Exercise 6 | 68 |
| Exercise 7 | 68 |
| Appendix 4: Investing in Mutual Funds | 70 |
| Direct vs. Regular schemes | 70 |
| Role of mutual funds..... | 70 |
| What is a mutual fund?..... | 70 |
| “Units” & “Trusts” | 71 |
| Governance of mutual funds | 71 |
| Open ended funds..... | 71 |
| Close ended funds..... | 71 |
| Mutual fund types..... | 72 |
| Money market funds..... | 72 |
| Gilt funds..... | 72 |
| Equity funds | 72 |

| | |
|---|-----------|
| Aggressive growth fund | 73 |
| Growth fund..... | 73 |
| Speciality fund..... | 73 |
| Diversified equity funds | 73 |
| Equity Linked Savings Scheme (ELSS)..... | 73 |
| Index Fund..... | 73 |
| Why index funds?..... | 73 |
| Equity Income Fund | 74 |
| Corporate Bond Funds | 74 |
| Diversified Debt Funds | 74 |
| Focused Debt Funds | 74 |
| High Yield Debt Funds | 74 |
| Assured Return Funds | 75 |
| Fixed Term Plan..... | 75 |
| Hybrid funds..... | 75 |
| Balanced funds..... | 75 |
| Growth & Income Funds | 75 |
| Asset Allocation Funds | 75 |
| National Pension System vs. Mutual Funds | 75 |
| Appendix 5: Credit rating of long-term debt instruments: Crisil's rating scale | 76 |
| Credit rating of long-term debt instruments: Crisil's rating scale | 76 |
| Credit rating of short-term debt instruments: Crisil's rating scale | 76 |
| Appendix 6: Bond arithmetic | 77 |
| What will happen to the value of the bond if the market expectation of interest were to rise? | 77 |
| Would you buy this bond? | 77 |
| Appendix 7: Leverage analysis | 78 |
| Fixed and Variable costs..... | 78 |
| Classification of cost and contribution income statement | 79 |
| Contribution Margin %, Break-even Point, Margin of Safety | 80 |
| Operating, Financial & Total Leverage and its implication | 81 |
| Repository of YouTube video links: | 82 |

My motivation for this learning note

I am always impressed by Raja Rantidev who said the following thousands of years ago:

न त्वहं कामये राज्यं न स्वर्गं नापुनर्भवम् ।

कामये दुःखतप्तानां प्राणिनां आर्तिनाशनम् ॥

I don't desire kingdom, nor heaven, nor re-birth, my only wish is that all those beings who are undergoing suffering, may be relieved of their difficulties..

My personal investing journey, particular in equities, began only in 2006. However, during the meltdown caused by the sub-prime crisis in the United States, I booked massive losses. The losses were equal to the sale value of the three flats I owned in Thane & Powai, that I had sold before the real estate rally took place beginning from 2005. I thus lost on the opportunity of real estate prices going up and actually lost all that money in the stock market. **My understanding of the market forces was terrible to say the least.**

Worse I incurred those losses at a time when I did not have the luxury of earning a comfortable salary. I was pursuing my doctoral work at the School of Management of IIT Bombay and beginning from early 2008 had completely stopped earning to totally focus on my doctoral work as it was reaching a concluding stage. During 2004 to 2007 also, I was focussing on professional activities only for about 7 to 10 days every month, rest of the time being devoted to my doctoral work. Doctoral journey is not easy, particularly if you are doing rigorous work and at an institution like IIT Bombay, where expectations are very high.

The losses that I booked during that short period were large enough for anyone to quit equity investing forever. **However, I decided not to do so.** After my doctoral work was over, I began focussing on recovering my losses and it was only in 2013 that I was able to wipe my slate clean. Thereafter, I have been compounding extremely well. This journey involved analysis of my shortcomings and mistakes as well as learning new skills and more importantly understanding the animal called as markets.

I sincerely think that no one should suffer the way I suffered and hence I was motivated to both deliver the 4-part talk on 'Essentials of Financial Fitness' and also prepare this material for sharing it with the participants of this series as well as those who have watched the video recordings on YouTube.

About Dr. Abhijit Phadnis

Abhijit is a Mumbai university rank-holder in the B.Com. (1982) examination (1st in M. L. Dahanukar College of Commerce, Vile Parle, Mumbai) and a national rank-holder in final examinations of ICWA (1983), CA (1984), CS (1987) (Old Syllabus) and CFA India (1989) examinations with 2nd, 11th, 1st and 3rd ranks respectively. He also passed Level II of US CFA program in 1991 under a special arrangement between ICFAI and AIMR and was the only one to pass that time from India, under that arrangement. After work spanning 6 years, in 2009, he was awarded a PhD by the Indian Institute of Technology, Bombay. Abhijit began his corporate career with Johnson & Johnson in 1983 which was followed by stints with Magnificent Leasing & Investments Ltd. (an NBFC) and ANZ Grindlays (now a part of Standard Chartered). In the early 90s, he was associated with Lovelock & Lewes, audit & assurance arm of then Coopers & Lybrand. During 1997 to 2001, he worked for UBS & Credit Suisse, two Swiss Banks in senior positions with their local subsidiaries (COO & Head – Finance, Administration, Operations respectively) with a position on the board of these local companies. As a part of these roles, he headed all business support functions such as finance, accounting, operations, human resources, administration, building services, legal, compliance, IT, regulatory liaison. He served co-on the Board of TJSB Sahakari Bank Ltd., a leading co-operative bank for 3 years.

Abhijit has participated in over 350 customized executive education programs for over 70 leading companies as well as in over 20 public programs conducted all over the country by Dun & Bradstreet. He has participated in consulting engagements for 15 companies. He helped IIT Bombay in launching two unique initiatives, including a joint-degree program with a foreign university. Abhijit has coached senior executives to help them in becoming better decision makers. Abhijit has also created a unique e-learning solution to learn accounting, costing & finance which has given a very different dimension to learning of these subjects. He has written a serial of 49 episodes to teach these concepts, which has been animated and has been rolled out by 20 companies. Abhijit has been teaching since 1985 for a variety of courses such as DBM, DMS, MBA, CWA & CFA (India) and also served on the Academic Council and Board of Governors of Institute of Chartered Financial Analysts of India. Abhijit has deep interest in many finer aspects of life including music, poetry, sports, dramatics and spirituality. He writes poetry both in Marathi & English. In 2017, he was inspired to write a 65-stanza poem capturing the essence of the message of the Bhagavad Gita. He has completed a two-month-long acting workshop from Ashok Kumar Academy of Dramatic Arts. He is also an avid swimmer, kite flyer and also a left-arm spin & medium pace bowler and a left-handed batsman. In December 2014, in a club level match he took a hat-trick with 3 batsmen clean-bowled in a row and received 'man of the match' in 2015 for his batting. He has devoted over one year's time for non-profit oriented activities. He hosted two India visits of a Vedic scholar, Jeffrey Armstrong (www.jeffreyarmstrong.com) and assisted him by a pre-publication review of his best-selling book 'Spiritual Teachings of the Avatar' published in June 2010. He is widely invited as a speaker on topics such as macroeconomic developments, finance and personal investing. He is also invited as a motivational speaker and delivers a program titled 'study & excel' for students of professional courses in accounting & finance stream. His program titled 'Journey of Professional Excellence' has been very well received by young professionals. He has participated in several television programs and also written articles in Marathi magazines and papers. In 2014, he wrote a column titled 'anvayatha' in Marathi daily Sakal, Monday edition for their Mumbai, Navi Mumbai & Thane editions, dealing with contemporary economic & financial issues. He also wrote a column in 2018 titled 'artha saar' in a Marathi weekly of Zee group, titled 'Disha.' He is a YouTuber and has both Marathi & English Channels. The name of his English Channel is [Dr. Abhijit Phadnis](#) and the name of his Marathi channel is [Dr. Abhijit Marathi Channel](#).

Links to YouTube Videos covering these topics

While reading this learning note itself should give you a good idea about how you could go about managing your own money, sometimes listening to a speaker helps in appreciating some of those concepts better.

Here is a link to these 4 videos on the YouTube channel of the author:

Video 1

<https://youtu.be/K-wZiZY41q8>

Video 2

<https://youtu.be/SECN9wUFcLc>

Video 3

<https://youtu.be/g4pLqdb4hFw>

Video 4

<https://youtu.be/oqadDgCNbGw>

In the description box to the respective video, you will find links to various videos which have been referred to during the talk. Many of the videos themselves have downloadable Excel files that you could take advantage of. Also, in the description box of Video 2, there are several Excel files that are made available for you to benefit from.

The above recording can also be found on the YouTube channel of Utkarsh Mandal, Vileparle and the links are below:

Video 1

<https://www.youtube.com/watch?v=huczRtJnzEQ&t=4390s>

Video 2

https://www.youtube.com/watch?v=07_F9w8MNtk&t=4163s

Video 3

<https://www.youtube.com/watch?v=JyST6rRePc0&t=5447s>

Video 4

<https://www.youtube.com/watch?v=ct281ZJctIU>

Discussing some basics

In this section, we are touching upon some important fundamentals that are key for financial well-being. We are going to build the discussion on principles further using these fundamental concepts.

What is saving? What factors influence savings?

- Saving = Income - Expenses
- Level of income has a profound impact on savings. We need to thus explore how we can generate multiple sources of income.
- Family size, age of the children, dependents, lifestyle have a profound impact on savings.
- Lifestyle creates stickiness in expenses
- Watching our lifestyle is critical to boost savings since it almost becomes irreversible.

What is investing?

- Investing is about putting our hard earned savings to work, to maximize our return while understanding and managing the inherent risk.
- Investing also means understanding the factors that influence return and capital protection before committing our hard-earned money.
- We are dealing with probabilities about the future, and hence we need to take an informed decision, with an eye on risk.
- Higher the risk we are taking, higher should be the return. Also, high return promises are accompanied by high risk. Thus, risk is inherent to any investment.
- As we begin to understand financial information and how to manage risk, we can climb up the risk ladder and return ladder too!
- Investing does not mean adventures; it actually means being careful. Return is then taken care of ..
- World's wealthiest have maximum exposure to equities: their own businesses or others'!!
- There is a science involved in investing, which is about the underlying principles
- Once you start performing & implementing those principles, it becomes an art!!

Why has prudent investing become critical in India?

- As India becomes a developed country: low general goods inflation & low interest rates
- However, there is an increase in cost of critical services whether education or Medicare
- Living out of interest is going to be difficult with every passing year! It already has become, for many elderlies.
- Increasing longevity
- Increasing uncertainty in employment due to technological shifts & redundancy of skill-sets
- Need for financial freedom, to seek alternative careers or even social work

Interesting quote: Peter Lynch, Former Legendary Fund Manager, Fidelity:

"Know what you own, and know why you own it."

How is investing different from savings?

- Saving is managing income vs. expenses

- Investing is about managing risk with a view to maximize return

How is investing different from trading?

- Investing is for the long-term vs. Trading is short-term including day-trading
- Investing is not the primary profession vs. Trading often becomes one
- Investing makes time free for other endeavours vs. Trading consumes far more time
- Investing takes much less time in terms of record keeping vs. Trading would require far more time

How is investing different from speculation?

- Investing is for the long-term vs. Speculation often is for quick buck
- Investing is information-based vs. Speculation is opinion based or may be ego driven

How is investing different from lending?

- Investing has uncertain return vs. Lending has a defined return (fixed interest) or defined way of calculating return (floating interest)
- Investing helps us with capital appreciation vs. Lending does not result in capital appreciation
- Investing involves higher risk relative to lending as lending often involves some security. Some lending, can be unsecured too. Hence, we need to be careful while lending our hard-earned money too. See the discussion on credit rating later.

What are important investment criteria

- Protection of capital, security
- Potential for capital appreciation, growth
- Security, risks
- Ongoing return
- Administrative costs, transaction cost
- Ability to exit, liquidity

Principles of financial well being

Principle 1: Have adequate insurance cover when you are vulnerable

One of the most important aspects of financial well-being is protection against unforeseen eventualities. While we enter into a contractual relationship with a specific insurance company, indirectly it is the society which is protecting us. Hence, insurance should be taken in a responsible way, not to profiteer from it.

Following insurance protection is desirable:

- a. Term insurance to protect oneself through the early stages of the career to middle ages when the saving pool is rather limited and there are loans such as education or housing loans which are yet to be fully repaid.
- b. Health insurance for protecting against the expenditure involved in hospitalization.

- c. Property insurance: Insurance of real estate is also worthwhile. However, we need to be aware that the insurance typically is only for construction cost and not the market price.
- d. Vehicle insurance: is statutorily a must and it is a good idea to have this insurance, not just for third party liability but also for the vehicle.
- e. Key-man insurance: This is usually insisted on when an organization is dependent on an individual and has taken significant loans. Bankers usually insist on this condition while giving loans.

Principle 2: Investing and insurance should never be mixed up

Life insurance is often sold as insurance product by way of endowment policies or Unit Linked Insurance Plans. Ideally, however, insurance and investment should never be mixed up. If we need insurance, we should go for it independent of investments i.e. pure insurance, treating it as a cost of protection rather than as investment. Thus, we could go for term insurance exactly like we go for car insurance. We don't bang a car just because we want to 'recover' the insurance premium from the insurance company. We are quite happy if years pass by and we don't make any claim under the policy. Thus, term insurance premium should be just treated as a cost and we are very happy we have longevity much beyond the term of the policy.

Products which bundle insurance and investment often result in sub-optimal returns. Such products involve a very high upfront cost in the form of commission to agents that bring the return down. Products like ULIP do offer flexibility to switch between debt and equity options, which potentially can improve the returns. But unless the advisor or investor are well equipped to do it, even here the returns will be still low due to issues mentioned above.

Principle 3: Take loans judiciously

Loan is another way we are taking support from the society, through a banking institution or NBFC with a promise to repay it later. Unlike insurance, loans create a burden on us to repay the same in a pre-defined way. Loan taken for a house in which we are going to stay, is a very constructive use of this facility so that the family can settle down quickly without any personal obligation to any individual or recurring expenses in the form of rentals or instability due to the need to move apartments.

However, care should be taken before we take loans for following purposes:

- a. Loan for real estate investment, other than the one where we are staying. Awareness about the market cycle of real estate is very critical. Otherwise, such loans can become a burden without the requisite capital appreciation from the property or due to absence of sufficient rental income.
- b. Car loan: With shift in car technology, we need to be careful before we take a significant amount of loan on a vehicle which may depreciate much faster than we think.

- c. Education loan: yes, it plays a very constructive role in furthering professional prospects and hence, it should be availed if the pay-off can be quite significant in terms of opportunities.
- d. Loans for white goods or tourism: These should be used judiciously and in a very limited way.
- e. Credit card rollovers: they should be avoided as much as possible since the interest cost is very high.

Principle 4: Be aware about trends that impact investments

Usually people do a lot of diligence on a specific house that they wish to buy, or on a bank in which they wish to keep a deposit or on a specific share or a mutual fund scheme that they wish to invest in.

However, much less time is spent on the mega trends impacting various markets, with the result that retail investors encounter challenges, examples of which are as follows:

- a. The real estate cycle which often results in quick returns in some years but long painful years of either no return or very little return. Often people get trapped in those long years and having borrowed amounts to finance such purchase can encounter a challenge that their assumptions of real estate prices always going up could go seriously wrong.
- b. Interest rates going down may impact those who retire with the aspiration that they can comfortably lead a happy retired life out of their retirement funds by earning a decent rate of interest.
- c. Often retail shareholders buy stocks at very high prices getting excited with market rallies. However, they don't keep an eye on the factors that cause upward and downward movement in the market with the result that they rush into selling during severe market downturns in a panic mode, booking massive losses.

Understanding the market movement is absolutely essential so that we can take these decisions wisely and avoid realizing very low returns.

Let us look at a few charts which we have also discussed during the session:

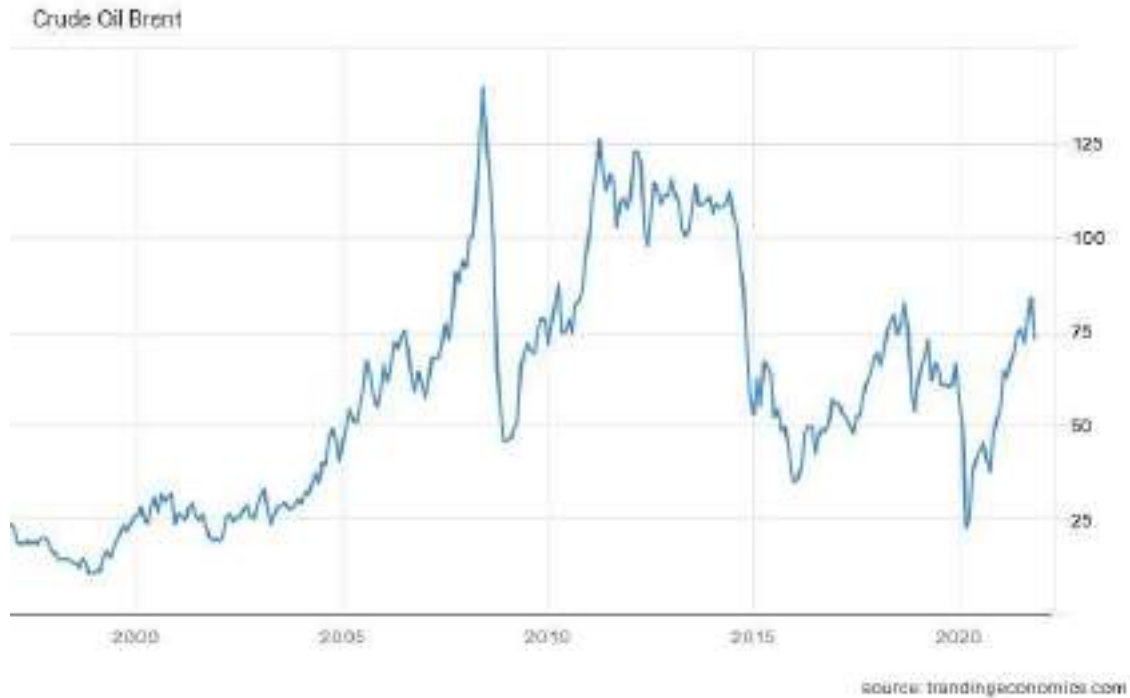
Brent Oil chart

Oil reflects global developments in many ways. On one hand, it reflects the technological shifts taking place, on the other it is also reflective of geo-politics surrounding OPEC, the association of many oil producing nations. Further, oil is influenced by economic growth prospects. You will see later a 25 year chart of oil. Brent is one of the global benchmarks in oil markets.

Expensive oil is a bad news for country like India since it results in increase in imports for us and thus impacts our growth too. It also has an impact on inflation as inflation tends to go up. On the other hand, fall in oil price is good for our country.

What you will notice in the chart is that the long-term trend in oil is that of a fall, particularly since 2008. However, we have seen a surge recently as the world is recovering from Covid.

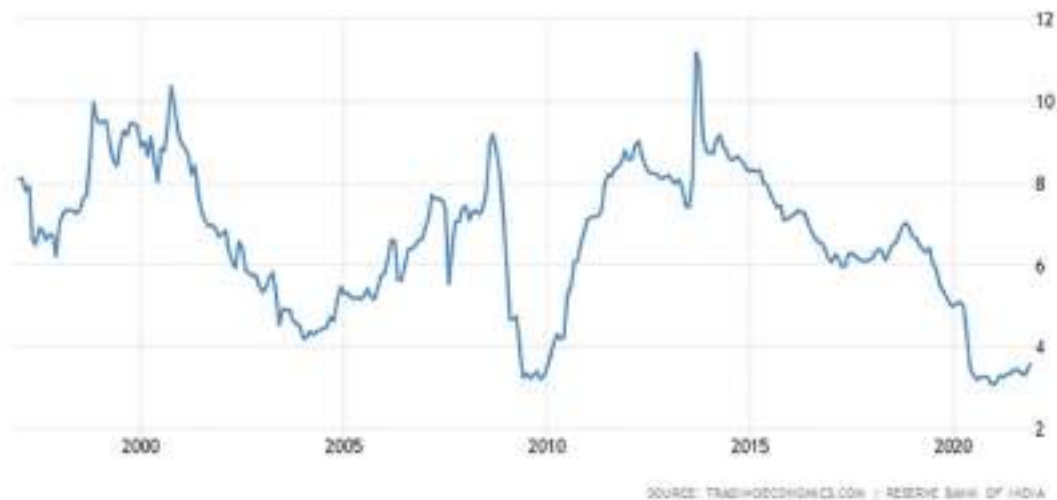
Thus, there is a long-term trend and there could also be a cyclical counter trend. We need to be aware about impact of both on interest rates. Interest rates would go down as inflation goes down in the long-term. However, they may move up during the short term if oil flares up and inflation goes up.



We can observe the following trends from the above chart:

1. Oil was in an uptrend until 2008, but since then is structurally weakening due to the following reasons: (i) technological shift to non-oil resources such as battery technology for driving cars, transport vehicles and even aircrafts (ii) discovery of shale oil in the US (iii) solar energy for heating purposes
2. While the long-term structural trend seems to be lower oil, cyclically there could be still an up-move, for the following reasons: Economic recovery resulting in more demand b. Geo-political tensions
3. Extra \$ 1 price of oil globally means cost of \$1.2 to 1.3 Billion for India. Upto \$60 is affordable for India, beyond that it starts creating pressure on government's fiscal position as well as on the Rupee. Thus, while India is better placed due to lower trend of oil in the long-run, in the short-run it may create challenges for government's fiscal management, if oil prices surge from here.

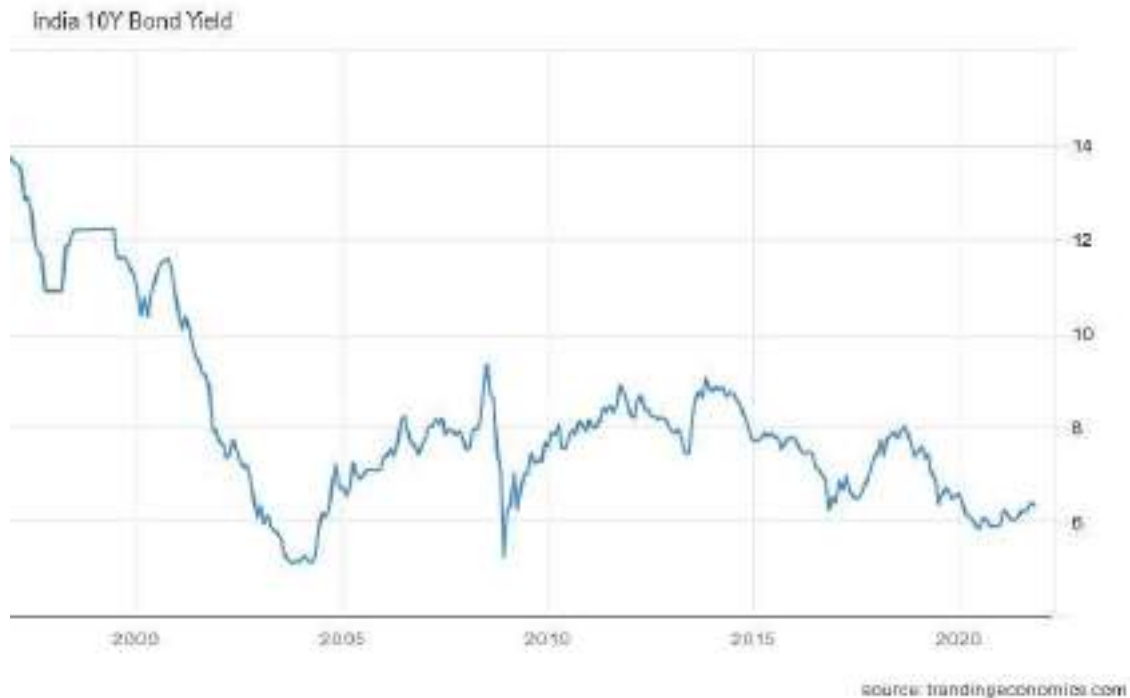
India 91-day Treasury Bill rate



Treasury Bills are a short-term instrument which are used for borrowings by the government. They have maturities of 91, 182 & 364 days. Above is a chart of 91 day treasury bills. These treasury bills do not carry any interest but are sold at a discount to their maturity value using the time value principle as an indirect compensation. Typically, the treasury bill rate is considered as a risk free rate because there is no default risk and there is no interest rate risk either considering their short tenure. We can see both structural and cyclical trends above. Structurally, the interest rates are falling, which is natural as we are weeding out a lot of inefficiencies from our national systems and are improving governance. The reason for recent steep fall is because of the tremendous slowdown in economic activity and fall in demand for credit. The monetary policy of the RBI has been very supportive of liquidity and thus low interest rates. Gradually, it would change though.

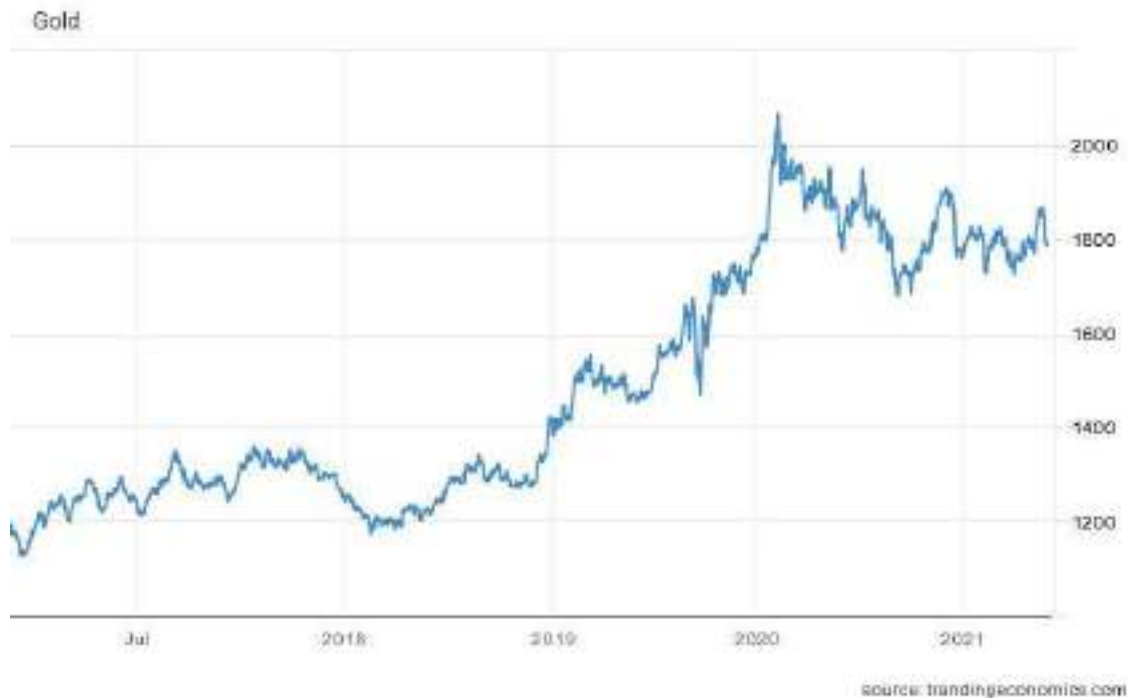
Since money market funds or liquid funds invest in such short term instruments (apart from others), the yields on them had fallen during Covid times. In recent months, however, this is undergoing a change and as the demand for credit improves with spur in economic activity, the liquidity will tighten and cyclically interest rates would go up, though structurally long-term trend of lower interest rates would continue to be lower. Money market funds may deliver better returns than in the recent past as credit offtake grows. Fixed deposit rates may also rise.

10 Year Government Bond yield %



Government has to finance its fiscal deficit by borrowing money. Money is borrowed substantially from long maturity bonds. These are called as Government Bonds or Government Securities or simply Gilts or G-secs. Overall, better the fiscal management by governments, better (lower) is their risk profile from investor's perspective and therefore, lower would be the expectation of return. We can clearly see above that the 10-year bond yields have been steadily falling in last 25 years. 25 years ago, the governments used to borrow at more than 14% interest. Naturally, all other borrowers had to pay higher rate of interest than that. You can also see above that there is a long-term structural trend in action and also cyclical movement. While structurally, yields are coming down in the long-term, cyclically they are going up in the short term due to increase in oil prices and focus on fiscal situation of the government as well as likely tightening of monetary policy. The relationship between yield and bond prices is inverse and hence we should not buy government bonds or corporate bonds at this stage. We don't have to sell the earlier once in a hurry either as there is a tax implication of our sale. But being aware about this trend will ensure that we don't unnecessarily switch from one debt fund to another.

Gold



Gold always has its own lure for Indians in general.

We can see that gold is clearly in a long-trend uptrend and it will remain so due to a variety of factors:

- a. It is a great asset whenever there is a scare or insecurity
- b. Printed money has lost its value
- c. It is a great defence against inflation

The price of gold in India is influenced by:

- a. International price
- b. Customs duty on imports
- c. Local tax
- d. Dollar/ Rupee exchange rate

Principle 5: Trusting the power of Indian economy is more valuable than trusting any institution in India

Often people develop relationship of trust with some banking and other institutions. The trust is so deep that they land up in investing large sums of money with them in the form of deposits. There is also this fixation on receiving a defined return and thus, investors often

prefer fixed income instruments such as deposits rather than equities. They do not realize that these institutions use the money received by way of deposits to lend to needy borrowers whose entire business case is based on growth. Thus, these institutions benefit from the business growth delivered by their loan customers and in turn benefit out of an expanding credit portfolio. Thus, their profits also go up quite significantly as their customer franchise is growing, in line with economic growth. Thus, their **equity investors** benefit out of this growth whereas the depositors don't get to participate in the growth story.

The underlying premise for any lending institution is that the economy in which the business of the borrowing customer is operating is going to grow. If that is not the case, which business in the economy would grow and would be able to repay the loan?

But, the depositors psychology is a little funny. They are very fixated on bank's financial strength for security of their deposits. However, they don't trust the economy's growth story which would enable them to generate a much superior return by investing in equities.

We need to change this mindset. We will later see how this objective can be simply achieved.

Principle 6: Realize the power of compounding

The word compounding suggests getting interest, not only on principal but on interest also. The concept of compounding equally holds true in the context of return by way of price rise in equity shares or mutual fund units or property. It would also apply in the context of growth in sales and profit of companies. Idea is the same.

Let us take an example of a cumulative deposit. As we can see in the table below, the interest keeps on growing from year to year as interest is due in the second year on not only the original principal but also on the interest as it accumulates.

| Start Date | Initial investment | Rate of Interest | Interest |
|------------|--------------------|------------------|----------|
| 26.11.2020 | 1,00,000 | 10% | 10,000 |
| 26.11.2021 | 1,10,000 | 10% | 11,000 |
| 26.11.2022 | 1,21,000 | 10% | 12,100 |
| 26.11.2023 | 1,33,100 | 10% | 13,310 |
| 26.11.2024 | 1,46,410 | Maturity value | |

Thus, this amount would accumulate to Rs. 1,46,410, with Rs. 1,00,000 being original investment and Rs. 46,410 of interest which is more than Rs. 40,000 that this deposit would have earned if it was not a cumulative deposit but a simple deposit. Rs. 4,610 is interest on interest.

Instead of a cumulative deposit, if you were to keep a simple deposit, following would happen, as let us say, the interest is credited to your bank account at the end of every year.

| Start Date | Investment | Interest Rate | Interest |
|------------|------------|---------------|----------|
| 26.11.2020 | 1,00,000 | 10% | 10,000 |
| 26.11.2021 | 1,00,000 | 10% | 10,000 |
| 26.11.2022 | 1,00,000 | 10% | 10,000 |
| 26.11.2023 | 1,00,000 | 10% | 10,000 |

While the interest is not compounded by the bank @ 10% as in case of cumulative deposit, the Rs. 10,000 which would get credited to your savings bank account every year, will compound at a lower rate of say 4% as follows:

| Start Date | Investment | Interest rate | Interest |
|------------|------------|---------------|----------|
| 26.11.2021 | 10,000.00 | 4% | 400.00 |
| 26.11.2022 | 20,400.00 | 4% | 816.00 |
| 26.11.2023 | 31,216.00 | 4% | 1,249.00 |
| | | Total | 2,465.00 |

The cumulative deposit earned for us, a total of Rs. 46,410 of interest. Whereas the simple deposit would earn Rs. 42,465 including the savings bank interest as above.

Important investing lesson: As much as possible, don't go for any investment option, which takes money out of your investment by way of dividend or interest, as doing so would mean your return potential is compromised. For example, it is better to invest in growth schemes of a mutual fund rather than in a dividend scheme. Cumulative deposit is better than a simple deposit. Equity shares are an exception because we don't have a choice. Also, dividends from shares help in reducing the risk in equity investing by taking cash out of the market.

Now, let us see what would happen to Rs. 1,00,000 invested for 25 years, annually compounded. Here, the interest is going to be earned on not only the principal but the interest of each passing year.

| Rate | Rs. |
|------|-----------|
| 6% | 4,29,187 |
| 9% | 8,62,308 |
| 12% | 17,00,006 |
| 17% | 50,65,783 |
| 20% | 95,39,622 |

If the same amount is compounded on a monthly basis instead of annually, do see the staggering difference :

| Rate | Rs. |
|------|-------------|
| 6% | 4,46,497 |
| 9% | 9,40,842 |
| 12% | 19,78,846 |
| 17% | 68,04,554 |
| 20% | 1,42,42,145 |

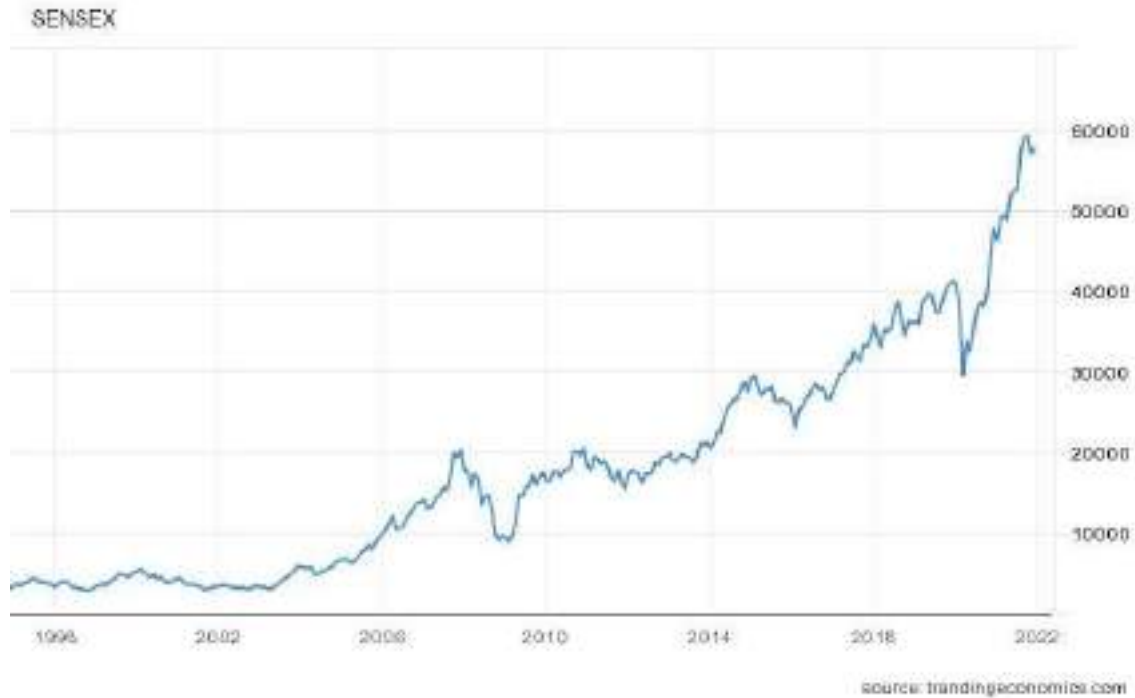
The above can be easily and quickly calculated using the concept of time value discussed below.

Principle 7: Learn the dynamics of markets and their impact on us

We saw above four charts: oil, treasury bills yield, yield on 10-year government securities and gold. In all cases, we noticed that there were always fluctuations even in situations where there was a clear trend. The dynamic of all these trends is impacting even those who wish to stay away from any market. Even the depositors are impacted by various changes and trends though they may not be observing or participating in the markets of any kind.

When we invest in any asset, it is very important that we understand the market dynamics. You can see below the stock market chart and you can clearly see that while it is continuously rising, there are a lot of fluctuations.

If we invest time on why these fluctuations happen, it can give us a very good clue to improve our return on one hand and protect us from extremes such as greed and fear.



Predicting the market moves is not easy. As we become keen observers, we improve our chances of getting it right with high probability. There are sufficient signals of the trend changing too. Do explore a tool that I have developed to help you assess market levels in the context of historical data. I have shared a link to that video too.

Principle 8: There is no investment without risks, be aware about risks in different assets

Interest rate risk

One risk which affects most asset classes is interest rate risk. It plays differently for different asset classes. For fixed deposit holders, interest rates going down is a bad news. For other asset classes interest rates going down is a great news as it costs less to hold any asset. For example, when interest rates go down, a greater number of people would be able to afford a housing loan and thus demand for houses would go up. Similar impact happens on assets like gold, shares, bonds. We have discussed this in the context of bond arithmetic.

Reinvestment risk

This risk arises when the cash flows from any investment (rent, maturity, interest, dividend) can't be reinvested at the rate at which the original investment was slated to give a return. For example, there is a fixed deposit which gives us say 8.5% interest per annum. However, when we try and reinvest the interest received, we are able to invest it say only at 5% per annum. Thus, our effective return on this investment comes down since the interest received can be reinvested only at a lower rate. Also, on maturity if the amount received can't be reinvested at the same high rate, we also encounter this reinvestment risk, as our return will go down thereafter.

Price fluctuation: we need to live with it

Prices fluctuate as there is a continuous search for real value of a share or security and there are different participants in the market with different perception of value and opportunity cost. Further, there is continuous flow of information to which different participants react differently. Some investors are in need of cash and some investors have a surplus cash to deploy. Thus, it is natural that the price would not remain steady. We don't have to worry about daily or weekly price movements. What is most critical is the long-term trend.

Capital erosion due to non-performing stocks or wrong entry points

Sometimes shares are purchased without diligence or simply based on some recommendation by a distinguished analyst. However, since those purchases are done without sufficient conviction and are without a tracking mechanism, the same share could underperform later or if the share was purchased when the markets are booming, it may take a long time to see the same level again.

High beta stocks vs. low beta stocks: disproportionate price changes

Let us say if a market goes up by $x\%$ in a certain period, there are stocks which may go up by $2x$ or even $3x$. There are some others which may go up by only $0.5x$, $0.9x$ or $1.05x$. The former are called as high beta stocks and the later ones are called as low beta stocks. While high beta stocks would move up quickly when the market is in an up-move, they would also fall more drastically during a down-move.

Do see the below videos on this concept:

Concept of beta and how it can be used in investing decisions:

https://youtu.be/DMTm2U3_y7s

A more detailed video on Beta: <https://youtu.be/vl4ad2YLM7U>

Size & stability: large cap, mid cap, small cap

Large-cap shares are those which have a collective market value (called as market capitalization derived as number of shares multiplied by the price) of Rs. 20,000 Crore or more. Mid-caps are those which have a market capitalization of Rs. 5,000 or more but less than Rs. 20,000 Crores and Small-caps are those which have a market capitalization of less than Rs. 5,000 Crores. Mega caps are those which have valuations of larger than Rs. 1,00,000 Crore.

Quite often investors are lured into buying small cap firms with the hope that they will become large or mega caps one day. This is perfectly possible for a few firms but it does not apply to all. Thus, we should buy small caps only when we are very clear why we are buying them and are able to have a strong valuation reason for the same. It is better to invest in just one or two of them which we are able to study and keep track of.

Remember, we are not venture capital investors who have the ability and a team to analyze high risk investments, which is what small caps generally are. It is risky to be over confident about our abilities to analyze companies and make investments in too many.

Low price trap, Rs. 10 FV for mutual funds, cheap can become cheaper

Investors are lured to buy shares thinking the price has come down. But fall in the price of one share may be because of a very fundamental reason and hence rushing to buy just because price is cheap is not recommended, unless we have a conviction and a clear reason. We should be aware about the risk that cheap can become cheaper, if the damage is for a permanent reason and difficult to repair.

Another lure to the investor is new fund offer, by mutual funds. Investors think that they are getting a new unit for just Rs. 10 instead of paying Rs. 300 or Rs. 3000 for other existing units. The price that one pays for the unit is immaterial, what is material is the return on it. Finally, it is the pool of funds which is going to be invested in similar assets. How does the unit price matter? It is the amount of investment that matters. Thus, 10,000 units @ Rs. 10 is the same as 10 units @ Rs. 10,000 price. In both cases, the amount invested is Rs. 1,00,000 and that is all that matters. The time when we invested in it matters.

Often New Fund Offers are made when a particular investment has become a fad. I remember in 2012 when gold price was about Rs. 32,000, some fund houses came out with gold schemes. It took 7 years after that for gold to see the same price again!! Even now the return is very low.

Value vs. price paradigm: market risk is very high when this is not clear

Investing without understanding value vs. price paradigm is the biggest risk. We need to understand and make estimate of value before we pay a price. We will be discussing this in greater detail later.

Frenzy & fads, IPO fever

One of the signs of a rampant bull market is that analysts begin to give all kinds of theories to justify valuation. We need to stay away from such frenzy or fads. Also, during frenzied bull markets, IPO fever catches on and many shady companies or promoters take advantage of the same. We need to be very careful about the same. Investing in an IPO without reading

sufficient information about it through a Red Herring Prospectus (RHP) is a common mistake made by investors. This is a high risk strategy. Better avoid it.

Concentration risk

Following types of concentration should be avoided:

Timing concentration

Investing a large sum of money in one go in equity markets, particularly when the markets are overvalued is a big risk. It may take years before we are able to see any return on such investment. Hence, we need to be careful.

Security concentration

Investing in one particular share or security as a very large proportion of our investment is a high risk strategy. It can pay off if that particularly entity is well monitored. However, any adverse event with that entity or shift in competitive scenario or technology can create damage which may be difficult to reverse and may go unnoticed. Hence, this should be avoided irrespective of the lure of high returns, unless you have a strong monitoring mechanism.

Index funds are an exception because investing in them also provides a diversification opportunity.

Industry concentration

Diversification by investing in many entities belonging to the same industry is of no use and should be avoided. Any issue with that industry can impact the entire portfolio.

Geographical concentration

This is not so much relevant for retail investors. For institutional investors who invest globally, they need to distribute their investments across geographies and avoid concentration.

Credit risk/default risk

Critical in fixed income instruments

Credit risk assessment is very important before any investment is made in fixed income instrument like a deposit or bond issued by whether a bank, NBFC, or a manufacturing company. As small investors, we need to invest only in instruments of those companies which enjoy a high credit rating (at least AA) and have sound business and conservative financial strategy.

Lure of high fixed returns can erode capital

Anyone offering a 'out of the market' high return is a sure invitation for high risk of eroding capital. Don't get carried away by high blitz marketing campaign, seminars or offers or sweet talking relationship managers. All that will disappear at a later date when the game is out in the open.

False comfort of proximity, relationships

Sometimes people keep deposit in a bank which is convenient and close by. While that is a good reason, that is no substitute for diligence on their financial strength. We need to give high priority to the diligence on the financial strength of the bank. Personal relationships with bank staff is important but those relationships can be very flimsy too. Don't get carried away.

Investing in stocks with high debt, high leverage

Credit risk applies to fixed income investing. However, indirectly we get exposed to it when the company whose shares we buy, has borrowed a large amount of debt. Equity owners take more risk than lenders and hence all the residual (balance) risk lies with equity owners. Hence, we need to be careful before we invest in businesses with high borrowings. Exceptions are banks and NBFCs who need to borrow money by way of deposits since money is their key raw material. In case of banks & NBFCs we need to keep an eye on their financial strengths also.

Information asymmetry

Information asymmetry means information gap or lack of sufficient information before investing. Information gap is very risky. Don't invest if you don't have sufficient information is the simple golden rule.

Investing based on a third party advice without any diligence can lead to information gap between the recommending person's motive, knowledge and viewpoint and what the investor's priority is. Never take a third party advice blindly. Someone's (particularly one whom you trust) recommendation is a good starting point but our diligence can't be substituted with it.

Investing method related issues

Lack of investment tracking

Keeping track of investments and their return performance is vital. I have provided the tool to you. Please use it actively to keep track of your returns.

Investment compartmentalization by goals rather than asset potential

I observe that many investment planners talk about goal based investing. It results into compartmentalization of your investment and sub-optimal returns. Our goal is simple. We need to ensure that we are in that asset class, which for our risk appetite, has the highest potential to give returns. With it, we can meet any goal.

Systematic Investment Plan (SIP)

SIP has been propagated as the right way of investing on the basis that no one can time the market. It is said that time in the market is more important than timing the market. I respectfully disagree. We need to do both. Please see the below video for my perspective on SIP: **SIP: Myths & reality**

<https://www.youtube.com/watch?v=wu-NgEofnY0&t=1046s>

Rigid asset allocation

Sometimes standard prescriptions are provided, linked to age of the person, about how much should be in different asset classes like equity, debt, real estate, liquid funds and gold. This rigidity is unnecessary and inefficient. We need to understand the factors that drive the markets and align our investments accordingly. They have nothing to do with age etc. Asset allocation should be linked to the potential of an asset class to provide excellent returns.

Frequent trades, without conviction

Frequently churning our investments without conviction is not necessary. There may be days that we may not have to act at all. There may be days when we may have to act quickly when there are market absurdities, misalignment between price and value. We need to gradually develop this art.

Leveraged positions through F&O

Futures & options are called as derivatives, whose value is derived from the performance of underlying securities: specific share or market indices. Derivative positions often result into magnifying results: they magnify our gains but also losses. Unless we have developed control on the current situation of our investments, we should not open another front through F&O, which often brings a very short-term focus. We need to handle what we can comfortably chew. As a disclosure, as of today, I am not active in the F&O segment at all.

Borrowing money and investing in stocks

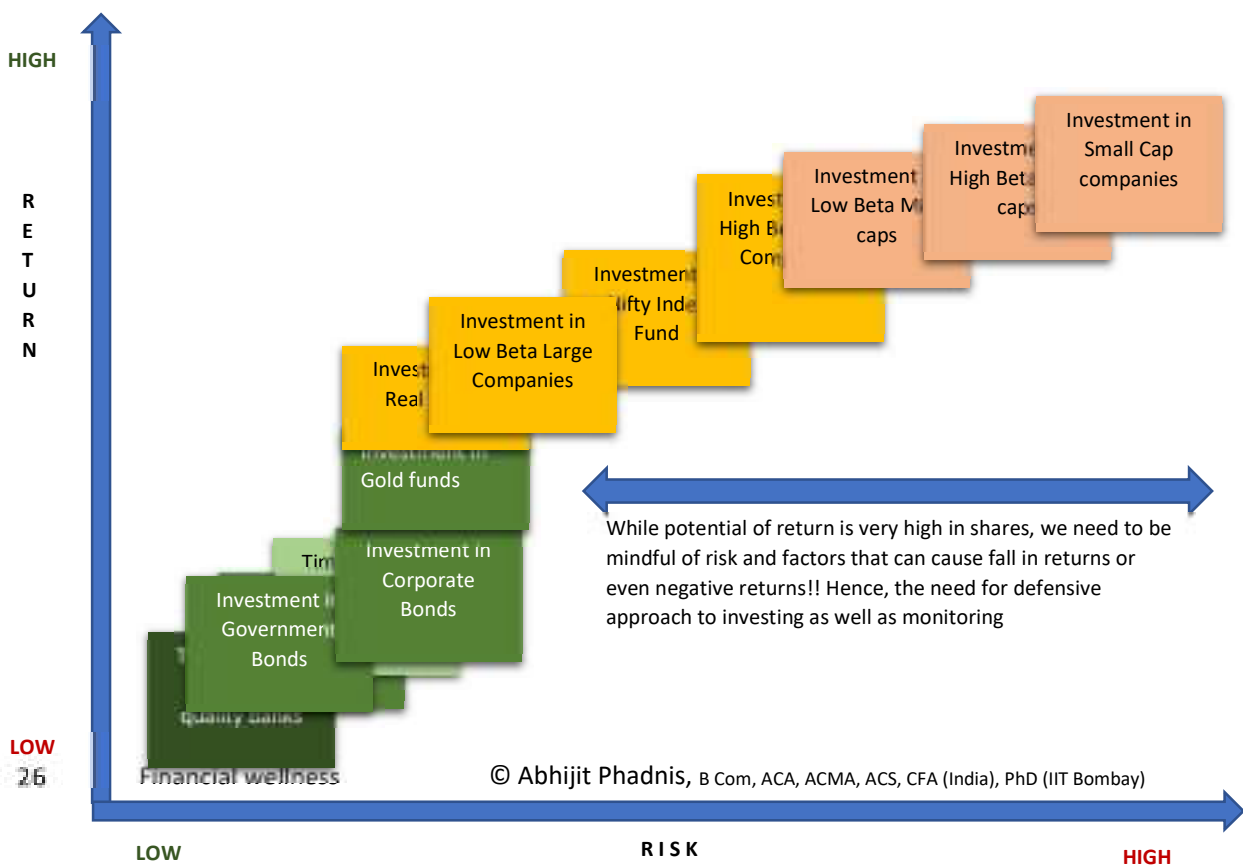
For me, this is a clear no no. Invest in stocks only with your money. Leveraged positions i.e. buying shares out of borrowed money can create enormous amount of panic during market falls and thus, massive losses too.

Principle 9: Gradually climb the risk, return tree; do not hurry

Risk return profile of investment avenues:

| No. | Investment avenue | Risk | Return | | Investment avenue | Risk | Return |
|-----|---|--------|----------------|----|---|-----------|-------------------|
| 01 | Time deposits with high quality banks | Low | Low-Medium | 09 | Gold, Gold funds | Low | Depends on timing |
| 02 | Postal deposits | Low | Low-Medium | 10 | Real Estate | Medium | Depends on timing |
| 03 | Time deposits with low quality banks | Medium | Medium | 11 | Investment in low beta large cap companies | Medium | Medium to high |
| 04 | Company deposits with AA+ rating or above | Medium | Low | 12 | Investment in index fund | Medium | Medium to high |
| 05 | Company deposits with low rating | High | Medium | 13 | Investment in high beta large cap companies | High | Medium to high |
| 06 | Government bonds | Low | Medium | 14 | Investment in low beta mid cap companies | High | Medium to high |
| 07 | Corporate bonds with high credit rating | Medium | Medium to high | 15 | Investment in high beta mid cap companies | Very High | Low to very high |
| 08 | Corporate bonds with low credit rating | High | Medium to high | 16 | Investment in small caps | Very high | Low to very high |

Risk & return tree



In case of gold & real estate, the market cycles are long and hence timing matters a lot. In case of bonds & equities also timing matters. However, since the cycles are relatively much shorter, the returns can come back on track quicker as compared to gold & real estate.

Principle 10: Understand the factors that influence investment returns in different assets

Please see below tables for different asset classes such as equities, bonds and gold.

Factors influencing Indian equities (shares)

| Factor | Positive | Negative |
|---|--|--|
| Domestic interest rate environment | Rates moving lower | Rates moving higher. However, for low debt companies it is an opportunity |
| Global liquidity | Easy | Tight |
| Stability in foreign exchange markets | Stable, good foreign exchange flows | Instable, capital flight |
| Military conflicts creating stress on availability of materials | Low conflict period | High conflict period |
| Weak Rupee | Good for exporting companies | Bad for importing companies and those with heavy foreign currency borrowings |
| Fiscal Deficit position | Low deficit | High deficit |
| Weather situation | Favourable: rural consumption | Unfavourable |
| Inflation | Uncertain, depends on pricing power | Uncertain |
| Global growth | Low/ uncertain growth: oil | High growth |
| Domestic growth | High growth | Low/ uncertain growth |
| Structural reforms | Reforms that favourably change the underlying economic performance | Lack of reforms momentum |
| Political stability, central – state coordination | High stability helps the market | Low stability creates uncertainties |

Factors influencing bonds in India

| Factor | Positive | Negative |
|---------------------------------------|-----------------------|---------------------|
| Domestic interest rate environment | Rates moving lower | Rates moving higher |
| Global liquidity | Easy | Tight |
| Stability in foreign exchange markets | Stable | Instable |
| Fiscal Deficit position | Low deficit | High deficit |
| Inflation | Low | High |
| Global growth | Low/ uncertain growth | High growth |
| Domestic growth | Low/uncertain growth | High growth |

Factors influencing gold prices in India

| Factor | Positive | Negative |
|--------------------------------|--|-------------------------------|
| Global factors | High risk environment, risk-off, currency crisis in a major domain | Low risk environment, risk-on |
| Global liquidity | Easy | Tight |
| Domestic factors | Political instability, chaos, conflicts | Political stability |
| Customs duties | High | Low |
| Dollar Rupee exchange rate | Weak Rupee | Strong Rupee |
| Domestic Inflation | High | Low |
| Other investment opportunities | Low | High |

Principle 11: Focus on graduating to higher overall return

You can see the video on this subject for greater details : <https://youtu.be/IGjvQBdT6tY>

Investor categories and their returns !

| Rate of return (column), Investment approach (rows) | Time Deposits /MMFs | Govt Bonds/ Gilt Funds | Corp Bonds/ Debt Funds | Gold | Balanced Funds: Debt & Equity | Managed Equity Funds | Index Equity Funds | Shares | Overall Return Potential |
|---|---------------------|------------------------|------------------------|------|-------------------------------|----------------------|--------------------|--------|--------------------------|
| | 6% | 7% | 8% | 9% | 12% | 15% | 16% | 20%+ | |
| Traditional Investor: stays away from markets, loves gold | 80% | | | 20% | | | | | 6.6% |
| Conservative Investor who steps out of deposit comfort zone | 60% | 10% | 10% | 20% | | | | | 6.9% |
| Curious Investor who is seeing potential of equity but not still sure | 40% | | | 20% | 40% | | | | 9.0% |
| Investor who gradually exposes to equity but very risk averse | 40% | | | 20% | 20% | 20% | | | 9.6% |
| Investor who begins to focus on equity opportunity | 40% | | | 20% | | 40% | | | 10.2% |
| Investor who begins to understand equity market behaviour | 40% | | | | | | 60% | | 12.0% |
| Investor who begin to focus on stock specific opportunity | 20% | | | 20% | | | | 60% | 15.0% |
| Investor who enjoys stock market ride | 10% | | | 10% | | | | 80% | 17.5% |
| Exploits full potential of equity as a massive compounder | 5% | | | 5% | | | | 90% | 18.8% |
| My current allocation (can change once I get less bullish ☺) | 2% | | | 2% | | | | 96% | 19.5% |

Financial planners love to recommend based on risk appetite & age: In my view, we don't have to follow that rigidity. It is not about risk appetite. It is about understanding the risk and creating ways to manage it. Once we are able to do that, we can create an upside in returns and prudently allocate more to equity shares. We will be discussing in greater detail later.

What we clearly see above is that if we make a conscious effort to understand risk and manage the same, we can easily climb up the risk-return scale and improve our overall returns.

Principle 12: Investing through mutual funds is a great option

If you do not have the time to directly invest in instruments such as shares, bonds, debentures, investing in mutual funds and creating simple portfolios is a great option. Following are the features of a mutual fund.

A common pool of money

In which the investors place their contributions

These are invested in accordance with a stated objective

Objectives include: asset class/es, duration, risk profile

Ownership of the fund is joint or “mutual” (belongs to all investors collectively)

A single investor’s ownership is only to the extent of his/her contribution

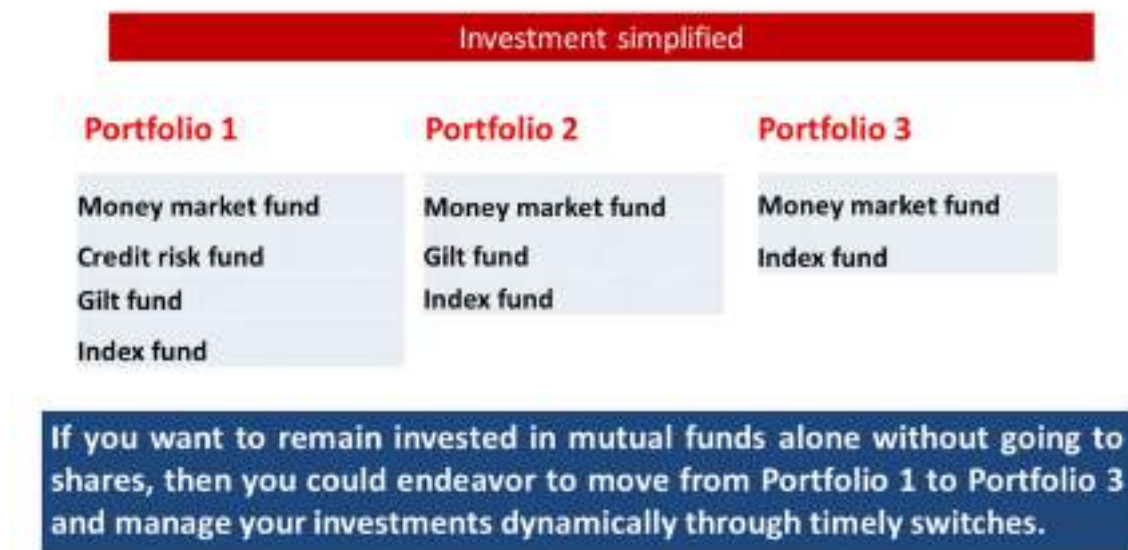
Units are bought and sold at the NAV: Net Asset Value

Principle 13: Create simple portfolios by following the below principles:

- Invest in Open ended funds
- Direct schemes instead of through advisors
- Index fund, in case of equities, preferably Nifty plan
- Distribute across 4, 3 or 2 scheme categories depending on your risk understanding and willingness to manage it actively
- Don't fall prey to complicated schemes, schemes which combine asset classes
- Observe the market movements & invest: don't go for SIP

During the session, we have discussed the rationale of two portfolios (of 4 schemes) which were managed on a 'steady-state' basis without much intervention i.e. without selling one set of units in favour of another. Gilt Fund & Credit Risk Fund will have an inverse relationship with interest rates. Money Market (Cash Management) Fund will give returns in line with interest rates. Thus, these will compensate for each other. Index Fund Nifty Plan provided an additional return without exposing to too much of risk.

Following are the three ways in which you could create portfolios:



Simple yet powerful strategies could be woven around four different type of funds depending on the investor needs:

| Fund | Risk Profile | Purpose |
|-------------------|-----------------|---|
| Money Market Fund | Low | High liquidity, alternative to FD, useful to exploit opportunities, steady growth, relatively low returns, quite linked with treasury bill rate |
| Gilt Fund | Moderate | Play on falling interest rates: does well when rates fall. But there is credit risk. Good if invested in high quality companies. |
| Credit Risk Fund | Moderately High | Play on falling interest rates. Safe among debt funds. No credit risk since bonds issued by government. |
| Index Fund | Moderately High | Play on the economic growth. However, there is higher fluctuation as compared to gilt or credit risk funds. |

Considering the above, it is not appropriate to follow an SIP system but rather study the market movements and then invest.

SIP can work relatively well only in the following scenarios:

- a. This method of investing is for small amounts i.e. those who have small savings, say a couple of thousand per month. They can use this method more as a Systematic Saving Plan than a Systematic Investment Plan.
- b. Controlled SIP for new learners: You are deciding the day to invest every week. For example, those who have no exposure to equities and less understanding of the stock market movements, I have recommended 0.2% of your savings every week for next one year till you get a good handle on the market movements. Once you get a good idea in a year's time, you should learn to pick up better times to invest in market rather than investing round the year.
- c. Smart SIP for those who are focussed on market movements: During collapse of the market, we can invest a pre-determined amount every day for a few weeks since we don't know the exact bottom. Similarly, we can sell during market exuberance in a staggered way as above.

Following is my video on SIP: <https://www.youtube.com/watch?v=wu-NgEofnY0&t=1046s>

Following points could also be noted:

1. All four schemes are good from the perspective of getting exposure to four broad categories of mutual funds.
2. **Those of you who are senior citizens, may like to restrict only to the following three:**

- a. Money market fund (also called as liquid fund)
- b. Gilt Fund
- c. Index Fund

3. Those of you who begin to master the art of monitoring & taking advantage of market movements can even manage with only the following two schemes:

- a. Money Market Fund
- b. Index Fund

Money can be easily moved from one to the other. However, depending on the quantum, there would be a tax implication. Even then this strategy could work well to maximize returns in the long-term with utmost simplicity. Also, it is not necessary to buy or sell off all units in one go. It can be done in a staggered period of a couple of weeks since no one knows exact bottom or exact top. However, there are enough signals to catch the status of the market.

When you invest in Credit risk fund, you have to be aware about the risk profile of the bonds in which the fund invests. Higher the credit rating, lower the risk profile. Ensure that the fund that you invest in invests in bonds which have at least AA credit rating.

Principle 14: Learn & factor time value concept to take appropriate investment decisions

Concept of time value is central to investing. The concept makes a distinction between 'amount' and 'value'. Amount does not have a tag of time. But value has a tag of time i.e. it is expressed with reference to a specific time, either today, past or future. Amount with a different time tag has a different value. Let us take an example. The value of Rs. 1,00,000 that is to be received today is very different from the value of Rs. 1,00,000 that someone has promised to pay you say 2 years later. The value **TODAY** of the second Rs. 1,00,000 to be received 2 years later is much less than the Rs. 1,00,000 to be received today itself, since we are losing an opportunity to invest that money for two years.

In arriving at value of any investment or asset, the above principle of looking at today's value of future cash flows is used by making a suitable time adjustment.

This loss of opportunity is called as an opportunity cost. Will it be the same for every investor? No. For someone who is not used to investing in shares and rather deposits money only in fixed deposits of the bank, the opportunity cost would be low at say 6%. For someone who has gradually mastered the art of investing, the opportunity cost is going to increase. For astute private equity investors, who invest in unlisted companies with great potential, it could be 22% to 25%. For a venture capital investor, who invests in start-ups, the benchmark could be even higher at 30-35% since the risk is high but the investor has mastered the art of picking up winners.

Formulae for using time value

- Compounding is core to time value idea
- When an amount invested today is to be received later, the concept of interest is used, for example in a cumulative deposit.
- When we move forward in time, to arrive at future value, we apply the formula:
 - $F = P \times (1 + r)^n$
- F is Future Value, P is Present Value, r is the rate of interest/ return/growth, n is the number of periods.
- Both r and n can be expressed in terms of any suitable period such as year, quarter, month, days. **We need to ensure that the two (r and n) are consistent with each other.**
- Amount to be received later, if preponed: the concept of discount is used such as in bill discounting, where money is normally to be received from a customer a few months later but the collection is preponed with the assistance of a bank.
- When we want to come back in time i.e. arrive at the present value from a future value: $P = F / (1 + r)^n = F \times 1/(1+r)^n$.
- Interest and discount are two sides of the same coin and are used in opposite directions. Interest is used when we move forward in time whether today to future or past to present. Discount is used when we move from future to today or from today to past.
- As you can see above, in calculating the future value factor $(1+r)^n$ is involved. In calculating the present value the inverse of this factor viz. $1/(1+r)^n$ is used.
- Please see the Appendix 3 for time value based practical examples.

Every investor must try to maximize value and that should be done in two ways:

- a. Receiving cash flows as early as possible, as they provide us an opportunity to invest. Also, not receiving early means an opportunity lost or opportunity cost. We could have done something with that money.
- b. Continuously and judiciously investing cash flows received rather than letting them remain idle

Time value tables

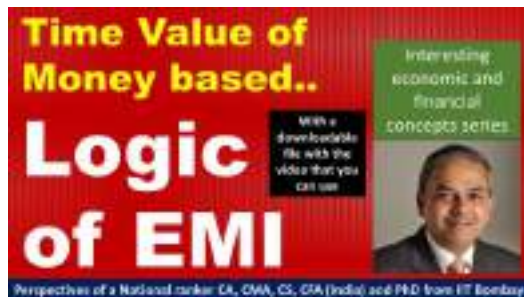
As we saw above, in the compounding formulae, we use either $(1+r)^n$ or $1/(1+r)^n$ depending on the direction in which we need to move numbers.

I have provided separately, in an excel file, 6 tables to you: 3 future value and 3 present value at different cycles of compounding: annual, quarterly, monthly for you to use them in decision making. You can also use them in solving examples in Appendix 3.

Remember, these tables are calculated using 1 Re. as the principal amount and hence they give us pure factors for the above calculations for different periods of time and different interest rates. You can simply multiply these factors to the problem at hand (to the future value F or present value P, as the case may be) and solve it.

Time value calculations help us to sharpen the use of the above simple ideas. Please see **Appendix 3** for examples of how time value concept can be applied in practice.

Please also see the following video if you want to see how time value concept is used to derive EMI:



Link:

<https://www.youtube.com/watch?v=MjLjnk7FTSc&t=2778s>

Deriving rate of return based on time value idea

Let us understand this with an example.

Say an NAV of a unit on 31.3.21 was Rs. 239.62

The NAV as on 31.3.11 was Rs. 85.85 when the investor invested in it.

Rate of return is that rate at which the NAV has grown over the last 10 years on an average!!

It can be calculated by using the formula $F = P \times (1+r)^n$ where F would be 239.62, P would be 85.85 and n would be 10. We need to solve this equation for the value of r. It can be solved using this formula.

Alternatively, we can derive it directly as follows also:

Rate of Return (Let us say r) = $(\text{Ending amount (F)} / \text{Starting amount (P)})^{(1/n)} - 1$

You will see that the above formula is also based on the same principle as calculation of compounded interest. Let us see how.

Ending amount (F) = Starting amount (P) $\times (1 + r)^n$... our typical future value formula

Ending amount / Starting amount = $(1+r)^n$

$(\text{Ending amount} / \text{Starting amount})^{(1/n)} = (1 + r)^n^{(1/n)} = 1+r$

$(\text{Ending amount} / \text{Starting amount})^{(1/n)} - 1 = r$

$r = (\text{Ending amount} / \text{Starting amount})^{(1/n)} - 1$

In the above example, $r = (239.62 / 85.85)^{(1/10)} - 1 = 10.81\%$. This is geometric average and not arithmetical average.

While selling financial products, sometimes deliberately arithmetical averages (simple interest) are used instead of using geometric average (compounding principle). But simple interest formula cannot be used since interest is not given to us during the period and is given only at the end of the period.

The way it would be (wrongly) calculated is as follows:

$$\text{Rs. } 239.62 - \text{Rs. } 85.85 = \text{Rs. } 153.77$$

Growth over 10 years is the above, hence per year Rs. 15.377.

On the base of Rs. 85.85, the Rate of Return would work out to 15.377 divided by 85.85 = 17.91%. Is it correct?

No, it is utterly wrong.

Remember, in financial calculations, we should use geometric average based on compounding principle, not an arithmetical average as wrongly calculated above.

Principle 15: Cash management and mind management are key to successful investing

Cash management is making sure that money is available to meet our varied needs. They range from our day to day expenses to investment needs. Cash management is important since that is a hygiene factor on which we can build the super-structure of investing.

Cash management has following dimensions:

- a. Having a plan to manage cash flows to be able to comfortably meet pay-outs over next 12 months
- b. Ensuring sufficient savings account balance to be able to meet ongoing expenses
- c. Ensuring that we don't have any defaults for meeting our recurring obligations: EMIs, utility payments, credit cards by ensuring cash is available on due dates. You need to protect your credit score.
- d. Investing money in such a way that the same could be easily made available when we need for exigencies
- e. Investing money in such a way that the same could be used when there are opportunities to invest, with potential for high gains.
- f. Investing money to ensure that there is an investment discipline and we don't overcommit in a rush. (Remember I spoke about my Covid video, how I have suggested the financial discipline I followed during the early part of the pandemic!).
- g. Here is a link to the video: <https://www.youtube.com/watch?v=gxziDoFgPTc&t=1057s>

Savings accounts

I recommend holding two savings accounts. One account which is our central account which may be mapped to our investment records. Let me call it as primary account. This should be with a high quality bank where you can even open time deposits. Internet-based access to this account is very vital so that you can easily do all your investment transactions.

The other, secondary account, should be used based on ease of physical access with other frills such as safe deposit vault. Again it should be with a high quality bank. Could be a co-operative bank too with high performance parameters.

When a cheque is required to be given to say your housing society or vendors or 'cancelled cheque' may be required to be given to entities other than your brokerage or mutual fund accounts, always give it of the secondary account and never of primary account. This precaution is always warranted.

Make online payments or through UPI as much as possible so that your bank account details are not out in the open.

How do we handle our credit cards?

Multiple credit cards have a potential to create credit indiscipline and also risk of overspending. Better to have one credit card. It is good to ensure that our monthly spending is much lower than the credit limit. Unutilized credit limit itself becomes a source of liquidity for us to meet exigencies. You can have more add-on cards for family members linked to the same main card.

Time deposits vs. Liquid Funds

Time deposits are not tax efficient and generate a very low effective return. Hence we need to use time deposits only for management of our short-term commitments. We can keep them for short-term maturities in a way that coincide with our commitments. I keep them for maturities during the same financial year and come new financial year, I again keep deposits which can help me to do management of commitments. These deposits on maturity are credited to the bank account and thus, any debits to the bank account can be comfortably managed. Liquid funds are a better option to generate more tax effective returns. One should create a pipeline in one liquid fund where over a period, i.e. once you cross 3-years you can avail of tax-effective withdrawals. Once the threshold of 3 years is completed, you avail of the advantage of long-term capital gain which is taxed at a lower rate.

Mind management

Mind management is very essential when one invests in equities since they are subjected to a fluctuation for market as a whole and individuals share can move even more than equities indices. We should only take only so much of exposure to equities that we can be still comfortable even if there is a significant fall, even due to a black-swan event like Covid which was quite unexpected. Also, defensive investing techniques are very important. You may see YouTube videos for the purpose.

One way of managing mind is to see the current market in historical perspective as there is always a mean reversion that is at work. Mean reversion implies that even if market falls

dramatically, it will come back to reasonable level soon. We experienced that during the Covid pandemic.

Historical events and Nifty @17,026 on 26.11.2021

| | Date | Nifty | Years | 13% | 14% | 15% | 16% |
|--|------------|-------|-------|--------|--------|--------|--------|
| Massive 2004-2007 rally, January 2008 | 15-01-2008 | 6287 | 13.78 | 34,225 | 38,672 | 43,650 | 49,218 |
| Lehman brothers collapse October 2008 | 15-10-2008 | 2524 | 13.03 | 12,536 | 14,072 | 15,780 | 17,677 |
| Intermediate top January 2010 | 15-01-2010 | 5281 | 11.78 | 22,511 | 24,991 | 27,719 | 30,718 |
| Foreign Exchange below \$300B: August 2013 | 15-08-2013 | 5285 | 8.20 | 14,543 | 15,643 | 16,817 | 18,067 |
| PM Modi comes to Power: May 2014 | 15-05-2014 | 6858 | 7.45 | 17,223 | 18,406 | 19,658 | 20,983 |
| Exhaustion of the rally: March 2015 | 15-03-2015 | 8922 | 6.62 | 20,240 | 21,471 | 22,765 | 24,126 |
| Correction bottoms out: February 2016 | 15-02-2016 | 6987 | 5.69 | 14,160 | 14,900 | 15,671 | 16,475 |
| Demonetization bottom: December 2016 | 15-12-2016 | 7900 | 4.86 | 14,462 | 15,106 | 15,773 | 16,463 |

How do we interpret the above data?

1. In 1st column major events have been listed. In the second one the Nifty level on closing basis on the worst day or the best day around that major event has been listed. The number of years since the event upto 26th November 2021 have been listed in the third column. In the columns thereafter the compounded value of Nifty has been calculated and reported. This is calculated using the time value formula discussed earlier.
2. We can clearly notice that if we consider those periods which were low points in the market, our current Nifty level is higher than those and all such compounded values have been indicated in red.
3. However, as compared to the events around the stock market collapse as can be seen above, Indian economy is far more resilient today as a number of reforms have already been rolled out.
4. At the same time, if we were to take high points of the market and arrive at their compounded value, those numbers are much much higher than current levels in the market.
5. On balance, we see that the market is closer to the lower end than to the higher end.
6. While markets may underperform the economic growth due to many challenges on the way, they may do a massive catchup in a relatively short-time.
7. The above data gives us a comfort that in view of the following reforms or developments, equity markets are better placed to grow from here:
 - a. GST: a nationwide tax
 - b. Impetus to digitization

- c. Improved governance, improving ease of doing business
- d. Low corporate tax rates
- e. Lower inflation & lower interest rates
- f. Affordable oil from India's perspective
- g. Labour reforms
- h. Impetus to agriculture and rural development
- i. Improving infrastructure
- j. NPA challenges gradually getting sorted or sufficiently provisioned
- k. Unprecedented surge in forex reserves, as world majors are betting on Indian market through FDI

Please see my video below to review this in great detail and also to download an excel file for your use later: <https://youtu.be/Ro72hmD6pDA>

Principle 16: Trusting the power of Indian economy is more valuable than trusting any institution in India

Often people develop relationship of trust with some banking and other institutions. The trust is so deep that they land up in investing large sums of money with them in the form of deposits. There is also this fixation on receiving a defined return and thus, investors often prefer fixed income instruments rather than equities. They do not realize that these institutions use the money received by way of deposits to lend to needy borrowers whose entire business case is based on growth. Thus, these institutions benefit from the business growth delivered by their loan customers and in turn benefit out of an expanding credit portfolio. Thus, their profits also go up quite significantly as their customer franchise is growing, in line with economic growth. Thus, their equity investors benefit out of this growth whereas the depositors don't get to participate in the growth story.

The underlying premise for any lending institution is that the economy in which the business of the borrowing customer is operating is going to grow. If that is not the case, which business in the economy would grow and would be able to repay the loan?

But, the depositors psychology is a little funny. They are very fixated on bank's financial strength for security of their deposits. However, they don't trust the economy's growth story which would enable them to generate a much superior return by investing in equities.

We need to change this mindset.

Principle 17: Learn the dynamics of markets and their impact on us

We saw above four charts: oil, treasury bills yield, yield on 10-year government securities and gold. In all cases, we noticed that there were always fluctuations even in situations where there was a clear trend. The dynamic of all these trends is impacting even those who wish to

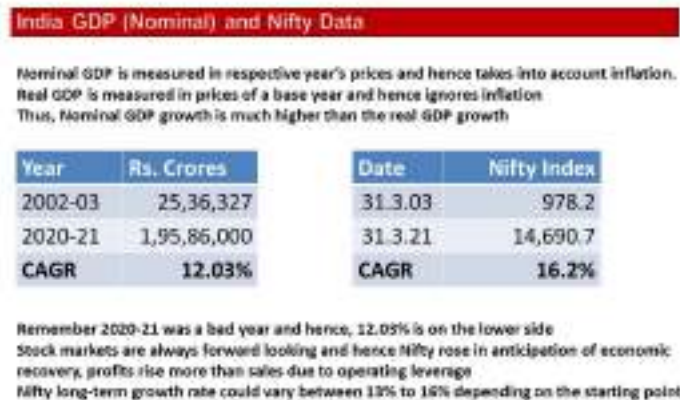
stay away from any market. Even the depositors are impacted by various changes and trends though they may not be observing or participating in the markets of any kind.

When we invest in any asset, it is very important that we understand the market dynamics. You can see below the stock market chart and you can clearly see that while it is continuously rising, there are a lot of fluctuations.

If we invest time on why these fluctuations happen, it can give us a very good clue to improve our return on one hand and protect us from extremes such as greed and fear.

Predicting the market moves is not easy. As we become keen observers, we improve our chances of getting it right with high probability. There are sufficient signals of the trend changing. They are beyond the scope of this course. I discuss those as a part of the equity investing course.

Principle 18: Equities is a surely way to build wealth; within that there are simpler ways too



- Nifty has given a 16% return over a 17-year period beginning from 31.3.2003: we have already seen the data above. From different dates as starting point, it could range between 13% to 16%.
- We can easily take advantage it by investing in Nifty Index fund.
- Can it continue to give 13% down the line also? It depends on the economy.
- Is our economy likely to grow at 12% like the past?
- 7% real growth + 5% inflation adds up to 12%
- With major reforms behind us, is it an impossibility?
- Not at all..
- Post covid, we may also become a manufacturing hub
- Investing in individual stocks can improve the return much more than the index

Features of equity investing

- Very distinct from fixed income investing

- No contractual assurances about either dividend or about capital appreciation
- Assessment of value is subjective: varies widely: hence there are sellers and buyers at the same time
- High risk, high return paradigm
- Dividend + capital appreciation: capital appreciation is the bigger driver, more than dividend
- Great thing is that it is very closely linked with the economy & growth and hence provide returns in sync with economic progress. In case of India, it is
- Index funds are an easy way of investing in equities

Principle 19: Impeccable record-keeping is vital to investing decisions

I have shared with you separately the file 'Investment Monitoring Template'. In this file you need to capture the following data once:

- Capture the scheme names in the cells A2 to A5 in the Template for 4 schemes and A2 to A4 in the template for 3 schemes.
- Once you populate the scheme names in the above cells, the file would automatically populate the names in the lower section so that you don't have to repeat filling the name.
- Against the respective scheme, you will need to capture the purchase data. You can add lines if you want. This can be used for filling SIP data also.
- Once you enter the current NAVs in the cells C2 to C5 and C2 to C4 as the case may be, and the date in the cell D1, you will get the ready calculation for your rate of return etc.
- If you are comfortable with Excel, you can expand the worksheet for more than 4 schemes or shares. Otherwise, you can simply replicate the sheet multiple times to capture your multiple schemes.
- This file would make sense for growth schemes rather than dividend schemes.**
- For dividend schemes, you can construct a template based on the IRR method explained to you.
- When you sell any units or shares, you can remove that line or reduce the number of units so that the file only retains the latest status. For the sold shares, you need to keep record of capital gains for taxation purposes.

You can also see my video in that regard which explains in greater detail:

<https://youtu.be/5plE7Kot9lw>

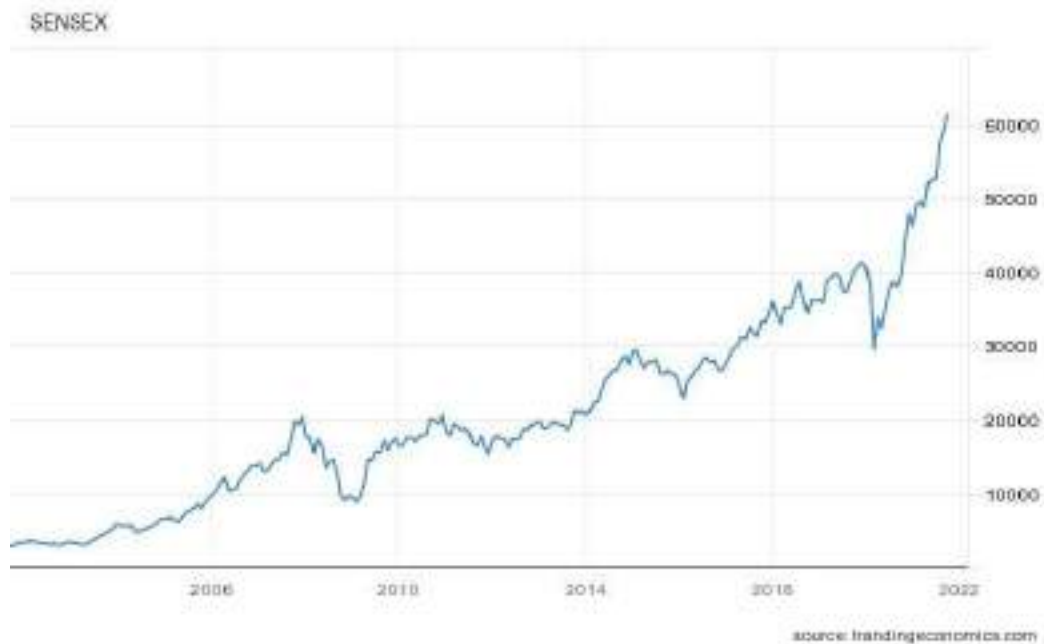
Principle 20: Learn the dynamics of markets and their impact on us

We saw above four charts: oil, treasury bills yield, yield on 10-year government securities and gold. In all cases, we noticed that there were always fluctuations even in situations where there was a clear trend. The dynamic of all these trends is impacting even those who wish to

stay away from any market. Even the depositors are impacted by various changes and trends though they may not be observing or participating in the markets of any kind.

When we invest in any asset, it is very important that we understand the market dynamics. You can see below the stock market chart and you can clearly see that while it is continuously rising, there are a lot of fluctuations.

If we invest time on why these fluctuations happen, it can give us a very good clue to improve our return on one hand and protect us from extremes such as greed and fear.



Predicting the market moves is not easy. As we become keen observers, we improve our chances of getting it right with high probability. There are sufficient signals of the trend changing.

The good thing about equity markets is that as long as the economy keeps on growing, equities as an asset class will keep on growing. Thus, by taking exposure to top companies through an index funds provides us a comfort that we have invested in the largest companies with sufficient diversification and therefore, despite down-moves in the market from time to time, the long-term trend remains impact and we get back to the growth path. Let us do some quick fact checks.

- Nifty has given a 16% return over a 17-year period beginning from 31.3.2003: we have already seen the data above. From different dates as starting point, it could range between 13% to 16%.
- We can easily take advantage it by investing in Nifty Index fund.
- Can it continue to give 13% down the line also? It depends on the economy.
- Is our economy likely to grow at 12% like the past?
- 7% real growth + 5% inflation adds up to 12%
- With major reforms behind us, is it an impossibility?

- Not at all..
- Post covid, we may also become a manufacturing hub
- Investing in individual stocks can improve the return much more than the index

When we invest in specific companies though, the impact of risks could be quite severe due to technological and competitive forces. Hence, investing in companies has to be done carefully. Investing in shares also is a rewarding activity if shares are monitored and exit decisions are taken when required.

Principle 21: What are the features of equity investing?

- Very distinct from fixed income investing
- No contractual assurances about either dividend or about capital appreciation
- Assessment of value is subjective: varies widely: hence there are sellers and buyers at the same time
- High risk, high return paradigm
- Dividend + capital appreciation: capital appreciation is the bigger driver, more than dividend
- Great thing is that it is very closely linked with the economy & growth and hence provide returns in sync with economic progress. In case of India, it is
- Index funds are an easy way of investing in equities

Principle 22: Critical success factors in equity investing

- Understanding & managing risks
- Remember most games are won by players & teams, which make the least mistakes, hence we have to be conscious of our mistakes
- Reduce noise in the information that we get
- Mind management & cash management are critical
- Understanding our limitations as retail investors is absolutely vital
- Above all, understanding the animal called as market

Principle 23: Understand the animal called as market

- Market is all knowing & all powerful
- Yet, there are pockets of ignorance
- Herd mentality at work: results in pendulum like behaviour
- It is painful to those who chose not to observe it
- It is very rewarding to those who learn to take advantage of it
- It also tries our patience sometime, but always rewards our conviction

Principle 24: It is important to understand the limitations of retail investors

- Let us accept, we retail investors have limited time to devote to investing since we have other responsibilities including professional, family or social.
- Hence, we need to make the best of it
- We have only about 30-35% information about a company, with whatever efforts we put in to track it
- Some investors (insiders, institutional investors) are far better informed than us
- Hence, defensive strategies are important
- Our value judgment may be often tested! Market may take long time to discover value! Cash flows drive prices!
- Accepting our limitations, what is that we can do to better our returns?

Principle 25: Be clear about your positioning while taking exposure on equities

Equity returns & avenues!

| Categories | Return performance |
|------------------------------------|---|
| Underperforming mutual funds | 80 to 92% schemes underperform the index due to stock selection issues & fund management costs |
| Index funds | Can generate market returns & retail investors can improve upon them through active entry & exit: pipeline idea |
| Better performing mutual funds | Close monitoring would be essential as there are uncertainties about performance; we cannot take it for granted |
| Smaller / purposeful portfolio | Concentration on some sectors or stocks or themes that you can master and monitor: watch for concentration risk |
| Under-researched stocks | Stocks that have not caught attention of fund managers, limited number of such stocks, typically small caps |
| Positional trades to improve value | Strategies to actively improve value without fresh investment of funds |

Principle 26: Beware of mistakes in equity investing

- Getting scared on market falls : exit in fear & desperation
- Succumbing to greed on momentum; retail investors' favorite trap: often 'greater fool' theory at work
- Buying stocks on analyst recommendations, tips, not on study or conviction

- Not selling at all: falling in love with your investments
- Rupee cost averaging strategy: allowing focus to go away from value
- Buying such a large number of assets that it is impossible to monitor & exit
- Mixing up investing with trading, worse speculation

Principle 27: Understanding concepts of value, price & cost is critical in equity investing

- Value is subjective; value is the ability of an asset to beat our return expectations
- Price is what is prevailing in the market right now: known to everyone
- Cost is the price we paid in the past, irrelevant but we like to hang on to it
- Investing is about Value vs. Price and NOT Price vs. Cost
- Obsession with Cost is a very big cause of risk
- Invest where value vs. price gap is highest in your estimation
- Don't hesitate to book losses & exit, if value is clouded
- Understanding this paradigm gives us wonderful switch opportunities, over time price catches up with value: but sometimes this journey could be painful

₹ ₹ ₹ ₹ ₹ ₹ ₹ ₹ ₹ ₹ ₹ ₹ ₹ ₹ ₹ ₹ ₹

Valuation

It is an estimate of the intrinsic potential of an asset to beat our return expectation.

Various approaches to this are possible:

| | | |
|--|--|---|
| <div style="background-color: red; color: white; padding: 5px; margin-bottom: 5px;">Cash flow based approaches*</div> <div style="display: flex; justify-content: space-around; font-size: small;"> <div style="background-color: green; color: white; padding: 2px;">Detailed Modelling</div> <div style="background-color: green; color: white; padding: 2px;">Dividend Estimates</div> </div> | <div style="background-color: red; color: white; padding: 5px; margin-bottom: 5px;">Relative valuation to peers*</div> <div style="display: flex; justify-content: space-around; font-size: small;"> <div style="background-color: green; color: white; padding: 2px;">Price / Earnings</div> <div style="background-color: green; color: white; padding: 2px;">EV / EBITDA</div> </div> | <div style="background-color: red; color: white; padding: 5px; margin-bottom: 5px;">Asset based valuation*</div> <div style="display: flex; justify-content: space-around; font-size: small;"> <div style="background-color: green; color: white; padding: 2px;">Real Estate</div> <div style="background-color: green; color: white; padding: 2px;">Investment Stocks</div> </div> |
|--|--|---|

*I will share videos on this subject in the learning note

© Abhijit Phadnis, ACA, ACMA, ACS, CFA (I), PhD

Please see videos in the additional resources section.

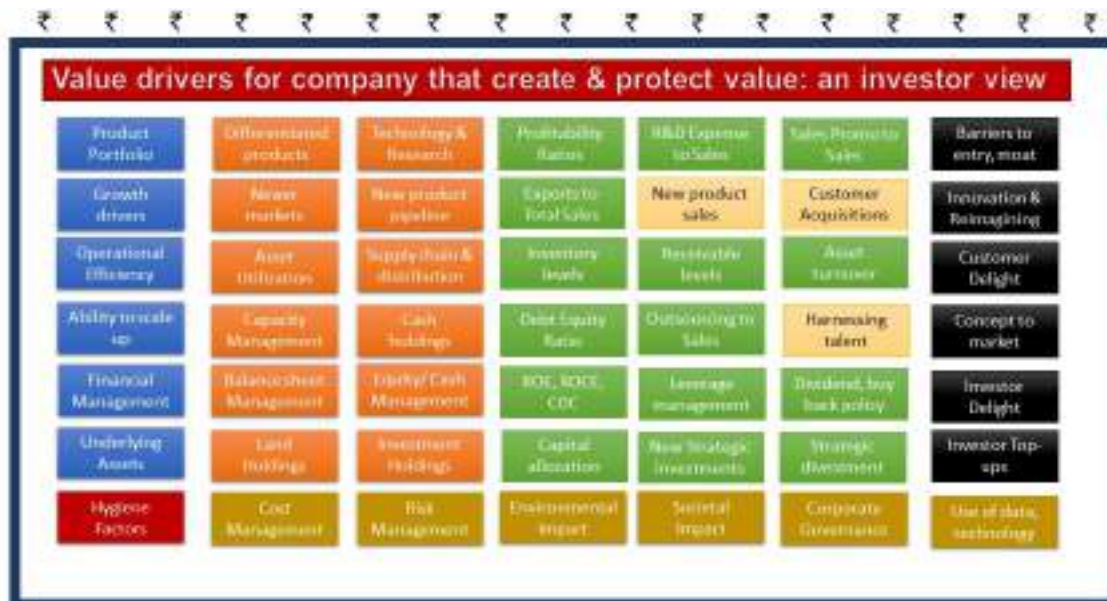
Principle 28: We need to be on the right side of greed and fear

- Greed is a result of the behaviour chasing returns, unaware of risks
- Market when greedy overestimates positive impact of an event
- Positive information flow and consequent cash flows also feeds into it
- Greed gets rationalized through valuation justification
- Greed brings in those who have limited understanding of market
- Fear creates an overreaction to some negative information
- Market pendulum may shift to another extreme
- Cheap can get cheaper feeding into fear further
- Not being carried away by both greed & fear is critical
- Being on the right side of greed and fear is the key to success: This implies that when there is a lot of greed around, we should exit our investments. When there is a lot of fear, we should open our purse to invest.

Principle 29: Ways to manage equity risks

- Focus on limited number of stocks
- Attend AGMs whenever possible, keep track of data flow: gmail alerts
- Be watchful about governance: don't go by name
- Diversification: maximum exposure should be to large caps
- Unless you are highly convinced, don't buy
- Don't go by tips, hearsay, market reports: beware of vested interests
- Don't take decisions based on declared financial results alone
- Invest time in looking at the big picture of economy & markets

Principle 30: We need to examine the potential of a company to create, protect & grow value before we invest in its shares



© Abhijit Phadnis, ACA, ACMA, ACS, CFA (I), PhD

Please see the below video which provides a detailed description of the above framework for assessing value drivers of a company: https://youtu.be/_rY9IjMCN_Q

Principle 31: Fundamental & technical analysis

Fundamental & technical analysis

Fundamental Analysis

1. Understanding economic events & trends
2. Industry level factors
3. Company dynamics & developments
4. Value estimation, modelling
5. Financial analysis
6. Governance
7. Insider activity
8. Useful in investing decisions

Technical Analysis

1. Price pattern
2. Volume
3. Stop-loss
4. Market turning points
5. Moving averages & cross overs
6. Confirmation of trend is important
7. Useful in trading decisions, can help in investing decisions also

I have included in the learning note, details of economic, industry, company analysis, please go through

It is important that investors know the difference of emphasis in the focus of the above two approaches. While the ideas discussed in this note are based on fundamental analysis, the author feels that understanding basic principles of technical analysis also helps in investing journey.

Quick recap of important points about care while investing in equities

- It is best for retail investors to be realistic, with limited information at disposal & other professional, personal priorities to attend to
- It is not just enough to get good returns from equities, it is equally important to create strategies to increase allocation to equities: that is possible only through defensive investing
- Limited number of shares well monitored, is much better than small investments in too many shares
- Equities provide growth potential primarily because of economic growth and also due to companies' ability to create value
- Focus on value vs. price and not on price vs. cost
- Equities cannot fall forever unless the economic potential of an economy is destroyed for political, demographic or geographical reasons
- Eliminating noise from information is important: That helps us to take an independent view than going by herd mentality and falling prey to it
- Be on the right side of fear & greed rather than on the wrong side
- If we don't have time to monitor companies, best is to be in index funds
- If we want to improve returns beyond the index, do all or any of the following:
- Invest in companies which have created strong barriers for competition (moat)
- Identify un-researched companies in sectors that you are comfortable with
- Create own strategies that can give you top up returns. I have discussed two that I use here in the note. One immediately follows: investing through holding & investment companies.

Principle 32: Explore investing through holding & investment companies

- There are three types of companies:
 - Holding companies without operating business
 - Holding companies with operating business
 - Investment companies

- Limitations on retail investors' ability to value shares due to information asymmetry as well as inadequacy of tools, works in favour of investing through this route
- Ease of establishing value vs. price paradigm, which is key to investing
- Discounts available & mind management
- Discount fluctuations provide a wonderful opportunity: cyclical & structural
- The NAV would also grow in time with the performance of underlying companies

Some of the well known, investment & holding companies

| | | | | | |
|------------------------------|------------------------------|--------------------------------------|-------------------------------------|--|--------------------------------|
| Aditya Birla Capital Limited | Bajaj Finserv Limited | Bajaj Holdings & Investments Limited | Balmer Lawrie Investments Limited | Bengal Assam Company Limited | Bombay Burmah Trading Co. Ltd. |
| Godrej Industries Limited | Grasim Industries Limited | Housing Development Finance Corp Ltd | JSW Holdings Ltd. | Kalyani Investments Limited | Kama Holdings Limited |
| Larsen & Toubro Limited | L&T Finance Holdings Limited | Maharashtra Scooters Limited | Mahindra & Mahindra Limited | Parsi Investments and Industries Corporation Limited | Rane Holdings Limited |
| Reliance Industries Limited | State Bank of India | Sundaram Finance Holdings Ltd. | Tata Investment Corporation Limited | These are by way of illustration only, you would be able to explore more if you do your own research | |

© Abhijit Phadnis, ACA, ACMA, ACS, CFA (I), PhD

Note: you need to study the above before you invest. I am not directly recommending any of these here. I have investments in 3 of the above holding companies, which I have built up over years after regular monitoring.

Suggestions on how to invest through this route:

- Understand the underlying companies held by the holding/investment company
- Annual reports, shareholding patterns, quarterly results provide us enough material
- Create a template for calculating current discount, I have a video on the same
- Check diversification possibility or concentration risk: multiple holding companies
- See their dividend pattern
- Section 80M change has the potential to boost dividend
- Zero on companies that give you a bouquet of growth & dividend

- Don't invest in companies which use dividends of one company in financing capex of another
- Track portfolios
- Diversified? Less worry
- Focused on group companies? Check your time to track a few underlying companies.
 - Prepare an excel file that you can update and check discounts: see the video
 - Discounts may vary widely providing an entry & exit opportunity
- Dividend potential is multiplied due to discounts: If a share is available at 60% discount then the dividend potential goes up $1 / (1-0.6)$ times = 2.5 times. This has become better due to Section 80M change

Principle 33: We need to understand why share prices behave the way they behave

- Equity prices are driven by demand & supply dynamics
- Demand & supply is driven by expectations, cash flows (investment) follow
- More the information availability, narrower the gap between value & price
- In such cases, price movements would be steadier unless there are extreme events
- Retail investors are vulnerable in such cases to analyst calls & noise
- In case of small, mid-caps: price moves are sharper, momentum driven & speculative
- Retreats from up moves are also very sharp in such cases: we need to en-cash
- Prices also get into a fatigue zone, where there is no investor interest for a long time
- They can provide an extended buying opportunity if you have conviction, but they may try your patience

Principle 34: Know the difference between weak hands & strong hands

We need to strive from being a weak hand to a strong hand.

Weak hands & strong hands

| Weak hands | Strong hands |
|---|--|
| Buy shares based on stray information like quarterly results, tips, analyst calls | Buy on conviction & study: they know the reason why they are investing |
| Very large portfolio, often in the name of diversification | Compact, well monitored portfolio |
| Lack of conviction both in buying & selling decision | Conviction gives clarity & decisive action |
| Nibbling in the market all the time, including IPOs | Occasional buying & selling but can be significant and quick |
| Sell in panic & buy on greed | Are able to take contrarian view, beyond the immediate |
| Lot of time in administrative activities, record-keeping | More time for investing strategy |

Principle 35: Understand the principles of managing fear

- Equity markets are linked with the economy & hence bounce back
- Provide for a 10% downside in your valuation at any point of time
- Buy only with conviction: opportunity loss is better than actual loss
- Exits create benchmark and helps in conviction buying: more about them later
- Invest in low debt companies; it gives you the same comfort as no loans on your head
- Always buy that stock which provides the best Value vs. Price paradigm
- See if you can bring your value estimate in your records: value is independent of price
- Look beyond the immediate challenge: my 20 videos in the thick of Covid pandemic: which I have released on my Marathi channel

Principle 36: Important financial parameters to look for while investing in equity shares

- Return on Equity > 20%, exception can be made if there are other value drivers like land or strategic stakes
- Inventory, receivable levels: show competitive position
- Operating cash flows: consistency, positive
- Investing cash flow, comfortable in the context of operating cash flows
- Free cash flow: need for investing all the time should be low
- Low debt: not more than 1 times the equity in any case

- Margin of safety of 40%: Current sales less break-even point: will create a video

Principle 37: Important financial parameters to look for while investing in equity shares

- Return on Equity > 20%, exception can be made if there are other value drivers like land or strategic stakes
- Inventory, receivable levels: show competitive position
- Operating cash flows: consistency, positive
- Investing cash flow, comfortable in the context of operating cash flows
- Free cash flow: need for investing all the time should be low
- Low debt: not more than 1 times the equity in any case
- Margin of safety of 40%: Current sales less break-even point expressed as % current sales

Principle 38: Watch for leverage & its impact

- Leverage arises because of fixed costs
- There are two layers of fixed costs:
 - Operating
 - Financial
- These two create two layers of leverage: Operating leverage & financial leverage
- Total leverage is operating leverage & financial leverage: Remember Kingfisher Airlines collapsed because of the play of leverage
- Care companies should take: Never build financial leverage when the operating leverage due to nature of business is very high.
- Care investors should take: Exit companies which aggressively borrow to expand during boom periods. Economic decline that would follow cyclically, would hit such a company very hard.
- Opportunity for investors at bottoms after price destruction has happened
- High leverage reflects in high beta: I have a video on the same, I will share

See Appendix 7 for a detailed discussion of leverage

Principle 39: Principles for exiting from markets: market signal is strong to exit

- Irrational exuberance often triggered by some event
- Exit % will depend on the scale of exuberance
- We have to factor tax implication of the exit, but still worth it
- Provides us a re-entry opportunity later which will compensate for tax

- 2007, 2010, 2015, 2018 all provided opportunity to exit, 2007 fully, others partially
- You now have a tool to measure the state of the market: please see the description box of video 2 for link to the video. I have also shared it in the note here.
- All kinds of valuation theories are thrown during boom
- Holding company discounts shrink dramatically

Principle 40: Exit from stocks

- Rapid, unexplained gains, driven by speculative momentum: small & mid-caps
- Aggressive decisions by management which build leverage at market peaks
- Governance issues that cloud value
- Other compelling opportunities: switches
- Sell in a staggered way, market can surprise you with upside
- During peak of market exuberance, sell high beta stocks first before others

Principle 41: Principles related to corporate actions

Dividend policy:

: Guided by future growth opportunities and expansion plans

: Liberal dividend without investing in future is risky for shareholders

: Low investment need and high operating cash flows is wonderful for shareholders

Bonus

: Bonus carries an emotional appeal among large number of shareholders

: Bonus signals confidence about the future, but don't buy just because of bonus

: Bonus does not change anything for the company's underlying value

Split

: Improves liquidity

Buy back

Buy-back could be to either to delist or for other reasons: surrender if delisting

In other cases, what could be the objective for buy back?

- Signal that the stock is under-priced or improve ROE by returning excess cash
- Increase the stake of promoters without they paying for it
- Change the debt-equity mix, by introducing debt and reducing equity
- Combination of 2 & 3 above: leveraged buy-back to increase promoter stake

Generally, we should not surrender shares in such buy back

However, watch if it is going to be financed out of debt

Take advantage of anomalies: surrender and buy in the market, watch tax impact

Principle 42: Switch & create more value

- Value vs. price gap is what is attractive for us, we should switch out from where it is unfavorable and move money to where it is most favorable
- When we exit, we have to factor tax cost and the switch must be compelling despite tax cost involved
- Objective is to create more value, particularly if downside is well protected
- You achieve two objectives: booking profits & buying at compelling value

₹ ₹ ₹ ₹ ₹ ₹ ₹ ₹ ₹ ₹ ₹ ₹ ₹ ₹ ₹ ₹ ₹ ₹

Let us see some interesting data
I was holding these stocks on 17 February 2020 because my estimated value > price, & then Covid happened...

| Stock | 17 Feb | 24 Mar | 30 April | 24 June | 24 Aug. | 26 Oct. | 24 Dec. |
|----------------|--------|--------|----------|---------|---------|---------|---------|
| A | 3718 | 1526 | 2038 | 2839 | 2667 | 2297 | 3073 |
| Relative price | 100% | 41% | 55% | 76% | 72% | 62% | 83% |
| B | 4802 | 2022 | 2247 | 2584 | 3020 | 2825 | 3732 |
| Relative price | 100% | 42% | 47% | 54% | 63% | 59% | 78% |
| C | 930 | 613 | 743 | 769 | 830 | 836 | 995 |
| Relative price | 100% | 66% | 80% | 83% | 89% | 90% | 107% |
| D | 28 | 13 | 20 | 29 | 43 | 29 | 32 |
| Relative price | 100% | 46% | 71% | 104% | 154% | 104% | 114% |

© Abhijit Phadnis, ACA, ACMA, ACS, CFA (I), PhD

Please see Video 4 of the video series on Principle of Financial Fitness to explore how to read the above table.

Principle 43: Exposure to high-risk assets such as equities should be built slowly

- Never be a hurry to build high risk exposure
- Begin small and then develop understanding of market moves, price patterns
- Begin with large caps, low debt companies
- Gradually mid-caps, small caps again with low debt and clean balance sheets
- Don't chase 'potential multi-baggers' just because they are low priced

Appendix 1: Asset classes and different criteria for investing

In this appendix, we have tabulated the following asset classes in the context of the investment criteria that we discussed during the session:

1. Bank Deposits
2. Company Deposits
3. Bonds
4. Real Estate (as an investment)
5. Gold
6. Equity Shares

Out of the above, in case of the first two, the impact of the market forces is not very strongly felt since the amount of investment does not undergo any fluctuation in the prices. In case of the later four, the impact of market forces is more visible. Hence, the investors who look for safety tend to invest in the first two. However, there are risks involved there too.

Bank Deposits:

| Investment Objective | Comments |
|--|--|
| Security, Protection | Depends on the quality of bank and DICGC insurance. For insurance related Q&A please see the link below: https://www.dicgc.org.in/FD_A-GuideToDepositInsurance.html#g3 |
| Capital Appreciation, Growth, Compounding | Yes, in Cumulative deposits, but depends on the rate of interest. Generally with reduction in interest rate, the ability of deposits to compound is low. Further, interest is taxed and hence ability to compound is further impacted. |
| Ongoing return | Yes, possible in regular deposits. |
| Administrative cost, transaction cost | Low. However, there is a need to track tax compliances and to that extent administrative diligence is required. |
| Ability to exit, liquidity | High on maturity. However, premature exit involves high cost of early termination. One can, however, take a loan against deposits. |
| Tax effectiveness | Very low since interest is taxed. Section 80C tax deduction is available on long-term deposits. There also, the interest on such deposits is taxable. |
| Factors influencing returns on bank deposits | <p>Liquidity vs. Credit Offtake: If the liquidity is very high and credit demand is low, banks would offer low rates of interest.</p> <p>Bank quality: Bank quality can be assessed based on 3 important parameters: Capital adequacy ratio, Gross NPA and net NPA. We will discuss these during our discussion on companies.</p> <p>CASA ratio: CASA stands for Current Accounts and Savings Account balances as a % of total deposits. When this ratio is high, the bank may not be keen to give very high rate on its time deposit products.</p> <p>Generally, interest rate is higher on longer duration, but watch before you commit! In current scenario, when interest rates are very low in general, you should not keep deposits of very long</p> |

| Investment Objective | Comments |
|----------------------|--|
| | <p>maturity, say more than 3 years since it would lock you in with low rate of return. Instead, you could lock in a long-term deposit only when the interest rates have a cyclical upturn.</p> <p>Liability & Asset mismatches: banks may offer higher rates for those durations, when many assets are maturing and the bank may not have liabilities maturing around that time. Higher rates may attract depositors which would help the bank in avoiding mismatch.</p> |

Company Deposits:

| Investment Objective | Comments |
|---|--|
| Security, Protection | We need to keep in mind that company deposits are unsecured. Hence, we need to keep deposits only in AAA rated companies. |
| Capital Appreciation, Growth, Compounding | Yes, in Cumulative deposits, but depends on the rate of interest. Generally, with reduction in interest rate, the ability of deposits to compound is low. Further, interest is taxed and hence ability to compound is further impacted. |
| Ongoing return | Yes, possible in regular deposits |
| Administrative cost, transaction cost | Little higher than bank deposits, but manageable. One challenge is remoteness of a company. Whereas bank is easily accessible through its branches. |
| Ability to exit, liquidity | Generally, on maturity only. |
| Tax effectiveness | Very low, as interest is taxable in the hands of the depositor. |
| Factors influencing returns on company deposits | <p>Bank deposit rates: Generally, companies will have to offer rate of interest higher than bank deposit, considering that company deposits are riskier than bank deposits.</p> <p>Credit quality: credit rating needs to be watched.</p> <p>Unsecured: typically, these deposits are unsecured and hence riskier than secured alternative: bonds.</p> <p>Higher duration attracts, higher rate of interest.</p> |

Traded bonds

| Investment Objective | Comments |
|---|--|
| Security, Protection | <p>We need to check whether the bonds on offer are secured or unsecured. Generally, bonds are secured by mortgage of property.</p> <p>It is important to check credit rating of bonds.</p> |
| Capital Appreciation, Growth, Compounding | Possible, when interest rates go down since there is an inverse relationship between bond prices and interest rate expectation of the market. However, not as high as equities or real estate. |
| Ongoing return | Yes, possible. |
| Administrative cost, transaction cost | Little higher than bank deposits, but manageable. Brokerage would be involved for traded bonds both on buy and sale legs. |
| Ability to exit, liquidity | Better than deposits since traded in the market. |
| Tax effectiveness | High on tax-free bonds, others low since interest would be taxable. |
| Factors influencing returns on bonds | Government bond yields of comparable maturity: Government bonds provide the lowest risk within the country and hence any other bond would need to carry a higher return than the same. |

| Investment Objective | Comments |
|----------------------|--|
| | <p>Hence, the yield on corporate bonds would be higher than government bonds. Risk is also higher.</p> <p>Credit rating: Higher the credit rating, lower would be rate of return since lower the risk, lower the return.</p> <p>Duration, Maturity: longer the duration, generally higher is the rate of return.</p> <p>Secured vs. unsecured: Generally bonds are secured. However, if there are unsecured bonds, the rate of interest would be higher due to higher risk as compared to the secured bonds.</p> |

Real Estate

| Investment Objective | Comments |
|--|--|
| Security, Protection | In case of real estate, security is generally high since property is visible and can be controlled, protected. However, in case of a land parcel the risk of encroachment needs to be watched. |
| Capital Appreciation, Growth, Compounding | High potential, but depends on timing as real estate cycles tend to be very long and if invested at a wrong time of the cycle, capital appreciation may take time. The dynamic also varies from micro market to micro market and generalizations become difficult. |
| Ongoing return | If rented, otherwise no. |
| Administrative cost, transaction cost | High due to ongoing maintenance and upkeep needs. |
| Ability to exit, liquidity | Very influenced by location, market conditions. |
| Tax effectiveness | Taxation only on sale, rent taxable. |
| Factors influencing returns on real estate | <p>Location & exclusivity, construction quality</p> <p>Long cycles: Quick rise, followed by flat prices for a long time.</p> <p>Nature of property: residential, commercial</p> |

Gold

| Investment Objective | Comments |
|---|---|
| Security, Protection | <p>Capital protection is high since gold is in a secular uptrend because of the unique nature of the commodity and the demand for it through many millennia.</p> <p>However, gold itself needs to be properly protected!!</p> |
| Capital Appreciation, Growth, Compounding | High potential in the long-term, medium term hiccups and cyclical falls are possible |
| Ongoing return | Possible in gold bonds or gold monetization scheme. |
| Administrative cost, transaction cost | Medium |
| Ability to exit, liquidity | High |
| Tax effectiveness | Taxation only on sale |
| Factors influencing returns on bonds | High, if properly protected!! |

Appendix 2: Tax implications of investing

Pre-tax data points

Often we talk about a number of data points which are all pre-tax and we take them at face value. However, we need to keep the reality in mind that we owe some amount of these to the government due to taxes in each of the below cases:

1. Bank interest rate : 6%
2. Dividend Rs. 30 per share
3. Increase in share price by 15%
4. Our total savings (or invested pool), say Rs. 1.50 Crores

It is important that we deal with matters on a post-tax basis.

Tax implications of time deposits

- Interest is taxable
- We need to consider the marginal tax rate to arrive at the post-tax return.
- If rate of interest is 6%
- Let us say, marginal tax rate for a person is 20% + education cess 4%
 - Effective tax rate 20.8%
 - Effective return = $6\% \times (1 - 20.8\%) = 6\% \times (1 - 0.208) = 6\% \times 0.792 = 4.752\%$
- If in another case, marginal tax rate is 30%.
 - The effective tax rate is 30% + cess 4% = 31.2%
 - Effective return = $6\% \times (1 - 31.2\%) = 6\% \times (1 - 0.312) = 6\% \times 0.688 = 4.128\%$
- As we can see in both the above cases, with inflation of say 5%, we are actually eroding our capital.

Tax implications of bonds

- Bonds can be classified in many ways. Two ways of classification are:
 - Listed and unlisted
 - Tax-free and tax-bearing bonds
- Interest is tax-free for tax-free bonds and taxable for other (tax bearing) bonds
- Bonds purchased and sold in the market will be subject to capital gains tax
- Holding period for capital gains tax purposes i.e. for them to be classified as long-term:
 - If the bonds are listed, after 12 months
 - If unlisted, after 36 months
- If the holding period is more than mentioned above, then long-term capital gains. Otherwise, the gain will be treated as short-term capital gain.

- Short-term capital gains are taxed at the marginal rate of the tax-payers. Thus, if the rate applicable to one person is 30%, then short-term capital gains on bonds will be taxed at 30% and so on.
- Long-term capital gains tax: 20%, on indexation basis
- For listed bonds, can be capped at 10% of overall gain without indexation

How is indexation done?

Let us look at the following data: A bond was purchased during the financial year 2014-15. It was purchased at Rs. 100. The bond is sold in the year 2019-20 for Rs. 160. Following is the way indexed cost and capital gain will be calculated. These index numbers are calculated taking into account inflation and that is the way the government is giving relief to the tax-payers for the inflation that has taken place during the year of purchase and year of sale.

Following are the index numbers announced by the government for different years:

| Year | Index |
|---------|-------|
| 2014-15 | 240 |
| 2015-16 | 254 |
| 2016-17 | 264 |
| 2017-18 | 272 |
| 2018-19 | 280 |
| 2019-20 | 289 |

As we can see above, the index number for the year 2019-20 is 289 and for the year 2014-15, it was 240.

The indexed cost of the bond will be calculated as $100 \times 289 / 240 = 120.4167$

The bond was sold at Rs. 160. Hence the capital gain after indexation would be Rs. 160 less Rs. 120.4167 = 39.5833. On this 20% would be applied which would come to 7.9167.

However, the tax liability would be capped @ 10%, if these are listed bonds. For checking this, however, the gain will be calculated without indexation. Thus, it would be Rs. 160 less Rs. 100 = Rs. 60. The capital gains tax, this way would be Rs. 6 = Rs. 60 X 10%. Thus, this cap would be beneficial to the investor and only Rs. 6 will have to be paid as tax.

Taxation of equity shares

- Dividends are taxable at the hands of the receiver, particularly individuals. However, if the receiver is a company, then the dividend will be tax-free only if the dividend is further distributed to the shareholders complying with certain conditions.
- Shares purchased and sold in the market will be subject to capital gains tax
- Holding period for long term capital gains tax: 12 months
- Short-term capital gains tax: at 15% + surcharge (if applicable) + cess

- Long-term capital gains tax: 10% + surcharge (if applicable) + cess
- Long-term capital gains up to 31.1.2018 are ringfenced. Thus, capital gains will be recognized only to the extent the share price has moved beyond the above date, provided that the purchase itself was done prior to the above date and gain is of a long-term nature.
- Any long-term capital gain over and above 31.1.2018 price will be taxed at 10%
- Any long-term capital gain, upto Rs. 1,00,000 will be tax-free per year, along with equity mutual funds

Taxation of bond (debt) funds

- Dividends taxable at the hands of the investor
- Growth schemes are preferred as compared to dividend schemes for the following reasons, which make dividend schemes less attractive:
 - There is a leakage due to tax pay-out
 - It reduces the compounding opportunity, as divided may remain idle in the savings account
- Threshold for long-term capital gains: 36 months
- Short-term capital gains: taxed at the marginal rate applicable to the person
- Long-term capital gains: taxed at 20% on indexed acquisition cost
- Money market funds, gilt funds, credit risk funds are all taxed in this fashion.
- Hybrid funds with 60% or more debt, fund of funds, international funds also taxed like debt funds.

Taxation of equity funds

- Dividends taxable at the hands of the receiver
- Holding period for long term capital gains tax: 12 months
- Short-term capital gains tax: at 15% + surcharge (where applicable) + cess
- Long-term capital gains tax: 10% + surcharge (where applicable) + cess
- Long-term capital gains upto 31.1.2018 are ringfenced
- Any long-term capital gain over and above 31.1.2018 price will be taxed at 10%
- Upto Rs. 1,00,000 tax-free per year, along with shares
- Hybrid funds with 65% equity also taxed as equity mutual funds

Pipeline idea

- Taxation of capital gains is done on a First in First Out basis. Cost of the earliest unit or share purchase would be considered for the sale for that quantity. Once that is done, those sold will be removed from our current (or live investment) records.
- When investor purchases too numerous shares or mutual fund schemes, it becomes difficult to track investment performance and take sale or purchase decisions, which are tax effective.
- Focussing on limited number of schemes, particularly one each of liquid, credit risk, gilt and index fund makes it easier.

- Once the respective shares' or units' pipeline crosses the threshold for long-term recognition, you can use it for both entry and exit purposes, depending on the opportune time for entry, exit as the case may be in respective markets. You can even use switch from one scheme to another.

Why liquid funds are better than time deposits?

- If liquid fund units are sold in 36 months or less, gain will be taxed at marginal tax rate
- Thus the tax impact will be similar to interest
- However, taxation is only on the gain and not on the entire amount of withdrawal
- Thus, liquid funds can be easily used to meet ongoing expenses by elderly investors who don't have current income. If that amount to be received was interest or dividend, the entire amount would have been added to income. In case of sale of these units, only the capital gain (and not the principal involved in units sold) is taxed.
- After 36 months, taxation is @ 20% with indexation
- Time deposit will be taxed at the marginal rate of tax
- Hence, time deposits are good for managing next 12 months commitments, more particularly with a view to ensure that money is automatically credited to the bank account to meet specific commitments like EMI or credit card or utility bills. However, liquid funds help if we want to park funds which can be used to take advantage of opportunities in the market or other exigencies which may pop up but there is no certainty.

Tax saving obsession and investing

- There is a "national obsession on saving tax", which sometimes borders on evasion and sometimes on compromising on better alternatives just with the intent of not paying tax. Paying tax sometimes becomes a mind block and comes in the way of investment performance.
- It perfectly makes sense to pay tax if we can generate superior returns elsewhere.
- However, we need to factor tax cost in calculating opportunity cost. Thus, opportunity cost in case a particular investment is sold in favour of another, would be the opportunity to earn return in the investment sold plus the tax that would need to be paid out on the units / shares sold. New investment, at the minimum needs to earn that much return just to break-even. More return needs to be earned and this decision can be taken only when we have that view.
- We also need to be aware about the risk of both categories of investments: the one that we are exiting and the one that we are entering. Refer for more details on our section on risk and hurdles in investing.
- Don't hesitate to book losses, if that improves your investment opportunity: Sometimes, investors hold on to investments since the prices are prevailing below the cost. If that particular investment has lost its potential, no harm in accepting that the investment was a mistake and move on. However, such decisions are always future focussed.

Importance of record-keeping

- We need to know our tax status to be able to take decisions. This includes:
 - How much capital gains under different categories we have already booked during the financial year
 - What are our brought forward losses from earlier years against which we can set-off current year gains
 - What are current year losses already booked against which we can book gain during the year without paying taxes
- Catching up with record-keeping only at the time of filing tax returns will make it impossible to take the above decisions properly.
- Hence, it is important to be aware about our tax picture in the context of capital gains on an ongoing basis and maintain the sale, purchase, gains records concurrently.
- I complete my tax return details every month so that I am aware about my tax liability on an ongoing basis and am able to pay my advance taxes on time and with good accuracy. This also helps in taking my investment decisions.

Appendix 3: Time value arithmetic and exercises

In real life, we only travel in one direction. We travel from the past to the present and from the present to the future.

In financial calculations, we can travel in both directions depending on the need.

Travel from today to future

This is typically done to arrive at a potential future value.

Future value = Present Value $\times (1+r)^n$

r = rate of interest or return or growth

n = periods

The period of n, can be expressed in years, quarters, months, weeks, days as we need.

Depending on how the n is expressed, r needs to be adjusted.

Thus, if we are expressing periods in years, then our normal way of expressing interest rate works as usually we express interest as 6% p.a. or 7% p.a. which is per annum or per year.

However, when we express period in any other ways, the rate of interest needs adjustment as follows:

| Frequency (n) | Adjustment to rate of interest (r) |
|---------------|--|
| Annual | No adjustment required, as interest rate is expressed annually |
| Quarterly | r to be divided by 4, as there are 4 quarters |
| Monthly | r to be divided by 12, as there are 12 months |
| Weekly | r to be divided by 52, as there are 52 weeks |
| Daily | r to be divided by 365, as there are 365 days |

Practical application of different frequencies of compounding:

- For long-maturity investment proposals, we use annual compounding
- Cumulative deposits, usually quarterly compounding is done
- For house, car loans, we use monthly compounding
- For investing, we can use daily compounding for monitoring our returns

Example of our cumulative deposit that we had discussed in great detail earlier

$$FV = 100,000 \times (1 + 10\%)^4$$

$$FV = 100,000 \times (1.1)^4$$

$$FV = 100,000 \times 1.4641$$

$$FV = 1,46,410 \dots \text{this matches with our answer earlier}$$

Travel from future to today

This calculation is typically done to check the present value of a potential future cash flow. More importantly, this is done for **valuation of assets** as every investment decision results into future cash flows. We need to examine every investment on its merits and that can be done by estimating future cash flows and looking at their present value and comparing it with the price.

Present value = Future Value X (1 / (1+r)ⁿ)

r = rate of interest or return or growth

n = periods

The same logic of r & n, as mentioned in future value applies here too.

Let us look at a few exercises to get clarity on this.

Important investing lesson: While taking investing decisions we should not focus on amounts but their value today. Value is assessed based on our return expectation. What is of value to one, may not be of value to another. Thus, an investor whose expectation is 10%, would be very happy with a particular investment. Another investor, whose expectation is 25%, would not touch that investment, as that investor would look for a better opportunity.

Exercise 1

If your relative has taken a friendly loan of Rs. 1,00,000 from you today with a promise to return the same after 3 years without interest, then how much value have you lost as of today? You may assume that your opportunity cost is 10% annually compounded.

Remember, the question asks you to calculate the answer as of today, not three years later.

What would be your answer, if the answer is expected from a value perspective 3 years later?

Solution

We want to calculate the answer as of today's value

Thus we need to arrive at present value of Rs. 1,00,000 that will be returned 3 years later.

The present value factor as per Annual Present Value Table for 3 years @ 10% would be: 0.7513. Thus, the present value of Rs. 1,00,000 that would be returned 3 years later is = 1,00,000 X 0.7513 = 75,130.

Thus, the value lost in today's terms is Rs. 1,00,000 given less Rs. 75,130 received = Rs. 24,870.

If we want to calculate the answer as of value 3 years' later

If we are looking at the above calculation from a 3 years later perspective, we need to convert Rs. 1,00,000 being paid today to a value as measured 3 years later. **Remember, to arrive at the correct answer, we need to convert all values to a common timeframe.**

For this, we would use the Annual Future Value Table for 3 years @ 10% and the factor is=1.3310. Thus, future value of today's Rs. 1,00,000 would be = Rs. 1,00,000 X 1.3310 = Rs. 1,33,100. However, the amount to be received back is only Rs. 1,00,000. Thus, the value given **(as measured 3 years later)** is Rs. 1,33,100 and the value that would be taken back is Rs. 1,00,000. Thus, the value lost as measured 3 years later is = 1,33,100 less Rs. 1,00,000 = Rs. 33,100.

Interesting relationship between the two numbers calculated above

Loss measured from today's perspective (Rs. 24,870) is simply the present value of Rs. 33,100 (as measured from 3 years' later perspective)

$24,870 \times 1.3310 = \text{Rs. } 33,100$ **Measured as of three years later value**

$33,100 \times 0.7513 = \text{Rs. } 24,870$, **Measured in today's value**

Usually, such calculations are done as of today as it is easier to relate to them since we take decisions in the present.

Exercise 2

If you have invested in a recurring deposit with a monthly frequency and every month beginning from now you are going to deposit Rs. 10,000 per month. How much would be your accumulation if the rate of interest is 7% and the term is 30 months?

Recurring deposits are like a series of deposits. Thus, in this example there are 30 deposits. Now, in a recurring deposit, the entire amount is received back on maturity. Hence, first deposit is for a period of 30 months, next one for 29 months, third for 28 months and so on and the last deposit is just for one month.

We can use the Future value table (monthly compounded) for this calculation. Look at column for 7%.

For first deposit, we will earn interest for 30 months and thus, the factor would be 1.1906. For second deposit, we will earn interest for 29 months and thus, the factor would be 1.1837. So on.. For the last deposit, we will earn interest for 1 month and thus, the factor would be 1.0058. Thus, there are 30 deposits of Rs. 10,000 each which will grow differently. We can take sum total of the above factors from the Monthly future values table = 32.8719. This is a sum total of 30 factors available in the table, first factor being 1.0058 (applicable for the last deposit) and last factor being 1.1906 (applicable for the first deposit). Thus, the amount of the recurring deposit on maturity would be Rs. 10,000 X 32.8719 = 3,28,719.

Exercise 3

If there is an investment in which you pay Rs. 10,00,000 today and you will be paid the following amounts annually over next 8 years. In total you receive is 15,00,000. What is the return?

| End of year | Amount |
|-------------|---------|
| 1 | 150,000 |
| 2 | 150,000 |
| 3 | 175,000 |
| 4 | 175,000 |
| 5 | 200,000 |
| 6 | 200,000 |
| 7 | 225,000 |
| 8 | 225,000 |

Friends, this problem brings us to a very interesting concept of IRR, internal rate of return. In the above investment product, the rate of return is not told to us. **We need to discover it.** The return is inherent in its cash flows and we need to dig it out. What is the principle? The principle is simple. IRR is that rate of return, which equates the present value of inflows from the investment to the present value of outflows. Excel provides us a ready formula to discover this for us. Excel does it through an iterative process. It keeps on trying different rate of return till the present value of 8 cash inflows becomes equal to the outflow of Rs. 10,00,000. In the earlier versions of excel, it used to ask for first guess. New versions don't require it, but the internal process is the same.

Let us look at the present values at different rates of return.

| Year | Amount | @ 8% | | 10% | | 9% | | IRR = 9.2038% | |
|-------|-----------|--------|---------------|--------|---------------|--------|---------------|---------------|---------------|
| | | Factor | Present Value | Factor | Present Value | Factor | Present Value | Factor | Present Value |
| 1 | 150,000 | 0.9259 | 1,38,888.89 | 0.9174 | 1,36,363.64 | 0.9091 | 1,37,614.68 | 0.9157 | 1,37,357.90 |
| 2 | 150,000 | 0.8573 | 1,28,600.82 | 0.8417 | 1,23,966.94 | 0.8264 | 1,26,252.00 | 0.8385 | 1,25,781.29 |
| 3 | 175,000 | 0.7938 | 1,38,920.64 | 0.7722 | 1,31,480.09 | 0.7513 | 1,35,132.11 | 0.7679 | 1,34,377.09 |
| 4 | 175,000 | 0.7350 | 1,28,630.22 | 0.7084 | 1,19,527.35 | 0.6830 | 1,23,974.41 | 0.7032 | 1,23,051.70 |
| 5 | 200,000 | 0.6806 | 1,36,116.64 | 0.6499 | 1,24,184.26 | 0.6209 | 1,29,986.28 | 0.6439 | 1,28,778.08 |
| 6 | 200,000 | 0.6302 | 1,26,033.93 | 0.5963 | 1,12,894.79 | 0.5645 | 1,19,253.47 | 0.5896 | 1,17,924.58 |
| 7 | 225,000 | 0.5835 | 1,31,285.34 | 0.5470 | 1,15,460.58 | 0.5132 | 1,23,082.71 | 0.5399 | 1,21,484.05 |
| 8 | 225,000 | 0.5403 | 1,21,560.50 | 0.5019 | 1,04,964.16 | 0.4665 | 1,12,919.91 | 0.4944 | 1,11,245.30 |
| Total | 15,00,000 | | 10,50,036.98 | | 9,68,841.81 | | 10,08,215.56 | | 10,00,000.00 |

As you can see above, the total amount of cash flows is Rs. 15,00,000.

If we take the first guess of 8%, we get present value of Rs. 10,50,036.98 which is more than today's investment (value) of Rs. 10,00,000. Thus the actual return must be higher than 8%.

If we take the next guess of 10%, we get present value of Rs. 9,68,841.81, which is lower than Rs. 10,00,000. Thus, the return must be lower than 10%.

If we take the next guess of 9%, we get present value of Rs. 10,08,215.56 which is more than today's investment (value) of Rs. 10,00,000, but quite close. Thus the actual return is slightly higher than 9%.

Finally, we get the IRR as 9.2038%.

IRR depends on the actual cash inflows, period over which they take place, the pattern from year to year and initial investment. Let us look at IRR for different patterns of Rs. 15,00,000 received over 8 years. What do you observe?

| Year | Pattern 1 (as above) | Pattern 2 | Pattern 3 | Pattern 4 | Pattern 5 |
|--------------|-------------------------|------------------|------------------|------------------|------------------|
| 1 | 150,000 | 1,87,500 | 225,000 | 0 | 1,00,000 |
| 2 | 150,000 | 1,87,500 | 225,000 | 0 | 1,00,000 |
| 3 | 175,000 | 1,87,500 | 200,000 | 0 | 1,00,000 |
| 4 | 175,000 | 1,87,500 | 200,000 | 7,50,000 | 1,00,000 |
| 5 | 200,000 | 1,87,500 | 175,000 | 0 | 1,00,000 |
| 6 | 200,000 | 1,87,500 | 175,000 | 0 | 1,00,000 |
| 7 | 225,000 | 1,87,500 | 150,000 | 0 | 1,00,000 |
| 8 | 225,000 | 1,87,500 | 150,000 | 7,50,000 | 8,00,000 |
| Total | 15,00,000 | 15,00,000 | 15,00,000 | 15,00,000 | 15,00,000 |
| IRR % | 9.2038% | 10.0082% | 10.9408% | 7.1615% | 7.0849% |

What we clearly notice is that earlier we receive money back from an investment product, the higher is the return. Earlier, we collect money, higher is the value.

Exercise 4

If Rs. 4,000 invested today becomes Rs. 10,000 after 10 years. What is the rate of return, annually compounded? Can we find its range from the tables provided?

Answer

Rs. 4,000 becomes Rs. 10,000, 10 years later.

$10,000 = 4,000 \times (1+r)^{10}$... Future value formula

$10,000$ divided by $4,000 = (1+r)^{10}$

$2.5 = (1+r)^{10}$

Now our annual future value table is exactly a table of $(1+r)^n$ values.

If you see row 10, you will find that @9%, the factor is 2.3674 and @10%, the factor is 2.5937. Thus, the actual rate of return is somewhere between 9 % and 10%.

How, do we find the exact answer? We can do so by solving the equation:

$2.5 = (1+r)^{10}$

$$2.5^{(1/10)} = 1 + r$$

$$2.5^{(1/10)} - 1 = r$$

The answer is 9.6%.

See the file '**Time Value Exercises.xlsx**' for a solution to this exercise using the above method as well as the IRR method.

As you can see in the excel file mentioned above, there is a specific way to mention the IRR formula in excel. Where there are only 2 cashflows like above, first number will be denominated as a negative number.

Exercise 5

If you invest in a scheme of mutual fund when the NAV was Rs. 13.571 and after 8 years, it has become Rs. 19.252. What is the rate of return on a quarterly compounded basis and daily compounded basis?

Answer

How to calculate return on quarterly compounded basis?

We need to calculate quarters = $8 \times 4 = 32$.

$$\text{Now } 19.252 = 13.571 \times (1+r/4)^{32}$$

$$19.252 \text{ divided by } 13.571 = (1+r/4)^{32}$$

$$1.4186 = (1 + r/4)^{32}$$

$$(1.4186)^{(1/32)} = 1 + r/4$$

$$1.0110 = 1 + r/4$$

$$0.0110 = r/4$$

$$0.0440 = r$$

Thus, on a quarterly compounded basis, the rate of return is $0.0440 = 4.40\%$

How to calculate return on daily compounded basis?

We need to calculate days = $8 \times 365 + 3$ (leap year days) = 2,923.

$$\text{Now } 19.252 = 13.571 \times (1+r/365.25)^{2923}$$

$$19.252 \text{ divided by } 13.571 = (1+r/365.25)^{2923}$$

$$1.4186 = (1 + r/365.25)^{2923}$$

$$(1.4186)^{(1/2923)} = 1 + r/365.25$$

$$1.00012 = 1 + r/365.25$$

$$0.00012 = r/365.25$$

$$0.0437 = r$$

Thus, on a daily compounded basis, the rate of return is $0.0437 = 4.37\%$

See the file "**Time Value Exercises.xlsx**" for a solution to this exercise using the above method as well as the IRR method.

Exercise 6

Suppose sales of a company in the year 2020-21 are Rs. 23962 Lakhs. Exactly 10 years ago, in 2010-11, they were Rs. 8585 Lakhs. What was the average growth rate during this period?

This growth is to be calculated on a geometric average basis and not arithmetical average basis, exactly the same way time value principle works.

One way of calculating this is as below. For another way, using IRR formula, please see the file "**Time Value Exercises.xlsx**"

Rate of growth called as Compounded Annual Growth Rate (CAGR)

$$= (\text{Ending amount} / \text{Initial Amount}) ^ { (1 / \text{number of years}) - 1}$$

$$= (23962/8585) ^ { (1/10) - 1}$$

$$= (23962/8585) ^ { 0.1 - 1}$$

Put the above formula either in Excel or in a scientific calculator:

$$= 1.108098 - 1$$

$$= 0.108098$$

Expressing this as a %, it would be $10.8098\% = 10.81\%$

Exercise 7

Let us take the following example of a money back policy. Column 2 shows the premium to be paid at the beginning of each year for 20 years and the money back amount is in column 3. Let us derive the return using IRR method. Please see the file "**Time Value Exercises.xlsx**" file.

| Year | Premium | Moneyback | Net cash flow | Present value factor based on IRR | Present Value of each cash flow |
|--------------|------------|-----------|-----------------|-----------------------------------|---------------------------------|
| "1" | "2" | "3" | "4" = "2" + "3" | "5" | "6" = "4" X "5" |
| 0 | -50,000 | 0 | -50,000 | 1.0000 | -50,000 |
| 1 | -50,000 | 0 | -50,000 | 0.9337 | -46,687 |
| 2 | -50,000 | 0 | -50,000 | 0.8719 | -43,594 |
| 3 | -50,000 | 0 | -50,000 | 0.8141 | -40,706 |
| 4 | -50,000 | 0 | -50,000 | 0.7602 | -38,009 |
| 5 | -50,000 | 200000 | 1,50,000 | 0.7098 | 1,06,474 |
| 6 | -50,000 | 0 | -50,000 | 0.6628 | -33,140 |
| 7 | -50,000 | 0 | -50,000 | 0.6189 | -30,944 |
| 8 | -50,000 | 0 | -50,000 | 0.5779 | -28,894 |
| 9 | -50,000 | 0 | -50,000 | 0.5396 | -26,980 |
| 10 | -50,000 | 300000 | 2,50,000 | 0.5039 | 1,25,963 |
| 11 | -50,000 | 0 | -50,000 | 0.4705 | -23,524 |
| 12 | -50,000 | 0 | -50,000 | 0.4393 | -21,965 |
| 13 | -50,000 | 0 | -50,000 | 0.4102 | -20,510 |
| 14 | -50,000 | 0 | -50,000 | 0.3830 | -19,151 |
| 15 | -50,000 | 400000 | 3,50,000 | 0.3576 | 1,25,177 |
| 16 | -50,000 | 0 | -50,000 | 0.3340 | -16,698 |
| 17 | -50,000 | 0 | -50,000 | 0.3118 | -15,591 |
| 18 | -50,000 | 0 | -50,000 | 0.2912 | -14,559 |
| 19 | -50,000 | 0 | -50,000 | 0.2719 | -13,594 |
| 20 | | 500000 | 5,00,000 | 0.2539 | 1,26,934 |
| Total | -10,00,000 | 14,00,000 | 4,00,000 | | 0 |

You can apply the IRR formula in excel to net cash flow and the IRR would be 7.0951%.

In the fifth column above you can see the Present value factor calculated based on 7.0951%. If we apply that to all cash flows, as the definition of IRR is, the present value of all cash inflows and outflows will be equal or in other words, the present value of net cash flow (inflow less outflow) will be 0 when we calculate it using the IRR. Please see Exercise 3 for a detailed discussion on IRR.

Appendix 4: Investing in Mutual Funds

Direct vs. Regular schemes

Asset Management Companies charge 'Total Expense Ratio (TER)' to various schemes of mutual funds for managing the investors' money. The TER is more for regular schemes which involve going through a broker vs. direct schemes which do not involve a broker or advisor. Thus, the returns on direct schemes are better than regular schemes.

| SCHEME | DIRECT | REGULAR (THROUGH BROKER) |
|------------------|-------------------|-----------------------------|
| Money Market | 4,424.8852 | 4371.9594 |
| Credit Risk | 18.8475 | 17.9257 |
| Gilt Fund | 45.1161 | 43.7142 |
| Index Fund Nifty | 126.9557 | 125.2046 |

As you can see above, the NAV of the schemes which are 'direct' is higher than the ones which are 'regular.' This is because the TER is much lower for direct than regular. Please see the table of TER for different schemes (both regular & direct) which has been uploaded in the shared folder. You can download it from any MF website also. It will give you an idea about how it differs in both categories (direct vs. regular) as well as across schemes.

When you buy units under Direct scheme, it will cost you more. However, their return potential is also higher than regular schemes. Thus, their NAV will grow at a rate faster than the regular schemes. That is what matters. It is not the price, but the return potential!!

Role of mutual funds

- Providing expertise in stock & debt market investing
- Facilitating investment in small amounts & yet holding a diversified portfolio to limit risk
- Providing the potential for income & growth associated with debt & equity instruments

What is a mutual fund?

Mutual Fund is a:

- A common pool of money
- In which the investors place their contributions
- These are invested in accordance with a stated objective
- Ownership of the fund is joint or "mutual" (belongs to all investors collectively)
- A single investor's ownership only to the extent of his/her contribution

Money pooled in, is used in buying assets stated in investment objectives

“Units” & “Trusts”

- On subscribing to a mutual fund an investor actually buys a part of:
 - the assets or
 - the pool of funds that are outstanding at that time
 - In India, a mutual fund is constituted as a Trust
- An investor subscribes to the “units” issued by the fund
- Hence the word “UNIT TRUST OF INDIA”, which pioneered the mutual fund industry in India

Governance of mutual funds

- A mutual fund has a sponsor, trustees, Asset Management Company (AMC), custodian.
- The trustees of the mutual fund hold its property for the benefit of the unitholders.
- AMC approved by SEBI manages the funds
- Custodian, who is required to be registered with SEBI, holds the securities
- Trustees are vested with the general power of superintendence and direction over AMC. They monitor the performance and compliance of SEBI Regulations.
- SEBI Regulations require that at least two-thirds of the directors of trustee company or board of trustees must be independent i.e. they should not be associated with the sponsors. Also, 50% of the directors of AMC must be independent.

Open ended funds

- Units are available for sale & repurchase at all times
- Buying or redeeming units from the fund at a price based on the NAV
- ‘Unit capital’ of an open-end mutual fund is not fixed but variable
- The fund size & its total investments amount:
 - Rises if more subscriptions come in from investors than redemptions by investors
 - Shrinks when redemption of units exceed fresh subscriptions

Close ended funds

- The ‘unit capital’ is fixed
- One time sale of a fixed number of units
- Later on, investors can buy or sell the units of the scheme on the stock exchanges where the units are listed.
- Sometimes, an option is given for selling back the units through periodic repurchase at NAV related prices.
- SEBI Regulations stipulate that at least one of the two exit routes is provided to the investor

Mutual fund types

By nature of investments:

- Financial Assets: Equity, Bond and Money Market Funds
- Physical Assets: Gold, Precious Metals, Real Estate

By Investment Objective:

- Growth funds invest for medium to long term capital appreciation
- Income funds invest to generate regular income & less for capital appreciation
- Value Funds invest in equities that are considered under-valued today and have high growth potential

Risk profile

- Equity funds are riskier than Debt funds
- Debt funds are riskier than money market / liquid funds

Money market funds

- Lies at the lowest rung in the order of risk level
- It invests in securities of short-term nature
- Generally means securities of less than one-year maturity
- The typical interest-bearing instruments these funds invest in include
 - Treasury bills issued by government
 - Certificates of Deposit issued by banks
 - Commercial papers issued by companies
- Also, in the inter-bank call money market

Gilt funds

- Government securities (called as gilt-edged securities) with medium to long term maturities
- Zero default risk as GoI/ state governments issue these bonds
- Debt securities prices fall when interest rate levels increase

Equity funds

- Equity funds are riskier than debt funds
- Equity funds invest in:
 - Primary market: IPOs
 - Secondary market : shares listed on exchanges
- They are exposed to equity price fluctuation risk at:
 - Economy (market) level
 - Industry level
 - Company level
- There are different types of equity funds

Aggressive growth fund

- It targets maximum capital appreciation
- Invests in less researched shares having future growth for higher returns
- It also adopts speculative investment strategies to attain their objective of high return
- Is more volatile & riskier than other funds

Growth fund

- Companies whose earnings are expected to rise at an above average rate
- The companies belong to sectors who have growth potential but not yet achieved it
- Primary objective is capital appreciation over a three to five year span
- They are less volatile than funds that target aggressive growth

Speciality fund

- These funds have a narrow portfolio orientation
- They invest in companies meeting pre-defined criteria
- Concentrated funds, since diversification is limited
- More volatile than diversified funds
- Different types:
 - Sector funds: Invest in specific sectors of the economy
 - Overseas funds: Invest in specific overseas geographies
 - Capitalization of different levels: large-cap, mid-cap, small-cap

Diversified equity funds

- Along with equities also invests a small amount in liquid money market securities
- Not focused on a sector but diversified in nature
- Lie at the lower rung in terms of risk, in the equity fund hierarchy

Equity Linked Savings Scheme (ELSS)

- Investor entitled for a tax rebate in this scheme: 80C
- Lock-in period restricts any withdrawal for 3 years
- No restrictions on investing in particular sector

Index Fund

- Tracks the performance of a specific stock market index
- Invests in shares that constitute the index & in the same proportion as the index
- Less risky, if investing in flagship indices

Why index funds?

- When you invest in managed schemes, you are taking a fund manager risk
- Globally less than 20% fund managers have performed better than the indices
- India is no exception, and high Total Expense Ratio (TER) also eats into our returns
- Index funds, therefore is a good and safe starting point

- Timing the market & time in the market both matter.. Catching the right time to invest is far more important than which scheme that you invest in.. You don't have to build a huge portfolio of schemes.

Equity Income Fund

- It gives the investor a high level of current income
- A steady capital appreciation
- Invests in companies with high dividend yields
- Equity funds are less volatile & less risky than all other equity funds

Corporate Bond Funds

These funds invest in the debt instruments (bonds, debentures) issued by manufacturing companies, banks, infrastructure companies, utilities, NBFCs. Key objectives are relatively low risk, stable income for the investor. However, investment in long-term securities means higher price fluctuation risk than money market funds and hence we need to watch the cycles. They also involve a higher risk of default by borrowers as compared to Gilt Funds.

Following are different funds based on different investment objectives:

- Diversified Debt Funds
- Focused Debt Funds
- High Yield Debt Funds
- Assured Return Funds
- Fixed Term Plans

We will discuss each of these in the sections below.

Diversified Debt Funds

- They invest in all available types of debt securities issued in the market, including gilt funds
- Debt funds involve less risk than equity funds
- Risk reduction is achieved through diversification
- Less risky than a fund concentrated on a particular sector

Focused Debt Funds

- These funds have a narrow focus & less diversified
- Funds are income oriented & less risky than equity funds
- They are more risky than diversified debt funds

High Yield Debt Funds

- Invest in securities which are 'investment grade'
- But also have exposure to instruments that are 'below investment grade'
- The objective is to seek higher returns, but there is a higher risk exposure as a consequence
- 'Junk Bonds' is the name in U.S.A. for such high risk bonds

Assured Return Funds

- Monthly income plans: a popular variant of such scheme
- Returns are indicated in advance for all the future years
- Any shortfall is borne by the sponsors of the mutual fund
- Assured return debt funds are less risky than other debt funds
- Explicit guarantee is required from the sponsors

Fixed Term Plan

- Mutual funds are either open-ended or close-ended
- Fixed Term Plans are a special class of close-ended funds in India eg. 1170 days
- Can be subscribed only during New Fund Offer
- Could be debt or equity oriented

Hybrid funds

Hybrid funds are those which have both debt & equity investments in them. There are following three types of hybrid funds.

- Balanced Funds
- Growth & income funds
- Asset allocation funds

Balanced funds

- Portfolio comprises of debt instruments & equity shares
- Hold about equal proportion of debt/money market securities & equities, sometimes 65% equity, 35% debt to classify as equity scheme
- It tries to achieve the objective of income & moderate capital appreciation

Growth & Income Funds

- Strikes a balance between capital appreciation & income for the investor
- Portfolios are a mix between companies with good dividend paying record & with potential for capital appreciation
- Less risky than pure growth funds but more risky than income funds

Asset Allocation Funds

- Follow variable asset allocation policy
- Moves in and out of an asset class (equity, debt) depending on outlook
- It carries more risk but has the potential for high returns

National Pension System vs. Mutual Funds

- Market linked returns in case of both
- Lock-in period of 10 years in NPS (Tier 1) vs. 3 years in ELSS and none in case of others
- Additional tax deduction u/s 80CCD (1B) of Rs. 50,000 for NPS
- Auto choice & active choice in case of NPS
- Asset allocation can be controlled in case of active choice
- Tax exemption of 60% on lump sum withdrawal at the age of 60

- Annuity payout is taxable
- Fund management cost is very low 0.01% in NPS, but is under review

Appendix 5: Credit rating of long-term debt instruments: Crisil's rating scale

Credit rating of long-term debt instruments: Crisil's rating scale

| Rating | +,- | Description | Rating outlook |
|--------|-----|-----------------|----------------|
| AAA | No | Highest safety | Yes |
| AA | Yes | High safety | Yes |
| A | Yes | Adequate safety | Yes |
| BBB | Yes | Moderate safety | Yes |
| BB | Yes | Moderate risk | Yes |
| B | Yes | High risk | Yes |
| C | Yes | Very High risk | Yes |
| D | No | Default | No |

Rating below BBB- is considered sub-investment grade rating.

Credit rating of short-term debt instruments: Crisil's rating scale

| Rating | Description |
|--------|------------------------------|
| A1 | Very strong degree of safety |
| A2 | Strong degree of safety |
| A3 | Moderate degree of safety |
| A4 | Minimal degree of safety |
| D | Default expected |

Appendix 6: Bond arithmetic

- Let us take an example.
- A government bond (FV Rs. 1000) was issued 10 years ago (2011) and has 10 more years to maturity (2031)
- When it was issued, the rate of interest was 9%
- The expectation of the market is, say, 6.30% now
- What is the value of the bond today at this expectation... the price would have to be close to that. **Today's value is a sum of present value of future cashflows which are interest and final maturity amount.**
- Please see the excel file titled 'Bond Valuation' shared with you.
- Demand & supply dynamic will bring value and price close. Thus, price in the market will be very close to the value of the bond

What will happen to the value of the bond if the market expectation of interest were to rise? The bond prices will fall as bond prices are inversely related to interest rates.

Would you buy this bond?

This buy looks attractive as compared to the current bank deposit rates which for some maturities are lower than 6.30%. However, since bond prices are inversely linked to interest rates, in the short-medium term, there is a risk of bond prices falling due to rise in interest rate expectations of the market. This could happen due to increased credit off-take. If you have a long-term view that the interest rates will fall in the long-term, then this bond would be attractive. However, this investment can provide a good entry opportunity at a later date when the bond prices fall. This opportunity would be available over next 1 year to 15 months. Hence, even for long-term perspective, you don't have to rush into buying this bond.

Appendix 7: Leverage analysis

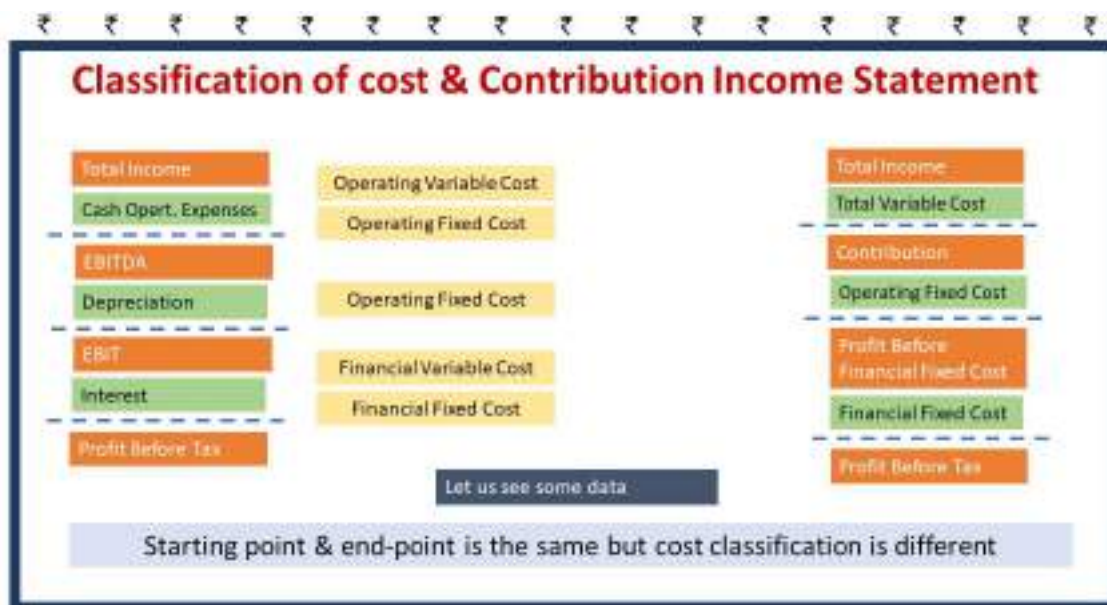
Fixed and Variable costs



On the left-hand side, we see the conventional Statement of Profit & Loss. Various expenses can be classified into fixed costs and variable costs, though on the Statement of Profit & Loss as reported by companies, such details are not required to be made available. Fixed costs are those which are paid for by time and arise as soon as capacity is created. It could be manufacturing capacity, warehousing, talent, sales office space, administrative office space or technology. These costs recur every month, irrespective of the volume of production or sales. Variable costs (such as raw materials or energy) on the other hand are those which are typically paid for on a per unit basis and the aggregate variable cost changes depending on the volume of sales. Some costs such as repairs & maintenance have both elements, variable and fixed in them. They may be difficult to exactly segregate but can be estimated. Financing costs or interest could also have fixed and variable element in them. Money borrowed in the form of term loan involves fixed interest expenses. On the other hand, money borrowed to meet the seasonal surge in demand may be variable and may be thus linked with the sales. We can classify them into fixed and variable too, again based on estimation.

These estimates into variable and fixed can give us some interesting insights, discussed below.

Classification of cost and contribution income statement



© Abhijit Phadnis, ACA, ACMA, ACS, CFA (I), PhD

On the left hand side of the above slide, you can see a truncated Statement of Profit & Loss where we begin with total income and end with profit before tax since that is the only part that we are going to present it differently by analysing the costs involved into variable and fixed costs. The middle portion shows that the cost lines in green on the left hand side can be further bifurcated into variable and fixed costs. On the right hand side, we see that the data could be reorganized in such a way that costs could be regrouped into the following three buckets:

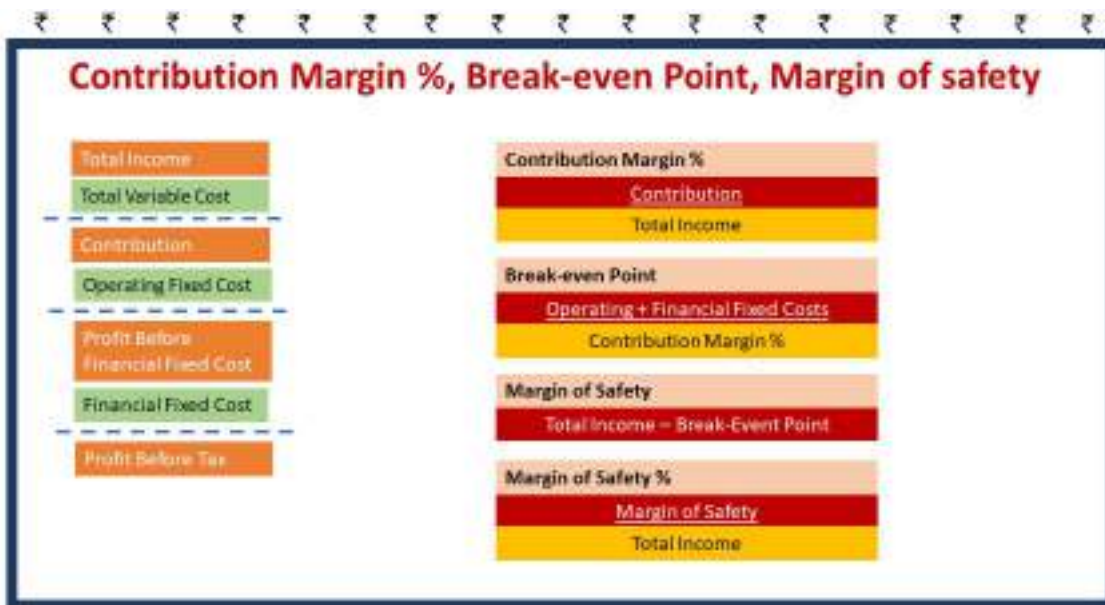
- A. Variable Costs
- B. Operating Fixed Cost
- C. Financial Fixed Cost

Please see the example that we did in the session. It is available in the shared folder. That example would give you an idea how the bifurcation could be done.

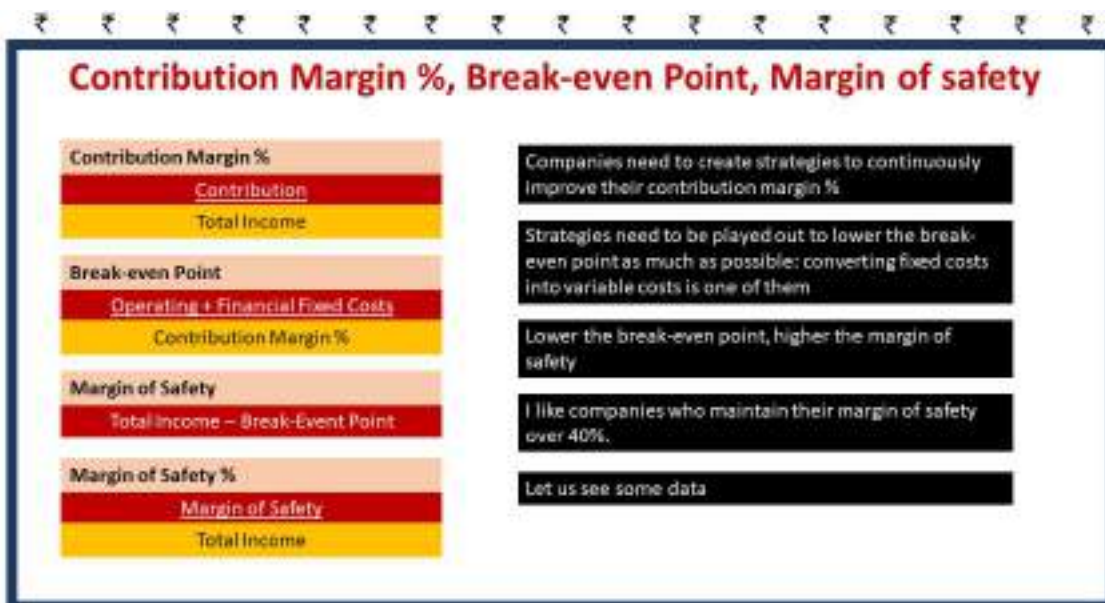
It may not be possible to accurately determine the break-down into variable and fixed costs. However, even if we are able to estimate it to a reasonable degree, it achieves our objective.

Once we classify the costs into fixed and variable, we can derive the concept of contribution which can help us to derive many more concepts such as break-even point, margin of safety, operating and financial leverage as can be seen below.

Contribution Margin %, Break-even Point, Margin of Safety

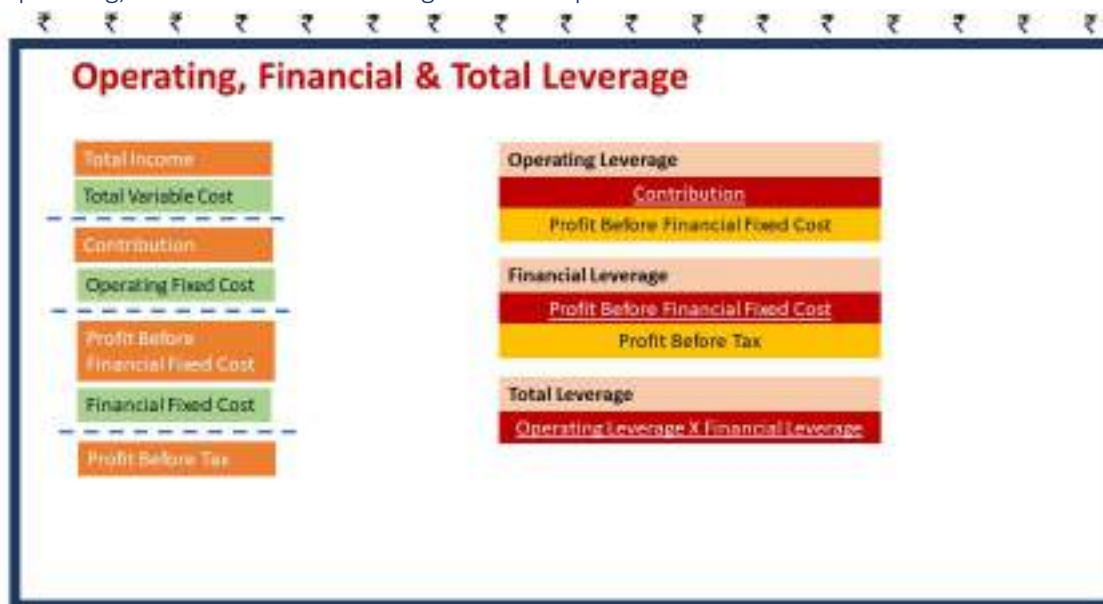


© Abhijit Phadnis, ACA, ACMA, ACS, CFA (I), PhD



© Abhijit Phadnis, ACA, ACMA, ACS, CFA (I), PhD

Operating, Financial & Total Leverage and its implication



Leverage tells us to what extent the profits at different levels could change due to change in sales, given the structure of costs of the organization.

If sales change by 1%, operating leverage tells by how much % would the profit before financial fixed cost change. Thus, if the operating leverage is 5 and sales change by 8%, the change in the profit before financial fixed cost would change (both increase or decrease depending on the direction of change) by as much as 40%, assuming other things to be constant. Companies with high operating fixed costs such as hospitality, restaurants, automobiles, refineries, steel mills tend to have a high operating leverage.

Financial leverage multiplies into operating leverage to provide to us the total leverage and the total leverage tells us to what extent the profit before tax would undergo a change in response to the change in sales. Thus, if operating leverage is 5 and financial leverage is 2, the total leverage would be 10 and hence for a 10% change in sales, the profits could go up by 100% or fall by 100% as the case may be.

High leverage indicates high risk and therefore, companies with high operating leverage need to be careful before adding financial leverage. Financial leverage gets added when the source of finance used is debt, since it involves interest which is a financial fixed cost. They need to finance their expansion through equity as a source of finance rather than debt, unless the expansion is happening at the bottom of a cycle. At the bottom of an economic cycle, the investment done plays to one's advantage as the leverage plays out favourably as a small jump in sales results in enormous jump in profits.

High operating and financial leverage would mean that the company is in a high risk, high return paradigm. Such companies would also have high beta. It is best to exit them when the markets are at a 'boom' scenario post which they would be most vulnerable to fall. On the other hand, they would be wonderful bets when the markets are at a bottom and any improvement in the underlying economic factors would benefit high leverage, high beta shares, as their profits would go up disproportionately.

Companies which go for 'Big-ticket' acquisitions when markets are booming by financing them by borrowings are most susceptible to fall when the markets correct. We need to be careful with these stocks if we have invested in them.

Repository of YouTube video links:

There are many videos including an entire playlist on learning finance. Here are a few select videos. You are welcome to refer to others. Some select videos from the investing domain are also shared here.

Video theme: Financial Statements.

Fundamental Accounting Equation: <https://youtu.be/JVuMjFBX4sl>

Equity Liabilities Assets: <https://youtu.be/y4wujdZpzxg>

The three financial statements: <https://youtu.be/3HSONQPnYbw>

Balance Sheet: https://youtu.be/B3LEIChWT_A

Examples of Balance Sheet: <https://youtu.be/UsJWfVAE950>

Personal Balance Sheet: https://youtu.be/5NS79y1t_RY

Are liabilities as bad as they are thought to be? : <https://youtu.be/Sx6QyZxQEXs>

Income Expenses: <https://youtu.be/8TfWlfdez00>

The Statement of Profit & Loss: <https://youtu.be/cufhEBbkkH0>

Examples of the Statement of Profit & Loss: <https://youtu.be/AFQAs455AOk>

Profit definitions: <https://youtu.be/c8NrmKv2VmQ>

Cash Flow Statement: <https://youtu.be/4bjTmlShqrY>

Examples of Cash Flow Statement: <https://youtu.be/pGrp7sizu4c>

Interlinkages among financial statements: <https://youtu.be/BWvNuzRoHTM>

Key numbers from financial statements: <https://youtu.be/omovnhgEKng>

Important profit definitions from Statement of Profit & Loss: <https://youtu.be/KV61LkMFvKQ>

Key numbers from Balance Sheet: <https://youtu.be/BMvRjD8bTIs>

How is depreciation different from amortization: <https://youtu.be/Fi3xPnjb-QY>

Does depreciation generate cash?: <https://youtu.be/c6Jm4HD6Zc0>

Is depreciation money kept aside for replacement of assets? <https://youtu.be/39L8nlmaLuY>

Are reserves or retained earnings the same as cash on the balance sheet?

<https://youtu.be/zS9q61a3zws>

Can we calculate gross profit from the Statement of Profit & Loss?:

<https://youtu.be/nG4XAYJTOel>

What is the concept of capital employed? : <https://youtu.be/oBe5Rccm7zE>

Video theme: Financial Statements Analysis.

Analysis of financial statements: <https://youtu.be/aMkcgUidiGU>

Horizontal analysis of financial statements: <https://youtu.be/v1RmgBPCRjw>

Vertical analysis of financial statements: <https://youtu.be/3Op0TuTj6WU>

Ratio Analysis: <https://youtu.be/H4zmP1EevM0>

Liquidity Ratios: <https://youtu.be/HVBN5Tx6qgg>

Capital Structure Ratios: <https://youtu.be/v6LN1UkqEnM>

Debt service ratio: <https://youtu.be/YdBPYra4t8s>

Turnover ratios: <https://youtu.be/oKzDWJjHm0w>

Profitability ratios: <https://youtu.be/6Kd7KFFz5i4>

Cost structure ratios: <https://youtu.be/F9skZkzNdCM>

Return on Investment ratios: <https://youtu.be/6WAJO2aPeBA>

Video theme: Investing in equities

What is the concept of face value and what is its role in shareholder rights?

<https://youtu.be/pQAsiP5AuMw>

Difference between IPO and OFS: <https://youtu.be/liEnztriW4Y>

Assess value before you invest: https://youtu.be/ca-9YLRi_J4

Equity Investing: Greed & Fear: <https://youtu.be/fwP11lg6EKw>

Factors influencing prices of equity shares: https://youtu.be/vTo_3yaU6Hw

Factors influencing prices of shares as an asset class: <https://youtu.be/PjFnW5mppsAs>

Comprehensive framework for assessing value drivers of a company: https://youtu.be/_rY9IjMCN_Q

Video theme: Equity valuation

Investors should distinguish between value, price and cost: https://youtu.be/XT_AvSI33i4

Using Price/ Earnings Ratio framework: <https://youtu.be/Y1tWbWJBpuE>

Enterprise Value (EV) / EBITDA Ratio: <https://youtu.be/lvAPuTNcLYQ>

Examples of using P/E Ratio: <https://youtu.be/FryiZlwaAcE>

Examples of using EV/ EBITDA Ratio: <https://youtu.be/kOlZH8nPktE>

Concept of beta and how it can be used in investing decisions:

https://youtu.be/DMTm2U3_y7s

A more detailed video on Beta: <https://youtu.be/vl4ad2YLM7U>

Time value concept is key to valuation: <https://youtu.be/p4RqeBhd83M>

Valuation of equity shares using time value: <https://youtu.be/ZYc09s7Zg9w>

Interesting way of assessing equity market levels using time value concept:

<https://youtu.be/Ro72hmd6pDA>

Video theme: Sustainability of business in the long-term

Framework for long-term sustainability of business: https://youtu.be/_3OIB6Ztc_4

Vision: <https://youtu.be/yQdEa8PScQo>

Value proposition: <https://youtu.be/yQdEa8PScQo>

Value delivery: <https://youtu.be/r9ITHXOLnZs>

Value creators: <https://youtu.be/E8nlqOrNEiA>

Value system: https://youtu.be/MwR_PYrTxAM

Miscellaneous Videos:

Simple Excel tool for monitoring your investments using time value:

<https://youtu.be/5plE7Kot9lw>

Logic of EMI calculation using time value: <https://youtu.be/MjLjnk7FTSc>

Thumb-rule of 72: https://youtu.be/gcjqPC_x1mI

Concept of IRR: <https://youtu.be/RnUN9gaKG1k>