CaBFLiP

Capacity Building for Financial Literacy Programmes

RESERVE BANK OF INDIA
College of Agricultural Banking
Pune

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Chapter 1

Money and Transactions

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What is this?

Is it possible to sell this piece of metal?

We all know that this piece of metal cannot be sold, it can only be used to buy some other goods – like Vegetables, Grains and Milk etc.

It is just a medium of exchange and it has a value – which is ₹10

Introduction

Once there was a rich landlord. He had lot of wealth but he could never get a peaceful night's sleep. He had a cheerful servant who lived without any worries. The rich landlord was puzzled as to how his servant could live without any worries in spite of being poor. So he went to his accountant and asked him the secret of his servant's happiness.

The accountant told the landlord to put 99 gold coins in a bag and give it to the servant. He also told the landlord that while giving the bag he should mention that there are 100 gold coins in the bag.

So the next day, the landlord gave a bag containing 99 gold coins, and told the servant that the bag has 100 gold coins. He told the servant that this is a gift for his good work.

The servant was very happy to get such a lot of money. He took the money home and on his way he was thinking about what all he would do with the 100 gold coins.

As soon as he reached home, he opened the bag and started counting the coins. The bag had only 99 coins. Immediately the servant became worried and went back all the way tracing the missing coin. He thought he might have dropped one coin on the way back. He searched the entire path but could not find that one coin. He got even more worried and he could think of nothing but the missing coin whole night. For the first time in his life he could not have a peaceful sleep. Since that day the servant kept counting the coins hoping to find the one missing coin lost in the bag. He spent more and more time every day to make sure no more coin is lot or pilfered. He remained worried.

Does Money bring happiness?

Definition Of Money

A piece of shell or metal or paper has to be declared as legal tender by the Government for it to become Money. Once a piece of metal or paper is declared as legal tender then it can be used as Money within the boundaries of the country.

Statutes and important sections with respect to issuance of coins and currencies in India

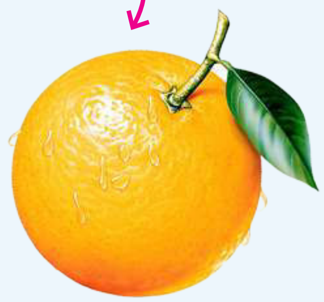
Coinage Act, 2011
Section 6 (Only coins issued under this section can be legal tender)

RBI Act, 1934
Sec 22,24,25,26,38

Reserve Bank of India (Note Refund) Rules 2009

Legal tender is any official medium of payment recognized by law that can be used to pay for public or private debt especially pay taxes to Government.

Can we use this orange to buy an apple?



May be we could have got an apple for this orange 3000 years back when money was not invented. Now, it will be very difficult to find someone who will give us an apple for this orange.

Can this 2gm gold coin be used as Money?

Sometimes it is possible to use this to buy other goods, because the 2g gold coin by itself has a value. (₹6500 as on 10.09.2016). When we use such coins which have an inherent value, then we can call it commodity money. If the item that we are using as money does not have any intrinsic value, but the value comes from Government order, then it is called Fiat Money. Today, world over all government use only Fiat Money

Types of Money

Fiat Money

The value of the paper of the currency note is much less than ₹2000, but this paper after being declared as legal tender can buy goods worth ₹2000

Vs

Commodity Money

The value of the coin is equal to the value of the gold. Even if it is not a legal tender it can buy goods equal to the value of the gold only.

Functions of Money

Medium of Exchange

Can buy goods or services that we want with money

Measure of Value

Acts as a common denomination for all transactions and settlement of debt

Standard of Deferred payment

Units of Debt can be denominated and settled

Store of Value

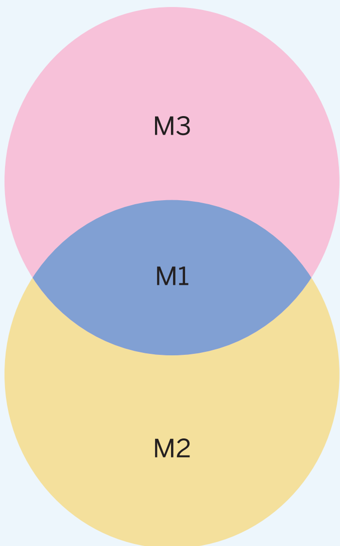
Can be saved, stored and retrieved predictably

Where was this coin minted?

Ans : There are no special marks below the year on coins minted at Kolkata

Monetary aggregates are categorized based on the liquidity of instruments.

Different money aggregates are M1, M2 and M3. They are defined below



M1: *Liquid Money : Cash and Checking Account balances*

M2: *M1 + Post Office deposits*

M3: *M1 + Time Deposits*

Money Supply and Classification

Money does not stay with one person, it keeps moving from one person to another. Because of the movement of money it also takes various forms. Let us look at the movement of money

Ram receives ₹50000 salary from his employer that is credited directly to his bank account on 1st of the month.

Ram invests ₹5000 in a fixed deposit which will mature after 1 year and invests another ₹5000 in a Government Bond which will mature after 20 years and withdraws ₹20000 for his expenses. Balance ₹20000 he leaves in the Savings Account

Out of the ₹20000 withdrawn, he pays ₹5000 to grocery shop, ₹2000 to Milk man, ₹1000 to telephone company, ₹1000 to Electricity Company and keeps the balance ₹11000 with him.

Various forms of money

Savings A/c
₹20000

The various forms that we can see are:

- ₹11000 available as currency with Ram
- ₹20000 available in Savings Account
- ₹5000 available in 1 year Fixed Deposits
- ₹5000 available as 20 year Government Bond

Liquidity:
How easily money can be converted to Cash

Money Aggregate has different classification based on how easily money can be converted into Cash

High Liquidity	Low Liquidity	Lower Liquidity
Cash and Money in Saving Account	Fixed Deposit	Government Bonds

Currency System in India

Identify the person

Ans : Udaykumar
Dharmalingam who is the
designer of the Rupee symbol

Where was this coin minted?

Ans : The diamond shape below the year indicates that the coin is minted in Mumbai

Production of Indian Currency

Currency Note Printing Center

Coin minting centers

1. Bharatiya Reserve Bank Note Mudran Private Limited, Salboni, West Bengal,
2. Bharatiya Reserve Bank Note Mudran Private Limited, Mysore, Karnataka
3. Indian Government Mint - Noida
4. Indian Government Mint - Mumbai
5. Indian Government Mint - Hyderabad
6. Indian Government Mint - Kolkata
7. Currency Note Press, Nashik, Maharashtra
8. Bank Note Press, Dewas, Madhya Pradesh

Security features of a Bank Note

The Reserve Bank of India issued` 2000 denomination bank notes in the Mahatma Gandhi (New) Series, without the inset letter, bearing signature of Dr. Urjit R. Patel, Governor, Reserve Bank of India, and the year of printing '2016' printed on the reverse of the bank note. The new denomination has motif of Mangalyaan on the reverse, depicting the country's first venture into the interplanetary space. The base colour of the note is magenta. The note has other designs, geometric patterns aligning with the overall colour scheme, both at the obverse and reverse.

The salient features of the bank notes are:

Obverse (Front)

1. See through register with denominational numeral 2000
2. Latent image with denominational numeral 2000
3. Denominational numeral २००० in Devnagari
4. Portrait of Mahatma Gandhi at the centre
5. Micro letters 'RBI' and '2000' on the left side of the banknote
6. Windowed security thread with inscriptions २०००, RBI and 2000 on banknotes with colour shift. Colour of the thread changes from green to blue when the note is tilted

Which metal is used to make this coin?

Ans : Ferratic Stainless steel

Which or whose figure will appear in the blank space ?

Ans : Ashoka Pillar

7. Guarantee Clause, Governor's signature with Promise Clause and RBI emblem towards right
8. Denominational numeral with Rupee Symbol, ₹2000 in colour changing ink (green to blue) on bottom right
9. Ashoka Pillar emblem on the right of Mahatma Gandhi portrait and electrotype (2000) watermarks
10. Number panel with numerals growing from small to big on the top left side and bottom right side

For visually impaired

Intaglio or raised printing of Mahatma Gandhi portrait, Ashoka Pillar emblem, bleed lines and identification mark

11. Horizontal rectangle with ₹2000 in raised print on the right
12. Seven angular bleed lines on left and right side in raised print

Reverse (Back)

13. Year of printing of the note on the left
14. Swachh Bharat logo with slogan
15. Language panel towards the centre
16. Motif of Mangalayan
17. Denominational numeral २००० in Devnagari

Dimension of the banknote is 66 mm × 166 mm

The Reserve Bank of India also issued ₹500 denomination banknotes in Mahatma Gandhi (New) Series, bearing the signature of Governor, Reserve Bank of India, and Swachh Bharat Logo printed on the reverse of the Banknote.

The new ₹500 banknotes are different from the earlier series issued before November 8, 2016 in colour, size, theme, location of security features and design elements; the principal features are –

→ The size is 66mm x150mm

→ The colour is stone grey

→ Red Fort-an image of Indian heritage site with Indian flag on the reverse

The banknote also has features (intaglio printing of Mahatma Gandhi portrait, Ashoka Pillar emblem, bleed lines, circle with ₹500 in the right, and the identification mark) which enable the visually impaired person to identify the denomination.

Soiled, Mutilated and Imperfect Currencies

There are rules and regulations on what to do with damaged notes depending on the extent of damage.

If this symbol is found below the year in coin, identify the location where the coin was minted

★

Ans : Hyderabad

Damaged Bank Notes

Soiled Notes
Become dirty due to usage

Mutilated Notes
Portion of note is missing or note is composed of more than two parts

Imperfect Notes
Wholly or partially obliterated

Exchange Value for damaged notes

Full Value
All Soiled Notes

- For denominations ₹1, ₹2, ₹5, ₹10, ₹20 if the single largest undivided piece presented is more than 50% of the area of respective denomination
- For Denominations ₹50, ₹100, the single largest undivided piece presented is more than 65% of the area of the respective denomination
- For all denominations a two piece note where both pieces presented belong to the same note and from the entire note

Half Value

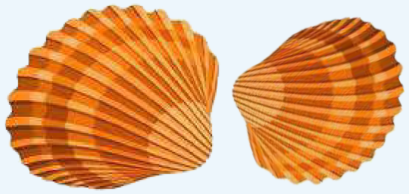
For Denominations ₹50, ₹100, the single largest undivided piece presented is more than 40% but less than or equal to 65% of the area of the respective denomination

No Value

- For denominations ₹1, ₹2, ₹5, ₹10, ₹20 if the single largest undivided piece presented is equal to or less than 50% of the area of respective denominations
- For Denominations ₹50, ₹100, the single largest undivided piece presented is less than 40% of the area of the respective denomination

Note: The legal tender character of the banknotes in denomination of Rs.500 and Rs.1000 issued by the Reserve Bank of India till November 08, 2016 was withdrawn from midnight of the mentioned date

Is it possible to use this shell as money?



Before coins in the current forms were introduced, pieces like these were used as money. Now of course they are not legal tender

Financial Wellbeing

Economic theories have been formulated with the belief that human beings take rational decisions and always want to maximize or optimise benefits. But recently, Nobel Prize winners Daniel Kahneman, Richard Thaler and others from leading universities like Chicago have found through research that most of us do not take rational decisions when it comes to Money and Finance.

Behavioural finance has created a huge body of evidence to support the idea that the so called rational man is anything but rational. All our decisions are driven purely by emotions. Internationally research has shown that man is not only irrational but "Predictably irrational". Which means no matter what we have learned and experienced in the past, the rational man can be expected to make the same irrational mistakes again and again.

Based on research and experiments, many scholars are evolving solutions to help overcome such predictably irrational behaviors, particularly to help the common man SAVE MORE and INVEST BETTER.

There are more than 20 identified behaviors like Lack of Self Control, Procrastination, Herd Mentality, Loss Aversion and Perceived Financial Scarcity which hinders us from managing money properly. India's savings rate has dropped from the high of 37% in 2008 to 29.3% in 2015. This is not actuallly an 8% drop. If we consider the fact that the economy has doubled in the last 8 years the drop in saving rate can be more than 8%.

Financial literacy has assumed greater significance in 21st century due to complex financial products, prevalence of fraudulent schemes, deregulation policies of regulators and government. Also, reduced role of government in providing social security making it necessary for the common man to have basic knowledge of personal finance.

Financial Literacy enables one to manage one's personal finance in a prudent manner and achieve financial wellbeing.

The objective of any financial literacy program is to improve KNOWLEDGE, SKILLS and BEHAVIOUR of individuals which will lead to awareness and action towards better management of their and family finances.

Along with financial literacy our attitude and behavior play a major role in overall wellbeing.

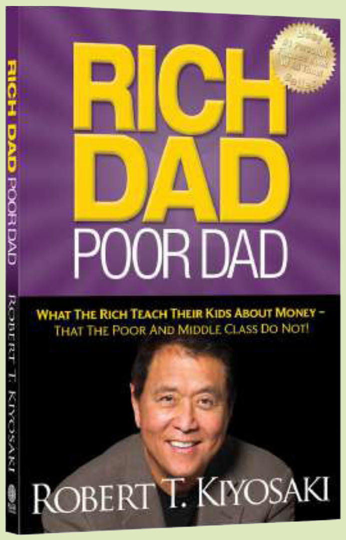
Chapter 2

Income

Contents

Rich Dad, Poor Dad by Robert Kiyosaki

The book was originally self-published in 1997 before being picked up commercially to become a New York Times bestseller



Story of Rich Dad Poor Dad by Robert Kiyosaki

Most of us work hard, but we always feel what we earn is not enough. At the end of the month we are looking forward to the salary credit. The famous book by Robert Kiyosaki explains how we can get out of this "Rat Race" and live a financially stress free life.

The story is about author's childhood interaction in Hawaii supposedly with two fathers- Rich father (Not biological) and Poor father (biological) and how he is influenced by them. While the rich father has no formal education but employs many people, the Poor father is highly qualified and has a very safe job but struggles financially.

Rich Dad's Advice

1. *Own Businesses, rather than work for business*
2. *Understand taxes to invent money*
3. *Work to learn rather than work for money*

Poor Dad's Advice

1. *Get good Grades in school and get a job*
2. *Pay bills and taxes well before time*
3. *Own a home as soon as you start earning*

Finally, we have to choose, whether we want to be rich or poor.

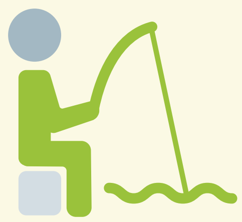
Classification of Income

Everyone in this world needs money for livelihood. And, there are many ways in which we can earn money. Here are some of the options available to us to earn money

Active Income Vs Passive Income

If we look at the options to earn money available to us, we can notice that how we earn money can indeed make a difference to our lifestyle. Let us take the case of Interest Income from investment and Salary Income from job –

Person earning Interest income



Person earning salary income

The difference is that Interest Income will be credited to our bank account even if we sleep all day. But Salary Income will not be credited, if we do not go to office. Certain types of Income require us to work hard on a regular basis while certain income types will be received whether we work regularly or not.

Income

Active Income
(Received after doing work)

- → Income from Salary
- → Farming
- → Business

Passive Income
(No need to work – Money Works for us)

- → Pension
- → Rent Income
- → Interest Income
- → Dividend and Capital Gains
- → Royalty Income

Generating Passive Income

Most people who are under 40, will hardly have any Passive Income. Particularly, when someone is starting a career there will be no Passive Income at all. As one starts earning and investing properly the Passive Income contribution can increase gradually and may reach 100% the day we stop working.

If we want to have good Passive Income in the near future, we must focus on our career and earn enough Active Income. We can either work for someone, do farming or start our own business to earn our Active Income, but we must continuously focus on increasing our income to enhance our financial wellbeing.

For enhancing Active Income, whether we are working or managing our own business, most important thing is to upgrade our skills constantly. Skills are becoming obsolete very fast in today's technology driven economy. The choice of whether to pursue own business, farming or working for someone depends on various factors.

Salaried or Business or Farming?

Business

- Diverse Skill Set for Business (Marketing, Finance, Selling, Product Development, Technolgy, Business Strategy)
- Financially Strong Family willing to support
- Requirement of Capital
- Ability to raise capital

OR

Job

- Specialized Skills for Job
- Monthly income is crucial
- No Capital required

Pros and Cons of various career choices

Salaried

- Financially less stressful
- Faster income growth in early career stage

- Job loss and uncertainty
- Income Growth will slow down after initial years

Business

- After initial period of struggle, income can grow at faster pace
- Freedom in decision making
- No worries about job loss and retirement

- Initial establishment period could be very painful and stressful
- 90% of startups wind up in first 3 years
- Uncertain Cash flows

Farming

- There is always a growing demand for quality agricultural products
- Freedom in decision making
- No worries about job loss and retirement

- Dependent on weather
- Economies of scale required to adopt technology and improve productivity
- Risk of Crop Loss

Government Support Available for Income Generation and Growth

Education Loans

As per the Model Education Loan Scheme 2015 Formulated by IBA,

- Available to meritorious students for pursuing Graduate, Post Graduate, Vocational and Certificate courses
- Maximum amount of Education loan can be ₹10 Lakh for higher education in India and ₹20 Lakh for study abroad
- No margin/security is required for availing and education loan upto ₹4 Lakh
- Sanction of Loan is a commercial decision of every individual bank depending upon various factors such as applicants family income, course to be pursued etc.,
- Repayment starts only after completion of course and that too with 1 year moratorium
- Government sponsored subsidy schemes like CSIS – Central Scheme to provide Interest Subsidy
- Repayment of the loan will be in equated monthly installments for a period of 15 years for all categories.

Farm Loans

Kisan Credit Card

- Any Individual Farmer, Tenant Farmer, Oral Lessor or Share Cropper is eligible to avail this facility. Even Self Help Groups /Joint Liability Groups are also eligible.
- Loan limit is fixed based on scale of finance for the crop multiplied by cultivated area. However, 10% of the limit will be allocated towards Post Harvest/ Conservation and 20% of the limit will be allocated towards maintenance of Farm Assets
- Operational benefits include - single window clearance, one time documentation but renewed annually, Smart linked to savings bank account, access to all channels like ATM, Internet and Branches
- Subsidized Interest Rate of 7% with 2% subvention benefits provided by Government to banks. Additional 3% subvention benefits can be availed by farmers if they repay the loan within prescribed time (which depends on the type of crop cultivated). Loan Duration is for 6-18months

Pradhan Mantri Mudra Yojana

Financial Support by way of collateral free loans for Micro Units

SHISHU: Loan of upto ₹50000 at Interest rate as prescribed by RBI guideline.

Kishor: ₹50000-₹5 Lakh loan at Interest rate as prescribed by RBI guidelines

Tarun: Rs.5 Lakh to Rs.10 Lakh loan at Interest rate as prescribed by RBI.

Interest Subvention

Interest subvention is available on crop loans upto Rs.3 Lakhs per farmer from date of its disbursement/ drawal upto the date of actual repayment of the crop loan by the farmer or upto the due date of the loans fixed by the banks, whichever is earlier, subject to a maximum period of one year

Inflation and Its Impact

₹ 100 in 2006

=

5 Ltr Milk

₹ 100 in 2016

=

2.5 Ltr Milk

Time Value of Money

Value of ₹100 in 2006 and Value of ₹100 in 2016 are not the same, because what we are able to buy in ₹2016 will be much less than what we could have bought in 2006. So value of money is always related to Time. This concept is called "Time Value of Money"
Since Money's value is reducing every year, money has to be invested so that it earns returns to grow and atleast maintain its value.

Money grows by the equation

$$A = P*(1+r)^n$$

A = Future Value of money after n years
P = Present Value of money
r =Rate of Interest
n = Number of years

As we can see value of A is impacted by of "r" and "n". Since the formula is complex many time we miss the magnitude of impact. To understand the magnitude of impact, we will try and simplify the Time Value of Money formula by Rule of 72.

Using Rule of 72, we can simplify the formula.

Rule of 72 states that $$R = \frac{72}{\text{Time taken to double P}}$$

So, if Rs 5000 becomes Rs 10000 in 10 years
R = 72/10 = 7.2%
Using this formula, let us try and estimate the magnitude of impact by r and n
There are 2 investment options providing 6% and 9% return respectively and both option amount is invested for 24 years. Table below shows the impact of "r" and "n" on ₹ 1 lakh investment. Applying Rule of 72, investment with return 6% will double every 12 years and investment with 9% will double every 8 years

n/ r	6%	9%
8		2,00,000
12	2,00,000	
16		4,00,000
24	4,00,000	8,00,000

In the same period of 24 years, Investment of ₹100000 with 9% interest has doubled wealth, compared to investment with 6% interest. Similarly Investment with 9% has not only doubled in 8 years but has become 8 times in 24 years.

Saving Vs Investment

We do only four activities with money – Earn, Spend, Invest, Borrow

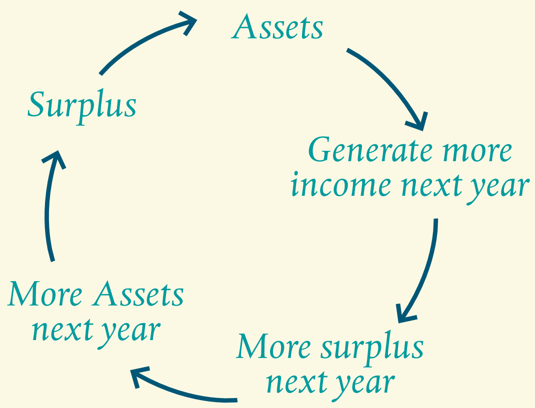
The Financial Equations

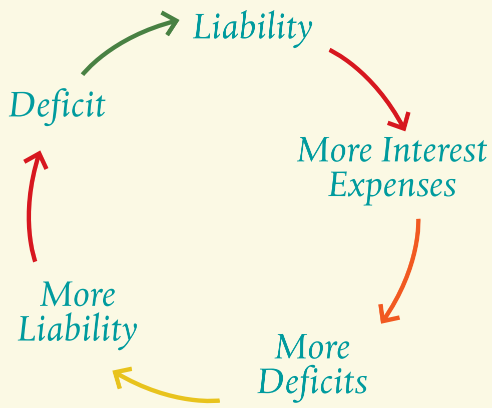
Earnings – Spending = Surplus/Deficit

Investment – Borrowings = Networth

Surplus money can be used to acquire Assets like Fixed deposits, Home, Stocks and Bonds. The assets we acquire can also be called investments. When we invest, we get returns on Investment and we have more earnings next year and our surplus will further increase.

Similarly, if we have deficit, we may have to borrow and when we borrow we will have to pay interest and our surplus is reduced or deficit is further increased next year. The cycle goes on year after year and we either accumulate Investments or liabilities depending on whether we are generating surplus or deficit.





Pre-Retirement Investment Products

While we earn for close to 35 years, we need to live without any income for almost 20 years. With growing inflation it will become difficult to manage 20 years without income.

Planning for retirement should be one of the most important financial goal, since no other goal needs as much money as post retirement expenses for most of us. We may have to make certain assumptions while estimating the corpus required for our retirement.

Retirement Planning assumptions

1. Expected inflation during our life time
2. Our Life Expectancy
3. Expected rate of return on our investment post retirement
4. Expected age of retirement
5. Estimated annual expenses of retired couple for the current year

Retirement Planning and estimating corpus required for managing post retirement expenses can be done in three steps and is explained using an example below with assumptions.

Step 1: Calculating expected annual expenses during first the year of retirement

The time value of money concept which we have learnt earlier can be applied to estimate the expected annual expenses during the first year of retirement. For e.g. if we assume

Present annual expenses of retired couple : Rs.3.6 Lakh

Present Inflation : 7%

Expected age of retirement : 60 (or number of years left for retirement is 30 years)

Expected annual expenses during the first year of retirement would be =

Present annual expenses of retired couple * (1+inflation)ˆnumber of years left for retirement

360000*(1+0.7)ˆ30 = Rs.27,40,412

Step 2: Calculating Real Investment return post retirement

If we assume that the present inflation of 7% p.a is likely to continue and expected return on post retirement as 8% p.a, the real return on investment after adjusting for inflation is

$$\text{Real Return} = \frac{\text{Nominal Return- Inflation}}{\text{1+ inflation}} = \frac{8\%-7\%}{1.07} = 0.93\%$$

Step 3: Estimating the corpus required for managing post retirement years

The final step is to estimate the corpus required for managing post retirement expenses. The corpus estimated should be available on the day of retirement, so that the post retirement expenses can be managed. In order to estimate the corpus, we need to make assumptions on life expectancy. For e.g. if we assume life expectancy to be 80 years, then number of years of post retirement will be 20 years. The estimated annual expenses of Rs.27,40,412 growing at 7% p.a will be required every year for 20 years during post retirement years.

Since in this case we are expecting a real rate of return of 0.93%, the total retirement corpus required can be calculated using the time value of money equation as follows

2740412 + {2740412/(1+real return)} + {2740412/(1+real return)^2} +...... + {2740412/(1+real return)^19}

= Rs.4,98, 02, 540

Post-Retirement Investment Products

Employee Provident Fund (EPF)

Employee Provident Fund is offered through employers. Normally 12% of the basic is deducted by employer and invested in EPF.

Current Rate of return : 8.5%

EPF now comes with portability, so if the subscriber changes job, facility is available to invest in the same account with new employer.

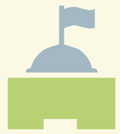
Public Provident Fund (PPf)

Public Provident Fund is available for everyone and can be opened through Banks or Post Office. PPF account will mature after 15 years, but investor can renew in blocks of 5 years after completion of first 15 years.

Loan or partial withdrawal option is available after 7 years.

Current Interest rate is 8.1%

National Pension System (NPS)



NPS is a defined contribution pension scheme launched with effect from 1st January, 2004 and in the initial phase covered the new entrants to the Central Government services (excluding Armed Forces) as well as State Government and Central Autonomous bodies on mandatory basis. NPS was extended to all citizens of India from 1st May, 2009 on voluntary basis. Partial withdrawals before attaining superannuation are allowed under NPS subject to certain conditionss. On attaining superannuation, atleast 40% of the accumulated corpus is to be annuitized and maximum 60% of the accumulated corpus is allowed for withdrawl. The withdrawal is subject to taxation as per current guidelines.

Stocks

Stocks are high risk investment products. Therefore, they are suitable for investors having adequate fundamental business knowledge, Stocks can be a good option as they provide better returns than any other investments.

Because of the liquidity available in the investment, many investors tend to invest in Equities with short term approach and end up with losses. Good returns can be expected if stocks are selected after through analysis and held for a longer period of time

Equity Mutual Funds

Equity Mutual funds invested through Systematic Investment Plan and in small amounts every month for a long period is a better Investment option compared to Stocks.

Since 1000s of schemes are available under this category it is confusing for investors to select a particular scheme and continue with the scheme for longer period.

Easier option would be to stick to 1 or 2 Equity Linked Tax Saving Schemes

Bonds

With an increased volatility in equity market, bonds are an essential investment option to stabilise any investment portfolio. Tax Free Bonds and Soverign Bonds are available for investments.

Bonds can also be purchased through Mutual Funds. One aspect that needs to be considered while investing in Bonds through Mutual Funds is the average maturity of the scheme. Average maturity should be same as investors cash flow needs..

NPS - Private Sector

NPS Corporate

NPS corporate model was introduced in December 2011 to provide a platform to the employees of the corporates/public sector undertakings /firms etc. Under this model various entities like companies, societies, SMEs, PSUs, partnership firms, proprietorship firm etc. can register for providing pension benefits to their employees. The registration of corporates and underlying employees is voluntary. Hence, there is a need to create awareness among the corporates and the employees about NPS

NPS – Individual Sector (All Citizens Model)

NPS was extended to all citizen of India on voluntary basis w.e.f. 01 May 2009. Under this model any Indian citizen in the age group of 18-60 years can open an NPS account and save for his future.

NPS – Lite (NPS-Swavalamban)

NPS Swavalamban is targeted at the weaker and disadvantaged sections and covers informal sector workers who are not covered under any other organized pension scheme. Swavalamban incentive of Govt. of India is offered to all the eligible accounts on fulfilling certain conditions until 2016-17. The said scheme has stopped enrolling new subscribers w.e.f 01.04.2015 consequent upon the launch of the Atal Pension Yojana.

Atal Pension Yojana

Atal Pension Yojana is a Government of India scheme administered and regulated by Pension Fund Regulatory and Development Authority. It is available to all Indian citizens between the ages of 18-40 years.

Post-Retirement Investment Products

Senior Citizen Scheme

Senior Citizen Savings Scheme (SCSS) 2004 is a very good option for retired. SCSS offers 8.6% as of 2016 and is interest paid quarterly. The interest received will be subjected to tax at applicable rates. The investment is 100% safe, however invetsment is limited to ₹15 Lakhs per person

Fixed Deposits

Fixed deposits are a very good option for those who have annual income less than ₹5Lakh, since they are in 10% tax bracket. Those who have annual income of above ₹5Lakh need to pay 20% tax on the interest income earned from Fixed Deposits.

Pension Plans

Pension Plans are offered by insurance companies. Pension Plans bring predictable cash flows to retired persons as the rate of return is fixed at the time of investment.

Many options are available to receive annuity payments like fixed payment terms for 5,10,15 years etc, return of corpus on death of investor, annuity payment till spouse life time, etc.

Like MIS, annuity received will be taxed.

Liquid Funds

Those who have retirement corpus of more than 60 Lakh may consider Liquid Mutual funds, as they offer better tax benefits. Liquid Mutual Fund scheme invests in short term fixed deposits of various banks and companies having high credit rating and hence risk is very low. The returns on the Liquid Funds are treated as capital gains. If withdrawal is done within 3 years of investment, it is treated as Short Term Capital Gains (STCG). Tax on STCG are same as fixed deposits. However, if withdrawal is done after 3 years, then indexation benefits are available and applicable tax rate is 20% after indexation or 10% without considering indexation.

Reverse Mortgage

For those who have inadequate retirement corpus, but have own house, reverse mortgage option can help in providing additional cash flow after retirement.

Recent ruling making the income under this option as tax free is an additional benefit to retired persons.

MIS

Very Popular scheme offered by Post office and banks for retired persons.

However they are losing their attractiveness because of the taxability of interest paid out.

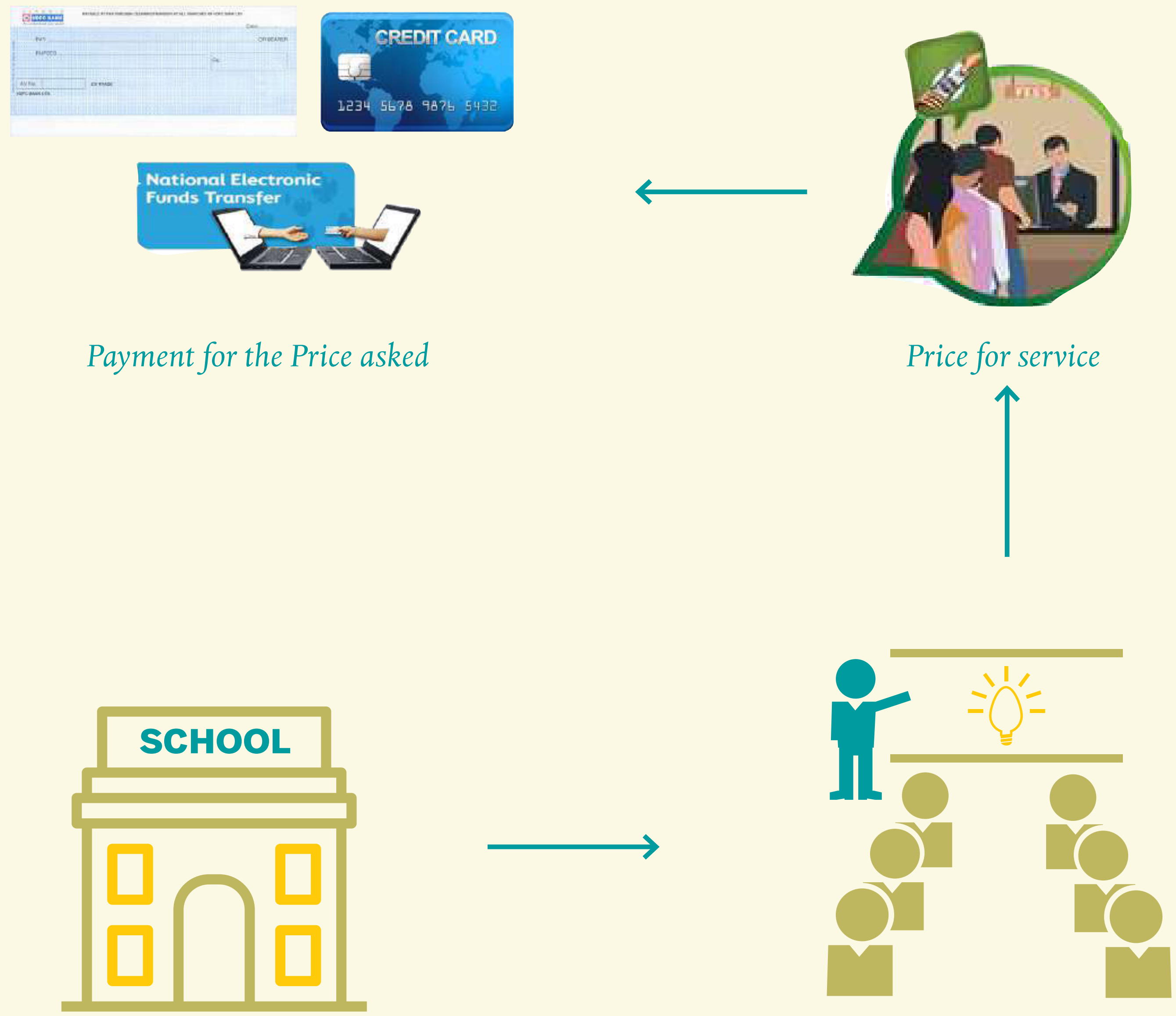
With effect from 1.04.2016 Interest rates have been reduced to 7.8% and those retired persons having annual income of ₹5 Lakhs will have to pay tax at the rate of 20% making the effective returns to 6.24%.

Chapter 3

Purchase, Price and Payment

Contents

Purchase, Price and Payment



Purchase of Service

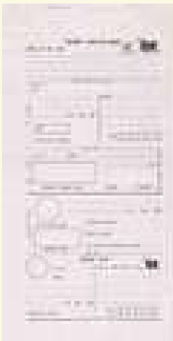
Whether as individuals individuals or as businesses we have to purchase some service or good every day. Each service or good has defined price. And we have to make a payment for the goods or services bought. This chapter focusses on how we make payment for the good or service we buy.

Types of payment

Cash

Oldest form of making payment for purchases done

Money Order

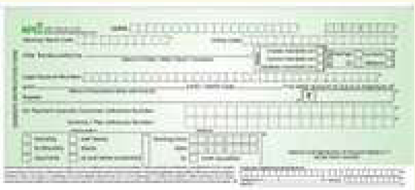


For those who don't have bank account, money order can be useful. Post Office has a facility to transfer cash from one location to another

Cheque

Payments can be made by issuing a cheque

NACH



Instructions can be given to bank to pull money from some other account and allow other account to withdraw money from our account.

This particulary useful in making regular payments towards Home loan, Regular Investment Plans etc

Prepaid Cards

Prepaid cards are not linked to any bank account. Money has to be transferred from bank to Prepaid Card Account number. Payments can be made only if balances are available in the prepaid card account.

Card (Debit or Credit)

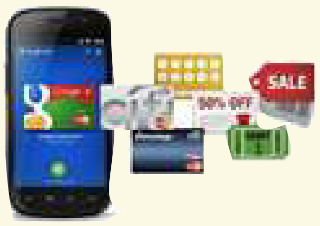
Debit cards are linked to bank account and payments towards purchases are immediately deducted from the linked account.

Payment made using credit cards are initially settled by the issuing bank to the merchants and banks allow 40-50 days' time to card holder to settle the money. If the card holder does not settle money by due date, bank will levy an interest charge

Electronic Funds Transfer

Money can be transferred from one bank account to another by electronic funds transfer. Bank transfer can be done by NEFT, RTGS and IMPS

E-Wallet or Mobile Wallet or Digital Wallet



Wallets are similar to prepaid cards and the only difference is that the account number in Mobile wallet is same as the Mobile number. The money is stored with reference to a mobile number and can be transferred to any other Mobile number

National Payments Corporation of India and National Automated Clearing House

Facilitate and affordable payment system for the common man

Consolidate and integrate multiple systems with various service levels into standard business process for all retail payment systems

भारतीय राष्ट्रीय भुगतान निगम
NATIONAL PAYMENTS CORPORATION OF INDIA

Umbrella organisation for all retail payments in India

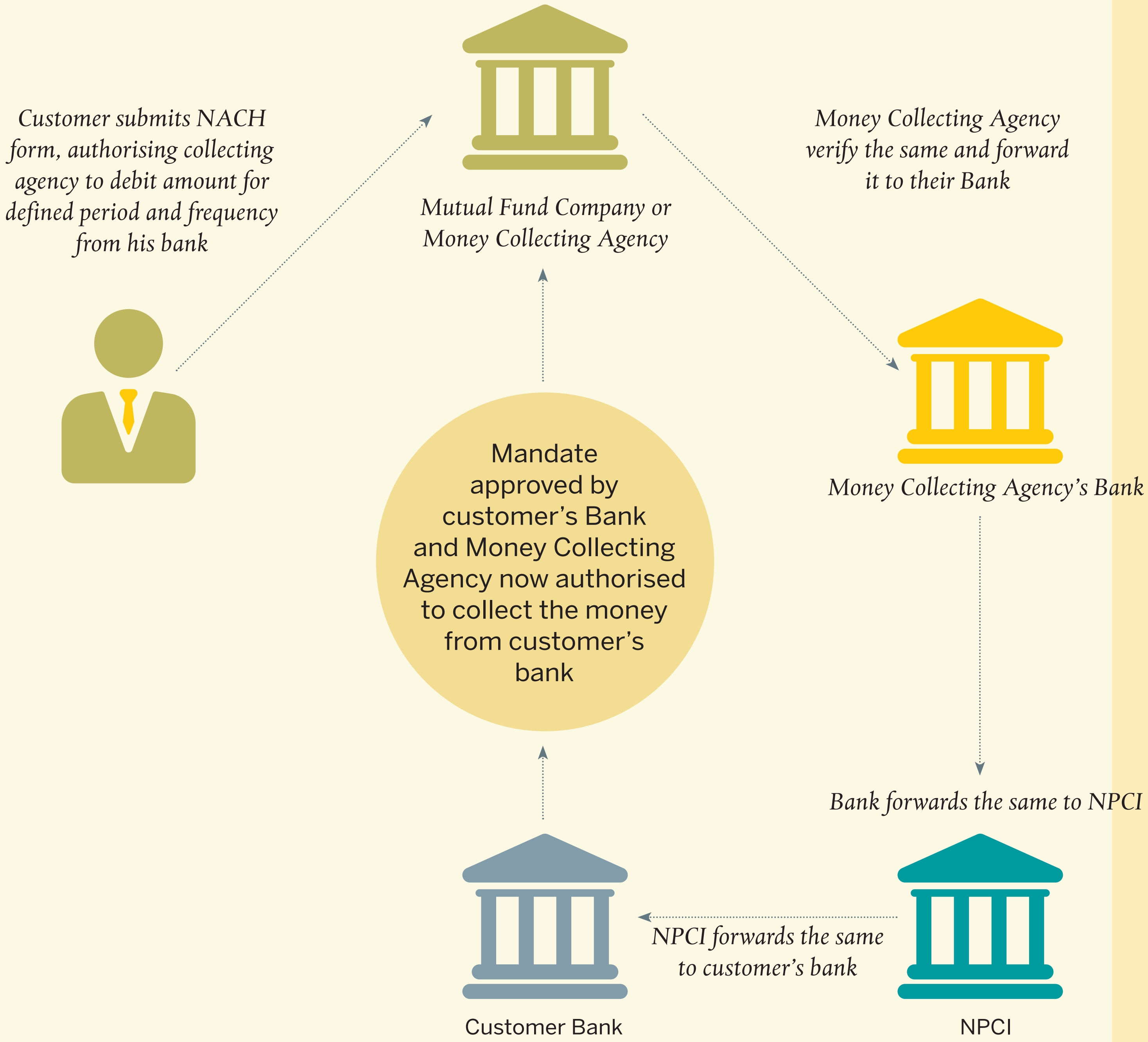
Aadhar Payment Bridge for distribution of social welfare schemes

NACH Credit for distribution of Salary, Pension, Dividend

NACH Debit for all debit transactions like Insurance Premiums, Mutual Fund and Investments

National Automated Clearing House (NACH)
Developed with an aim to consolidate various ECS systems running in the country and expected to cover entire core Core Banking Systems running in the country

How does NACH (National Automated Clearing House) work?



Bharat Bill Payment System and Rupay

Variety of Payment options

Large no of billers

NPCI is authorized Bill Payment Central unit and undertake clearing and settlement activities

Not to own any financial transaction. To connect, set standards and ensure transaction security

Acceptance of Discover and Diners Cards at 2 lakh ATMs

RuPay

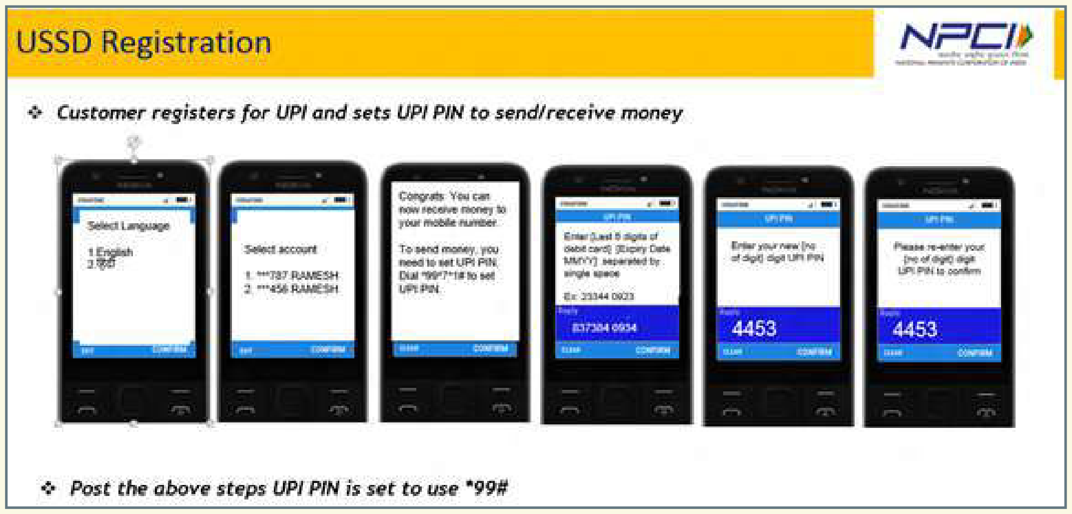
Global Card

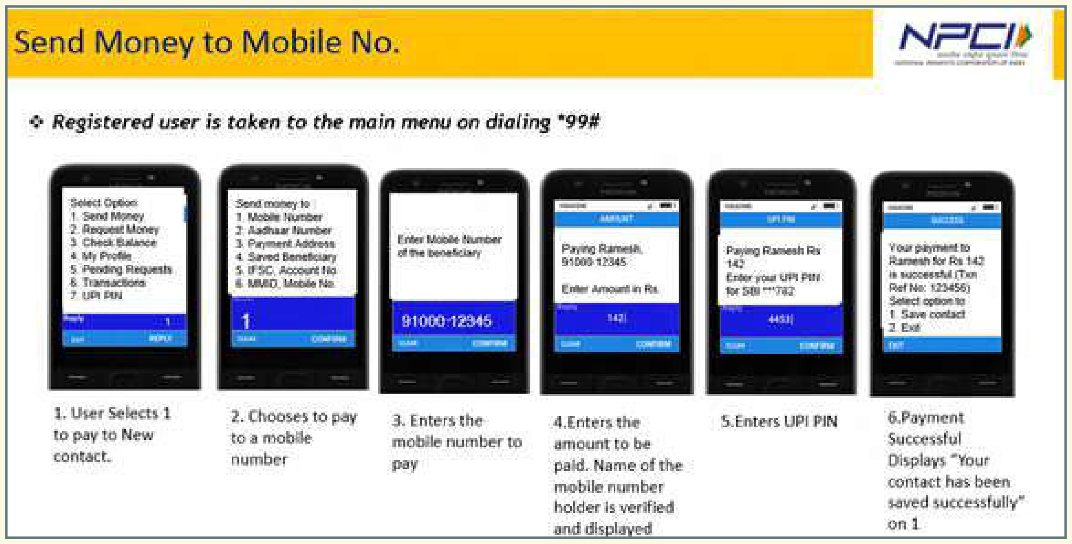
Rupay Card is accepted at over 5 lakhs merchant outlets in India

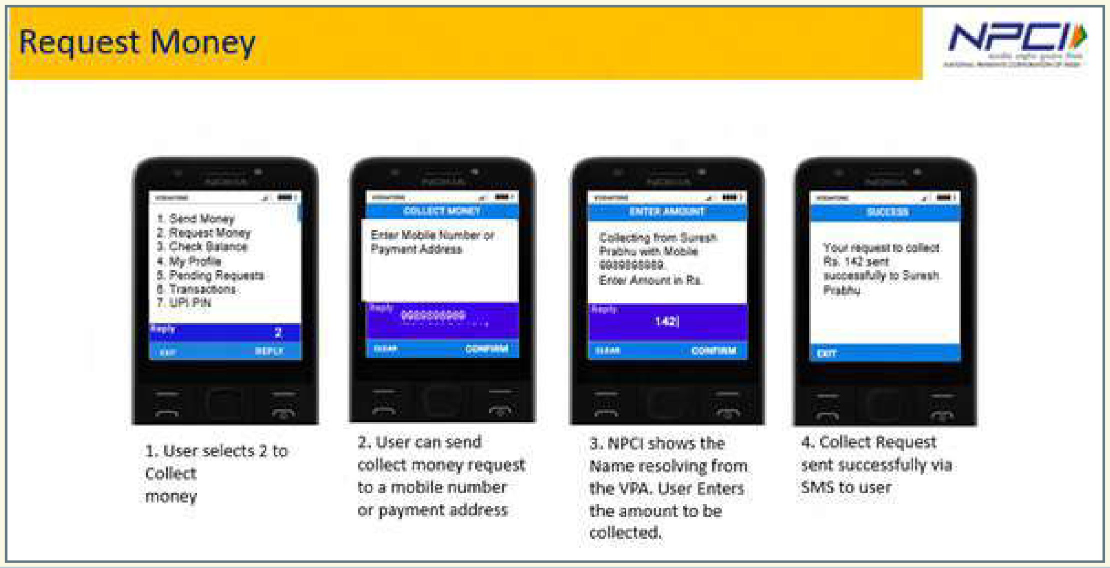
Rupay is an Indian domestic card scheme conceived and launched by NPCI. It was created to fulfill fulfill the need for a domestic a domestic open loop and multilateral system of payments in India

USSD 2.0

With the launch of USSD 2.0 UPI and USSD systems are unified for interoperability. USSD 2.0 allows one step on boarding process for users to send/receive money. User registration process and transactions flow are captured below for understanding operations.







IMMEDIATE PAYMENT SYSTEM (IMPS)

IMPS is a 24X7 instant interbank electronic fund transfer system. A multichannel and multi-dimensional platform which provides fund transfer in fraction of a second. IMPS is a product of NPCI

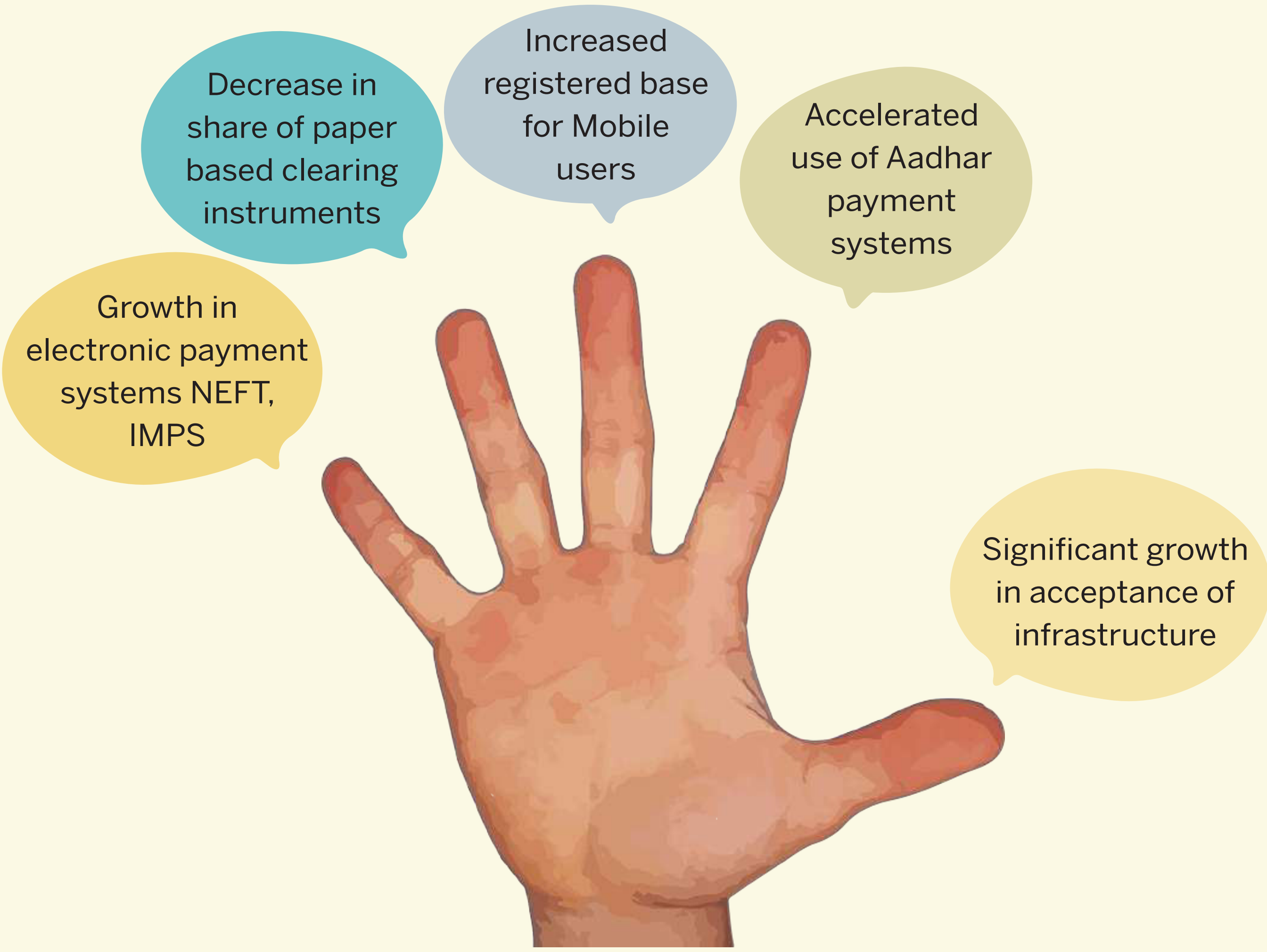
IMPS Transactions from multiple channels

From Mobile	From ATM	Internet Banking	Customer Initiated at Merchant Outlet	Merchant initiated
Using Mobile Number and MPIN	Card + ATM Pin	Username Login Password Transaction Password	Internet Banking IVR POS SMS Using Senders MMID Mobile Number MPIN	Internet Banking IVR POS Customers Mobile Number MMID OTP

Payment and Settlement Systems – Vision 2018

5C's of Vision 2018

Coverage	Convenience	Confidence	Convergence	Cost
Wider access to variety of payment services	Enhancing User experience through ease of use products	Promoting integrity of systems, security of operations and customer protection	Interoperability across service providers	Cost effective for users as well as service providers



Vision 2018 – Expected Outcome

Chapter 4

Financial records and Contracts

Contents

Important Financial Records

Following financial documents to be maintained and kept safe by all.

Bank Statements

- Crop Loan Statements
- Credit Card Statements
- Home Loan Statements
- Personal Loan Statements
- Vehicle Loan Statements

Insurance Contracts

- Prospectus
- Proposal Form
- First Premium Receipt
- Policy Document
- Renewal Premium Receipt
- Duplicate Policy

Investment Statement

- PPF Passbook
- EPF Statements
- NPS Statements
- Mutual Fund Statements
- Stock Broking Statements
- Demat Statements
- Savings Account
- Passbook

Tax Records

- Income Tax
- Property Tax
- Sales Tax

Property Records

- Registration Documents
- Sale Deed
- Property History
- Share Certificate
- NOCs
- Encumbrance Certificate
- Patta-Katha-7/12 which ever is applicable
- Rent Agreements

Vehicle Registration

- RC Book
- Pollution Certificate
- Vehicle Insurance

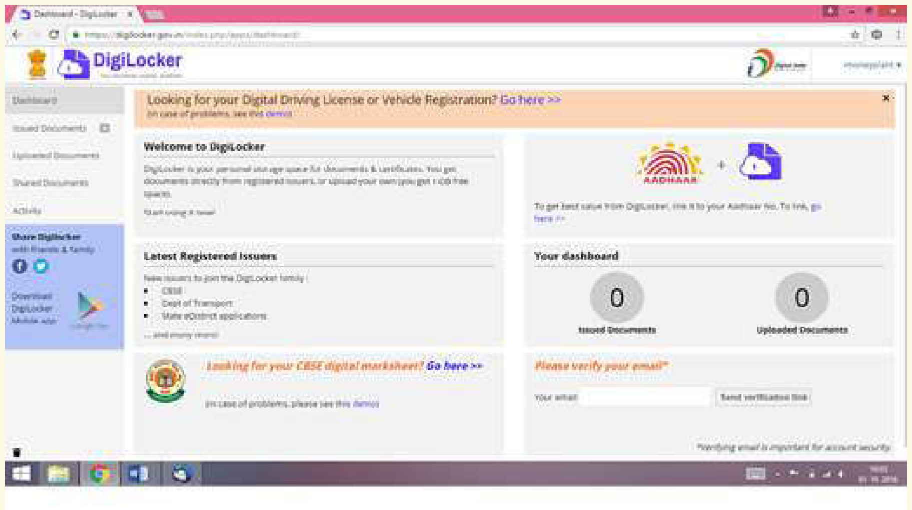
Personal Identity documents

- Aadhar Card
- PAN Card
- Voter ID Card
- Passport
- Driving License
- Will

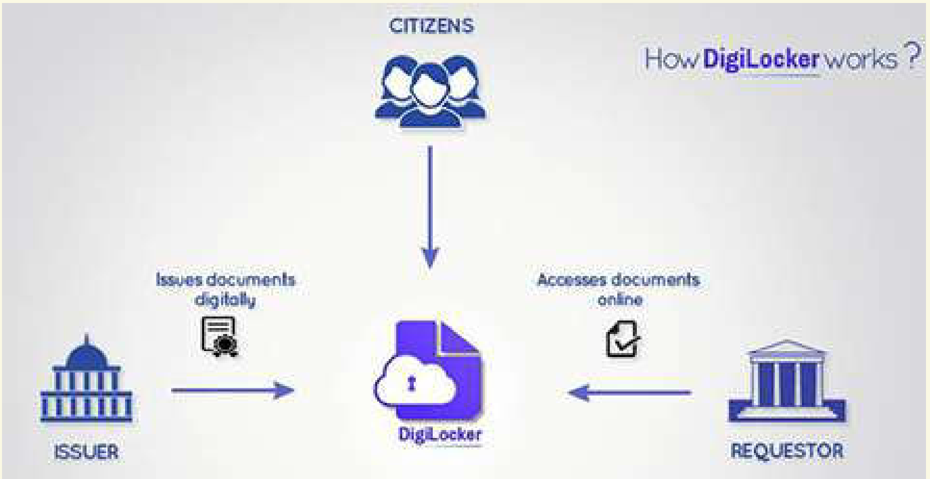
All the documents can be stored safely electronically at digilocker service provided by Government of India at **https://digilocker.gov.in.** Many government bodies have also started issuing e-documents directly through digilocker account.

About Digilocker

DigiLocker is a key initiative under Digital India, the Indian Government's flagship program aimed at transforming India into a digitally empowered society and knowledge economy. DigiLocker ties into Digital India's visions areas of providing citizens a shareable private space on a public cloud and making all documents / certificates available on this cloud.



Targeted at the idea of paperless governance, DigiLocker is a platform for issuance and verification of documents and certificates in a digital way, thus eliminating the use of physical documents. Indian citizens who sign up for a DigiLocker account get a dedicated cloud storage space that is linked to their Aadhaar (UIDAI) number. Organizations that are registered with Digital Locker can push electronic copies of documents and certificates (e.g. driving license, Voter ID, School Certificates) directly into citizens' lockers. Citizens can also upload scanned copies of their legacy documents in their accounts. These legacy documents can be electronically signed using the eSign facility.



The platform has the following benefits:

- Citizens can access their digital documents anytime, anywhere and share it online. This is convenient and time saving.
- It reduces the administrative overhead of Government departments by minimizing the use of paper.
- Digital Locker makes it easier to validate the authenticity of documents as they are issued directly by the registered issuers.
- Self-uploaded documents can be digitally signed using the eSign facility (which is similar to the process of self-attestation).

More about digilocker is available at **https://digilocker.gov.in/resource-center.php**

Maintenance and Preservation of Records

Various regulators, enforcement agencies and institutions have stipulated number of years the contracts and statements must be kept for verification.

SEBI

Under the SEBI Regulations for Stock Brokers, Merchant Bankers, Portfolio Managers, Underwriters, Debentures Trustees, FIIs, Custodian of Securities and Depository Participants the Records prescribed by SEBI under relevant Regulations must be maintained for a minimum period of 5 years.

Under the SEBI Regulations for Venture Capital Funds and Mutual Funds the records prescribed by SEBI under relevant Regulations must be maintained for a minimum period of 8 years. SEBI regulations for Registrar and Transfer Agents and Bankers to an Issue the records prescribed by SEBI under relevant Regulations must be maintained for a minimum period of 3 years.

Companies Act

8 years preceding current financial year

For "Not for Profit Companies" 4 years preceding current financial year

Records of Amalgamated/ Transfer Company must not be disposed without prior permission of Central Government

Records of wound up company must not be destroyed for 5 years from the date of dissolution

Register and Index of Debenture members must be held for 15 years after debenture redemption

Annual returns and certificates filed with ROC must be kept for 8 years after filing

Income Tax Department

6 years from end of relevant assessment year, which means 8 financial years. FY 2009-10 records must be kept till 31.03.2016

Central Excise

Daily Stock Account of goods produced must be maintained for 5 years immediately after the financial year to which such records pertain

Service Tax

Records maintained under various other laws in force from time to time would be acceptable

THE BANKING COMPANIES (PERIOD OF PRESERVATION OF RECORDS) RULES 1985

Vide S.O 265 (E), dated 29th March, 1985, published in the Gazette of India, Extra t, II Sec. 3(ii), dated 29th March, 1985

Rules:

Every banking company shall preserve, in good order, its books, accounts and other documents mentioned below, relating to a period of not less than 5 years immediately preceding the current calendar year.

Ledgers and Registers:

1. Cheque Book Registers
2. Delivery Order Registers
3. Demand Liability Registers
4. Demand Remittances Dispatched Registers
5. Demand Remittances Received Registers
6. Vault Registers

Records other than Registers

1. Telegraphic Transfer Confirmations
2. Telegrams and Telegram confirmations

Companies (Preservation and Disposal of Records) Rules, 1996

In exercise of the powers conferred by sub-section (1) of section 642 read with subsection (1-A) f section 163 of the companies Act, 1956 (1 of 1956), the Central Government hereby makes the following rules namely:-

1. Short title and commencement
2. Destruction of Documents
3. Preservation of documents beyond the period prescribed
4. Register of documents destroyed to be maintained

THE SCHEDULE

(See Rules 2 and 3)

Names of Documents	Period
(1) Register of members commencing from the date of the registration of the company	Permanent
(2) Index of members	Permanent
(3) Register of debenture-holders	15 years after...

8P's to consider before signing contract

Place of Jurisdiction

If you are signing a contract with a Multi National Company, they may mention Place of Jurisdiction as a place which is outside the country you are living and it will be very expensive if you have to initiate legal proceedings against that company in another country

Percentage Rate

Whether investing or borrowing, % rate is one of the important factor. Whether % rate mentioned is to be paid or charged on daily basis, monthly, quarterly, or annual basis makes a lot of difference. Many a time the contract may mention that the institution has the right to change the % rate from time to time. If you are aware, you will be prepared for this and will not be shocked when rates are revised

Payment Terms

For receiver, if payment terms are subjected to many approvals then there is a possibility of delay in realizing the payment. For payments towards credit card dues etc, even a one day delay can attract lot of penalty and interest charges

Principal Amount

Loan contracts runs into hundreds of pages and Principal Amount is written in hand by lender's representative in many pages. There is a possibility of mistakes happening. Hence it is important to check every page before signing. Similarly, while making an investment, check the principal amount written in the statement

Penalty Clause

All contracts specify the roles and responsibilities of parties. Violation of responsibilities may attract penalties

Processing charges, taxes and fees

Many contracts may have hidden charges in the form of Processing Fees, additional taxes like Service Tax etc

Period of Validity

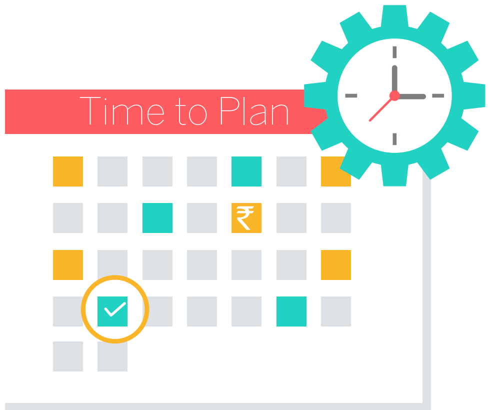
Every contract will have a period of validity and expires after the validity date. No legal action can be taken after the validity period is over

Premature Termination

Many contracts impose additional penalty for premature termination. Understand premature termination clause before signing because they can turn out to be very expensive

Chapter 5

Financial Planning



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- Mischel, Walter.1968. Personality and Assessment. Hoboken, NJ: John Wiely
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- Ozlem Ayduk, Marc G Berman, B.J,Casey, Ian H. Gotlib, John Jonides, Ethan kross, Theresa Teslovich, Nicole L Wilson, Vivan Zayas, et al.2010 "Willpower over the Life Span : Decomposing Self-Regulation." Social Cognitive and Affective Neuroscience 6, no.2:252-6

One Marshmallow now or Two Marshmallows Later

Year : 1970

Place: Bing Nursery School, Stanford University

Researchers: Professors Walter Mischel and Ebbe B Ebbesen

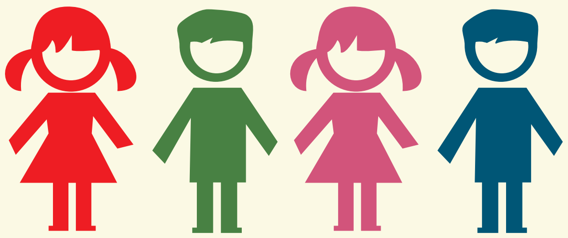
The subjects of research were children in the nursery school aged between 3 years 6 months and 5 years 8 months.

Marshmallow Test

The small nursery school children were asked to come into a room one by one. They were made to sit on a table. On the table was a "Marshmallow (soft, sweet and tasty toffee like stuff which comes in different colors).

The Professors wanted to test how many of the children can resist from eating the marshmallow for 15 minutes. So, they told the children, if they don't eat the marshmallow that is kept in front of them for 15 minutes, they will get two marshmallows.

Now, that's a very good deal. Just wait for 15 minutes and take away two marshmallows. Any sensible child should do that.



Surprise!

Some children could not even resist the marshmallow for even one minute. Some waited for 3 minutes, some waited for 5 minutes, and some waited for 14 minutes and 30 seconds and then ate the one marshmallow which was so tempting in front of them.

More than 2/3 of children could not resist the temptation in front of them.

Year 1988: Follow up Study with the same children who have now grown up

They spoke to the parents of the children. Parents of those 1/3 children who walked away with 2 marshmallows mentioned that the children were very competent while they were growing up.

Another follow up study in the year 1990, showed again that those who resisted temptation at the age of 4, had better SAT scores which got them admission to better colleges. (SAT is an examination similar to IIT-JEE in India for getting admissions to some of the best colleges in US)

Finally, Professors Walter Mischel and Ebbe B Ebbesen concluded that success in all walks of life is related to just one thing – Postpone temptation or **"Delayed gratification".**

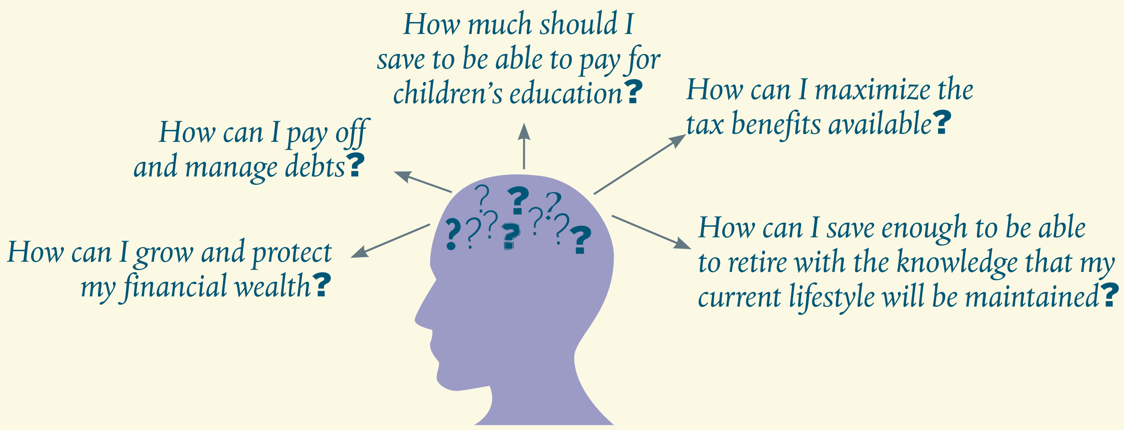
The above marshmallow experiments in different forms were conducted by many other researchers, with almost similar results. The behavior **"Lack of Self-Control"** is one of the main reasons why many are not able to enhance Financial Wellbeing.

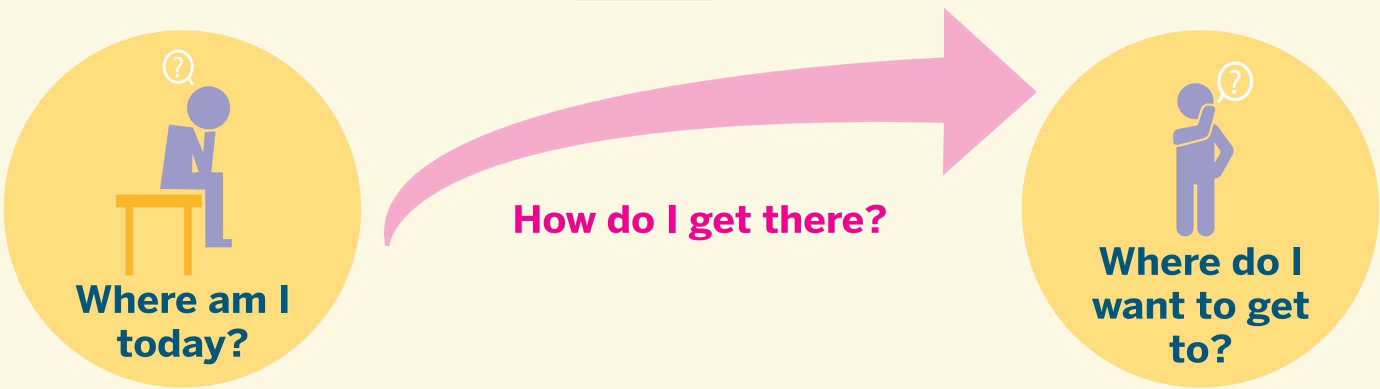
Introduction to Financial Planning

Financial decisions form the basis of much of what we do in our lives. Poorly thought out personal finance decisions can at best cause great anxiety and at worst lead to bankruptcy, whereas well thought out, sound financial decisions can lead to a prosperous lifestyle.

We are confronted by countless financial opportunities in our daily lives. To make the best of these, we need to understand the complexities of our financial circumstances to make sound decisions.

Everyone has concerns about their personal finances.





Most important question in Financial Planning is – Where do I want to get to?

If we are not clear where we want to get to it is not possible to do any planning. Hence most important step in Financial Planning is Goal Setting.

Financial planning is the process of making decisions about money which helps us achieve our goals.

Steps in Financial Planning

Financial Goal Setting

Many of our Goals are almost similar. But the amount we need for the goals will vary depending on our Income and Lifestyle. Common Financial Goals are

1. Emergency Funds
2. Children's Education
3. Children's Marriage
4. Home
5. Car
6. Vacation & Pilgrimage
7. Financial Freedom and Retirement
8. Charity & Donations
9. Giving Wealth to next generation
10. Family Function
11. Capital for Starting a business

Step 1: Identify Financial Goals

There could be other goals than what is listed above. First step is to identify what all goals to be pursued. It is also recommended that number of goals is to be limited to a maximum of 3 at a time. If we have more goals, then we will not have enough resources to allocate to all goals and goals may not be achieved.

Example of Goal Identification

Alok is an MBA working as a Sales Executive with a leading car manufacturer in Mumbai. He got married recently and his wife is an engineer looking for a job. His current monthly income is ₹80000 and lives in single bedroom apartment in suburbs of Mumbai. He is not able to manage his expenses with his monthly income ever since his marriage 4 months back. He has been meeting the deficit through credit card which has now accumulated to ₹15000. He is hoping that he will get a bonus of around ₹40000 in another 3 months and will be able to repay credit card loan.

What could be possible financial goals for Alok?

Based on Alok's present family situation, Financial Goals for Alok could be:

Emergency Funds for meeting any unexpected expenses

Buying a Home

Retirement

Step 2: Prioritize Goals

All of us want to achieve many goals. But given the fact that resources are limited it may not be possible to achieve all goals together. Prioritizing goals will help us achieve goals faster.

Exercise: Goal Prioritization

Abhishek is a small business man. He has his own shop in Allahabad selling seeds and gardening equipment. His average monthly profit is ₹50000. Abhishek lives with his wife, son and daughter in his ancestral house

What goal should Abhishek pursue immediately? Saving for daughter's marriage or Saving for son's education?

Step 3 – Estimate Amount Required for the Goal

Most important factor in a Financial Goal is the amount. How much is required for the Goal?

For Example, we had set 3 Goals for Alok, Amount required for the goals could be

1. Emergency Fund – Atleast 6 months Income – Which is ₹480000
2. Buying a Home – Since it is not easy to buy a home by paying full amount most of us have to avail home loan to fulfill our goal of buying a home. If we assume, that Alok's home will cost ₹1cr in Mumbai then atleast ₹20Lakhs will be required as down payment. If this going to be difficult, may be Alok will have to buy a home in other city where rates are lower
3. Retirement Goal : Will be discussed in detail later

Step 4 – Estimate the time when the Goal will be realised

Second most important factor in a Financial Goal is estimate when the goal will be realised or likely to happen.

For estimating goal timelines, we need to look at available resources today and expected monthly savings. In Step 1, we had considered 3 possible goals for Alok and priority goal could be to accumulate Rs.480000 towards emergency fund. If Alok saves ₹10000 per month towards emergency fund, it will take 4 years for him to accumulate ₹480000. If he has to achieve earlier, then he will have to save more every month.

Based on the above 3 steps, we can write Goal for Alok as

I WILL ACCUMULATE ₹480000 TOWARDS EMERGENCY FUNDS BY 31.12.2020
BY SAVING RS.10000 EVERY MONTH IN XYZ INVESTMENT SCHEME

The above goal setting has all the features that is required for a SMART Goal

Specific:	Saving For Emergency Fund
Measurable:	Every month we can measure what % of the goal has been achieved
Achievable:	If Alok saves ₹10000 every month without fail it can be achieved
Realistic:	Considering Alok's Income of ₹80000, savings is realistic
Time bound:	Goal will have to achieved by 31.12.2020

Goal Setting Exercise

Abhishek is a small business man. He has his own shop in Allahabad selling seeds and gardening equipment. His average monthly profit is ₹50000. Abhishek lives with his wife, son and daughter in his ancestral house.

Other details

Age of Family Members

Abhishek	:	45years
Abhishek's wife	:	38 years
Abhishek's Son	:	15 years
Abhishek's Daughter	:	13 years

Savings available with Abhishek

1. Home worth ₹80 Lakhs where he is staying presently
2. PPF : ₹350000 maturing in 2025
3. Fixed Deposit of ₹300000 maturing in 2018
4. Gold Jewelry worth ₹600000

Write 3 most important goal statements for Abhishek

Importance of Budgeting and Savings

The message from Marshmallow Test for all of us is that we must not fall prey to temptation; we must somehow divert ourselves from the temptation. This is very important for achieving success in our Academics, Sports, Career, and Health and most importantly with our Financial Wellbeing.

When we receive money in hand, there are lots of marshmallows in front of us that we want to buy. Look at the list below which we all want to buy, the list can be endless. We want to have everything that we see.








It is very hard to resist these! Unlimited needs!

How to resist temptation and get two marshmallows later?

In order to get 2 marshmallows in future, we need to cultivate an important and powerful habit – "Habit of Regular Saving".

Let Number 1 item in the budget be Savings

SAVINGS

"Do not save what is left after spending, but spend what is left after saving"

- Warren Buffett

Savings Ratio

Most of us follow the equation

But, if we follow this equation there is a high probability that we fall prey to temptation and may not be able to save. Hence, if we change the equation to

There is a chance that we can save more. Currently, not only India's saving rate, but savings rate worldwide are consistently falling, because of rise in expenditure and pattern of expenditure

Country	2007	2008	2009	2010	2011	2012	2013	2014	2015
India	37%	34%	34%	34%	34%	32%	32%	31%	29.3%
China	50%	52%	52%	51%	49%	50%	50%	49%	
Indonesia	26%	26%	31%	33%	33%	32%	31%	31%	
Philippines	52%	52%	58%	61%	45%	43%	45%	46%	
Brazil	17%	17%	14%	19%	19%	17%	15%	16%	

Source: The World Bank (http://data.worldbank.org/indicator/NY.GNS.ICTR.ZS?page=1)

From the high of 37% in 2007 India's saving rate has fallen to 29.3% in 2015. This is 8% fall in savings rate.

What should be the monthly savings?

As we see in the above table India's savings rate is 29.3%, which means many people are still saving below 30%. So an Ideal Saving Target is to aim for saving 30% of monthly income consistently.

Our Financial Wellbeing depends on how much we save. For some of us it may be very difficult to save and many in India have not been saving at all. For those who have not started saving, they can start with 5% of monthly income and gradually increase it every year

2

After budgeting is done for saving, measure savings ratio.

$$\text{SAVINGS RATIO} = \frac{\text{MONTHLY SAVINGS}}{\text{MONTHLY INCOME}}$$

The Savings Ratio Chart

Provided below is a sample Savings Ratio Chart. It is recommended that everyone prepare their own Savings Ratio Chart as provided below and update it every month. Effort should also be made to increase savings ratio by very small percentage every month. If it is not possible to increase every month atleast savings ratio should not be allowed to fall. Whenever there is an increase in income, savings may be increased.

Year	Month	Income Received	Saved	Savings Ratio
2016	Oct	₹60000	₹3000	5%
2016	Nov	₹60000	₹4500	7.5%
2016	Dec	₹60000	₹6000	10%

Budgeting for Expenses

Since there are so many expenses that we will have to incur, expenses needs to be prioritised. Some expenses we incur are monthly in nature like Electricity bills, Telephone bills. Some expenses could be quarterly like school fees etc. While some other expenses could be annual like Insurance premia.

Below is a list of possible expenses. Everyone can prepare a customized expense chart for themselves.

Monthly Expenses	Quarterly Expenses	Annual Expenses
Groceries	School Fees	Life Insurance Premium
Vegetables and Milk	Society Maintenance	Health Insurance premium
Gas Bill		Vehicle Insurance
Electricity Bill		Festivals
Water Bill		School Uniforms and Accessories
Telephone Bills		Summer Vacation
Rent/ Housing Loan EMI		Birthdays and Anniversaries
DTH/Internet		Family Functions and Gifts
Newspaper/Stationery		Property Tax
Transportation		Income Tax
Private Tuition Fees		
Hobby Classes/Gym		
Regular Medicines		
Vehicle Loan EMI		

Once the expenses are identified and categorized total expenses can be identified as follows

Total Month Expenses	Total Quarterly Expenses	Total Annual Expenses
₹40,000	₹24,000	₹1,80,000

Most of us focus on monthly expenses and fail to budget expenses which are quarterly and annual in nature. When these expenses come up suddenly, we are surprised and shocked. Hence before we start budgeting for monthly expenses, it is important that quaterly and annual expenses are identified and budgeted for.

Allocating funds for Quarterly and Annual expenses

In the above example Quarterly Expenses are ₹24000 and Annual Expenses are ₹1,80,000. To meet the above expenses monthly allocation can be done as follows:

Expenses Type	Total Expenses Budgeted	Monthly Allocation
Regular Quarterly Expenses	₹24000	₹8000
Regular Annual Amount	₹180000	₹15000
	Total Monthly allocation required	₹23000

Once monthly allocation is done for quarterly and annual expenses, it is recommended that a Systematic Investment Plan be started immediately for the total monthly allocation estimated.

Now comes the difficult task of meeting the current month expenses with balance available.

Balance available = Income – **Committed Savings** – Allocation for Quarterly and Annual Expenses

To allocate balance available to monthly expenses, monthly regular expenses to be prioritised

Monthly Expenses
Groceries
Vegetables and Milk
Gas Bill
Electricity Bill
Water Bill
Telephone Bills
Rent/ Housing Loan EMI
DTH/Internet
Newspaper/Stationery
Transportation
Private Tuition Fees
Hobby Classes/Gym
Regular Medicines
Vehicle Loan EMI

→

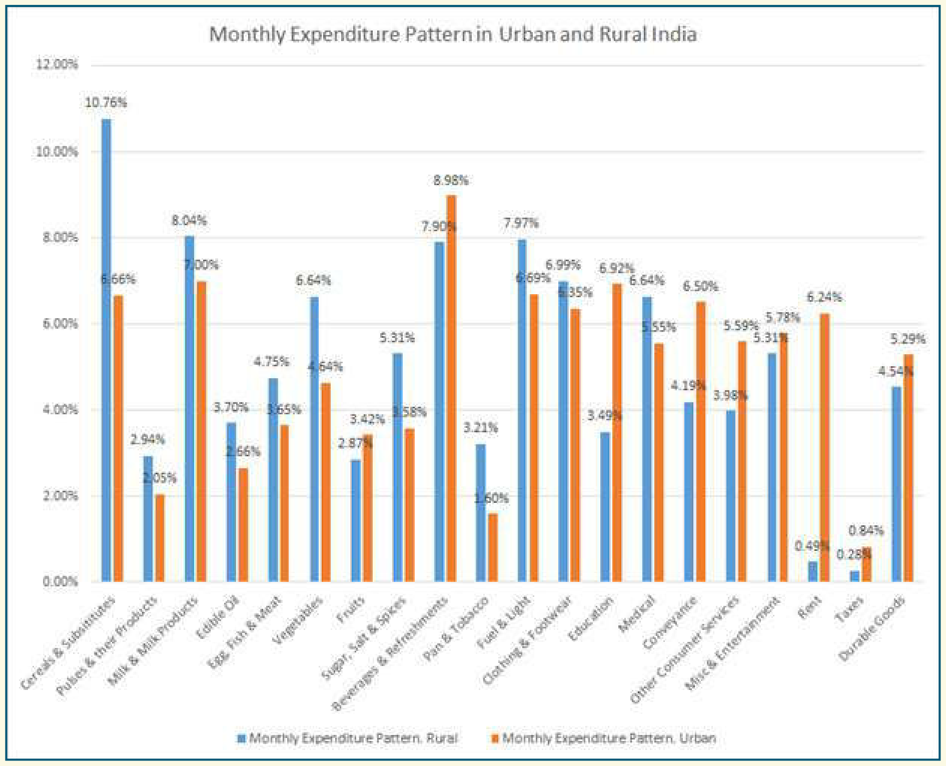
Priority	Expenses	Amount
1.		
2.		
3.		
4.		
5.		
6.		
7.		
8.		
9.		
10.		
11.		
12.		
13.		
14.		

If balance available is not sufficient to meet the regular monthly expenses then, first it is advisable to look at all the expense items and see if any of the expenses can be controlled. If after reducing the expenses to maximum possible, still balance is not sufficient, then one can look at quarterly expenses and annual expenses and see if any of them can be reduced at all. If so, the quarterly and annual expense need to be re-estimated. Even after reducing quarterly and annual expenses, if balances is found to be insufficient, then the last option is to reduce the savings and rework the expense budget once again.

We can use data available on consumption pattern in the country to help us budget our expenses.

Expenditure Pattern in India

To understand if we are on the right track with respect to managing expenses, presented below is the consumption pattern in India based on 68th NSS Survey conducted and presented during the year 2014.




Where Rural India is spending more?	Where Urban India is spending more?
Cereals	Fruits
Pulses	Beverages and Refreshments
Milk & Milk Products	Education
Edible Oil	Conveyance
Egg, Fish and Meat	Other Consumer Services
Vegetables	Misc & Entertainment
Sugar, Salt and Spices	Rent
Pan & Tobacco	Taxes
Fuel & Light	Durable Goods
Clothing & Footwear	
Medical	

Budgeting, Types and Importance of Budgeting

Budgeting is the act of balancing Income and Expenses.	
Budgeting involves creating a spending plan which we would like to do.	
Types of Budgeting-1 : Incremental Budgeting → Budget is based on previous year → Increase or decrease is done to expenses incurred in the previous year according to inflation or changes in price of good or services	
Types of budgeting -2 : Zero Base Budgeting → Every spend item is set to 0 at the beginning of each period → Every spend item is reviewed thoroughly every year → Only if justifiable, the expenses will be considered	
Importance of Budgeting → Helps to keep spending under control → Minimizes discretionary spending → Ensures money is available when needed	

Budgeting Exercise

Abhishek is a small business man. He has his own shop in Allahabad selling seeds and gardening equipment. His average monthly profit is ₹50000. Abhishek lives with his wife, son and daughter in his ancestral house. His average expenses for last 3 months are as per the table given below

Items	Monthly Spending	Expense Type
Cereals	5400	Monthly
Pulses	1500	Monthly
Milk and Milk Products	4000	Monthly
Edible Oils	1900	Monthly
Egg, Fish and Meat	0	Monthly
Vegetables	3290	Monthly
Fruits	1500	Monthly
Beverages and Refreshments	3800	Monthly
Pan & Tobacco	0	Monthly
Fuel & Light	4200	Monthly
Clothing & Footwear	5000	Annual
Education	1750	Quarterly
Medical	3000	Quarterly
Conveyance	3500	Monthly
Other Consumer Services	3000	Quarterly
Misc & Entertainment	4500	Monthly
Rent	0	Monthly
Taxes	160	Annual
Durable Goods	3500	Annual

Solution:

Average Monthly Expenses incurred by Abhishek is ₹50000, which means Abhishek is not saving at all. Objective of budgeting exercise is to understand which expenses are to be reduced and how to identify opportunities to save more.

Step 1: Commit to Savings

Since Abhishek is not saving at all, first step is to start small savings. Atleast 5% of the monthly income which is ₹2500 is to be committed for savings.

$$\text{Income-Savings} = \text{Expenses}$$

$$50000-2500 = 47500$$

We need to prepare a budget so that Abhishek can manage his expenses within ₹47500

Items	Monthly Spending	Expense Type	% of Total Expenses	% Pattern in Rural India
Cereals	5400	Monthly	10.8%	10.76%
Pulses	1500	Monthly	3%	2.94%
Milk and Milk Products	4000	Monthly	8%	8.04%
Edible Oils	1900	Monthly	3.8%	3.7%
Egg, Fish and Meat	0	Monthly	0%	4.75%
Vegetables	3290	Monthly	6.58%	6.64%
Fruits	1500	Monthly	3%	3.42%
Beverages and Refreshments	3800	Monthly	7.6%	7.9%
Pan & Tobacco	0	Monthly	0%	3.21%
Fuel & Light	4200	Monthly	8.4%	7.97%
Clothing & Footwear	5000	Annual	**10%**	6.99%
Education	1750	Quarterly	3.5%	3.49%
Medical	3000	Quarterly	6%	6.64%
Conveyance	3500	Monthly	**7%**	4.19%
Other Consumer Services	3000	Quarterly	**6%**	3.98%
Misc & Entertainment	4500	Monthly	**9%**	5.31%
Rent	0	Monthly	0%	0.49%
Taxes	160	Annual	0.32%	0.28%
Durable Goods	3500	Annual	**7%**	4.54%

When we compare expenditure pattern of Abhishek and the average expenditure pattern of people in Rural India, we can identify where Abhishek is spending more. The items where Abhishek is spending more are highlighted in red and they are

1. Clothing - ₹5000
2. Conveyance - ₹ 3500
3. Other Consumer Services - ₹3000
4. Misc & Etertainment - ₹4500
5. Durable Goods - ₹3500

Total of above 5 expenses is **₹19500**. Since this is where Abhishek is spending more, these expenses are to be reduced by ₹2500 and budgeting to be done so that the expenses can be managed with ₹17000 only

New Budget for above expenses

1. Clothing - ₹4150
2. Conveyance - ₹3250
3. Other Consumer Services - ₹2800
4. Misc & Entertainment - ₹3500
5. Durable Goods - ₹3300

Total of all the above expenses – **₹17000.** If Abhishek sticks to these above expenses, then he can save ₹2500 every month

In addition to that, monthly allocation to be done for Quarterly and Annual Expenses and they should be saved separately

		Monthly Allocation
Total of Expenses which occurs with Quarterly Frequency	₹7750	₹2590
Total of Expenses which occurs with Annual Frequency	₹8660	₹720

Total Monthly Allocation to be done for meeting Quarterly and Annual Expenses is ₹3310

Additionally Abhishek needs to save **₹3310** additionally every month so that he can meet the commitments.

Note:
The budgeting exercise is not a onetime activity. It should be reviewed every quarter, if not every month. If Abhishek is able to manage with the budget then, savings can be increased further by reducing the expenses.

Budgeting Exercise

Alok is an MBA working as Sales Executive with leading car manufacturer in Mumbai. He got married recently and his wife is an engineer looking for a job. His current monthly income is ₹80000 and lives in Single bedroom apartment in suburbs of Mumbai. He is not able to manage his expenses with his monthly income ever since his marriage which happened 4 months back. He has been meeting the deficit through credit card which has now accumulated to ₹15000. He is hoping that he will get a bonus of around ₹40000 in another 3 months and will be able to repay credit card loan.

Items	Monthly Spending	Expense Type
Cereals	770	Monthly
Pulses	210	Monthly
Milk and Milk Products	575	Monthly
Edible Oils	265	Monthly
Egg, Fish and Meat	700	Monthly
Vegetables	700	Monthly
Fruits	900	Monthly
Sugar, Salt & Spices	380	Monthly
Beverages and Refreshments	800	Monthly
Pan & Tobacco	230	Monthly
Fuel & Light	2000	Monthly
Clothing & Footwear	14000	Annual
Education	0	Quarterly
Medical	2000	Quarterly
Conveyance	4000	Monthly
Other Consumer Services	5000	Quarterly
Misc & Entertainment	12000	Monthly
Rent	18000	Monthly
Taxes	5000	Annual
Durable Goods	3500	Annual

Prepare a budget plan for Alok such that his expenses can be lesser than income

Chapter 6

Managing Income and Expenditure

Contents

Nothing happens suddenly!

No one becomes rich or poor overnight! It is what we do every day that matters.

Let us consider the case of growing a tree – Is it possible to grow a tree over night?

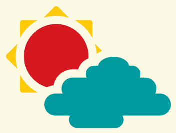
It takes time to grow a tree. We must ensure adequate water and sunlight are available every day. The surroundings are to be monitored continuously for weeds and pests.

And, most importantly, it must be harvested on time.

Similarly, our health also requires regular exercise and monitoring.

Our health does not deteriorate or cannot be perfected overnight. It needs years of abusing or practising good habits.

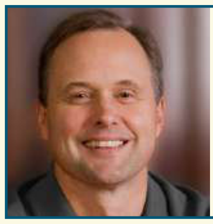
- → Regular Exercise
- → Healthy Diet
- → Adequate Sleep
- → Family Relationship
- → Stress Management



- → Sunlight
- → Water
- → Pesticides
- → Manure
- → Fencing

- → Earn
- → Control Expenses
- → Save Regularly
- → Invest properly
- → Balanced Asset Allocation

Plan, Act and Monitor regularly for good health and wealth.

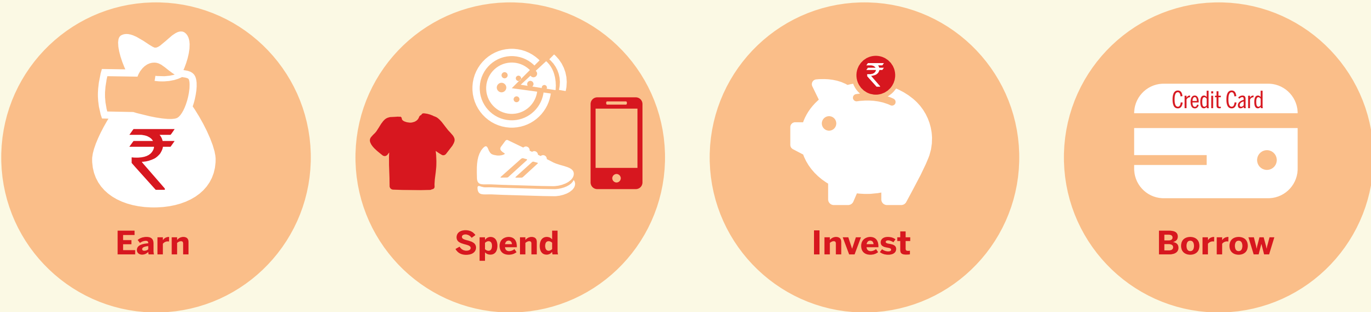


"We become what we do repeatedly."

- Sean Covey,
The 7 Habits Of Highly Effective Teens

Financial Equation

We earn money, spend money and if our spending is less than earning we invest the rest for the future. If spending is more than earning we will have to borrow money for meeting the deficit.



Financial equations

Earning – Spending > 0 Savings (or surplus) → INVEST

Earning – Spending < 0 Deficit → BORROW

INVESTMENT – BORROWINGS = NETWORTH

Let us understand this equation with the help of an example.

The table below shows what Ram and Shyam did with their money in the first month

Transactions	Ram	Shayam
Receive Salary	₹50000	₹70000
Groceries, Vegetables, Fruits	₹ 12000	₹11000
Miscellaneous and Entertainment	₹ 3000	₹6000
Invest in Deposit giving 8% interest per annum		
Borrow Money at 12% interest per annum		
Children's Education	₹5000	₹4000
Rent	₹15000	₹20000
Donate to Red Cross	₹1000	
Consumer Goods, Car and Apparel		₹25000
Electricity, Gas, Transportation, telephone	₹8000	₹10000

Ram's Financial Equation for the first month

Earn	Invest	Spend	Borrow
₹ 50000	₹6000	₹ 44000	₹ 0

Ram's Savings for the first month: ₹6000

Ram's Networth at the end of first month: ₹6000

Shyam's Financial Equation for the first month

Earn	Invest	Spend	Borrow
₹70000	₹0	₹76000	₹6000

Shyam's Savings for the first month: ₹0

Shyam's Networth at the end of first month: ₹-6000

Inspite of earning more, Shyam did not save and ended up borrowing money and because of his borrowing the Networth of Shyam is ₹–6000. Since Ram saved he had a positive Networth of ₹6000 at the end of the month.

Now if Ram and Shyam continue to do this for one more month

Ram's Financial Equation for the second month

Earn	Invest	Spend	Borrow
₹ 50000 + ₹40 Interest on ₹6000 Invested	₹6000 (Old Investment) + ₹6040 (new Investment)	₹ 44000	₹ 0

Ram's Savings for the second month: ₹6000

Ram's Networth at the end of second month: ₹12040

Shyam's Financial Equation for the second month

Earn	Invest	Spend	Borrow
₹70000	₹0	₹76000 + ₹60 Interest on borrowed money	₹6000 (Old Borrowing) ₹6060 (New Borrowing)

Shyam's Savings for the second month: ₹0

Shyam's Networth at the end of second month: ₹-12060

We can see that Ram's Networth is growing faster than Shyam's even though Ram is earning less. Earning more money alone does not make us rich, what matters is how we manage our money and INCREASE OUR NETWORTH

Simple Money Management Equations

EARNING − SPENDING = SAVING

INVESTMENT − BORROWING = NETWORTH

Networth

As we saw earlier Networth is nothing but our Investments after subtracting Borrowings. Our Networth changes every day based on the current value of Investments and Borrowings. There are many types of Investments and many types of Borrowings.

FINANCIAL ASSETS

- → Fixed Deposits
- → Gold Bonds
- → Tax Free Bonds
- → PPF/EPF
- → NPS
- → Mutual Funds
- → Stocks

PHYSICAL ASSETS

- → Land
- → Property given out on Rent
- → Bullion & Precious Metals
- → Art & Artefacts
- → Antiques

LIFESTYLE ASSETS

- → Cars & Bikes
- → Home where we stay
- → Jewellery for day-to-day use
- → Furniture and Fittings
- → Computers and Gadgets

Not all assets appreciate in value, some assets depreciate in value.

Depreciating Assets

After calculating the value of Assets or Investments following ratios should also be calculated to understand how balanced and healthy the assets are.

Among the financial assets that we own, some assets are specifically meant for short term needs and some assets are to be used for the purpose of long term needs.

SHORT TERM
FINANCIAL ASSETS

- → Fixed Deposits
- → Liquid Mutual Funds

LONG TERM
FINANCIAL ASSETS

- → PPF/EPF
- → NPS
- → Equity Mutual Funds
- → Stocks
- → Gold Bonds
- → Tax Free Bonds

Personal Finance Asset Ratios

$$\text{Liquidity Ratio} = \frac{\text{Short Term Financial Assets}}{\text{Monthly Income}}$$

$$\text{Financial Assets Ratio} = \frac{\text{Total of all Financial Assets}}{\text{Total Assets}}$$

$$\text{Life Style Asset Ratio} = \frac{\text{Total of Life Style Assets}}{\text{Total Assets}}$$

Liquidity Ratio is a measure of cash and cash equivalents available in terms of monthly income. This can also be termed as Emergency Fund. This is a measure of how many months a family can sustain without monthly income during emergency situations like job loss or hospitalization of earning member of the family

Understanding Assets – Exercise

Ram's monthly salary is ₹50000.
He has acquired following assets over the last 5 years

1. Home where he stays : ₹ 2000000
2. Scooter : ₹40000
3. Jewellery : ₹ 100000
4. Fixed Deposits : ₹ 120000
5. EPF : ₹62000

Ram's Assets

FINANCIAL ASSETS

Short Term
Fixed Deposits = ₹120000

Long Term
PPF/EPF = ₹62000

PHYSICAL ASSETS

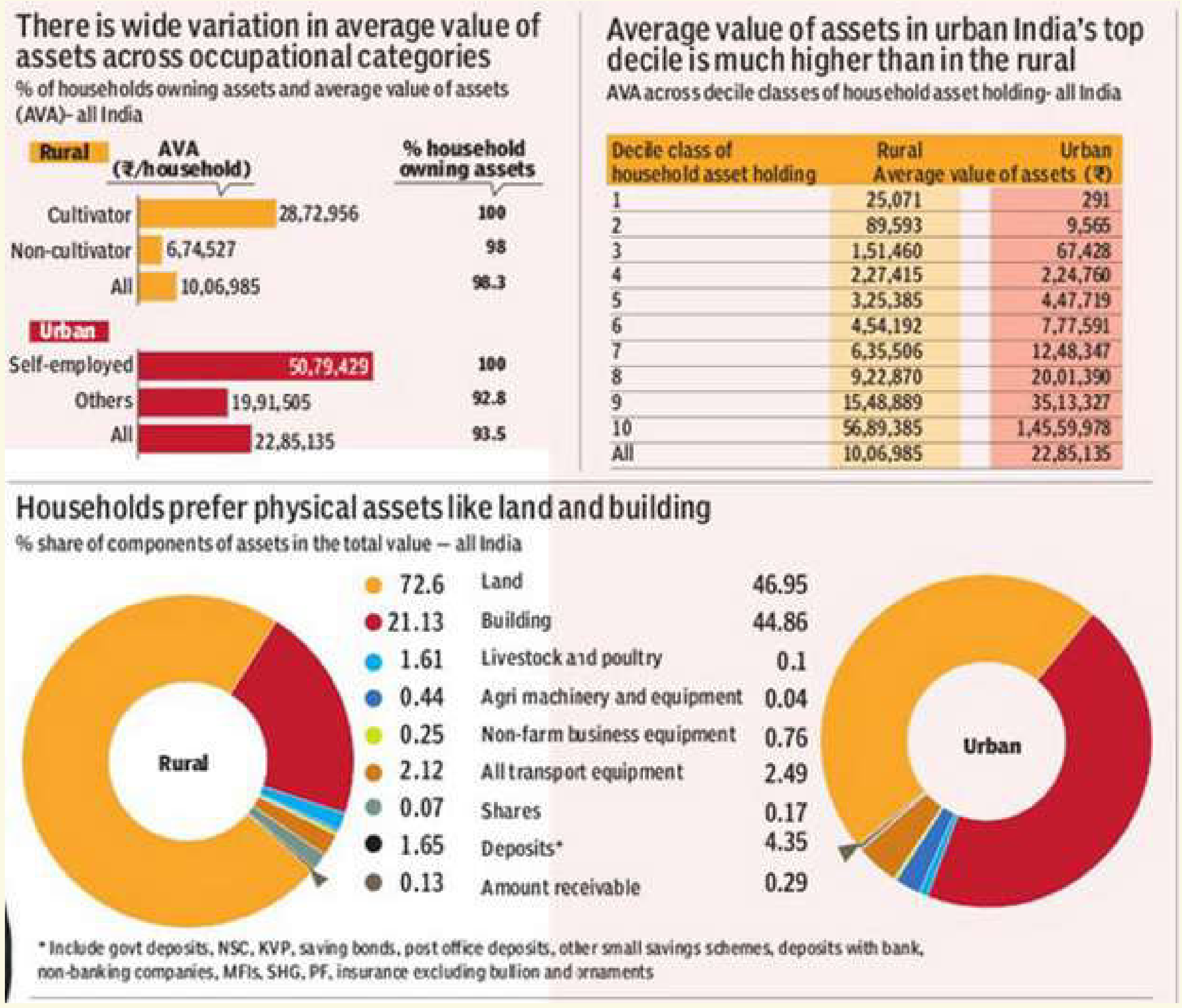
LIFESTYLE ASSETS

Cars and Bikes = ₹40000
Home where we stay = ₹23,00,000
Jewelry for day-to-day use = ₹1,00,000

TOTAL ASSETS	=	₹23,20,000
LIQUIDITY RATIO	=	120000/50000 = 2.4 months
FINANCIAL ASSETS RATIO	=	182000/2320000 = 7.8%
LIFESTYLE ASSETS RATIO	=	92.2%

Asset Holding Pattern in India

In the previous chapter, we read about the survey on Consumption Pattern conducted by the NSO. Similarly, NSO also provides information on Asset Holding Pattern in India. The NSO data on Asset Holding Pattern in India is presented below:



Decile class of household asset holding	Rural Average value of assets (₹)	Urban Average value of assets (₹)
1	25,071	291
2	89,593	9,565
3	1,51,460	67,428
4	2,27,415	2,24,760
5	3,25,385	4,47,719
6	4,54,192	7,77,591
7	6,35,506	12,48,347
8	9,22,870	20,01,390
9	15,48,889	35,13,327
10	56,89,385	1,45,59,978
All	10,06,985	22,85,135

Recommended Asset Ratios

FINANCIAL ASSETS	PHYSICAL ASSETS	LIFESTYLE ASSETS
Between 6 Months – 24 months monthly income	Atleast 20% of Total Assets	Ratio should be decreasing every year

Liabilities are at we owe to others.

Borrowing can be done for two purposes

1. To buy Assets (Home Loan)
2. To meet shortfall in income (e.g Credit Card)

BORROWING FOR ASSET CREATION

→ Home Loan
→ Auto Loan

BORROWING FOR CONSUMPTION

→ Credit Card Loan
→ Personal Loan

ASSETS
(INVESTMENTS)

LIABILITIES
(BORROWINGS)

NETWORTH = FINANCIAL ASSETS, PHYSICAL ASSETS, LIFESTYLE ASSETS – Home Loan, Education Loan, Auto Loan, Personal Loan, Credit Card Loan

Networth Exercise

Ram's monthly salary is ₹50000. He has acquired following Assets over the last 5 years

1. Home where he stays : ₹ 20,00,000
2. Scooter : ₹ 40000
3. Jewellery : ₹ 100000
4. Fixed Deposits : ₹ 120000
5. EPF : ₹ 62000

Ram also has following loans outstanding. Home Loan of ₹1650000 and scooter loan of ₹25000

What is the Networth of Ram?

Assets	=	₹23,20,000
Liabilities	=	₹16,75,000
Networth	=	₹6,45,000

Income

In the earlier chapter we looked at Income classified as active or passive Income. We also need to keep in mind that irrespective of whether the Income is active or passive, certain types of Income are taxable and certain other types are not taxable, what is therefore important is "Net Income".

NET INCOME = INCOME RECEIVED − TAX

TAXABLE INCOME

- Salary
- Rent
- Pension
- Interest from Deposits
- Short Term and Long Term Capital Gains from Debt Mutual Funds
- Short Term and Long Term Capital Gains from Property
- Short Term Capital Gains from Equity or Equity Mutual Funds
- Winnings from Lottery, Gambling or any kind of Prize

TAX FREE INCOME

- Interest received from PPF
- Dividend From Equity or Equity Mutual Funds
- Long Term Capital Gains from Equity or Equity Mutual Funds
- Insurance Maturity Amount
- Agricultural Income

Exact Tax rates and how tax needs to paid will be discussed in later chapters. However since Tax reduces our net Income, we need to keep track of "Tax Ratio"

$$\text{Tax Ratio} = \frac{\text{Total Taxes Paid}}{\text{Total Income Earned}}$$

Exercise on Tax Ratio

Ram's Monthy Gross Salary is ₹50000 and his total tax for the year is ₹30000. What is Ram's Tax Ratio?

Total Taxes Paid = ₹30000
Total Gross Income = ₹600000

Tax Ratio = 30000/600000 = 5%

Expenses

Understanding of different types and categories of expenses can help us in better budgeting. Expenses can be classified based on "How" it is spent and "Where" it is spent?

HOW?

- Paid as lumpsum irrespective of how much was consumed
- Paid per unit based on Consumption

Let us take the case of Telephone bills, we have a choice to select either Post Paid billing or Pre-Paid billing

- **Post Paid** - Whether we use the phone or not – We have to pay the monthly rent
- **Pre-Paid** - Pay only for usage

Let us look at the chart below on tariffs for Post-Paid and Pre-Paid Mobile Plans

Post Paid Plan		Pre-Paid Plan	
Monthly Rent :	₹299	Local and STD Charges :	₹1.20 per minute
Free Minutes of STD and Local :	500 minutes	SMS :	₹1 per SMS
Free SMS:	50 per month		
Post	500 minutes		
STD and Local Charges :	60 paise per minute		
Post	Free SMS		
SMS Charge :	50 paise per SMS		

Given below is usage for A and B. What plan would you recommend for User A and User B?

User A: 450 minutes of call

User B: 180 minutes of call

If A selects post-paid plan, then A's monthly bill be only ₹299, since there is 500 minutes of free talk time available every month. But, if A chooses pre-paid plan, then there is no free talk time available. A will have to pay ₹1.2 per minute of usage and A's bill will be ₹540. So best plan for A is post-paid. Similary, if B selects post-paid B's bill will be ₹299. But, if B selects pre-paid B's bill will be ₹216 only.

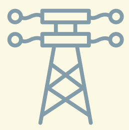
What type of plan we choose can make a big difference to our budget. As we can see best plan for User A is Post Paid Plan and for User B is pre-paid plan. Whether we consume units or not we will pay ₹299 per month, but in pre-paid plan, if there is no consumption, then there is no need for payment.

LumpSum amount paid irrespective of consumption are called FIXED EXPENSES. However, when we pay on the basis of unit consumed then the expenses is called VARIABLE EXPENSES. Examples of fixed and variable expenses are provided below.

HOW PAYMENTS ARE DONE?

FIXED EXPENSES

- Post Paid Telephone Bill
- Rent & Society Maintenance Bill
- Car/Two-wheeler EMI
- School Fees
- Insurance Premiums

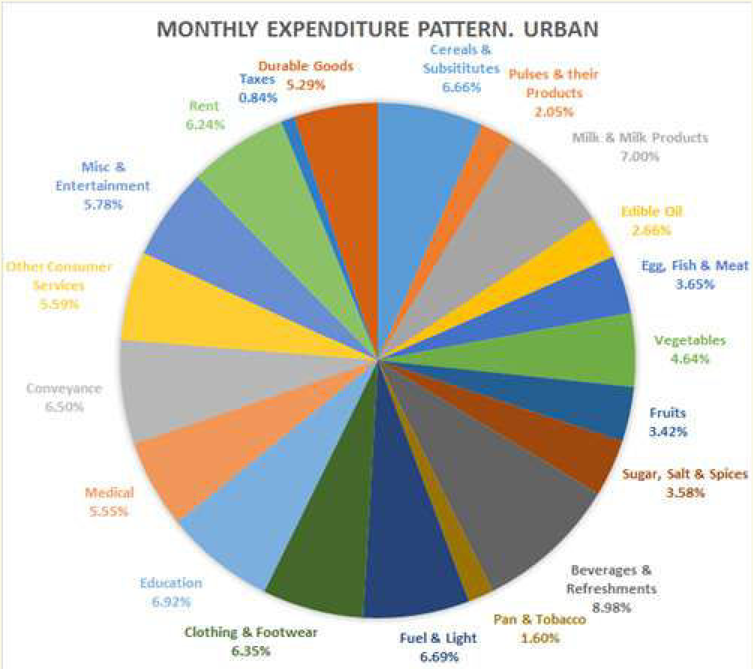


VARIABLE EXPENSES

- Pre-Paid Telephone Bill
- Electricity and Water Bill
- Petrol Expenses
- Stationery Expenses
- Repairs and Maintenance

Next, where do we spend our money?

Let's look at the consumption pattern of an Urban household



From the above chart we can classify various expense items into four categories.

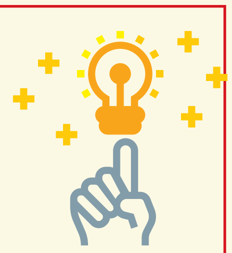
These categories are Necessities & Non Discretionary, Discretionary,Luxury and Vices. While vices must be definitely avoided, luxury expenses must be minimised as much as possible. While budgeting this is the first category of expenses that needs to be reduced in order to increase our savings. There is nothing much we can do to reduce the necessities and non discretionary expenses like Tax, groceries, milk, medical expenses etc., if we further want to reduce our expenses then we will have to analyse the discretionary expenses category. Today, we have wide variety of choices available for clothing, durable goods,education. depending on the income we can exercise our choice and control these expenses.

Taxes Cereals Pulses Milk Vegetables Fruits Egg & meat Fuel & Light Medical Oil **54%**	Conveyance Clothing Footwear Education **24.08%**	Beverages and Refreshments Misc & Entertainment Other Consumer Services **20.32%**	Pan & Tobacco **1.6%**
Necessities & Non Discretionary	Discretionary	Luxury	Avoidable or Vices

Expenses Type	%
Necessities	54%
Necessities/Luxury	24%
Luxury	20%
Vices	2%

From the above analysis we can see that only 54% of our expenses are pure necessities and cannot be controlled. Remaining expenses can be controlled and our savings can be increased.

Budgeting TIPS



- → Keep Fixed Expenses to a minimum
- → Focus on Variable Expenses to control consumption units.
- → Eliminate Vices
- → Reduce Luxury Expenses
- → Take right decisions on those expenses which falls in both Necessities and Luxury Category.

Expense Ratios

$$\text{Variable Expense Ratio: } \frac{\text{Variable Expenses}}{\text{Total Expenses}}$$

$$\text{Fixed Expense Ratio: } \frac{\text{Fixed Expenses}}{\text{Total Expenses}}$$

$$\text{Discretionary Expenses Ratio: } \frac{\text{Non Necessary Expenses}}{\text{Total Expenses}}$$

Understanding Expense Ratios through the following example

Items	Monthly Spending	How it is spent	Where it is spent
Cereals	5400	Variable	Necessities
Pulses	1500	Variable	Necessities
Milk and Milk Products	4000	Variable	Necessities
Edible Oils	1900	Variable	Necessities
Egg, Fish and Meat	0	Variable	Necessities
Vegetables	3290	Variable	Necessities
Fruits	1500	Variable	Necessities
Beverages and Refreshments	3800	Variable	
Pan & Tobacco	0	Variable	
Fuel & Light	4200	Variable	Necessities
Clothing & Footwear	5000	Variable	Necessities
Education	1750	Fixed	Necessities
Medical	3000	Variable	Necessities
Conveyance	3500	Variable	Necessities
Other Consumer Services	3000	Variable	
Misc & Entertainment	4500	Variable	
Rent	8000	Fixed	Necessities
Taxes	160	Fixed	Necessities
Durable Goods	3500	Fixed	

Total Expenses = 58000

Total Variable Expenses = 44540

Total Fixed Expenses = 13410

Non Necessities expenses = 11300

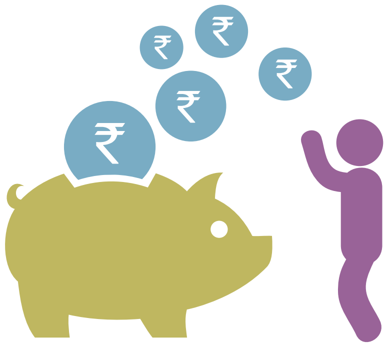
Variable Expense ratio = 76.8%

Fixed Expense Ratio = 23.1%

Non Necessities Expenses = 19.48%

Chapter 7

Savings



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The Legendary Chess and the Rice Grain Story

There is a famous story about chess that goes like this. There once was a King who was a chess enthusiast and an expert. He kept challenging everyone to beat him and finally one day a sage won over the king. The king offered to give him whatever reward the sage wanted.

The sage asked as follows:

"Oh! Emperor, my wishes are simple. I only wish for this. Give me one grain of rice for the first square of the chessboard, 2 grains for the next square, 4 grains for the next and so one keep doubling the number of grains till the 64th square"

Without even thinking twice, the king ordered the servants to fulfill the wish of the sage. They started putting the grains on the chess board

1	2	4	8	16	32	64	128
256	512	1024	2948	4096	8192	16384	32768
65536	131072	262144	524288	1048576	2097152	4194304	8388608
16777216	33554432	67108864	134217728	268435456	536870912	1073741824	2147483648
1	1	1	1	1	1	1	1
1	1	1	1	1	1	1	1
1	1	1	1	1	1	1	1
1	1	1	1	1	1	1	1

By the time they filled the 4th row, the king realized that he has committed something which he cannot fulfill.

Can you guess how much many grains will be there on the 64th Square?

18,446,774,073,709,551,615 number of grains and it was supposed to weigh 461,168,602,000 tons. This is around 1000 times the global production of rice in 2010.

There are number of versions of this story told by different people. But the moral of the story is the concept called "Power of Compounding".

Number of years we save is more important than the amount of money we save.

Compounding Interest

As we have seen in earlier chapter, how the simple formula **"Rule of 72"** helps us understand how the compounding effect takes place in investment.

In the chess story when no of grains is doubled every square, by the time we reach the 8th Square – 1 becomes 128. Our investments follow similar pattern. Number of years required to double our Investments depends on the interest rate we receive.

This Rule of 72 helps us in finding out number of years required to double our investments

The power of compounding is often called the eighth wonder of this world. Let's understand why it is called the eighth wonder and even praised by Einstein himself. When we invest one of the factors we consider is the Investment Return. All of us know the formula for Return on Investment (ROI).

$$\boxed{A = P*(1+r)^n}$$

The "r" in the above equation is called the ROI.

While studying in school this equation looks simple, but this most important equation becomes difficult to apply in real life.

For e.g. how can we calculate return on Fixed deposit which doubles in 9 years

Here the equation is $2000 = 1000\ (1+r)^9$

How to calculate "r"? We can simplify the above equation by applying **"Rule of 72"**. Rule of 72 states that if investment doubles in "n" number of years then

$$\boxed{\text{Investment return} = 72/n}$$

So a fixed deposit which doubles in 9 years will give a return of

R= 72/9 = 8%

Examples

1. What is the ROI if the investment doubles in 6 years?
2. will the investment get doubled?
3. If ₹1Lakh is invested for 24 years and investment doubles every 6 years, what will be value of investment after 24 years?

Solutions

1. 72/6 = 12%
2. 72/10 = 7.2 years
3. Rs 16 Lakhs

Rule of 72, 115, 144

If someone invests in National Savings Certificate, say for his/her entire working life which could be for 27 years what will happen to money

2016 – Rs 1 lakh

9 years later
2025 - ₹2Lakh

18 years later
2034- Rs 4 lakh

27 years later
2043 – Rs 8 lakh

Suppose if NSC were giving 12% (before year 2000 NSC was giving 12%) what would have happened to the investment. At 12% interest, Investment would double every 6 years.

2016
Rs 1 lakh

2022
Rs 2 lakh

2028
Rs 4 lakh

2034
Rs 8 lakh

2040
Rs 16 lakh

Impact of 3% more interest in 27 years – What happens to ₹ 1 Lakh in 27 years

@ 12% 2040
Rs 16 lakh

@ 8% 2043
Rs 8 lakh

Double the money in lesser time!

Similarly, If Investment is tripling then we can apply Rule of 115. For example if ₹ 1 Lakh has become ₹ 3 Lakh in 19 years what is the return?

Rule of 115

Return **= 115/19 = 6%**

Further, if Investment is becoming 4 times, then we can apply – Rule of 144.

Rule of 144

Return **= 144/12 = 12%**

The compounding chart

Rule of 72,115, 144 helps us quickly evaluate compounding returns from single investments. But in real life we rarely get a chance to invest in bulk. We will have opportunity to invest only small amounts when every month. The Rule of 72, 115, 144 will be difficult to apply for regular investments. In such cases, where we invest regularly, we can use the compounding chart to evaluate.

The following chart presents the impact of ₹1000 investment over different time periods and invested at 7%, 8%, 9%, 10%, 11%, and 12%.

₹ 1000 Invested every year for	Interest Rate at which ₹ 1000 is invested every year					
	7%	**8%**	**9%**	**10%**	**11%**	**12%**
4 Years	4440	4506	4573	4641	4710	4779
6 Years	7153	7336	7523	7716	7913	8115
8 Years	10260	10637	11028	11436	11859	12300
10 Years	13816	14487	15193	15937	16722	17549
12 Years	17888	18977	20141	21384	22713	24133
14 Years	22550	24215	26019	27975	30095	32393
16 Years	27888	30324	33003	35950	39190	42753
18 Years	33999	37450	41301	45599	50396	55750
20 Years	40995	45762	51160	57275	64203	72052
22 Years	49006	55457	62873	71403	81214	92503
24 Years	58177	66765	76790	88497	102174	118155

Using the compounding table

If ₹1000 is invested every year for 4 years @ 7% interest then the final amount received after 4 years is Rs 4000 + compound interest of Rs 440. Total of ₹4440.

But if it is invested for 24 years then amount received is ₹58,177

The above table can be used to find out how much our regular investment is compounding

Example

Ram is planning to invest ₹ 12,000 every year for 16 years. He expects to receive 9% return on Investment. How much money will Ram receive on maturity?

If ₹ 1000 is invested every year @ 9% for 16 years, then from the above table we can find out that the maturity amount received will be ₹33003.

So, when ₹12000 is invested maturity amount will be = ₹33003 X 12 = ₹396096

Goal Chart

Many times we want to know how much we have to save every year to achieve a particular target or goal. The rule of 72 and compounding chart is not sufficient to help us to identify target amount for achieving the goal. The Following Goal Chart can help us identify the regular investment required to reach our target.

The table is created for achieving ₹100000 target. It can also be used for any target amount.

Years in which target of ₹ 1 Lakh is to be reached	Interest Rate at which ₹ 1000 is invested every year					
	7%	8%	9%	10%	11%	12%
4 Years	22523	22192	21867	21547	21233	20923
6 Years	13980	13632	13292	12961	12638	12322
8 Years	9747	9401	9067	8744	8432	8130
10 Years	7238	6903	6582	6275	5980	5698
12 Years	5590	5270	4965	4676	4403	4144
14 Years	4434	4130	3843	3575	3323	3087
16 Years	3586	3298	3030	2782	2552	2339
18 Years	2941	2670	2421	2193	1984	1794
20 Years	2439	2185	1955	1746	1558	1388
22 Years	2041	1803	1590	1401	1231	1081
24 Years	1719	1498	1302	1130	979	846

Using the above table

Suppose if we want to reach ₹100000 in 12 years with investment return of 8% - Look at row with 12 years and column with 8% - It is Rs 5270. We have to invest ₹5270 every year for 12 years so that we can achieve target of ₹100000

Example

If Ram wants to accumulate ₹50 Lakh for his retirement which is 22 years from now and he decides to invest in National Pension Scheme which is expected to give 9% return. How much will Ram have to invest every year to achieve his target?

From the Goal table we can find out that to achieve a goal of ₹1 Lakh in 22 years @ 9% Ram has to invest ₹1590 every year.

Hence to achieve ₹50 Lakh target, Ram needs to invest = ₹1590 X 50 = ₹79500 every year.

Most of our financial planning can be done using Rule of 72, Compounding chart and Goal Chart

Twin Paradox

Arun and Ankit are twins. They have just graduated from college and decide to invest as follows

Arun

Starting Year : 2016
Starting Age : 24
Investment Amount : ₹20000 per year
Investment for : 24 years till age of 48 (2040)
Retirement at 60 years of age (2052)
Investment return : 12%

Ankit

Starting Year : 2028
Starting Age : 36
Investment Amount : ₹40000 per year
Investment for : 24 years till age of 60 (2052)
Retirement at 60 years of age (2052)
Investment return : 12%

Both Arun and Ankit invest for same 24 years. Ankit invest twice the amount as compared to Arun. Who is likely to have more money for retirement?

Amount Arun and Ankit will accumulate are as follows

 **Arun**	→ ₹ 1000 invested every year for 24 years @ 12% will become ₹118155 (from compounding chart) → ₹20000 invested will become : ₹2363100 → This amount of ₹2363100 is invested for 12 more years @ 12% → Rule of 72: If interest rate is 12%, Investment will double in 6 years. → Hence in 12 years investment will become 4 times → Value of Arun's investment at Age 60 = 4 X 2363100 **= ₹9452400**
 **Ankit**	₹ 1000 invested every year for 24 years @ 12% will become ₹118155 (from compounding chart) ₹40000 invested will become : **₹4726200**

Inspite of Investing double the amount, Ankit will have only half the amount of what Arun will accumulate

Investments by Arun and Ankit

Arun

₹ 480000

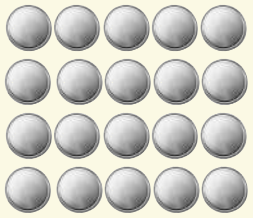
Ankit

₹ 960000

Amount Accumulated by Arun And Ankit

Arun

₹ 9452500



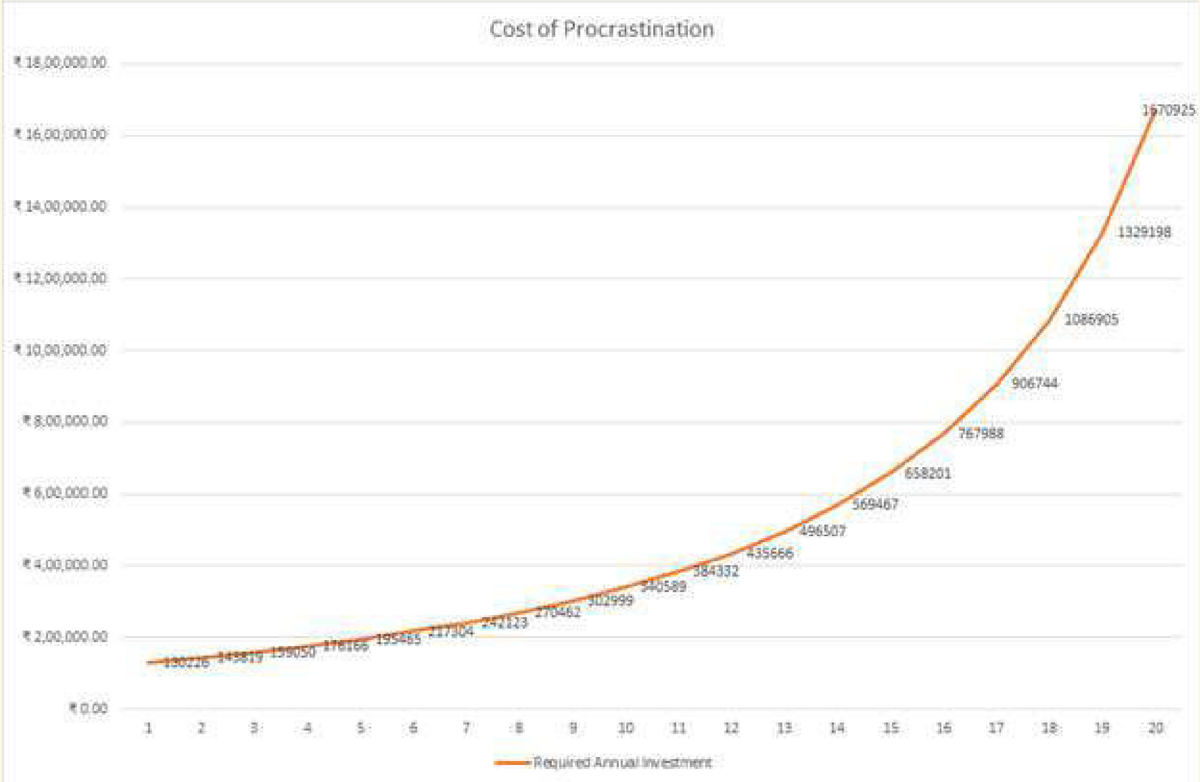
Ankit

₹ 4726200

Invest less and get more, but invest early

Cost of Procrastination

In the early example, we saw what happened to Arun and Ankit. The cost of procrastination can be very high when it comes to investment. Suppose if we want to accumulate ₹1Crore in next 24 years and investment returns are 9%, every 1 year delay in investments will increase the required savings by atleast 10% to as high as 25% when delay is more than 20 years.



Cricket fans will be familiar with the above graph, when if batsman fails to score sufficient runs in one over, the run rate starts increasing. Every maiden over in cricket pushes up the run rate required and in the end the run rate becomes so high that batsmen start to buckle under pressure and the match is lost.

22 runs needed of 1 ball!

To win the Life Match – Do not allow maiden overs for savings

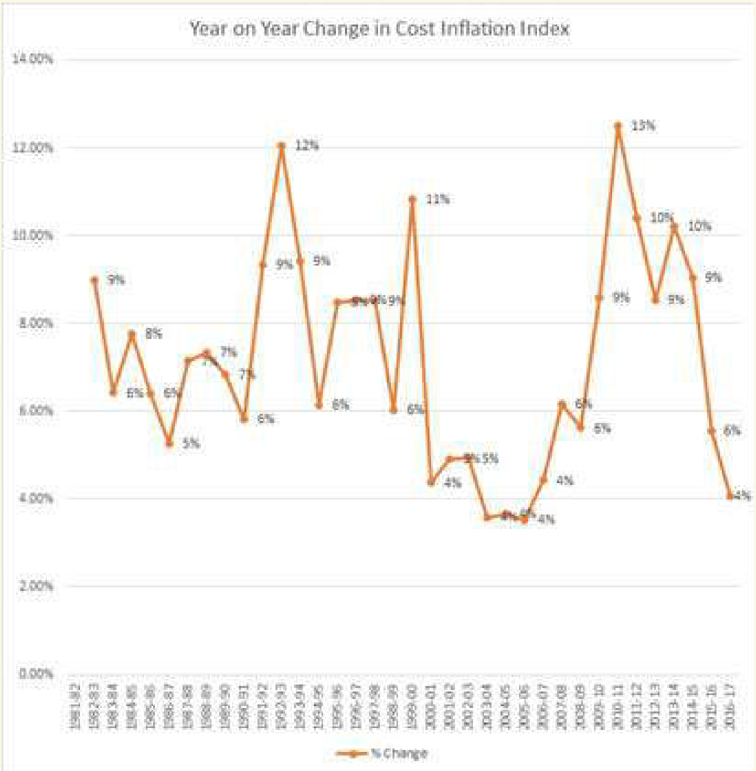
Inflation Impact

₹100 in 1980 = ₹1000 in 2016

In an earlier chapter we saw the concept of Time Value of Money. The value of money reduces as time increases. This is also called inflation.

The economy goes through different cycles of inflation. Sometimes inflation is very high and sometime inflation is low. There are various factors affecting inflation, primary reason being Demand vs. Supply of goods and services.

In India we have seen Inflation rate as high as 12% and as low as 4%. Inflation impact can be analyzed through the “Cost Inflation Index”. The cost inflation Index was introduced in 1980-81 with a value of 100 and in 2016-17 it has increased to 1125. Which means what we could have bought for ₹100 in 1980-81 will cost ₹1125 in 2016-17 with an average increase of 6.95% every year.

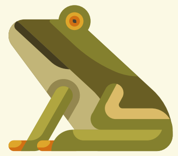


Cost Inflation Index	
1981-82	100
1982-83	109
1983-84	116
1984-85	125
1985-86	133
1986-87	140
1987-88	150
1988-89	161
1989-90	172
1990-91	182
1991-92	199
1992-93	223
1993-94	244
1994-95	259
1995-96	281
1996-97	305
1997-98	331
1998-99	351
1999-00	389
2000-01	406
2001-02	426
2002-03	447
2003-04	463
2004-05	480
2005-06	497
2006-07	519
2007-08	551
2008-09	582
2009-10	632
2010-11	711
2011-12	785
2012-13	852
2013-14	939
2014-15	1024
2015-16	1081
2016-17	1125

Real Interest Rate

While we are getting returns on our investments our money is also losing value due to inflation. There is a similar story of a frog in a well trying to get out

"A Frog is at bottom of a deep 30m well. Each day it gets enough energy to jump 3m and rests for a while. When it is resting it slips back 2m. How many days will it take for the frog to get out of the well?"



What happens to the frog happens to our investment also. Our returns are pulled down by inflation. The chart below presents how inflation and interest rates have moved in the last 15 years

	PPF Interest Rates	Fixed Deposit Interest Rate	CII % growth
1-Apr-00	12%	9.5%	4%
1-Apr-01	11%	8.5%	5%
1-Apr-02	9%	8%	5%
1-Apr-03	8%	6.5%	4%
1-Apr-04	8%	6%	4%
1-Apr-05	8%	7%	4%
1-Apr-06	8%	8%	4%
1-Apr-07	8%	8%	6%
1-Apr-08	8%	8.25%	6%
1-Apr-09	8%	8.5%	9%
1-Apr-10	8%	6.5%	13%
1-Apr-11	8%	8.25%	10%
1-Apr-12	8.8%	9.75%	9%
1-Apr-13	8.7%	10%	10%
1-Apr-14	8.7%	9%	9%
1-Apr-15	8.7%	8.5%	6%
1-Apr-16	8.1%	8%	4%

For growing our wealth what really matters is the return that we are getting above inflation. The extra return over inflation is called the **"Real Return"** and the returns offered on the investment is called "Nominal Return".

$$\text{Real Return} = \frac{\text{Nominal Return} - \text{Inflation}}{1 + \text{Inflation}}$$

$$\text{Real Return on PPF on 1-Apr-2016} = \frac{8.1\% - 4\%}{1 + 4\%} = \boxed{3.94\%}$$

Finding money to SAVE

SAVE FIRST and SPEND NEXT

Commit at least 5% of monthly income for savings

Look out for fixed expenses which can be converted to varaible expenses

- Post Paid Bills to Pre-Paid Bills
- Owning a Car to Using chauffeur Driven Radio Taxi

BUY IN SMALL QUANTIES

Many time we buy Mega Packs because there is an offer and most of the time we are not able to use it before expiry date and it is wasted

Avoid high cost loans and interest free EMIs

Other than home loan and education loan, all other form of loans carry high interest. Many interest-free EMI Schemes also lead to high consumption

IGNORE OFFER AND FREEBIES

Offers and freebies are used by marketers to make us spend more. Unless it is part of the planned expenses, ignore offer and freebies

KEEP LESS CASH IN HAND

Cash in hand will always get spent. Today withdrawing money is very easy. Most shops have also started accepting some form of digital transactions like Wallet, IMPS, UPI etc. Loose change of Re.1 or ₹2 will also get added to savings

Use liquid mutual funds as an alternative to savings account

Keeping money in Low risk Liquid Mutual Funds can help us save on unplanned impulse spending

IDENTIFY DISCRETIONARY SPENDS

More than 30% of our expenses are discretionary in nature. Identifying discretionary expenses can help us save a lot of monet

5% increase in Savings = `1 Crore

Just increasing savings by 5% every month can lead to addition of ₹1Crore by retirement.

Ram is a young engineer who started his career at the age of 24 at an annual salary of ₹6Lakh. He is planning to save 5% of his income every month and annually ₹30000 at 9% return.

His salary is increasing by 5% every year till he is 50 years of age and after 50 years there is no increase in his salary till 58 years.

If he saves 5% every year, he will accumulate ₹1.1 Crore

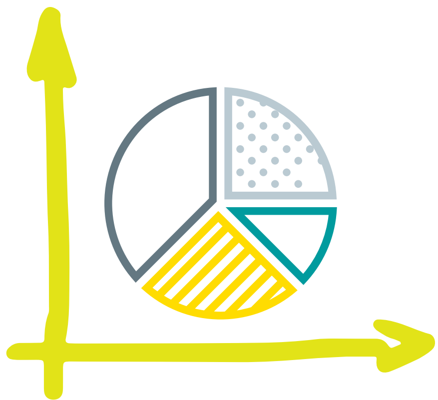
But if he increases his savings by just 5% more to 10% he would have accumulated ₹ 2.2Crore

A difference of ₹1.1Croreore

Age	Annual Income	5% Savings	Accumulated value @9% return	10% Savings	Accumulated value @9% return
24	600000	30000	30000	60000	60000
25	630000	31500	64200	63000	128400
26	661500	33075	103053	66150	206106
27	694575	34729	147057	69458	294113
28	729304	36465	196757	72930	393514
29	765769	38288	252753	76577	505507
30	804057	40203	315704	80406	631408
31	844260	42213	386330	84426	772661
32	886473	44324	465424	88647	930848
33	930797	46540	553852	93080	1107704
34	977337	48867	652565	97734	1305131
35	1026204	51310	762606	102620	1525213
36	1077514	53876	885117	107751	1770233
37	1131389	56569	1021347	113139	2042693
38	1187959	59398	1172666	118796	2345331
39	1247357	62368	1340573	124736	2681147
40	1309725	65486	1526711	130972	3053423
41	1375211	68761	1732876	137521	3465752
42	1443972	72199	1961033	144397	3922067
43	1516170	75809	2213335	151617	4426670
44	1591979	79599	2492134	159198	4984268
45	1671578	83579	2800005	167158	5600010
46	1755156	87758	3139763	175516	6279526
47	1842914	92146	3514487	184291	7028975
48	1935060	96753	3927544	193506	7855089
49	2031813	101591	4382614	203181	8765228
50	2133404	106670	4883719	213340	9767439
51	2133404	106670	5429924	213340	10859849
52	2133404	106670	6025288	213340	12050575
53	2133404	106670	6674234	213340	13348468
54	2133404	106670	7381585	213340	14763170
55	2133404	106670	8152598	213340	16305196
56	2133404	106670	8993002	213340	17986004
57	2133404	106670	9909042	213340	19818084
58	2133404	106670	10907526	213340	21815053

Chapter 8

Investments



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Risky Story

When we talk of Investment first thing that we should look at is risk.

The biggest risk is not taking any risk. In a world that is changing quickly, the only strategy guaranteed to fail is not taking risk.

- Mark Zuckerberg – Founder of Facebook

I read this story somewhere on the Internet. There were two new seeds which were lying next to each other on the ground. One of them said to the other "I want to send my roots deeper into the soil beneath me and push my sprouts through the earth above me. I want to unfurl my buds like banners to announce the arrival of spring. I want to feel the warmth of the sun on my face and the bliss of the morning dew on my petals!"

And the seed grew faster

The other one said. "I am afraid. If I send my roots below I am not sure what will I encounter in the dark. If I push up above the soil I may damage my delicate sprouts. What If I open my buds and snail tries to eat them? And I were to flower, a small child may pull me from the ground. I think it is better for me to wait until It is safe.

And the seed waited.

A hen scratching around in the early spring for food found the waiting seed and promptly ate it.

Having said that, Risk is something that should not be taken blindly. What should we do with Risk?

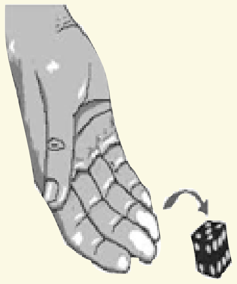
No Risk
=
No Return

Ignore Risk
=
All Loss

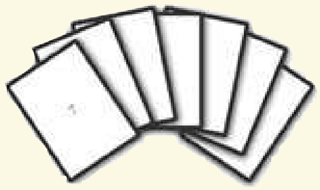
Manage Risk
=
Wealth Creation

What is Risk?

What will come –
Heads or Tails?



Which number will come?
1, 2, 3, 4, 5, 6



What Number?
A, K, Q, J, 2,3,4,5,6,7,8,9,10
Black or Red?
Spade or Hearts or Diamond or Clover?

Which Number?

Can we predict any of the above with guarantee?

RISK = Not Possible to predict the outcome

The Game of Investment Risks

Default Risk or Credit Risk

Risk of not being able to recover the amount from the borrower

Interest Rate Risk

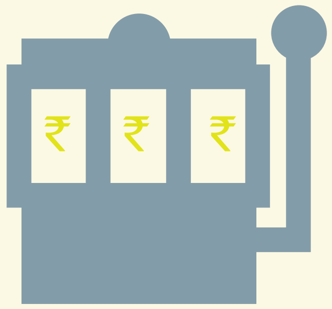
No certainty on future interest rate

Market Risk

No certainty on the movement of stock market

Regulatory and Government Intervention

Changes in tax benefits



Industry Risk

No certainty on industry prospects

Re-investment Risk

Not able to invest the Interest earned at same rate of interest

Liquidity Risk

Investment is blocked and withdrawal not possible when needed

Company Risk

No certainty on company performance

Savings vs. Investment

SAVINGS

≠

INVESTMENT

→ INCOME – EXPENSES

→ Managing expenses properly and creating surplus

→ Manage Returns above inflation

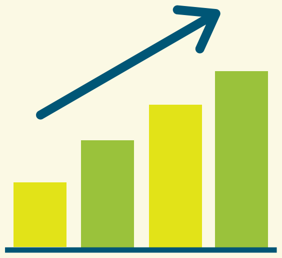
→ Do appropriate allocation of assets for the purpose of Short term, Medium term and Long term needs

→ Manage Risks and grow wealth

Investment Fundamentals

HIGH RETRUNS

HIGH RISK



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But,

TAKING RISK DOES NOT GUARANTEE RETRURN

What risks to take?

→ No Risk
→ Interest Rate Risk
→ Credit Risk
→ Market Risk
→ Reinvestment Risk
→ Industry Risk
→ Company Risk
→ Liquidity Risk

How much to allocate in various Risk Category?

Investment Options and Risk Associated

Post Office Deposits
NO RISK

BANK DEPOSITS
Possibility of smaller banks defaulting on deposits, in which case Invested amount is protected upto ₹1 Lakh per bank per depositor

PPF/EPF
Pre Mature withdrawal not possible

Interest rate normally changes every year

NPS
Pre Mature withdrawal not possible

Upto 50% of Investments is allocated to ETF's which fluctuates in value everyday

Debt Mutual Funds
Returns are variable and very less capital appreciation

Liquid Mutual Funds
Returns are variable

Stocks
Value of investments fluctuates depending on movement of stock market and also performance of the company

Equity Mutual Funds/ETF
Value of Investment fluctuates depending on movement of stock market

Understanding Returns

Simple Return	$I = \frac{PNR}{100}$ No Interest on Interest
Compound return or CAGR	$A = P*(1+r)^n$ Interest on Interest Also called "CAGR" - Compounded Annual Growth Rate
Holding Period Return or Absolute Return	Not Annualized. If it is not annualized difficult compare two options. For e.g Stock A : Bought for ₹100 becomes ₹110 in 3 months Stock B : Bought for ₹300 becomes ₹1200 in 6 years If we take only holding period return (or Absolute Return) **Stock A : 10% Stock B : 400%** But if we consider Annualized Return (or CAGR) **Stock A : 40% Stock B : 24%** **Comparison of Returns should always be on CAGR**
Tax Adjusted Return	Corporate FD Returns : 8.5% PPF Returns : 8% Which is better if Investor is in 30% tax bracket? 30% of Corporate FD Returns to be paid as tax. Hence Tax Adjusted return on Corporate FD is 8.5% * (1-30%) = 5.95% PPF interest are Tax Free. Hence after Tax Adjustment **Corporate FD Returns : 5.95%** **PPF Returns : 8%**
Risk Adjusted Return	Stock A offers 14% Mean Return with Risk (measured as Standard Deviation) 20 and Stock B Offers 15% Mean Return with Risk of 30. **Returns to be compared with Equal Risk**

Factors Affecting Investment Returns

RISKS

Which risk to take and how much to allocate?

TAXES

- Taxability of Returns
- Interest Income is Taxable
- Long Term capital gains on Equity are Tax Free

BROKERAGES AND COMISSIONS

Not Transparent and many times hidden

BEHAVIOURS AND ATTITUDES

- Procrastination
- Loss Aversion
- Herd Mentality
- Lack of Self-Control
- Heuristics and Biases

MAINTENANCE CHARGES

Demat Account Charges, Locker Charges

TRACKING AND MONITORING

Needed to take timely course correction and action

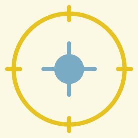
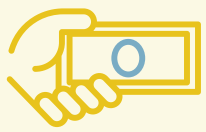
INVESTING WITHOUT PURPOSE OR GOALS

Leads to wrong allocation of risk and many times assets have to be sold at distress or suboptimal returns

FINE PRINTS

Compound Interest or Simple Interest?

Taking Investment Decisions

Step 1 Identify Investment Purpose and needs 	→ Emergency Fund → Down payment for home → School Fees → Family Function → Vacation → Retirement → Renovation → Startup Capital For business
Step 2 Prepare Cash Flow Statement 	Cash Flow Statement for next 20 years → 2016 : ₹5 Lakh → 2020 : ₹20 Lakh → 2023 : ₹3 Lakh → 2030 : ₹10 Lakh → 2040 : ₹2Crore
Step 3 Prepare Investment Strategy 	→ Asset Allocation → Diversification → Averaging

Investment Strategies

Asset Allocation

Proper Asset allocation is the key to a successful Investment Portfolio. As we have seen there are number of Investment Products but for the purpose of Asset Allocation we can classify assets into 3 broad categories

Fixed Income Products 	Market Linked 	Property 
→ All type of deposits → PPF/EPF → Sovereign Bonds → Debt Mutual Funds	→ Stocks → Equity Mutual Funds	→ Land → Apartments → Commercial Premises

Asset allocation depends on our cash flow needs and our risk appetite. However, even if our risk appetite is high if investment is done for short term purposes only fixed income assets should be considered. Asset allocation techniques will be discussed in detail in later chapters.

Investment Purpose	Fixed Income	High Risk Investment
Short term	√	X
Long term	X	√

Diversification

There is old saying that **"do not put all eggs in one basket"**

RISKY

Even if one basket breaks we will have other baskets to take care of

Diversification across asset class

Fixed Income Products	Market Linked	Property
		

Diversification within asset class

Fixed Income
- Deposit in Bank A – 40%
- Deposit in Bank B – 60%

Market Linked Investments
- Equity Mutual Fund A – 30%
- Equity Mutual Fund B – 70%

Averaging

When we invest in Fixed income Instruments the important parameters are Interest rate offered and tenure of the instrument. If our cash flow is happening in less than 3 year, then we should not invest in 5 year Tenure investment.

For Market Linked investments, only parameter that will work is averaging. Let's understand averaging strategy through an example. Sensex Values for the first decade of this century is presented below. Suppose we have ₹1 Lakh on 1 Apr 2000, and if we invest all ₹ 1 Lakh on the same day what would have happened

Date	SENSEX VALUES
1-Apr-00	5070
1-Apr-01	3491
1-Apr-02	3482
1-Apr-03	3037
1-Apr-04	5599
1-Apr-05	6506
1-Apr-06	11342
1-Apr-07	12811
1-Apr-08	15771
1-Apr-09	9745
1-Apr-10	17555

Investing ₹1 Lakh on 1 – Apr-2000

Number of units received for ₹1 Lakh

=100000/5070 =19.72 Units

Value of 19.72 units on 1-Apr 2010 will

be **₹346252**

If instead of investing ₹1 Lakh on 1-Apr-2000, if we invest ₹10000 every 1st April, then what would have happened?

Date	SENSEX VALUES	Investment Amount Equity	Units acquired	Investment in Fixed Income @ 8%	Interest Earned
1-Apr-00	5070	₹10000	1.97	90000	7200
1-Apr-01	3491	₹10000	2.86	87200	6976
1-Apr-02	3482	₹10000	2.871	84176	6734
1-Apr-03	3037	₹10000	3.29	80910	6472
1-Apr-04	5599	₹10000	1.78	77382	6190
1-Apr-05	6506	₹10000	1.537	73572	5885
1-Apr-06	11342	₹10000	0.88	69457	5556
1-Apr-07	12811	₹10000	0.78	65013	5201
1-Apr-08	15771	₹10000	0.634	60214	4817
1-Apr-09	9745	₹10000	1.02	55031	4402
1-Apr-10	17555	₹10000	0.5696	49433	3954

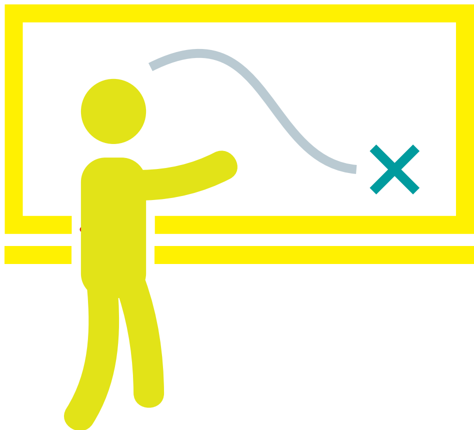
Averaging Exercise

The table below presents SENSEX values on last of the calendar year from 2007 for 9 consecutive years. If Ram had ₹9 Lakhs on 31.12.2007 and invested all the money in SENSEX Units on 31.12.2007, what would have been the value of investment on 31.12.2015. If on the other hand, Ram had invested ₹9 lakh in small amount by investing ₹1 Lakh every year on last day of calendar year from 31.12.2007 for next 9 years, what would have been the value of investment on 31.12.2015

Date	SENSEX VALUES
31-12-2007	20286
31-12-2008	9647
31-12-2009	17464
31-12-2010	20509
31-12-2011	15454
31-12-2012	19426
31-12-2013	21170
31-12-2014	27499
31-12-2015	26117

Chapter 9

Long Term Planning



Contents

O'Donoghue, Ted and Matthew Rabin, 1999. "Procrastination in preparing for Retirement." In Henry Aaron, ed., Behavioural Dimensions of Retirement Economics, 125-56. Washington DC: Brooking Institution, and New York : Russell Sage Foundation

Procrastination and Parkinson's Law

Work Expands to fill the time available – C Northcote Parkinson.

If we ask children to study for the exam which is going to happen one year later, what are the chances that they will study today?

Almost 0.

But if we ask children to study for the exam which is going to happen tomorrow, what are the chances that they will study today?

Almost 100%

You are to choose one of the following for your menu which is going to happen one month later, which one would your choose?

Again almost every one would choose to go for apple.

But, if we ask people, what do you want now

Then we prefer to eat the chocolate.

Procrastination and Parkinson's law have the biggest impact not only on our Financial Wellbeing, but also other wellness aspects like health, career, relationship, spiritual etc.

Why do we postpone things which are good for us in the long run?

- Is it because we want to "gain" now and postpone "pain" later ?

- Are we seeking instant gratification most of the times?

- Is it because tomorrow is uncertain?

Impact of Procrastination behavior

When do most students study?

One year before the exam or One month before the exam

When do we pay our bills?

As soon as we receive or closer to due dates?

When do we file our income tax returns?

Two months before or Two weeks before

When do we go for health checkups?

When we are 100% fit or when we experience slight uneasiness

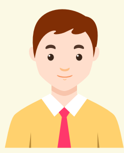
When do we renew our expired passport or driving license?

One month before expiry or after it has become critical

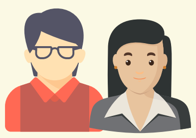
When do we take the car to garage for maintenance?

After it has completed every 2000Km or after it has a breakdown

When are we likely to save for Retirement?



When we are 25 years



When we are 45 years

Long Term Vs Short term goals

The effect of Procrastination and Parkinson's law is that long term goals are always compromised over short term needs. However, that doesn't mean all our short term goals will be met. Even short term goals need strategies for us to be able to meet them without stress

Prioritize

There will be many short term needs. With limited resources it will be difficult to achieve all our wants. Hence it is important to prioritize into High Priority and Low Priority needs

Minimize

Keep the Short Term Goals to less than 3. This can be done by eliminating low priority items

Automate

Once Goals are finalized, automate the investment process by signing up for systematic investment plans.

Capital Protection

Schemes which offer guaranteed capital protection only should be chosen for Short Term needs

Liquidity

Choose only those products that offer high liquidity because financial commitment may happen any time

Flexibility

The priorities may change from time to time depending on family and economic situations, for e.g there may be prolonged recessions and it may require postponement of some of the goals, there may be addition to family which requires reworking of priorities. Hence keep the short term goals flexible

No Risk Products

Select No Risk or very low risk products to meet short term goals

Tax Optimization

Most investment meant for short term goals attract tax. Planning can be done and tax outflow can be optimized

Strategies for Long Term

In the Indian context following avenues are available to achieve long term financial wellbeing

TAKE FULL BENEFIT OF SEC 80 C

Section 80 C provides ₹150000 tax benefits. Ensure this tax benefit is taken by investing ₹150000 in EPF or ELSS Mutual Fund Schemes

TAKE FULL BENEFIT OF SEC 80CCD (1 B)

In addition to 80C additional ₹50000 can be invested in NPS under Sec 80CCD(1b). Ensure this benefit is also taken

Subscribe to employers super annuation scheme to maximum possible limit

Many employers provide super annuation schemes and contribution % is left to the choice of employees. In such cases take maximum allowed by employer

Have a yearly growth target of 25% for long term savings

The Long term savings must grow at a healthy annual rate of 25%. (15% returns + additional contributions every month). Track this growth rate every year. If growth rate goes below 10% take action

Select pay structure and companies which offer 12% contribution to EPF

If you have choice in selecting pay structure, select pay structure which contributes 12% of your basic to EPF. Remember employer must also contribute equal amount. So total contribution becomes 24%

Whenever bulk surplus is available add it to NPS account or set up an additional and SIP in Mutual Fund

Many a time in our life, there is opportunity to invest in bulk, whenever we get bonus, leave encashment etc., Use this opportunity to invest in Debt Mutual Funds and setup STP to Equity Funds for long term needs

Commit 10% to long term savings through Mutual Fund SIP's

In addition to availing all tax benefits and employer schemes commit 10% of Net Income to monthly SIP's in Mutual Funds

Tax Optimization

We also have option of additional 10% over and above the 12% allowed for EPF. Opt for this additional 10% over and above 12% contribution to EPF.

Chapter 10

Retirement Planning

Contents

The Elusive Pension

Last 10 years has been very difficult for Murthy. Murthy is a 70 year old man, who drives an auto (3 wheeler) for basic needs like food, clothing and shelter for himself and his 65 year old wife. 10 years back Murthy retired from his job. Murthy worked for a distribution Company selling leading brand of cars. His company itself is a 100 year old company, which is respected by every employee and has the trust of the community.

Murthy worked in the same company for more than 35 years. Murthy has no formal education having studied till 10th std only. Before joining the automobile distribution company, Murthy did odd jobs in a mechanic shop near his house. Finally, when he was 25 years he got a break and joined the automobile distribution company. He worked there for 35 years.

His life was very smooth during his working life for 35 years. Even the first few years after retirement were very good. He has a daughter and a son, who are reasonably well settled. He made sure that they have a graduate degree. His son now works for a PSU company as Assistant Manager and daughter a school teacher. Both of them are married and live separately. When he retired in 2005, Murthy received ₹20 Lakhs. Murthy thought at that time this was lot of money and felt he could enjoy his life with this money. He had an own house and his monthly expenses were less than Rs 8000 in 2005. Murthy felt it will be sufficient for him to live comfortably for another 20 years.

Life went on peacefully for the first 2 years after retirement. Then marriage of his son and daughter took place in 2007. Murthy felt he should celebrate this occasion and ₹6 lakhs was spent on both his son's and daughter's wedding. By 2009, Murthy was left with only ₹10,00,000 and that year turned out very bad for him. His wife had a paralytic attack and had to stay in hospital for 2 months. Murthy's bank balance was reduced to Rs 8,00,000 in 2 months. His wife did not recover fully, so they had to hire servant to help them manage their household work. His bank balance started reducing very fast and by 2014, Murthy was left with only ₹2,00,000. That's when he realized his bank balance is not even sufficient for more than a year.

He decided to start earning money. But he could not get any job because of old age. Finally he took a decision to run an Auto, since he was familiar with automobile business. Today Murthy had to struggle almost 12 hours every day and even on Sundays and holidays.

9 out of 10 Private Sector Employees don't have pension

2015

1282mn Total Population

806mn Working Population

112mn Population above 60 years of age

- Govt pension cover **35mn**
- Private pension cover **4.8mn**
- Uncovered **72mn**

Crisil Report "When India ages, wither pension for all" published on Jan 2015

CRISIL, India's leading credit rating agency published a report in Jan 2015 – "When India ages, whither pension for all?"

The report mentions that as of 2015, India has 112 million or 11.2 Crore Senior citizens and 35 million of them had retired from Government Service with pension cover.

Out of the remaining 77 million who had either worked for Private sector or were unemployed only 4.8 million had some pension cover leaving 9 out of 10 without any pension like Murthy.

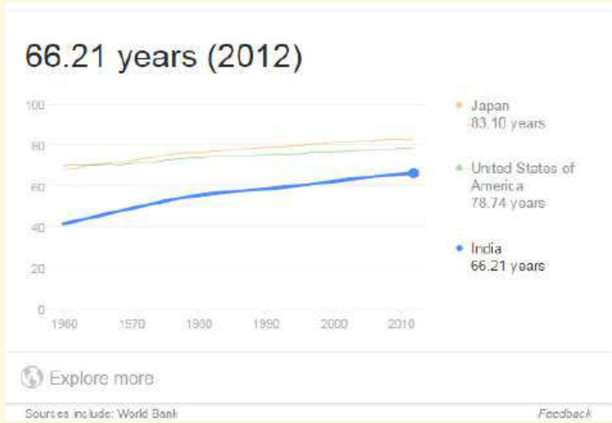
Not only pension, 9 out of 10 also lack health insurance cover and are forced to spend from their meager Retirement corpus on medical emergencies.

Retirement Planning

To avoid situation faced by Murthy, millions of Indians need to take retirement seriously and plan well in advance. How to plan for retirement expenses?

Let us assume that, average monthly expenses for retired couple in 2016 (today's elder spouse's age: 58 and younger spouse is 54), living in their own house is Rs 30,000/=

As per World Bank, life expectancy of Indians have gone up from 66.2 years in 2012 to 68 years in 2015, which means most of us are likely to live till 68 years, some may live longer than 68 years. As we can see the life expectancy in US is 78 years and Japan is 83 years. In India also we are seeing that life expectancy has increased from 40 to 66 in the last 50 years.



**it is assumed that the couple will be able to get interest on the Rs 43.2 Lakhs which will be used to manage any inflationary trends in expenses. Inflation Rate = Interest Rate Received on the Investment*

How many years will the couple need money?

Since, the younger spouse is of age 54, he/she is likely to live at least for another 12 years.

Assuming that they need ₹30000 per month, they will need ₹360000 per year.

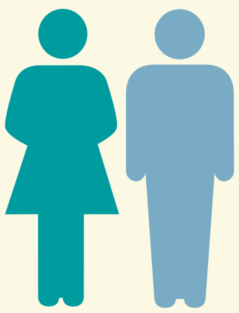
Suppose if they want to have money for 12 years, then the amount required is **₹43.2 Lakhs.***

To understand this important concept a little better, Let us consider one more example

Ram aged 52 and Usha aged 50 are planning to retire in the next couple of months. Ram and Usha have their own house and plan to live there. Their current monthly expenses are Rs 35,000/= How much should Ram and Usha keep aside for managing their expenses post retirement so that they will live a stress free life.

Solution:

Life Expectancy	:	**66**
Age of Younger spouse	:	50
No of years of expenses to be met	:	16
Current Annual Expenses	:	₹420000
Total fund required for safe retirement	:	₹6720000



The best way to ensure a financially stress free life during old age is to regularly contribute every month in a very small quantity in financial products which are long term in nature (15 years and above). The products like PPF, NPS have been created for this purpose only.

Retirement Planning Assumptions

All Planning is based on assumptions. Similarly Retirement Planning being a very long term goal, for most which is going to happen after 20 years, we need to make certain assumptions for retirement planning.

First Assumption is the annual expenses that is expected in the first year of retirement. As we saw in the earlier examples, the monthly expenses for a retired couple is likely to be ₹35000 and annual expenses of ₹360000. We also saw in the earlier chapter that average Cost inflation Index is 6.95% or approximately 7%. Based on this we can assume that monthly and annual expenses pattern for next 20 years as per the table below.

Year	Monthly Expenses	Annual Expenses
2016	₹35000	₹420000
2017	₹37450	₹449400
2018	₹40071	₹480858
2019	₹42876	₹514518
2020	₹45877	₹550534
2021	₹49089	₹589071
2022	₹52525	₹630306
2023	₹56202	₹674428
2024	₹60136	₹721638
2025	₹64346	₹772152
2026	₹68850	₹826203
2027	₹73669	₹884037
2028	₹78826	₹945920
2029	₹84344	₹1012134
2030	₹90248	₹1082984
2031	₹96566	₹1158793
2032	₹103325	₹1239908
2033	₹110558	₹1326702
2034	₹118297	₹1419571
2035	₹126578	₹1518941

The above expense assumption is based on

1. Inflation of 7%
2. Retired couple has own home
3. Retired Couple has a medical Insurance cover of ₹5 Lakh (for which premium is already paid by the employer)

While the table provides us an estimate of expected expenses, other two assumptions required for Retirement Planning are

1. Life Expectancy
2. Return on Corpus Invested

Life Expectancy

As per World Bank statistics, life expectancy in India is 66 years. But since independence life expectancy has increased from 40 years to 66 years. Japan has highest life expectancy of 83 years. Life expectancy in India is expected to increase further in the coming years. Hence any youngster planning for retirement today should plan with life expectancy of 80 years.

Return on Corpus Invested

Post Retirement it is recommended to invest in safe investments only. Since safe investments do not give inflation beating returns, it can be assumed that

Return on Investment = Inflation

Retirement Planning Assumptions

Inflation	Life Expectancy	Investment Return on retirement Corpus
7% based on Average CII for last 35 years 2016 Monthly Basic Expenses @ ₹35000	80 years	Same as inflation

- → If own home is not available, then expenses will increase. If retired couple is staying in Metro Cities then expenses are likely to increase by 30% more because of rent and if they are living in rural areas then it can increase by 15%
- → If no medical insurance cover is available, the new medical insurance cover premium will increase the expenses by 10%

Retirement Corpus Estimation

Following examples are provided to help us understand how to estimate retirement corpus.

Ram's current age is 41. He plans to retire in 2035 when he will be 60 years of age. How much retirement corpus is needed for Ram to retire safely, assuming that Ram has own home to live and has Medical Insurance cover provided by employer even after retirement?

From the table above we can find out that, Annual Expenses for the year 2035 is ₹1518941. Assuming that investment return and inflation are same, Retirement corpus required for Ram to manage till 80 years of age is **1518941 * 20 = ₹3.03 Cr.**

In the above case of Ram, calculate retirement corpus required if

a) Ram does not have an own house and plans to stay in a Metro City (But has medical insurance cover)
b) Ram does not have an own house and plans to live in rural area (but has medical insurance cover)
c) Ram neither has own house nor medical insurance and plans to live in rural area

Solution

a) Since Ram does not have own house the corpus has to be increased by 30% which is ₹3.03 *= .3 = ₹0.91 Cr. Total Corpus required = ₹3.94 Cr
b) Since Ram plans to live in Rural area the corpus has to be increased only by 15% which is ₹3.03*0.15 = ₹0.45Cr. Total Corpus required = ₹3.5cr approximately
c) Since Ram has neither home nor medical insurance cover, 15% increase required for home rent and 10% increase required for medical insurance cover

Increase required for home rent = 3.03*0.30 = 0.45 Cr

Increase required for medical insurance = 3.03*0.1 = 0.3 Cr

Practice Exercises (Life expectancy can be assumed to be 80 years for all cases)

 **Case of Arun** Current Age : 46 Retirement Age : 58 Retirement year : 2029 Own Home : Yes Medical Insurance Cover : No	
 **Case of Ankit** Current Age : 42 Retirement Age : 60 Retirement year : 2034 Own Home: No. Plans to stay in Metro city Medical Insurance Cover : No	
 **Case of Abhishek** Current Age : 49 Retirement Age : 55 Retirement year : 2021 Own Home : Yes Medical Insurance Cover : Yes	

Accumulating retirement corpus

Once we are able to estimate the retirement corpus, then we can use the Goal chart which we had seen in the savings chapter to accumulate retirement corpus.

Years in which target of ₹ 1 Lakh is to be reached	Interest Rate at which ₹ 1000 is invested every year					
	7%	8%	9%	10%	11%	12%
4 Years	22523	22192	21867	21547	21233	20923
6 Years	13980	13632	13292	12961	12638	12322
8 Years	9747	9401	9067	8744	8432	8130
10 Years	7238	6903	6582	6275	5980	5698
12 Years	5590	5270	4965	4676	4403	4144
14 Years	4434	4130	3843	3575	3323	3087
16 Years	3586	3298	3030	2782	2552	2339
18 Years	2941	2670	2421	2193	1984	1794
20 Years	2439	2185	1955	1746	1558	1388
22 Years	2041	1803	1590	1401	1231	1081
24 Years	1719	1498	1302	1130	979	846

Ram requires a retirement corpus of ₹3.03Cr and he has 20 years left to accumulate this corpus. If he invests in Mutual Fund SIP which is expected to give 10% return the annual investment to be done by Ram is

₹1746 * 303 = ₹529038 per year or ₹44086 per month.

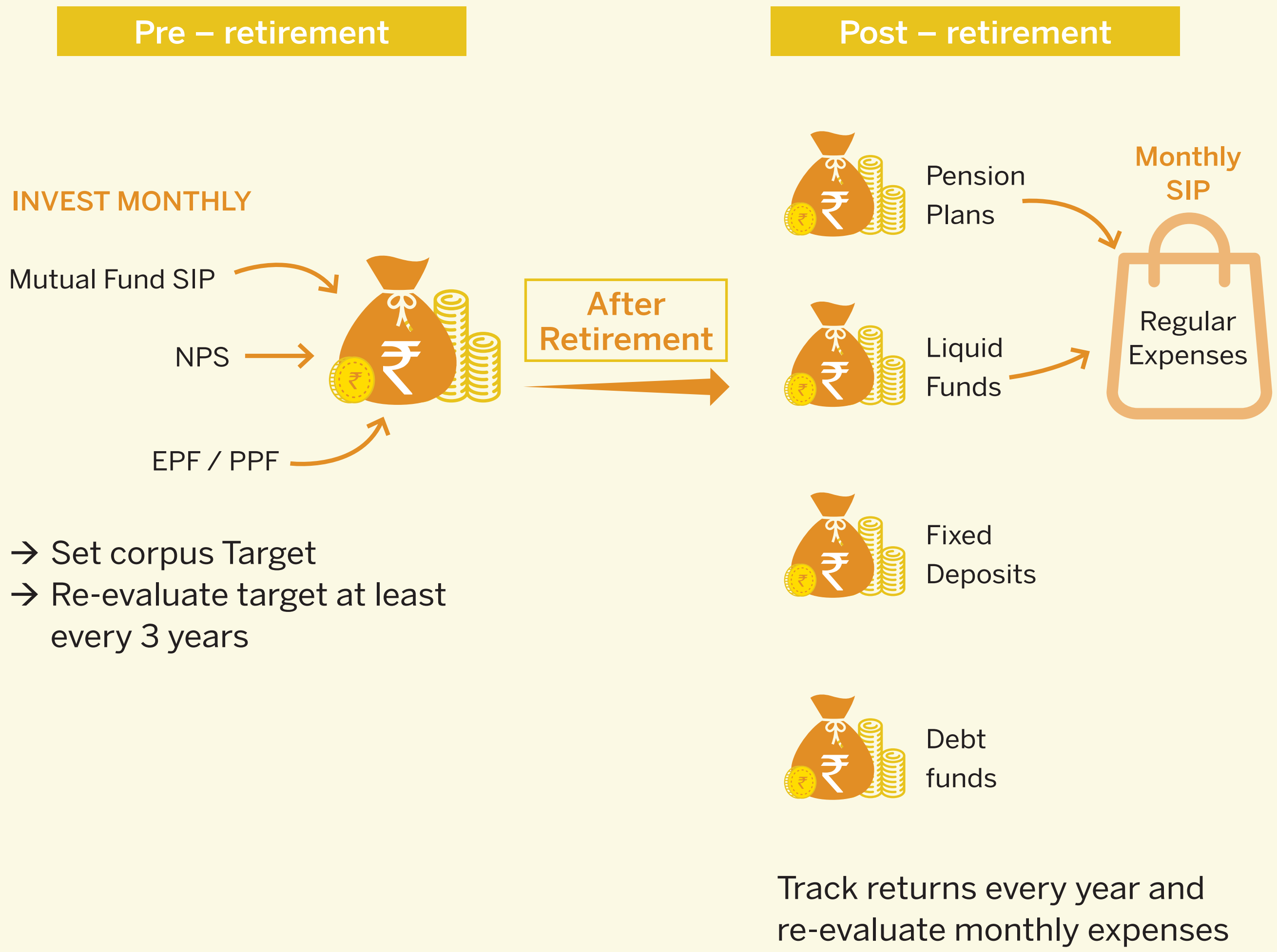
In the above example, it was assumed that Ram has currently no savings. But, if Ram has already accumulated ₹1Cr for retirement, then the revised investment amount will be

₹1746 * 203 = ₹354438 per year or ₹29536 per month

Calculate monthly investment required for accumulating retirement corpus

 **Case of Arun** Current Age : 46 Retirement Age : 58 Retirement year : 2029 Own Home : Yes Medical Insurance Cover : No Accumulated till date : 0 Expected return on monthly SIP : 10%	
 **Case of Ankit** Current Age : 42 Retirement Age : 60 Retirement year : 2034 Own Home: No. Plans to stay in Metro city Medical Insurance Cover : No Already accumulated : ₹1.2Cr Expected return on Monthly SIP : 12%	
 **Case of Abhishek** Current Age : 49 Retirement Age : 55 Retirement year : 2021 Own Home : Yes Medical Insurance Cover : Yes Already Accumulated : ₹1.5Cr Investment return on Monthly SIP : 8%	

Investment Products for Pre and Post Retirement stages



Chapter 11

Credit

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Credit Quotes

"Some debts are fun when you are acquiring them, but none are fun when you set about retiring them"
-Ogden Nash

"Debts are like children, smaller they are more noise they make"
- Spanish Proverb

"Interest on debt grow without rain"
-Yiddish Proverb

"Before borrowing money from friend, decide which you need the most"
-American Proverb

"When you get in debt, you become a slave"
- Andrew Jackson

"The second vice is lying, the first is running in Debt"
-Benjamin franklin

"Creditors have better memories that debtors"
- Benjamin Franklin

"If I owe you a pound then that's my problem, but If I owe you a million then that's your problem"
- John Maynard Keynes

"When a man is in love or debt, someone else has an advantage"
-Bill Balance

"I like my players to be married and in debt. That's the way to motivate them"
- Ernie Banks

Types of Credit based on repayment and interest options

Revolving line of credit

Bank decides on the limit upto which a borrower can withdraw from this facility. Flexibility of withdrawal and repayment is provided to the borrower. Interest is charged on the balances either on a monthly basis or on daily basis depending on the agreement

Examples
- *Credit Card*
- *Overdraft Loans*

Equated Monthly Instalments

The entire loan is disbursed at the beginning to the borrower. The monthly repayment amount and the number of payments are fixed in the beginning. The repayment mostly starts one month after disbursal of loan, and sometime first instalment is taken at the time of disbursal.

Examples
- *Car Loans*
- *Home Loans*

Mandatory Interest, flexible principal repayment

The entire loan is disbursed at the beginning. The borrower has to compulsorily pay only interest periodically. The principal repayment can be done by the borrower any time.

Examples
- *Loan against LIC Policies*
- *Loan against Gold*
- *Loan against Securities*

Flat Rate Loans

Interest on the loan is charged on the original principal amount disbursed and not on the outstanding loan balance

Examples
- *Personal Loans*

Fixed Principal Repayment

Repayment of Principal is fixed. Interest is calculated on balance outstanding loan or on the original loan as agreed between bank and the borrower.

Examples
- *Loan against Securities*

Floating Rate Loans

Loan is disbursed at the beginning. The tenure and monthly payments are also fixed. But Interest rate is not fixed. If the interest rate undergoes change either Monthly payment is revised or tenure is revised

Eg. Home Loans

Loan without collateral

Some loans like Personal Loan and Credit card loan are given without any collateral or guarantee. Loans which are given without any guarantee attract higher rate of interest.

Eg. Personal Loan

Loan with Collateral

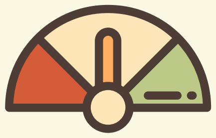
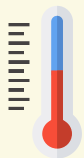
Loans with lesser interest rate can be availed by giving Gold as collateral. If the loan and interest is not repaid on time, the lender can auction the collateral and recover the borrowed amount

Eg. Gold Loan

Revolving Line of Credit

A credit card or overdraft or working capital loan works on revolving line of credit method. After evaluation of borrower's credit worthiness, the maximum amount upto which borrower can avail credit is fixed.

Important aspects of revolving line of credit

Credit Utilization 	If bank has decided to provide ₹100000 as credit limit and borrower has borrowed ₹80000 then 80% of the limit has been utilised.
Interest Frequency 	On the outstanding balances, interest will be calculated mostly on daily balances. For e.g if the interest rate per annum is fixed as 18% and balance as on 1st Oct is ₹ 10000 then interest charged on 1st Oct is 10000*(18%/365) = ₹4.93 If borrower uses another ₹10000 on Oct 2nd then interest for Oct 2nd would be (20000+4.93)* (18%/365) = ₹9.86 and balance outstanding as on 2nd Oct will be **₹20014.80**
Over Utilization Charges 	If the bank has provided ₹100000 as credit limit and if interest on the outstanding balances exceeds ₹100000 bank may charge additional fees for over utilisation.
Late Payment Fees 	Outstanding against credit cards are to be settled before certain dates as mentioned by the bank. If the borrower fails to make payment on the said date penalty in the form of late fees will be charged by the lender.
Free Interest Period 	Credit cards offer free interest period for those who always pay the full outstanding before due date and bring the credit utilization back to 0. To avail this facility the borrower has to make payment towards entire credit utilized during the billing cycle.

Equated Monthly Instalments.

Loan amount is disbursed at the beginning and borrower has to pay every month a fixed sum. The interest rate and repayment period are fixed and the repayment amount is based on interest rate, repayment period and amount borrowed. An illustrative repayment chart is shown for a loan of ₹100000 for different interest rate and varying repayment periods

Interest Rates / Loan Amount = ₹1 Lakh	Repayment Period in Months						
	36	60	84	120	180	240	300
9%	₹3180	₹2076	₹1609	₹1267	₹1014	₹900	₹839
9.25%	₹3192	₹2088	₹1622	₹1280	₹1029	₹916	₹856
9.5%	₹3203	₹2100	₹1634	₹1294	₹1044	₹932	₹874
10%	₹3227	₹2125	₹1660	₹1322	₹1075	₹965	₹909
10.25%	₹3238	₹2137	₹1673	₹1335	₹1090	₹982	₹926
10.5%	₹3250	₹2149	₹1686	₹1349	₹1105	₹998	₹944
11%	₹3274	₹2174	₹1712	₹1378	₹1137	₹1032	₹980
11.5%	₹3298	₹2199	₹1739	₹1406	₹1168	₹1066	₹1016
12%	₹3321	₹2224	₹1765	₹1435	₹1200	₹1101	₹1053
12.5%	₹3345	₹2250	₹1792	₹1464	₹1233	₹1136	₹1090
15%	₹3467	₹2379	₹1930	₹1613	₹1400	₹1317	₹1281
15.5%	₹3491	₹2405	₹1958	₹1644	₹1434	₹1354	₹1320
16%	₹3516	₹2432	₹1986	₹1675	₹1469	₹1391	₹1359
16.5%	₹3540	₹2458	₹2015	₹1706	₹1504	₹1429	₹1398

Using the above table EMI for varying loan amount with different repayment periods and interest rate can be calculated

Eg. Abishek borrowed ₹ 15 Lakh home loan at an interest rate of 9.5% and to be repaid in 15 years. What is EMI on this loan?

Solution:

For ₹1 Lakh @ 9.5%, EMI for 15 year loan is ₹1044. Hence for ₹15 Lakh the EMI will be ₹15660.

Practice Exercise

Ram took a car loan of ₹4 Lakh at 12.5% interest. The loan is to be repaid in 3 years. What is the EMI to be paid by Ram.

Mandatory Interest and Flexible Principal repayment

In this type of loan, the borrower has to mandatorily pay interest only, while the principal can be repaid with flexibility. The duration of the loan is managed by the borrower and not fixed. If borrower has money he can repay the loan early.

Example of this type of loan is Gold Loan.

Gold is given as collateral and borrower can pay only interest till he has enough money to pay back the principal.

Loan taken against gold : ₹10000
Interest : 2paise per ₹1 per month

How much is the Interest to be paid per month and what is the interest rate?

Monthly Interest : 0.02*10000 = ₹200
Annual Interest : ₹200 * 12 = ₹2400
Annual Interest Rate : 2400/10000 = 24%

Interest on loan may look attractive like 2paise only per Re.1 per month. But when we calculate annual interest it comes out big like 24%. So when going for such loans one should always calculate what the % Interest being charged and not the absolute Interest.

Practice Exercise

Ram borrowed ₹50000 against gold at an interest rate of 3 paise per Re.1 per month for 3 years. How much interest would Ram have paid during 3years.

Flat Rate Loans

Flat rate loan is a type of personal loan where interest is always charged on the Principal amount. In other loans interest is charged on outstanding loan amount and not on the disbursed amount.

Following table illustrates the difference between **"Flat rate loan"** and normal loans which are also called **"Reducing balance Loans"**

Let's compare what is the amount to be repaid for the same loan amount of ₹10000 borrowed through Flat rate and reducing balance loan as per the details below

Flat rate loan

Loan Amount	:	₹10000
Interest	:	1.16% per month (14% per annum)
Loan repayment Period	:	3 years

Reducing Balance Loan

Loan Amount	:	₹10000
Interest Rate	:	16% per annum
Loan Repayment Period	:	3 years

Repayment through Flat Rate Loan

Loan to be repaid in 36 months hence monthly repayment is ₹10000/36	=	₹277.80
Monthly interest at 2% on ₹10000	=	₹116
Total Monthly Payment	=	₹393.80

Repayment through reducing balance method

For reducing balance method we can use the EMI Chart

EMI for ₹1 Lakh @ 16% interest with 36 month repayment period is ₹3516 hence for ₹10000 the EMI will be ₹351.60

Although the interest rate looks 2% lesser compared to 16% reducing balance, the repayment amount for reducing balance method is much lesser.

!

14%	>	16%
Flat rate		**Reducing balance rate**

Fixed principal repayment

In an Equated Monthly installment loan the EMI amount is fixed and it does not vary, but in a fixed principal repayment loan, the principal repayment is fixed and monthly amount reduces every month due to less interest to be paid every month.

Let's compare how much we have to repay if borrow through EMI and through fixed principal repayment.

Loan Amount	:	₹12000
Interest Rate	:	16%
Repayment Period	:	12months

For above through EMI method we will have to pay ₹1088.75 every month which comes to ₹13065.

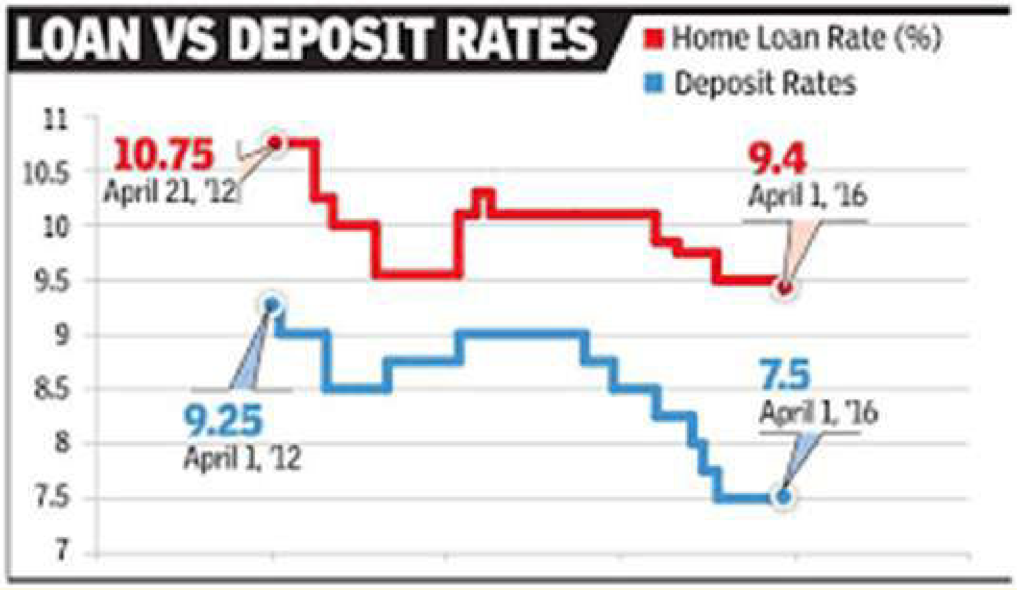
If we pay through fixed principal repayment, we will be paying ₹1000 as fixed repayment towards principal and Interest will be calculated on outstanding balance

Month	Outstanding Loan	Principal repaid	Interest	Total Repaid
1	12000	0		
2	11000	1000	160	1160
3	10000	1000	146.6667	1146.66667
4	9000	1000	133.3333	1133.33333
5	8000	1000	120	1120
6	7000	1000	106.6667	1106.66667
7	6000	1000	93.33333	1093.33333
8	5000	1000	80	1080
9	4000	1000	66.66667	1066.66667
10	3000	1000	53.33333	1053.33333
11	2000	1000	40	1040
12	1000	1000	26.66667	1026.66667
13	0	1000	13.33333	1013.33333
			Total Repaid	**13040**

If we pay through fixed principal method we would have paid ₹25 less.

Floating rate loans

Interest rate on loans never remains the same. The rate varies depending on prevailing inflation and economic growth. Longer the term of loan, more the variation in interest rates during the tenure of the loan. Hence many long term loans today are not offered with fixed interest rates. The interest rates are reset at periodic intervals by the bank. When the interest rates are reset either EMI or Tenor is adjusted based on the outstanding loan on the date of reset.



While banks reset Deposit rates more frequently, interest rates on loans are done less frequently as we can see from the above chart.

Example

Abhishek took home loan of ₹20 Lakh for 20 years at interest rate of 10.5%. After 5 years, interest rates have come down to 9.5%, what will be the revised EMI for Abhishek if he has repaid principal of ₹197792 in the last 5 years. How much per month will be the savings for Abhishek due to reduction in Interest rate?

From the EMI Chart we can find that for ₹1 Lakh loan at 10.5% for 20 years the EMI is ₹998. Hence for 20 Lakh loan EMI will be ₹19960.

After 5 years, Loan amount left is ₹2000000-₹197792 = ₹1802208

At 9.5% interest rate, EMI for 15 years for ₹1 Lakh is ₹1044. Hence for ₹18.02208 Lakh EMI will be ₹18815.

Monthly savings for Abhishek will be ₹19960-₹18815= ₹1145

Loans & Collateral

Most loans require some kind of collaterals. There are very few loans which are available without collateral. Only Credit card comes without any collateral. Even personal loans require post-dated cheques or ECS mandate for EMI payments.

Summary of loans and collaterals required

Credit Card/Overdraft

No collateral required.

High Interest Rates

Borrowing Limit based on Credit rating

Interest Rate : 12% - 40%

Personal Loan

ECS Mandate or Post-dated Cheques

Interest Rate : 14%+

Vehicle Loan

Hypothecation

Interest Rate: 11% and above

Loan against gold

Interest rate : 15% and above

Home Loan

Interest rate : 9% and above

Loan against LIC Policies or Securities

Interest rate : 10% and above

Education Loan

Upto 4 Lakhs no collateral

Interest Rate: 11% and above

Consumer Loan

Interest Rate : 15% and above

Loan Wise

Most of us face situations in life wherein it is not possible for us to manage sudden expenses with resources available with us. In such cases it is necessary that we take correct loan. Wrong loan can prove very costly to our financial wellbeing.

Need	Solution
Emergency need, but can definitely repay loan in 30 days	Credit Card
Not sure of exact repayment, but can repay anytime within 6months to 5 years needed for medical emergencies or family functions	Preference 1 : Loan against LIC Policies, Loan against FD's and Securities, PPF Loan Preference 2 : Loan against Gold Preference 3 : Personal Loans
For Asset Creation	Home Loan or Education Loan

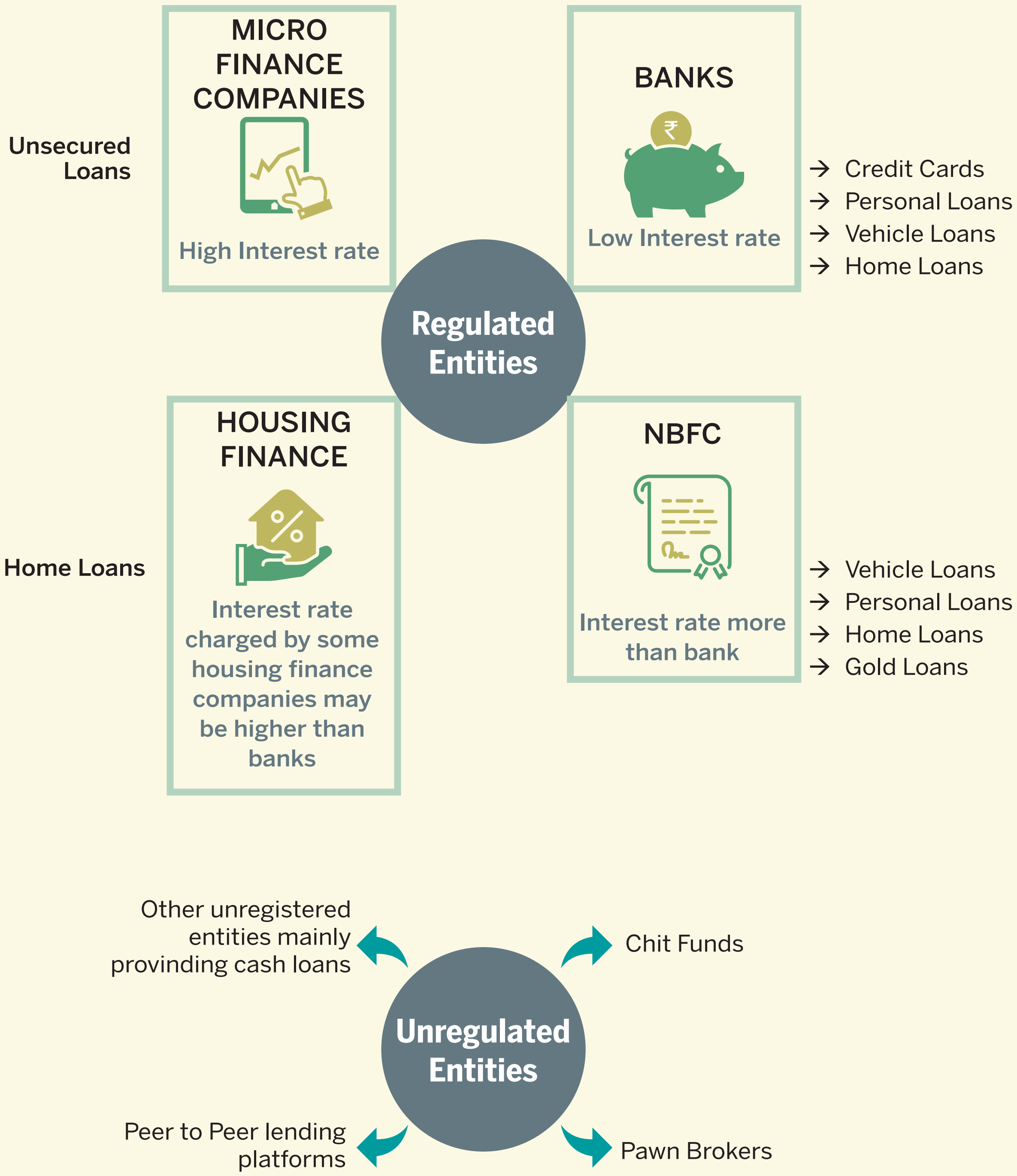
Avoidable loans

	**Car or vehicle loan** Car or two wheeler is a depreciating asset. By the time loan is paid off, the value of the vehicle becomes Nil and we will be forced to borrow again for a new vehicle. Instead if postpone the purchase of our first vehicle by 3-4 years and save money to buy on full payment, we will never have to take a loan for vehicle
	**Consumer durable Loan** Like Car Loan, these loans are also for depreciating assets. Many a time we are tempted by Interest Free EMI's which turns out to be very expensive. Loan for consumer durables like TV, Mobile, washing machine are to be avoided if possible.
	**Loan for Holiday** Loan for holiday must be strictly avoided. These loans are very costly and no value is left after the holiday is over. For 5-10 days of fun, we will have to bear the trouble for 3-5 years

Loans Advantages and disadvantages

Advantages		
1. Credit Card paid in full on due date 2. Home Loan 3. Education Loan 4. Mudra Loan 5. Business Loan		→ Helps us create wealth as we are able to borrow less and generate higher return than interest we pay → Create Long lasting personal assets which otherwise would not have been possible → Disciplined approach to creating asset through regular repayment
Disadvantages		
1. Credit Card Loans over 60 days 2. Personal Loan 3. Vehicle Loan 4. Interest Free EMI's		→ More interest is paid than benefit received → Our expenses increases because of Interest payment → Asset value become zero before the loan tenure → Prevents us from increasing our Networth → May lead us to debt trap and will become difficult for us to get out of the debt trap

Loan Providers



Chapter 12

Debt and Debt Management

Contents

The Burden of being Indebted

Once there was a farmer who was desperately in need of money. He went to the zamindar of the village and asked him to lend a sum of ₹1 Lakh. The zamindar asked if the farmer could give any land or jewellery as collateral so he can lend him money against the collateral. Farmer agreed to give his home as collateral and borrow money

The Zamindar gave a loan of ₹100000 and told the farmer that he will be charging 12% interest. The farmer will have to repay the loan in 20 years by paying an EMI of ₹ 1101 every month.

The farmer requested zamindar to increase the period of loan and reduce the monthly EMI, because he cannot pay ₹1101 every month

Then the Zamindar asked the poor farmer how much he could pay every month.

The farmer told the zamindar that he could pay only ₹1000 per month and asked the zamindar to reduce ₹101 every month but increase the period of repayment

The zamidar was happy to reduce the EMI to ₹1000 every month and gave the farmer ₹1 Lakh after taking possession of his house. The farmer was also happy that he has to pay only ₹1000. The farmer thought that the repayment period will perhaps increase at the most by another 10 years.

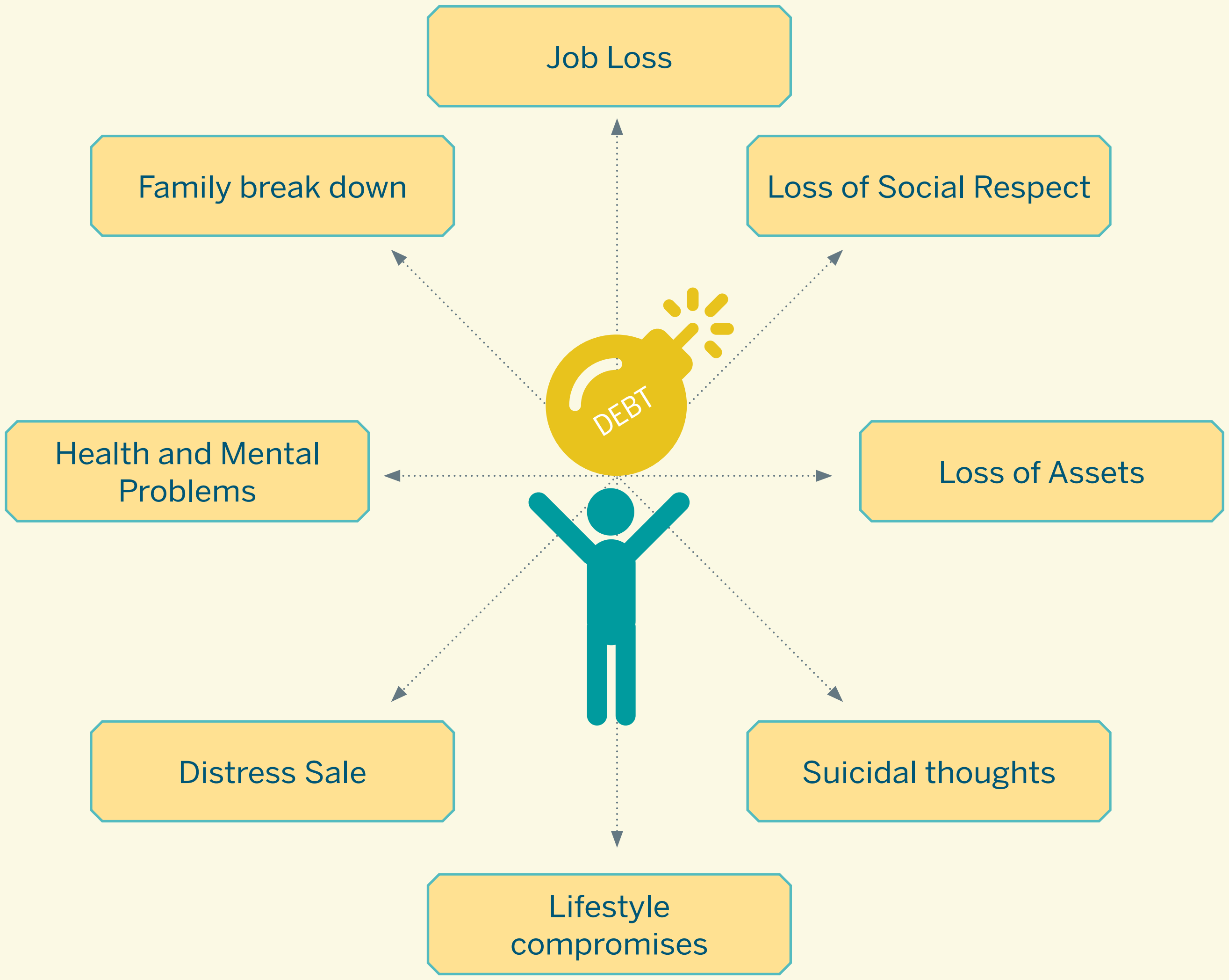
How long would it take to the farmer to repay ₹1 Lakh?

Since the interest rate for 12%, the annual interest on ₹1 Lakh loan is ₹12000 and if farmer can repay only ₹1000 per month, he can repay only ₹12000 per year and this covers only the interest cost. The farmer could never pay back the principal and was indebted not only for his life time but also made his future generations indebted to Zamindar.

The poor farmer could never get back his home and kept paying ₹1000 forever in his life and also generations to come.

When you get in Debt, you become a slave

While we have seen that debt can help us build assets, poorly managed debt can get us into a lot of trouble.



Hence, the decision to borrow must be considered after thorough evaluation. Loans are easily available today from many institutions, but loan should be the last option to meet our financial needs. Loans from unregulated entities must be avoided at all cost. Not only are they expensive, they are mostly taken after regulated entities refuse to give.

Credit Information Companies and Credit Scores

Credit Information companies are governed by Credit Information Companies Regulations Act, 2006(CICRA). There are currently 4 Credit Information companies in India.

Credit Information Bureau (India) Limited

Equifax Credit Information Services Pvt Ltd

Experian Credit Information Company of India Pvt Ltd

High Mark Credit Information Services Pvt Ltd

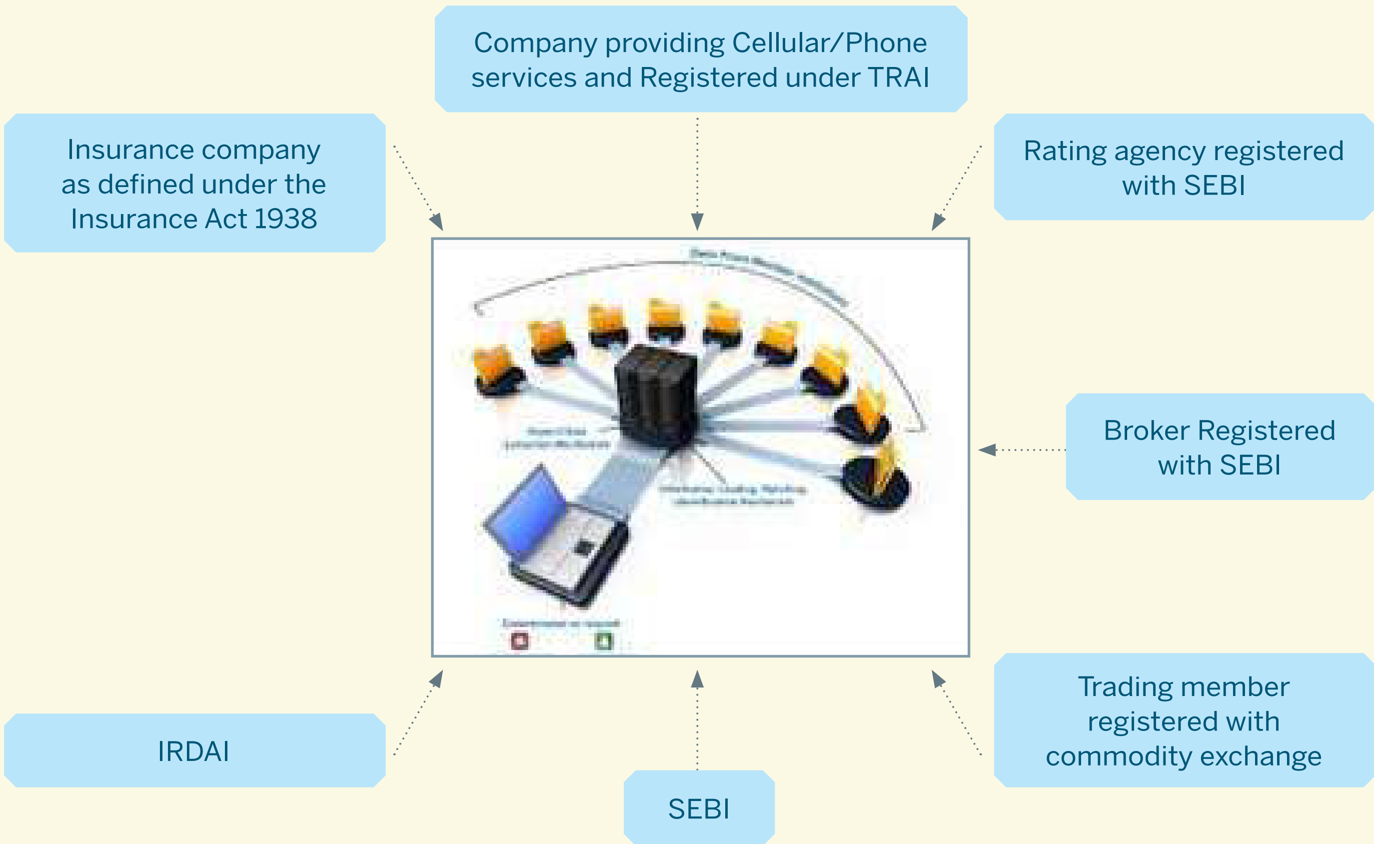
Privacy Principles of CIRCA

The collection and management of Credit data from Credit Institutions are governed by 7 principles outlined in Chapter VI of CIRCA and these principles relate to

Principle 1:	Care in Collection of Credit Information
Principle 2:	Data Security and Secrecy
Principle 3:	Access and Modification
Principle 4:	Data Collection Limitation
Principle 5:	Data Use limitation
Principle 6:	Data Accuracy
Principle 7:	Archiving/Length of Preservation

Specified Users

Chapter 2 of CIRCA outlines other specified users who can get access to Credit information from CIC's



Full Free Credit Report (FFCR)

As per the circular DBR.CID.BC.No.10/20.16.042/2016-17, RBI has directed all CIC's to provide access, upon request and after due authentication of the requester, to a free full credit report (FFCR) once in a calendar year to individuals whose credit history is available with the CIC. This report shall show the latest position of the credit institutions' exposure to the individual as per records available with the CIC.

The FFCR shall be in electronic format, and the procedure for accessing the FFCR shall be displayed on the CIC's website. The contents of the FFCR shall be the same as appearing in the most detailed version of the reports on the individual provided to credit institutions, including the credit score.

Charges for Credit report from CIC

As per Chapter VII of CIRCA, Every credit information company shall be entitled to charge such amount, as it may deem appropriate, not exceeding Rs.500/- in case of individuals and Rs.5000/- in case of other borrowers towards fee, for providing credit information report to a Specified User in respect of such borrowers.

Refund of fees and / or reimbursement paid by individuals: Where the Reserve Bank is satisfied that a credit information company or a specified user, as the case may be, has charged more amount than what is provided under sub regulation (3) of regulation 9 and sub-regulation (2) of regulation 17, it may direct the credit information company to refund to the borrower, such excess amount charged by them.

REMEDIES TO INDIVIDUALS

An individual may file before the Reserve Bank a written complaint against a credit information company, credit institution or specified user, as the case may be for contravening any provisions of the Act.

On receipt of a complaint under sub-regulation, the Reserve Bank, may if so satisfied prima-facie about the alleged contravention, issue notice to the concerned Credit Information Company, Credit Institution or Specified User, as the case may be, calling upon them to show cause as to why the amount specified in the notice should not be imposed on the company for the alleged contravention; Provided, that before imposing such penalty, reasonable opportunity of being heard shall also be given to such Credit Information Company, Credit Institution or the Specified User, as the case may be.

If in the opinion of the Reserve Bank, the allegation made against such Credit Information Company, Credit Institution or the Specified User, is found to be proved, the Reserve Bank may; (a) impose such penalty as it may deem appropriate, in accordance with the Act; or (b) my reprimand such erring Credit Information Company, Credit Institution or the Specified User, as the case may be.

Improving Credit Score

Track your credit score annually and keep improving credit score until it becomes "Excellent". Actions that you can take to improve credit score.

Seek waivers
Approach the bank which has given bad report and talk to them

Understand Credit report
Check the Report thoroughly and identify errors, if any

Underutilize limits
Keep Credit card utilization to below 50%

Don't enquire for loan
Unless you are sure you want a loan, do not enquire. There are many online portals today which tempts you with offers and seek loan. Every time you put in application credit score is affected

IMPROVING CREDIT SCORE

Explore cheaper loan options or
loan options with collateral
If you are not able to pay off credit card loan, take a personal loan and try to settle the credit card loan

Raise Credit limits
If you are using credit card wisely and paying all payments before due date and no outstanding, but utilization is more than 75% then increase credit limit

Bills on time
Pay electricity, phone, gas bills on time

Apply for a credit card
If you don't have credit card apply for one with very less limit

Debt Management Ratios

Other than tracking and monitoring the credit score, there are various debt management ratios which when controlled and kept within limits can also help in improving the credit score.

Total Loan/Annual Salary
This ratio helps in understanding how many times our future income has been consumed already by us.
Keep the total borrowing to less than 4 times the total Annual Income

EMI/Monthly Income
This ratio helps us in understanding what % of monthly income is going towards EMI. Keep this ratio below 25%

Total Assets/Total Liability
Total Assets should always be more than Total liability, and it is better if total assets are more than 2 times the total liability

Interest Rates
Check if you are paying right interest on your loans. If you are being charged higher interests negotiate with the institution

Repayment Periods
Lenders may offer flexibility of longer repayment periods, but it is better to keep loan periods to shorter durations
Personal Loans < 2 years
Auto Loans < 5 years
Home Loans < 20 years

Annual Interest Payments/ Annual Income
Percentage of annual salary going towards interest payments.
Keep the % to below 20%

Credit Responsibility

LOAN ≠ FREE MONEY LOAN = Expensive MONEY	Mindset is important while borrowing. Most of the time we feel that Loan is free money and end up spending without any control. Treat loan as expensive money and spend only on basic necessities
Do not Carry Credit Card	It is a good idea to keep credit card only at home and use only for planned expenses. Carry it only when you want to spend on planned expenses. If we carry card all the time there will be many unplanned and impulsive purchases which will soon become unmanageable
STOP USING CARD After Missed payment	The moment you missed paying your credit card bill fully, immediately STOP using the card. Because any further purchases will attract very high interest rates.
SEEK HELP IMMEDIATELY	If you are finding difficult to repay loan, seek help immediately. Call the Financial Institution and explain the problem and ask for solution. Do not postpone seeking help as postponement can worsen the situation
DO NOT SPEND ON THINGS WHICH YOU CANNOT AFFORD	Loan pushes us to buy things which we cannot buy with our money. Ask yourself if you would have bought the same thing with your own money.

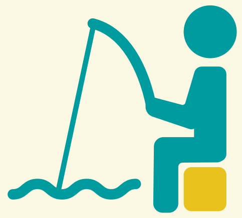
Chapter 13

Identifying Risks

Contents

Investment Decisions – A case Study

Sep 2007



Mr. Talpade retired from a leading public sector organisation after serving for 38 years. Mr. Talpade was a successful Human Resources and Administration professional. Starting as a trainee in the organisation after graduation he rose to the position of General Manager – HRD in the organisation in 2003. During his working life Mr. Talpade did not have to think too much about money management.

His company deducted 24% of his salary every month (12% contribution from employer and 12% contribution from employee) and invested in Provident Fund which was managed by the company. For the first 25 years of his working life the return on Provident Funds was 12%. The interest earned was also tax free. Mr. Talpade also had the habit investing 50% of his Diwali bonus every year as voluntary contribution to Provident Fund Account. In addition to that, whenever he received amount by way of leave encashment he invested that also in Provident Fund. During the year 1985 he took a loan of ₹1 Lakh from Provident Fund account and housing loan of ₹9 Lakh to purchase a house in Mumbai for ₹10 Lakhs The housing loan was repaid by the year 2000.

When he retired in Sep 2007, he received retirement benefit of ₹85 Lakhs which included his gratuity and provident fund maturity amount. Mr. Talpade has one son and one daughter. His Son was in the second year of Engineering and was planning to go for Masters Education in US in Jun 2009. The daughter's marriage has been fixed for Dec 2008. Mr. Talpade allocated ₹20 Lakhs for his son's Higher Education and his daughter's marriage. He wanted to plan his post retirement monthly expenses with balance of ₹65 Lakhs.

Since he had lot of free time after retirement, he collected information about various financial products. He collected data from business newspapers and a visit to his bank. He was also approached by many Insurance and mutual fund agents. Presented below is the research data gathered by Mr.Talpade

Fixed Deposits:

→ Nationalised Bank Fixed Deposit	:	6.5% - 7.5%
→ Cooperative Bank Fixed Deposit	:	8%-9%
→ Fixed Deposits from AAA rated companies	:	7.5% -8.5%
→ Fixed Deposits from AA rated companies	:	8.5%-9.5%
→ Fixed Deposits from BBB Rated companies	:	12%-13%

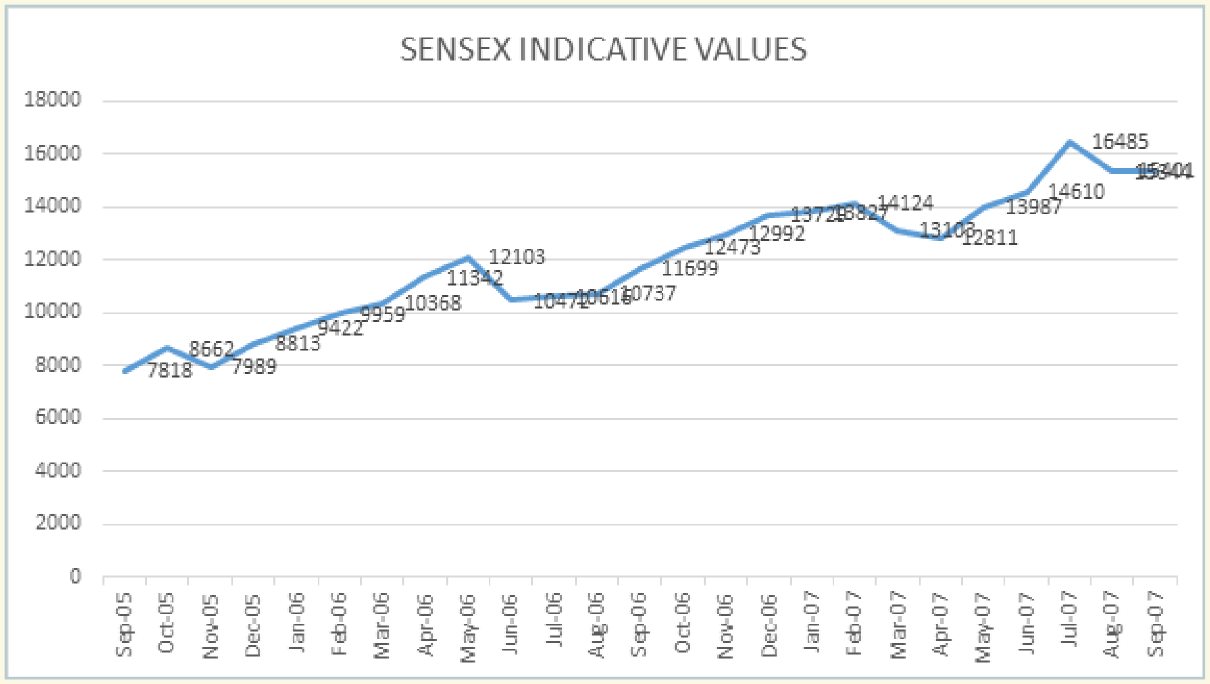
Annuity Plans

Mr. Talpade discovered that there are many options for Annuity plans offered by Insurance companies. Some of them had options of returning the original investment and some options did not return the original investment. The monthly pension amount varied depending on the option. While exact pension was not confirmed, Mr. Talpade could gather following approximate monthly pension for an Investment of ₹ 1 Lakh.

- → ₹350 per month as guaranteed pension for 5 years (pension will be given to nominee if Mr.Talpade dies within 5 years). Original Investment will be returned after 5 years
- → ₹ 340 per month as guaranteed pension for 10 years (pension will be given to nominee if Mr.Talpade dies within 10 years). Original Investment will be returned after 10 years
- → ₹ 330 per month as guaranteed pension for 15 years (pension will be given to nominee if Mr.Talpade dies within 15 years). Original Investment will be returned after 15 years
- → ₹400 per month as guaranteed pension till Mr. Talpade's Life time and original amount will not be returned
- → ₹380 per month as guaranteed pension till Mr. Talpade's life time, with return of original investment to nominee
- → ₹370 per month as guaranteed pension till Mr. Talpade's and Mrs. Talpade's Life time whichever is later and original amount will not be returned
- → ₹360 per month as guaranteed pension till Mr. Talpade's and Mrs.Talpade life time, with return of original investment to nominee

Stocks and Mutual Funds

Stock Market has been rising every day since 2005 and annual returns were estimated at over 50% per annum for last two years. Mr. Talpade had gathered the following data on the Sensex performance for last two years. Most investors seemed to have doubled their investments in last 2 years.



Tax Free Bonds

Mr. Talpade also gathered following information about tax free bonds. He found out that unlike normal fixed deposits Tax free bonds are not easily redeemable. In case of emergency, he may have to look for a buyer in the bond market and that may not be easy. Further, if prematurely sold the tax benefits on the bond will not be available.

- → ₹1000 invested in 10 year cumulative option will receive ₹1825 at maturity or 6% annual interest.
- → ₹ 1000 invested in 15 year cumulative option will receive ₹2500 at maturity or 6% annual interest

Armed with above information Mr. Talpade decided to invest his ₹85 Lakhs. After lot thinking and analysis Mr. Talpade invested as follows

- → Invested ₹10 Lakhs in Equity Mutual Fund which gave the highest return for the year 2006-7 for Son's Higher Education which will be required in Mar 2009
- → Invested ₹10 Lakhs in Equity Mutual fund which gave the second highest return for the year 2006-7 for daughter's wedding which will be required in Dec 2008
- → Invested ₹37.5 Lakh in Pension Plan which will give guaranteed ₹15000 per month for him and his spouse through their life time without return of original investment.
- → Invested ₹25 Lakhs in 10 year tax free bond with cumulative option
- → Balance ₹2.5 Lakhs was invested in fixed deposits at 12% compounding interest from BBB rated company for 1 year.

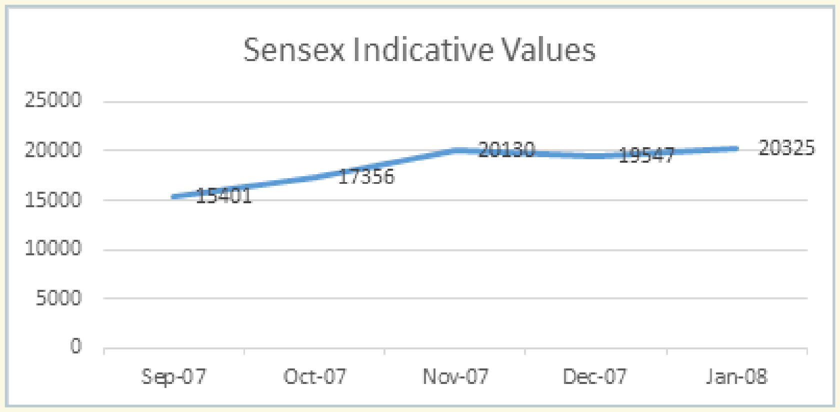
Mr. Talpade was very happy that his finances are taken care for next 20 years

1. He expected that his mutual funds will grow in the short term. He was planning to use the additional returns generated from mutual funds to fund a trip to US along with their son. He was also planning to organize his daughter's wedding in a grand manner that he had thought earlier.
2. He felt that ₹15000 guaranteed pension will take care of his monthly expenses and he need not worry about the monthly expenses
3. The Long term bonds will be useful after 10 years.

What are your comments about Mr. Talpade's Investment decision?

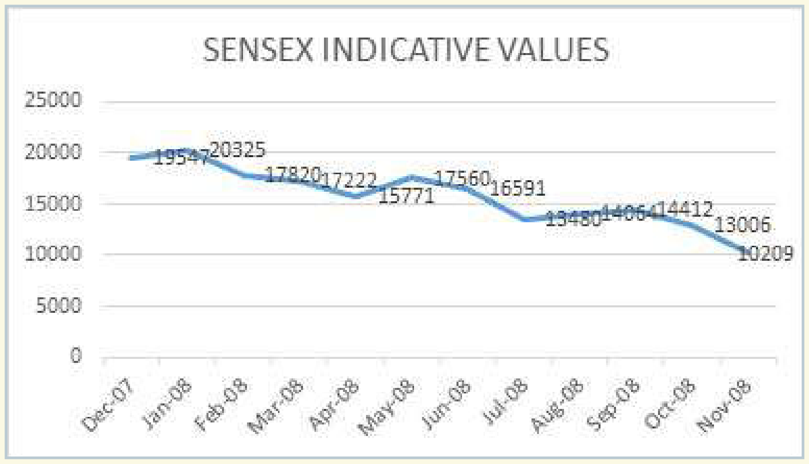
Jan 2008

Mr. Talpade had a grand New Year party at his house. The stock market continued to rise and he was happy that he has made an excellent decision. His investment of ₹20 Lakh has already become ₹25 lakhs. He regretted that he should have invested another ₹25 lakhs also in Equity mutual funds instead of Tax free bonds. He would have earned a return of ₹10 Lakhs by now. However, he felt contended and started planning for the grand wedding of his daughter in Dec 2008.



Nov 2008

Last 2 months has been very stressful for Mr. Talpade. It is getting close to his daughter's wedding date and he has not been able to plan properly. The stock market has been falling lately. He has been waiting for stock market to recover so that he can get back his original investment at least. His ₹20 Lakh investment has now been reduced to ₹15 Lakhs. If he withdraws this ₹15 Lakhs he will not have money for his son's education. He realized that he will not be able to redeem his tax free bonds also. His fixed deposit with the BBB rated company had matured previous month, but his repeated visit to the company to get his money back did not yield any results. There were rumors in the market that the company's financial situation is not good and there is a possibility of investors losing their money.



So, what went wrong with Mr. Talpade? How could things turn so badly in just one year?

Mr.Talpade had focused only on returns while taking investment decisions. He ignored the risks involved in Investments. His decisions were driven by emotions.

- Mr. Talpade ignored **Credit Risk** when he chose BBB rated company for Fixed deposit Investment
- Mr. Talpade ignored **Market Risk** when he considered Equity Mutual Funds for his short term needs
- Mr. Talpade ignored **Liquidity Risk** when he considered Tax Free Bonds
- Finally, Mr. Talpade ignored **Inflation Risk** when he considered annuity, he assumed that his monthly expenses will remain ₹15000 per month even after few years.

Hence, Identifying Risks and having a plan to mitigate and manage risk must take priority over returns.

Behavioral biases

Traditional economic theories have been built on the assumption that human beings are smart and always take decisions which maximise outcome. But, behavioral finance has created a huge body of evidence to support the idea that the so called rational man is anything but rational. All our decisions, particularly with respect to risk are purely driven by emotions. Worldwide number of research has proven that we rational men are not only irrational but “Predictably Irrational”, which means no matter what we have learned and experienced in the past, we can still be expected to make the same irrational mistakes again and again. While there are many behaviours which affects our decision making highlighted below is some of the key behaviours which affect our decision making

LOSS AVERSION

The pain of loss is much more than joy experienced in gain.

Two groups of people were administered following research

People of Group A was given ₹50. People of Group B was given ₹100 and asked to pay tax of ₹50

While both group received the same amount Group B people were more unhappy because they have to part with ₹50

HERD MENTALITY

While all of us know that it is good to buy when stock market is low and sell when the market is high.

But in spite of knowing this, when the entire market starts selling every one panics and start to sell instead of buying leading to more fall. Similarly when the market is going up, all of us ignore risks and start accumulating stocks. This happens every time the cycle changes.

BIASES AND OVERCONFIDENCE

We may be over confident that certain risk will not affect us. For e.g majority of the individuals who suffered in Chennai floods would have thought that Chennai has never been affected by Floods in the last 100 years and it is unlikely to happen. But they were caught unaware and had to face huge losses.

GAMBLER'S FALLACY

While playing a game of dice, the last three chances saw "6" coming up every time. What would you expect when the die is thrown for the 4th time?

Most people expect that 6 will not come again because it has already turned up 3 consecutive times. But since the happenings are random and the outcome of 4th time has no relation to previous time the chances of 6 happening are as good as any other number. But we are forced to believe that 6 is unlikely to happen

This false belief which is influenced by the previous outcome is known as "Gamblers Fallacy"

ENDOWMENT EFFECT

This is the hypothesis that people assign more value to things because they own them.

In a research conducted by Nobel Laureate Daniel Kahneman where two groups of people were given goods worth same value. One group were given Coffee Mugs and other group was given pen.

When group of people who were given coffee were asked to exchange for pen, they demanded 2 pens for one mug, similarly those who were given pens when asked to exchange for mugs demanded 2 mugs.

PROJECTION BIAS

Projection bias refers to assumption that our tastes and preferences will remain the same over a time.

If we are having a conservative lifestyle today and planning for retirement based on today's life style we may under estimate the need for the retirement corpus and may not be aggressive in accumulating enough corpus. Especially those who are retiring today may not have anticipated 1990 while planning for their retirement that post their retirement the biggest expenses is going to be on Air Travel and not on basic needs like food and clothing

How to overcome behaviors impacting our decisions?

- → Always consult with unbiased fee based advisors before taking any big decisions
- → Be aware of the behaviors
- → Avoid Impulse decisions
- → After taking any big decisions – wait for 24 hours before implementing
- → Understand Financial products thoroughly

Financial Products and their purpose

There are many financial products that we use in our day to day life. Each category of financial products are for a specific need.

Commonly used Financial Products

Payment Products

- Checking A/c
- Digital Wallet
- Debit Cards
- RTGS
- IMPS

Purpose:
Pay for purchase of Goods or Services

Investment Products

- Term Deposits
- Provident Fund
- National Pension System
- Gold Savings Bond
- Mutual Funds
- Stocks

Purpose:
Grow Wealth

Important Insurance Products

- Life Insurance
- Accident Insurance
- Motor Insurance
- Health Insurance
- Critical Illness Insurance
- Travel Insurance
- Theft Insurance
- Fire Insurance
- Crop Insurance

Purpose:
Protection against Pure RISK

Loan Products

- Home Loan
- Education Loan
- Vehicle Loan
- Gold Loan
- Personal Loan
- Credit Cards

Purpose:
Meeting short term emergencies or Asset Purchase

Financial Products and Associated Risks

Product Type	Associated Risks	Risk Mitigation and Management
Payment Products	→ Phishing – Imposters trying to lure and collect important data like CVV, password, account numbers etc → Stolen Passwords → Loss of Cards → Leaving the card at ATM	→ Any communication which is either threatening or too good to be true must be ignored or atleast reported to nearest branch for further action → Use only personal computer with proper Anti-Virus software only for online transactions. → Report loss of cards and any suspected compromise on online passwords immediately → As far as possible use only OTP option for passwords
Investment Products	→ Liquidity Risk → Credit Risk → Market Risk → Business Risk → Company Risk	→ Credit risk or the risk of default is the most important risk. Understanding and implementing credit rating process and methodologies can reduce credit risk → Investment to be done after thorough analysis of Cash Flow needs and analysis → Diversification of assets into Debt and Equity → Wherever market Risk is present use Averaging
Insurance Products	→ Under Insured → Over Insured → Non-Disclosure of Relevant Facts	→ Identify Correct sum assured required → Understand exclusions and risk not covered by policies → Only Pure Risks (situation where outcomes can result in loss or no loss, but never in gain) will be covered by Insurance and not Speculative Risks. Risk Management Strategies include - Risk Avoidance, Risk Retention, Risk reduction and Risk Financing
Loan Products	→ Leverage Risk → Interest Rate Risk	→ Loan to be taken for Asset Creation → EMI repayment should be within 25% of Monthly Income

BEWARE OF RISKS IN FINANCIAL PRODUCTS

External Risks

Every financial products has its own inherent risk. There are also other risks which are external to the product and impact all products. While it is possible to have a strategy to manage inherent risk, we will have to use our judgment and make assumptions. Whenever there is a change in the external factor we need to revise our assumptions and make alterations to our plan. For e.g if we make a plan with the assumption that inflation rate is going to be 7% and if Inflation rate become 10% or 3%, we need to make suitable modifications to our plan. Some of the external risks that we face are

Inflation	Inflation Risk refers to diminishing purchasing power. This is the risk that future cash flows from Investments may not be able to meet the expected expenses because of diminishing purchasing power.
Interest	Interest Rate Risk refers to the risk arising from fluctuating interest rates. Interest rates never remain the same, they fluctuate. Generally they move in one direction either reducing or increasing. But suddenly they can reverse direction and that's when the risk becomes unmanageable for some or some may can have windfall profit.
Tax	One major impact on investment return is tax. In India the impact of tax on the investment return can be as high as 30%. For. e.g In 2014 budget the duration for availing long term capital gains on Debt funds was changed from 1 year to 3 years. In 2015-16 budget additional tax benefit of ₹50000 was provided to NPS making the product more attractive.
Herd Mentality	Retail investors are particularly influenced by the market movements. Markets in growth phase can influence investors to make more investments and vice versa.
Political Stability and Policy decisions	While Stable government and progressive policy decisions can impact investments positively, unstable government and indecisive policy environment can have negative impact on the investment
Force Majeure	Force majeure is a French term meaning greater force. It is also referred to as "act of god". The Chennai floods could be called Force Majeure. Such risks cannot be anticipated and when such risk occurs damages could be very high.

Risk Appetite and Risk Capacity

We have seen that there are many risks and many factors which affects our risk decisions. Hence it is important that we understand our Risk Appetite and Risk Capacity before we decide on how much risk we should be taking

Risk Appetite is identified by administering a Risk Profile questionnaire. There are many questionnaires available in the market including those advanced questionnaires based on psychometric profiling. The Risk profiling questionnaires can help in identifying the Risk appetite of individual. Risk appetite can be segregated into Aggressive Risk appetite, Moderate Risk appetite, and Conservative Risk appetite

Risk Appetite

Aggressive Risk appetite

Aggressive Investors will come across as more knowledgeable and aim for maximum returns by taking maximum risk

Moderate Risk appetite

Moderate Risk Tolerance Investors will adopt a balanced approach and have more diversification in their portfolio

Conservative Risk appetite

Generally these investors are less knowledgeable and stick to known investments which have guarantee of capital protection and low returns

While Risk appetite is the ability of investors to handle losses, Risk capacity is based on Investors age, income, Networth and goals. Combination of Age, Income, Networth and Goal Time frames can be used to identify Risk capacity of Investors. Young Investors have more risk capacity than old investors, similarly investors with high Networth have high Risk capacity and low Networth have low risk capacity.

	High Risk Capacity	Low Risk Capacity
Risk Capacity Factors		
Age	20	80
Income Tax Bracket	30%	0%
Networth	High	Low
Goal Time Frame	Long Term	Short Term

Risk – A Summary

Behavioral Biases

- → Loss Aversion
- → Herd Mentality
- → Over Confidence
- → Gambler's Fallacy
- → Endowment Effect
- → Projection Bias

External Risk

- → Inflation
- → Interest Rate
- → Tax
- → Herd Behavior
- → Political stability and Policy Decisions
- → Force Majeure

Investor Profile

- → Risk Appetite
- → Risk Capacity

Risk Associated with Products

- → Credit Risk
- → Liquidity Risk
- → Market Risk

Chapter 14

Financial Safety nets and Insurance

Contents

The subject matter of Insurance

Amini is a small island in Arabian sea. The main occupation of people living in Amini is fishing. There are 5000 families in the island which depend on fishing as the main source of income. These fishermen go out in groups of 10 to do fishing. There are 500 boats which are used by this group and they go to the sea at least twice in a month for catching fish. The fish caught by them is not only used by locals but also exported. The fishing activity has been going on for many years now.

The head of the Island Umdobi has been observing that every year at least one fisherman dies while out on fishing. When this fisherman dies it is a great loss to his family. The annual income of the fisherman family is around ₹60,000. As a leader of the island Umdobi has been concerned about this, there are at least 50 families which are financially suffering because he lost the breadwinner of the family.

Every time these fishermen go out for fishing, the entire families are worried till the fishermen comes back. It is a struggle every day. Umdobi has been thinking for a while for creating a solution to this problem which his community is facing.

Finally, he thought he got a solution. He asked every fisherman family to pay Rs 250 every year, so he could have Rs 12,50,000. If any one dies while fishing, that family will receive Rs 12,00,000. Using this money the family could manage the income of Rs 60,000 per year for next 20 years. So for a small sum of Rs 250 per year, the family can protect the financial loss. The solution appealed to all family members of the fisherman. The no longer have to worry about their family expenses at least, if something happens to their key family member. They all agreed to pay up Rs 250 every year.

As expected, soon one of the fishermen died in the sea and the family received Rs 12,00,000. Unlike other families which are financially struggling, this time the family managed to receive financial support from Umdobi.

Now every year fishermen are happy to pay Rs 250 every year, so that their family will be protected by Umdobi. Now that this problem is solved, Umdobi was thinking about other issues faced by his fishermen community. He also noticed that every year at least 3 fishing boats gets damaged by rough weather at sea and those affected had to borrow money to buy new fishing boats which becomes a huge burden on the family. Another issue faced by these families is during monsoon time, some people fall sick and they had to be treated for the illness. The treatment again is expensive, and families have to borrow money if it happens to them. Based on his past experience, Umdobi decided to implement a similar solution.

He estimated that cost of each boat is Rs 1,00,000 and he will need Rs 3,00,000 if he has to support the group of fishermen who lose their boat. So he decided to charge Rs 600 per boat (which was equally shared by 10 fishermen. Each fishermen had to contribute only Rs 60. Similarly the average cost of treatment was Rs 10000 and at least 100 families fell sick every year. So he decided to collect Rs 200 per family for providing treatment to 100 families, who fell sick.

With this arrangement in place, the community of Amini lived peacefully. They no longer had to borrow money for unexpected financial losses like Loss of key member of the family, Loss of Boat or Medical expenses. Each family was happy to give Rs 510 every year to get financial protection from their leader Umdobi.

What Umdobi created for the group is called the Insurance Facility. The principal of insurance is to provide compensation for financial risk that can happen to any one of us. To provide compensation, Insurance companies collect small amount which is called "Premium"

Key Insurance Terms

Assignment
Policy Holder can transfer rights to another for reasons like availing loan

Beneficiary
Entitled to receive distributions from a trust, will or life insurance policy

Death Benefit
Amount of benefit on a life insurance policy that will be paid to the beneficiary in the event of the death of Insured person

Exclusions
Certain detailed conditions or situations for policy will not provide benefits

Insurable Interest
Entities which are not subject to financial loss and do not have an insurable interest cannot take insurance policy

Lapsed Policy
Policy which has expired and is no longer in force due to non-payment of premium due

Vesting Age
It is the age at which the policy holder starts receiving pension in an insurance cum pension plan

Maturity Claim
Payment of the agreed amount to the policy holder at the end of the contract term

Moral Hazard
The chance that the Insured will be more careless and take greater risks, thus increasing the potential of claims on the insurer

Sum Assured
Pre-Defined benefit that the insurer pays to the policy holder in case the insured event takes place

Surrender Value
Value payable to the policy holder in case the policy terminated before the maturity of the policy

Reinstatement
Renewal of a lapsed policy to live status

Premium
Payment of an amount to be paid by the policy holder for a contract of Insurance in exchange for coverage

Nomination
Provision for policy holder to designate any person to receive policy money in the event of his death within policy tenure

Pure Risk vs. Financial Risk

Risks are not only associated with Investments. There are risks like accidents, injury, illness and many other situations in our day to day life which can cause financial loss to us. These risks generally have low probability of happening in our life. However, if they do happen, financial loss can be severe. While risks associated with Investments can lead to either loss or gain, there are no gains associated with risks like injury or illness. If it happens there is a financial loss, if it does not happen there are no gains for us. Such risks where we can face only loss and no gain are call Pure Risk.

RISKS WHICH HAVE
ONLY LOSS AND NO GAIN

- Floods
- Terrorists attack
- Car Accident
- Fire
- Cancellation flight due to Fog

PURE RISK

Pure Risks are managed through

INSURANCE

RISK WITH
EITHER LOSS OR GAIN

- Stock Investment
- Corporate Fixed Deposits with low credit rating
- Provident fund with no guarantee on Future Interest Rate

FINANCIAL RISK

Financial Risks are managed through

DIVERSIFICATION

AVERAGING

HEDGING

Risk Management Strategies

We come across so many events in our life which can cause financial losses for us like hospitalization, loss of wallet in a crowded market place, accident to our vehicle, etc. It is not possible to take risk cover for all such events. Some events may not even be covered by Insurance companies. Before we take insurance policies to cover the risk, the events that we are likely to face needs to be analyzed for magnitude of impact and frequency with which it will occur. Some events may occur frequently, but the impact of the event will be insignificant for e.g cold or a cough – the frequency of event is high atleast 3 times in a year, but the magnitude of impact is insignificant. Some event could be low frequency event and also low impact events like losing of wallet. It may happen once or twice in our life time and all we may lose is the money in the wallet. Different strategy are needed for different categories of event.

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High Impact – High Frequency Events

- → Accidents while Skiing or mountain climbing or any adventure sports
- → Infection for person having AIDS
- → Heart attack for Obese and diabetic patient

High Frequency and High Impact events will not be covered by Insurance companies. Hence it will have to be manage by us.

Strategy to be adopted to handle these risks – **RISK REDUCTION**

A diabetic person should have proper diet and regular exercise and reduce the risk of heart attack, since his hospitalization expenses will most likely not be covered by Insurance.

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High Impact – Low Frequency Events

- → Death of Earning member of a family (Happens only once in a life time for a person)
- → Hospitalization (may happen once in 4 or 5 years)

Since frequency is low (though impact will be high), Insurance companies will be happy to take over this risk from us for a premium.

Hence for High Impact and Low frequency events strategy is to **RISK TRANSFER.** The financial risk now is part of Insurance company and for taking the risk Insurance company will charge a small premium

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Low impact – High Frequency Events

- → Cold/Fever (for some it may happen every month)

The impact being low we can focus on reducing the frequency through **RISK AVOIDANCE** strategy. By avoiding walking in early morning cold or by avoiding getting in touch with other who have diseases, frequency of cold/fever can be reduced

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Low Impact – Low Frequency Events

- → Losing wallet
- → Missing a flight or a train

The impact is also low and frequency is also low. In such a scenario, ignore the Risk and bear the risk if it happens. This strategy is called **RISK RETENTION**

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PURE RISK

High Frequency – High Impact

RISK REDUCTION

Risk reduction strategy is one of the least expensive strategy to manage pure risk. This strategy can help mitigate the risk by lowering the probability and magnitude of risk. While many risks cannot be avoided, impact of most risks can be reduced by adopting this strategy. This is particularly useful for risks which Insurance companies are not willing to take.

Low Frequency – High Impact

RISK TRANSFER

The strategy of transferring risk to Insurance Company should be a well thought one. Risk transfer involves expenses. Insurance companies have the capabilities to estimate the probability of loss occurrence and charge premium based on the estimated probabilities. If the Insurance Company expect that probability to be high, they may not be willing to take on the Risk.

High Frequency – Low Impact

RISK AVOIDANCE

Risk avoidance is nothing but elimination of risk. The risk of car accident can be eliminated by not using the car at all. Many risks however cannot be avoided, for e.g risk of untimely death. Avoiding risks may also lead to the avoiding pleasures of life, those who want to avoid accidents that frequently happens during Adventure Sports, will also be avoiding thrills and experience of the activity.

Low Frequency – Low Impact

RISK RETENTION

This strategy can also be called Risk Financing. The loss will be financed by the person carrying the risk. This is not a recommended strategy when the losses can be severe. This is a good strategy for small risks and also risks having low probability.

Types of Insurance

Life Insurance

Financial Cover for contingency linked with human life like death, disability, accident, retirement

Term Insurance: Protection for a set period of time. No benefit is normally payable if the life assured survives

Whole Life Insurance: Guaranteed Life Long Protection. Ideal way of creating an estate for heirs

Endowment Policy: Savings Linked Insurance Policy with a specific Maturity date. In the event of the death or disability Sum Assured will be paid to beneficiaries and on surviving the term the maturity proceeds on the policy become payable

Money Back Policy : Certain amount of sum assured is returned to the insured person periodically as survival benefit

Children Policy: Policy taken on life of Child/Parent for the benefit of the child

Annuity Plans: Provides regular income to the policy holder after vesting age. Annuity plans are two types immediate annuity and deferred annuity. In case of Immediate annuity the pension starts immediately and for deferred annuity the pesnsion starts on the vesting age. In case of deferred annuity the policy holder can choose to withdraw 1/3 of the corpus lumpsum as tax free

Unit Linked Insurance Policy: This is combination of Investment and Protection Plan. The investment risk in portfolio is borne by the Policy holder

Non-Life Insurance

Financial Cover for other than human life

Marine Cargo Insurance: Provides Cover for Goods in Transits by Sea, Air, Road or Rail

Marine Hull Insurance: Provides cover for damage to ocean going ships or other vessel, sailing vessels against maritime perils, fire. Explosion, piracy, accident in loading and discharging of cargo

Fire Insurance: Protection against unforeseen loss or damage/destruction to property due to fire o other perils.

Overseas Medical Insurance: covers Medical expenses incurred while traveling abroad

Workmen's compensation : Covers compensation to be paid to employee for death or disablement as per Workemen's Compensation Act 1926

Engineering Insurance: Covers the risks of contractors in Civil Engineering Projects

Aviation Insurance: Covers damage to aircraft and liabilities to freight

Motor Insurance: Insurance of motorised vehicles on the road. As per the motor vehicle act, every vehicle plying on Indian Roads should be insured for liability to Third parties including damage to properties

Personal Accident : Cover for death or disablement arising out of accidents

Burglary Insurance: Cover against theft

Travel Insurance: offers protection while travel for events like loss of passports, loss of baggage, interruptions or delays in flights

Crop Insurance: Risk Cover against yield variability of crop due to weather

Health Insurance

Financial cover for hospital expenses

A health insurance policy would normally cover expenses reasonably and necessarily incurred under the following heads

1. Room & Boarding
2. Nursing
3. Fees of Surgeon, anaesthetist, physician, consultants, specialists
4. Anaesthesia, blood, oxygen, operation theatre charges, surgical appliances medicines, drugs, diagnostic materials, X-Ray, Dialysis, Chemotherapy, Radio Therapy, Cost of Pace Maker, Artificial Limbs, Cost of organs

Buying Insurance Products

Purchase from Registered Insurance companies directly or through

- Registered Corporate Agents or Individual Agents
- Licensed Insurance Brokers
- Licensed Web aggregators
- Registered Common Service Centres (CSC's)
- Registered Insurance Marketing Firms (IMF)

Life Insurance Policy mainly provides risk coverage for life:

- Read policy document carefully
- Check the mode of premium payment, term of the policy, maturity benefits, lock in period, surrender value
- Ensure that terms and conditions mentioned in the policy are same as that of proposal
- If terms are not the same policy can be returned within the period of 15 days. You are entitled for refund of premium after deducting proportionate risk premium, expenses incurred for medical examination, stamp charges
- Pay premium regularly
- Inform Family members about the purchase of insurance policy and benefits, especially to nominee

Verify genuineness before making payment

- Ask for Identity proof of the person soliciting Insurance
- Ask for Contact details of the person or entity particularly in case of telesales
- Check IRDAI Website
- Check with Insurance Companies about Corporate Agents and Individual Agents
- Pay premium cheque only in the name of Insurance companies and never in the name of individual

Choose the insurance product suitable for your needs

- Life Stage, financial position and requirements
- Be clear with purpose of the policy
  - Insurance against Life or property
  - Long Term savings
  - Hospitalization expense cover
  - Old Age Pension
  - Statutory Requirements
- Benefits offered in terms of adequacy of sum assured
- Tax Benefits

Ensure the following while purchasing Insurance

- Read the prospectus and proposal carefully
- Fill in the details in the form before signing
- Retain proposal copy for reference
- Insurer has to provide Proposal form within 30 days of acceptance of the proposal. Collect this document along with policy
- Collect Policy document promptly

Never Fall prey to fictitious offers made by spurious callers promising high returns or unreasonable gains involving sale or redemption

Never fall prey to calls made in the name of IRDAI offering bonus or profits on Investment. IRDAI neither declares bonus nor involves in sale of any king of Insurance or Financial Products

If any unlicensed intermediaries or unregistered insurers solicit insurance, file FIR with police and intimate IRDAI

Sum Assured – The Most important factor

Sum assured being the most important parameter in buying insurance, care needs to be exercised while deciding on this parameter.

Signing up for Lower Sum Assured means some risks are still with us and it cause Financial Loss for us.

Signing up for higher Sum Assured mean paying more premium than what is required, since premium is an expense.

Hence selecting right sum assured is very important. The table below provides an indication of sum assured required for various types of Insurance

Life Insurance	Maximum financial loss to a family can happen when the main earning member of the family dies. The purpose of life insurance is to replace the income earned by the main member. Insurance companies have a concept called "Human Life Value" – HLV through which they estimate the potential income that would have been earned by the member who is seeking insurance. This Human life value is considered as sum assured. Human Life Vale estimate what theto be insured would earned with assumptions on annual increase in salary and adjusting the life time earnings for inflation. Other than HLV method, there are also rule of thumb – which states Life Insurance Sum Assured should be equal to 150 times monthly income. How does this assumption work? Suppose the main member of the family is earning ₹50000 monthly income, then 150 time monthly income would be ₹75 Lakhs. Family can invest ₹75 Lakhs at a return which is equal to inflation and receive ₹50000 per month along with further inflation if any for next 10-12.5 years. Within this 10years, family has opportunity to recover and there could be new bread winner for the family SUM ASSURED OF ATLEAST 150 TIMES MONTHLY INCOME FOR LIFE INSURANCE
Motor Insurance	Sum Assured will be as mandated by law
Health Insurance	Sum assured = atleast 1 year salary
Travel Insurance	$50,000
Accident Insurance	Sum which is equal to life Insurance can be considered. Accident insurance is similar to Life Insurance with a difference that the death or disability must occur only through accidents. Accident insurance is often offered as an add-on rider facility along with Life Insurance Policy
Critical Illness	Maximum available is ₹10 Lakhs. Hence one can opt for maximum sum assured
Theft/Fire/Flood	Will be estimated by Insurance company

Government insurance Schemes

In May 2015, Prime Minister Shri. Narendra Modi launched two public Insurance schemes. Pradhan Mantri Jeevan Jyoti Bhima Yojana – PMJJBY and Pradhan Mantri Suraksha Bhima Yojana (PMSBY). The 2 schemes are offered through all banks and sign up for the schemes are very easy. Signing up for these schemes can be done by sending an SMS. The important features of the schemes are

	PMJJBY	PMSBY
Who can avail this benefit?	Any one with the Savings bank account in the age of 18-50	Any one with a Savings Bank A/c in the age group of 18-70
What is the benefit	₹2 Lakh will be paid to nominee in case the member dies (due to any reason)	→ ₹ 2 Lakh to nominee Only if the death happens by accident → ₹ 2 Lakhs to nominee in case both eyes, both hands, both legs or One arm and One limb → ₹ 1 Lakh to nominee incase only one eye or one limb is lost
What is the premium to be paid?	₹330 per year	₹ 12 per year
What is the insurance Cover period	1 June – 31st May (every year)	1 June – 31st May (every year)
How to pay the Premium?	Direct Debit to bank	Direct Debit to Bank
Is it possible to enroll during the middle of the year?	Yes. But the full premium has to be paid, but cover will be available from date of enrollment to 31st May next year	Yes. But the full premium has to be paid, but cover will be available from date of enrollment to 31st May next year
When to pay the renewal premium?	Before 31st of May every year	Before 31t of may
Any Special documents to be submitted by persons no enrolling on time?	Yes. Participants joining after 30th Nov will have give self-declaration on the status of Good Health	Yes. Participants joining after 30th Nov will have give self-declaration on the status of Good Health
For how many years renewal can be done?	Till one attains 55 years of age	Till one attains 70 years of age
Will the premium Change next year?	Government has guaranteed that for the first five years there will be no change	Government has guaranteed that for the first five years there will be no change

2015 Chennai Flood

The losses incurred by the common man was unprecedented during 2015 Chennai Floods in October 2015.

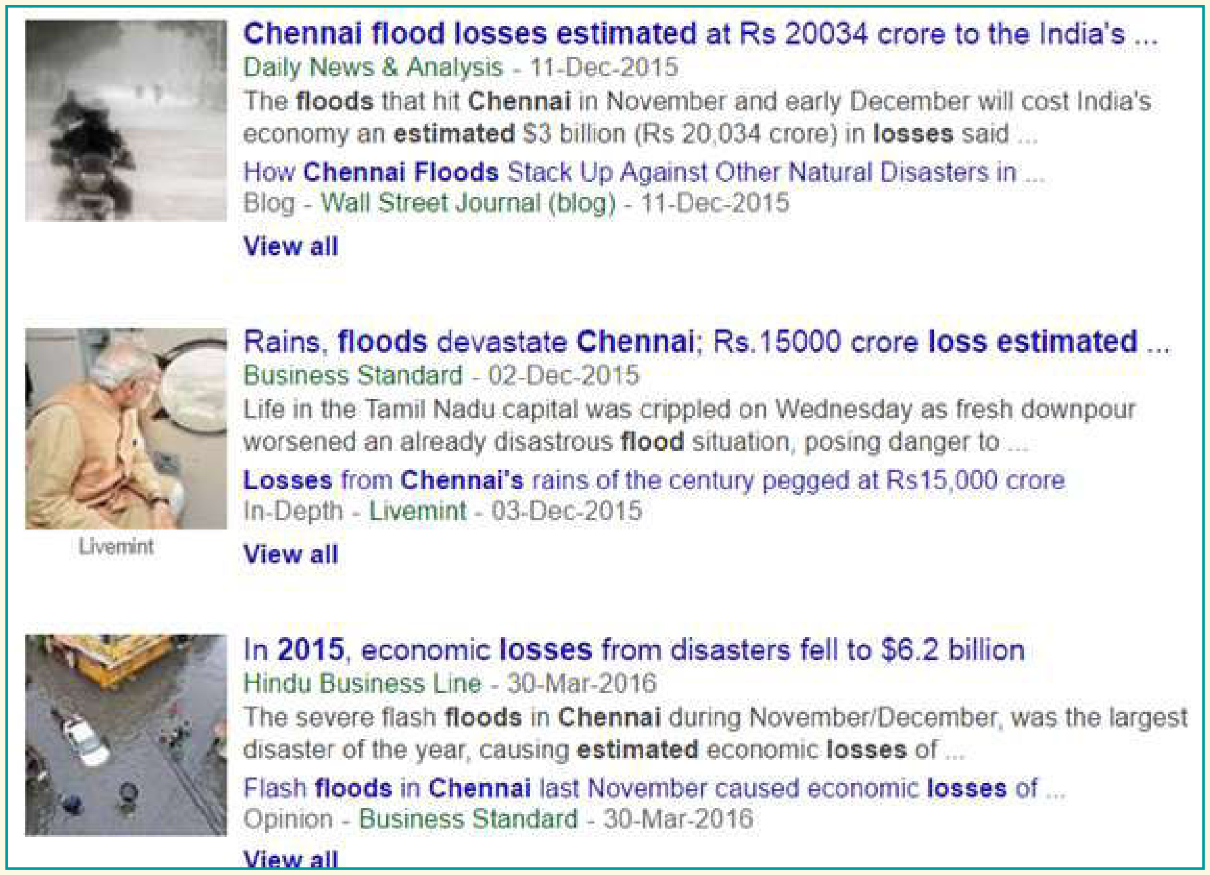
Photographs Courtesy online and print editions of

"The Times of India"

"The Hindu"

"Hindustan Times"

"Business Standard"



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The severe flash **floods** in **Chennai** during November/December, was the largest disaster of the year, causing **estimated** economic **losses** of ...
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Everyone in the city was unprepared for this event and incurred huge financial losses –

Can such financial losses be avoided?

Chapter 15

Balancing Risk and Reward

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Loss mindset and high risk decisions

Loss aversion is behaviour which prevents investors from taking rational investments decisions.

Number of behavioural economists have conducted research on this behaviour and published similar results. For all us a small Rs.10 loss can create more pain than pleasure created by Rs.1000 gain.Because of the pain created by the losses, investors tend to take irrational decisions.

Time and again we have seen that not many investors are willing to sell their investments at a price lower than the acquisition price. They keep holding investments till they become worthless, because of the pain created by the loss.

Not only investment decisions, but many decisions in our lives are driven by emotion.

Imagine, what someone who bought tickets for First Day First Show movie at a very high price is likely to do, when he or she finds 10 minutes after start of the movie that it is boring?

Taking risk can result in loss or gain. Avoiding risks also means foregoing gains and pleasures in life. If Yudhishthira had won the last throw of dice, he would have recovered all that he had lost and perhaps Mahabharata story might have taken a different path.

All of us take risk. It is inherent to our nature. But none of us expect to fail. When we take risk, we expect Lady Luck to shower blessings on us. The act of risk taking has been there forever. While risk taking does not harm us, what is harmful is our irrational behavior towards risk.

To understand our irrational behavior towards risk, let's consider this example. This example was part of the research titled 'Prospect Theory" conducted by Daniel Kahneman and Amos Tversky.

Case 1

You have Rs.1000 with you and you are asked to take decision on one of the following options available

Option 1 : A coin will be tossed, irrespective of the outcome, you will be paid another Rs.500

Option 2 : A coin will be tossed, if head comes up you will be paid Rs.1000 and if tail comes up you will be paid nothing.

Most people chose Option 1. Option 1 is safe option. Although we had opportunity to gain Rs.1000 in Option 2 most people preferred to take safer Option 1.

Let's try to understand our behavior towards risk, by changing the case slightly

Case 2

You have Rs.1000 with you and you are asked to take decision on one of the following options available

Option 1: A coin will be tossed, irrespective of the outcome, you will be asked to pay Rs.500

Option 2: A coin will be tossed, if head comes up you will pay Rs.1000 and if tail comes up then you will have to pay nothing

Now most people chose option 2. Option 2 is not a safe option, but a risky option. Why people who were playing safe with Case 1 are ready to risk with Case 2.

Based on their research, Daniel Kahneman and Amos Tversky proposed that when it comes to risk taking we are not rational. The pain of losing money impacts us more than the pleasure of gaining money and we are averse to any kind of loss. We take risk to avoid loss. This irrational behavior has been termed **"Loss aversion".**

Because of this loss aversion behavior, when we are faced with losses we tend to take riskier decisions, but when we see gains, we tend to take safer decisions.

Is that why Yudhishthira took the risky decision to bet Draupadi, in the hope recovering all that he lost?

Loss aversion in real life

Amar, Akbar and Anthony are agriculture students recently hired by a Chemicals and Fertilizers Company in Aurangabad. They decided to save Rs 5000 from their salary every month. However, they collected information on various investment options

Amar collected the following information from his bank

- 3 year recurring deposit with assured return of 7.2%
- SIP in Equity Mutual Fund with no guarantee on returns. However, in the past returns have varied from -15% to +15%

Akbar collected the following information from Internet

- 3 year recurring deposit with assured return of 7.2% from Nationalized bank
- 3 year recurring deposit with assured return of 8.5% from AA rated NBFC

Anthony collected the following information from Investment Firm

- SIP in Tax Savings Mutual Fund with Investment blocked for 3 years and returns in the range of -15% to +15%
- SIP in Equity Mutual Fund for 3 years and returns in the range of -20% to+20%

What are the likely decisions by Amar, Akbar and Anthony?

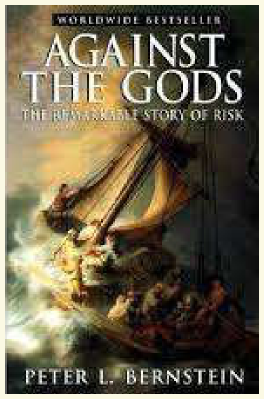
Based on the behavioural finance theories loss aversion, heuristics and biases it is likely that Amar, Akbar and Anthony are likely to take following decisions

Amar: Invest in 3 year recurring deposit with assured return of 7.2%

Akbar: 3 year recurring deposit with assured return of 8.5% from AA rated NBFC

Anthony: SIP in Tax Savings Mutual Fund with Investment blocked for 3 years and returns in the range of -15% to +15%

Risk - Ignore, Avoid or Manage?



Peter Bernstein in his book "Against the gods" traces the history of risk and fascination of humans towards risk. According to Bernstein what has changed about risk in the modern era compared to thousands of earlier years is our mastery of risk. He mentions in his book that even Greeks who mastered Science, Medicine and Engineering could not find ways to manage risk. The Greeks worshipped the wind gods, prayed and sacrificed even their children to protect themselves from unknown future. That's the way Greeks handled risk. The advent of Arabic number system – 1,2,3,4,5,6,7,8,9 and the introduction of the concept called "Shoonya" or Zero led to the beginning of the mastery of risk.

The probability and statistical techniques evolved subsequently and with the aid of number crunching capabilities of modern computers they have become indispensable tools in management of Risk.

Let's consider a simple example how probability and statistics can help us is in measuring and managing risk. There are two stocks A and B. The table below presents summary data on how prices of Stock A and Stock B varied through the previous year. For e.g, we can find from the table that for 15% of the time Stock A was trading at Rs.110. The data below can help us identify high risk stock between the two stocks.

% of the time	Price of Stock A
15%	110
20%	105
30%	100
20%	95
15%	90

% of the time	Price of Stock B
10%	300
20%	250
40%	200
20%	150
10%	100

The statistical parameter Standard Deviation is the measure of risk.
Higher the standard deviation, higher the risk.

$$\sigma = \sqrt{\sum_{i=1}^{N} p_i (x_i - \mu)^2}, \quad \text{where} \quad \mu = \sum_{i=1}^{N} p_i x_i.$$

Where

N = number of data points in series

Pi = probability of occurrence

Xi = Price of Stock (in this case)

Using this formula, standard deviation of Stock A and Stock B are calculated as follows:

P_i	X_i	$P_i * X_i$	$X_i - \mu$	$(X_i - \mu)^2$	$P_i (X_i - \mu)^2$
15%	110	16.5	10	100	15
20%	105	21	5	25	5
30%	100	30	0	0	0
20%	95	19	-5	25	5
15%	90	13.5	10	100	15
$\mu = 100$					$\sum P_i (X_i - \mu)^2 = 40$

Standard Deviation of Stock A = **6.32**

Similarly for Stock B, standard deviation is

P_i	X_i	$P_i * X_i$	$X_i - \mu$	$(X_i - \mu)^2$	$P_i (X_i - \mu)^2$
10%	300	30	125	15625	1562.5
20%	250	25	75	5625	1125
40%	200	80	25	625	250
20%	150	30	-25	625	125
.510%	100	10	-75	5625	562.5
$\mu = 175$					$\sum P_i (X_i - \mu)^2 = 3625$

Standard deviation of Stock B = **60.21**

Thus, we can identify that Stock B is high risk stock.

There are many more techniques like standard deviation available to us today. Using computing power of machines such tedious calculations can be done in fraction of seconds. Most of us ignore risk and hope for lady luck to smile on us or avoid risk and miss pleasures of life. We neither have to ignore risk nor avoid risk, what we have to do is to manage risk. As Peter Bernstein claims we have mastered the art of risk management, we must use the principles of risk management to enjoy the pleasures of life.

Balancing Risks

In an earlier chapter, we read about many risks in Investments. However, the four most important risks are

1. Credit or Default Risk
2. Interest Rate Risk
3. Liquidity Risk
4. Market Risk

Credit Risk

Credit Risk is the risk that a borrower may not repay a loan. The risk includes loss of principal and interest. The risk also includes disruption in cash flows and increased collection costs. The lender assumes credit risk in return for Interest payments, which is the reward for the risk taken.

Credit risk can be assessed by credit rating given by SEBI Registered credit rating agencies like – CRISIL, ICRA, CARE, FITCH or BRICKWORK RATINGS. Credit ratings are identified by symbols and different symbols are used for short term loans and long term loans

Ratings for Long Term loans

AAA	Highest Safety
AA	High Safety
A	Adequate Safety
BBB	Moderate Safety
BB	Moderate Risk
B	High Risk
C	Very High Risk
D	Default

Ratings for Short term loans

A1	Highest Safety
A2	High Safety
A3	Moderate Safety
A4	High Risk
D	Defaut

Government Bonds, Post office deposits, Sovereign issues will have the highest credit rating and hence lowest interest rates as these are risk free. Fixed deposits or bonds issued by others will have lower rating and will have to offer more than risk free bonds.

AAA rated bond

AA rated bond

Unrated bond

Investment in Corporate FD's are to be done only with bonds rated AA and above. The difference in interest rates of AAA bonds and AA Bonds are

RESERVE BANK OF INDIA

Auction of Government of India Dated Securities

ef.No. IDMD/1700/08.02.032/2013-14

December 2, 2013

ll Scheduled Commercial Banks
ll State Co-operative Banks/All Scheduled Primary
Jrban) Co-operative Banks /All Financial Institutions/
ll Primary Dealers.

ear Sir/Madam,

Auction of Government of India Dated Securities

overnment of India have offered to sell (re-issue) four dated securities for notified amount of ` 15,000 crore as per the following etails:

Sr No	Security	Notified Amount (in ` crore)	GoI Notification	Auction Date	Settlement date
1	7.28%GS 2019	4,000	4(2)-W&M/2013 dated December 2, 2013;	December 06, 2013	December 09, 2013
2	8.83%GS 2023	7,000	4(2)-W&M/2013 dated December 2, 2013(i);		
3	8.32%GS 2032	2,000	4(2)-W&M/2013 dated December 2, 2013(ii);		
4	8.30%GS 2042	2,000	4(2)-W&M/2013 dated December 2, 2013(iii);		
	Total	15,000			

Higher the return, higher the risk

MANAGING CREDIT/DEFAULT RISK
CHOOSE ONLY BONDS WHICH ARE RATED AA AND ABOVE

Liquidity Risk

Tax Free Infrastructure bonds like those issued by NHAI or SREI have long maturity period of 10 to 15 years. Suppose, there is family emergency and investor want money in between urgently in between, it will not be possible to redeem these bonds and get money. Investor will have to wait till the maturity period is over and then realize money.

This risk of not able to redeem and realize money when needed is called LIQUIDITY RISK

MANAGING LIQUIDITY RISK

LIQUIDITY RISK can only be managed by planning cash flow needs and mapping the cash flow needs to investment tenures.

Exercise on managing Liquidity Risk

Today is 15th Oct 2016. Following Investment options are available to Ram.

→ 6 Month Fixed deposit offering 5.5% Interest (Interest is subject to Tax)

→ 1 year Fixed Deposit offering 7% Interest (Interest is subject to Tax)

→ 3 year Fixed deposit offering 7.5% Interest (Interest is subject to Tax)

→ 15 Year PPF offering 8% as of 15th October, 2016 Interest (tax Free), Interest rates are subject to change in future

→ 15 Year Tax free bond offering 7.2% annual coupons or cumulative interest option

Ram's cash flow needs are as follows

→ ₹1 Lakh as medical emergency for his father

→ ₹2 Lakh towards his son's admission to school in May 2017

→ ₹5 Lakh towards down payments for home which Ram plans to buy in 2019

Ram has ₹10 Lakhs with him today. Where should he invest so that he can manage LIQUIDITY RISK?

Probable Solution

a) Rs. 1 Lakh in Savings Bank Account

b) Rs. 2 Lakh in 6 months Fixed Deposits

c) Rs. 5 Lakhs in 3 years Fixed Deposits

d) Rs. 150000 in PPF

e) Rs. 50000 in Tax Free Bonds

Market Risk

Market Risk is the possibility of losses arising due to factors that affect the overall performance of financial markets. Market Risk is also called Systematic Risk. Market Risk is result of political turmoil, recessions, natural disasters, terrorist attack's etc.,

Market Risk includes interest rate risk, equity risk, currency risk and commodity risk.

Interest Rate RISK

Let's look at one of the popular investment option – Public Provident fund. How the interest rates have varied over last 15 years

	PPF Interest Rates
1-Apr-00	12%
1-Apr-01	11%
1-Apr-02	9%
1-Apr-03	8%
1-Apr-04	8%
1-Apr-05	8%
1-Apr-06	8%
1-Apr-07	8%
1-Apr-08	8%
1-Apr-09	8%
1-Apr-10	8%
1-Apr-11	8%
1-Apr-12	8.8%
1-Apr-13	8.7%
1-Apr-14	8.7%
1-Apr-15	8.7%
1-Apr-16	8.1%

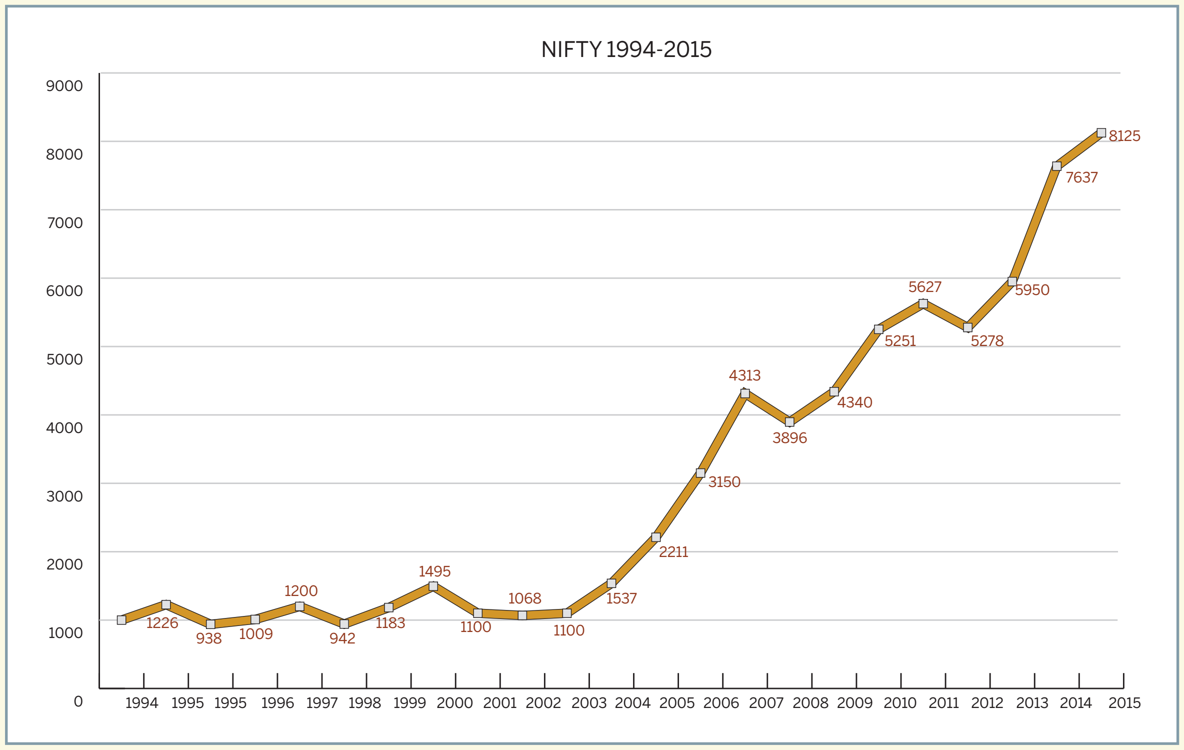
An Investor who opened a PPF account in 2000 assuming that he will be receiving 12% for the entire 15 year period may have been surprised, when the interest rates were changed.

Similarly any one, who is opening an account must be aware of the fact that the interest rates will not remain same throughout the 15 year tenure of investment.

Interest Rate is an External Risk and it will be not be possible for investor to manage. If Investor is interested in Managing Interest Rate risk, then long term bonds can be used which can give guaranteed returns if held till maturity. Knowledgeable Investors can also consider Interest Rate Futures to manage Interest Rate Risk

Equity Risk

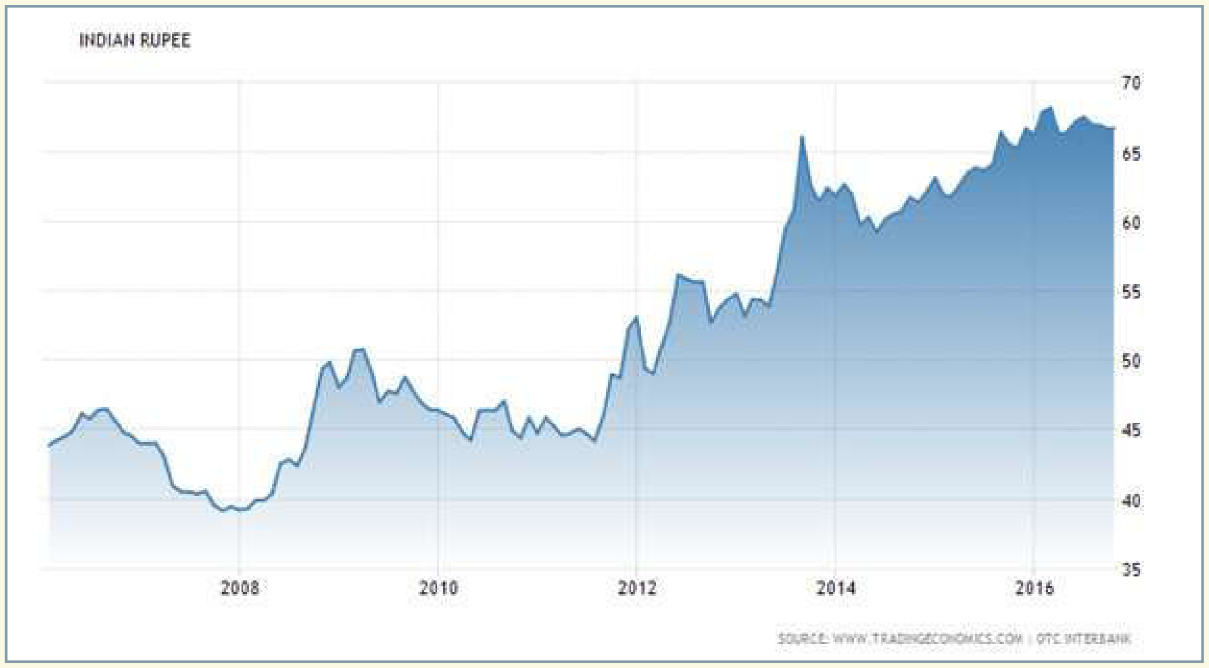
The equity risk is referred to as risk of holding equity in an Investment. The equity market changes are measured by the Equity Market indices. There are two prominent stock exchanges in India i.e National Stock Exchange and Bombay Stock Exchange. Their market movement are measured by Indices called NIFTY and SENSEX respectively. The chart below presents the volatile movement of equity markets in India for last 20 years as represented by NIFTY, the indices represented by 50 listed companies having highest market capitalisation in the representative Industry sectors.



What will be the value of NIFTY in 2017?

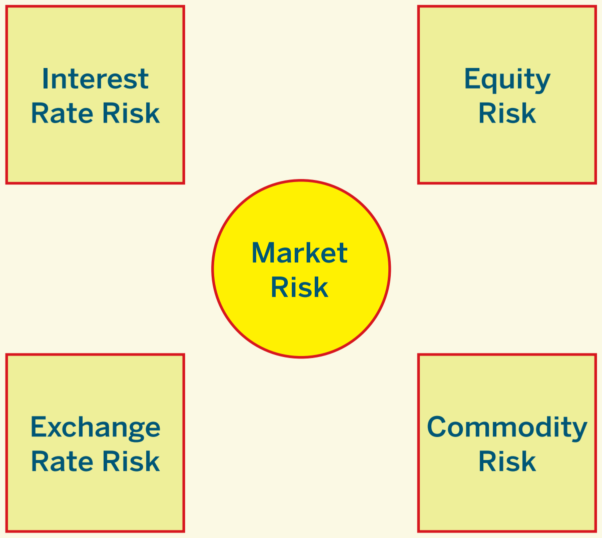
Currency Risk

Currency Risk also referred to as exchange rate risk is the risk of changes in exchange rates affecting the value of investments. The exchange rate between Indian Rupee and US dollar has a bigger impact on the Indian Economy and investments than most other currencies. The chart below presents the volatile nature of the INR-USD exchange rate.



Commodity Risk

Commodity Risk is the risk that refers to the uncertainties on future income arising from fluctuation of commodity prices like gold, silver, cotton, rice, wheat etc.,



Risk Management Strategies

Common risk management strategies for individual investors are Asset allocation and Averaging. The averaging strategy was discussed in detail in an earlier chapter. In this chapter, we will look at Asset Allocation strategy.

Asset Allocation

Asset Allocation is a strategy that aims to balance risk versus reward by identifying right mix of various assets like Fixed Deposits, Provident Fund, ETF's, Equity Mutual Funds etc., in an Investment portfolio according to Investors Risk Appetite and Risk Capacity.

Asset Allocation – Example 1

Abhisek is currently 35 years of age. Abhishek has accumulated Rs.5 Lakhs which he now wants to invest properly so that he can balance Risk and Rewards. Abhishek's requirement are as follows

1. Rs.50000 for house renovation expected 1 year from now
2. Rs.2 Lakhs for Family function expected 3 years from now
3. Rs.1 Lakh as capital for starting his business expected 10 years from now

Abhishek does not have any other requirements for the next 10 years and hence wants to invest the balance towards his retirement needs. He expects to retire by 60 years of age.

Solution:

Abhishek's needs can be classified in terms of Short term (Less than 3 years) and Medium term (3-10 years) and Long term (More than 10 years).

Short term needs: Rs.2.5 Lakh – 50%

Medium term needs: Rs.1 Lakh – 20%

Long term needs: Rs.1.5 Lakh – 30%

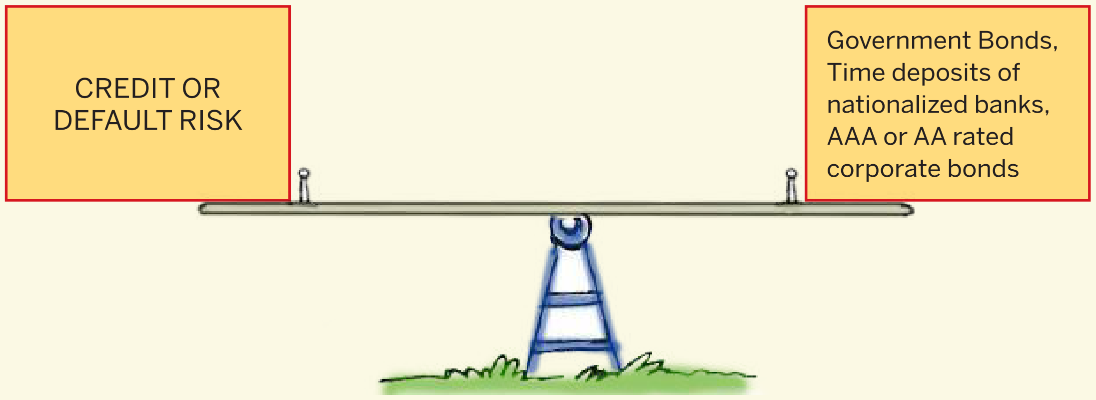
Based on the goal time frame, 50% of Assets may be invested in Low Risk Options, 20% of Assets may be invested in Medium Risk Options and 30% may be invested in high risk option.

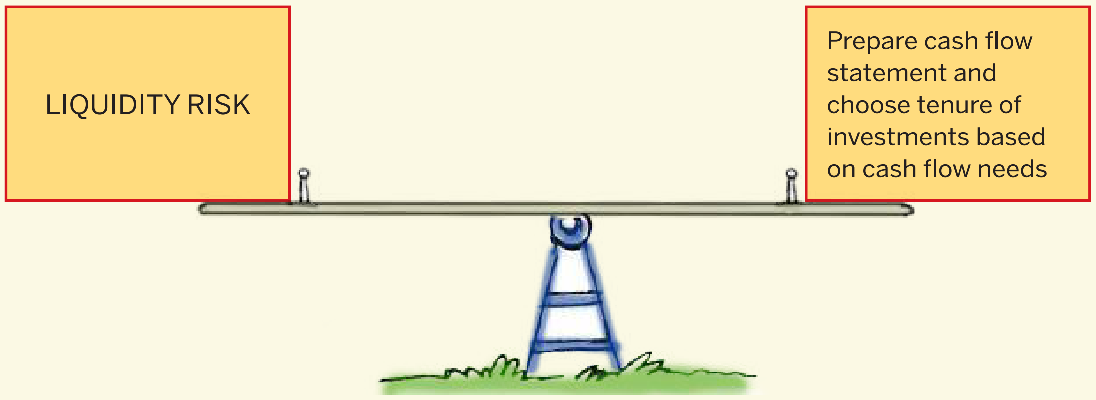
Final selection of financial products can be chosen based on this Asset Allocation pattern and Risk appetite of Abhishek

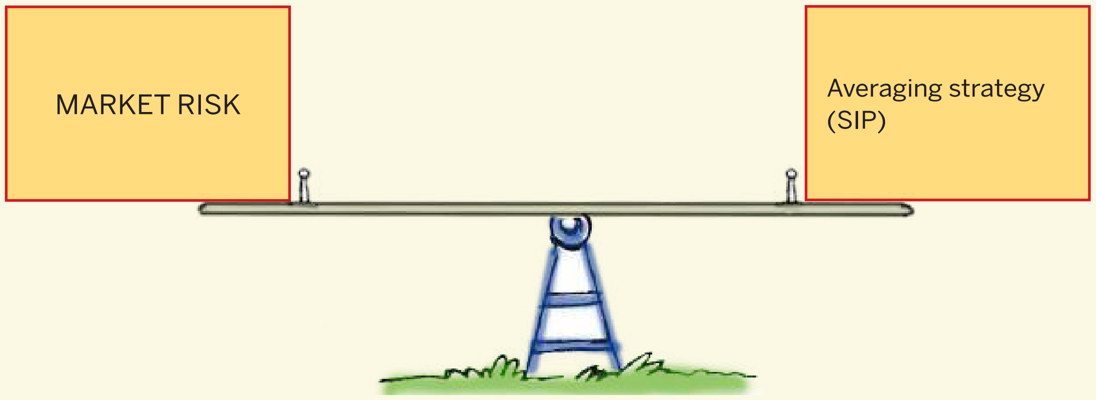
Low Risk Options	Medium Risk Option	High Risk Options
Fixed Deposits	Tax Free Bonds	ETF's
Liquid Mutual Funds	Debt Mutual Funds	Equity Mutual Funds

As we saw earlier in this chapter, even among low risk options, there are many products available for Abhishek to choose even in case of fixed deposits, with different credit rating. Based on his Risk appetite Abhishek can further choose financial products to meet his requirements.

Balancing Risks



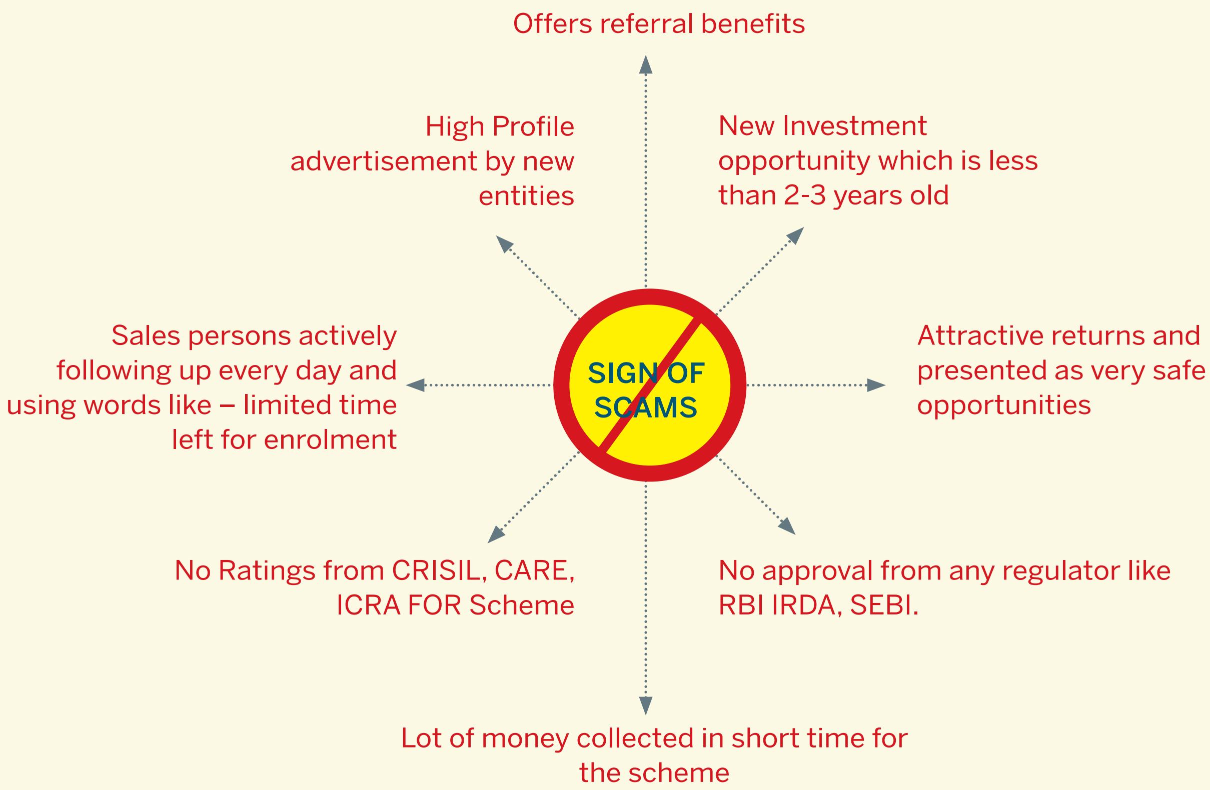




Scams

Scams are everywhere. Not only in India, there are bigger scams happening across the globe. In India we have seen scams like Teak Plantation, Rose Plantation, Time share, Cattle and Ghee, Solar Schemes, Chit funds, multi-level marketing schemes and the list is endless. Lakhs of investors have lost money in these scams.

Whenever an investment opportunities is presented which offers too good to be true, hence be careful and avoid it.



If you spot schemes which have above characters, then generally such schemes are likely to be scams. Hence, it is better to avoid them. Every year new scams take place and scamsters conceive highly imaginative schemes to dupe people.

Chapter 16

External Influences

Contents

Expecting the Unexpected

Our life is full of unpredictable events caused by external influences. Surprises of science I often called chaos. The chaos theory tries to understand the unexpected. Traditional science deals with predictable phenomena like gravity, electricity or chemical reactions. Chaos theory is about non-linear interconnected events like turbulent weather or financial markets.

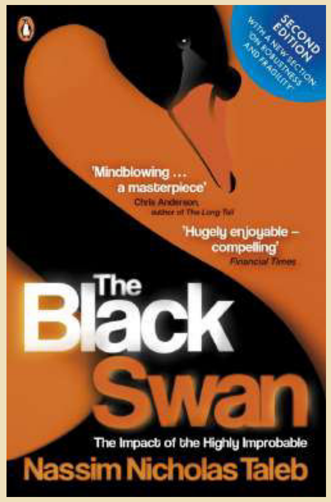
Chaos Theory

The branch of mathematics that deals with complex systems whose behavior is highly sensitive to slight changes in conditions, so that small alterations can give rise to strikingly great consequences.

The butterfly effect

A hurricane in China may have been due to to a butterfly flapping its wings in New York. If the butterfly had not flapped its wings at just the right point in space/time, the hurricane would not have happened.

The Black Swan: The Impact of the Highly Improbable is a book by the essayist, scholar, philosopher, and statistician Nassim Nicholas Taleb. It was released on April 17, 2007 by Random House first published in April 2007



In this chapter, Let us try to understand the inter-relationships amongst the various factors that affect the Indian economy, so that we may be prepared to spot the unexpected "Black swan".

Structure of the Indian Economy

The biggest impact on the Indian economy is through the policies of the Government and the Central Bank. The government and the Central Bank impact the economy through:

Monetary Policy
Fiscal Policy

Monetary and Credit Policy

The Monetary policy is concerned with the supply of money in the economy and costs of borrowing it. The broad aim of the policy is to control the growth of the money supply so as to avoid an excessive rate of inflation. The monetary policy is implemented by the Reserve Bank of India (RBI), which is an independent body. The objectives of the policy are:

→ Stability of prices
→ Economic growth

This is achieved through manipulation of:

→ Supply of money
→ Level and structure of interest rates
→ Other conditions affecting the availability of credit

The RBI also acts as the regulatory authority of the country's banking system and is the sole provider of notes and coins in circulation. The central bank can best function in these capacities by remaining independent from the government's fiscal policy and therefore uninfluenced by the political concerns of any regime. The central bank is also divested of any commercial banking interests.

Role of the Central Bank in an Economy

A central bank can be said to have two main key functions:

Macroeconomic, when managing inflation and price stability
Microeconomic, when functioning as a lender of last resort

Macroeconomic Influences

As the bank is responsible for price stability, it attempts to influence the level of inflation by controlling money supply and/or interest rates. The central bank performs open market operations that either inject the market with liquidity or absorb extra funds.

When the bank needs to increase the amount of money in circulation and decrease the interest rate (cost) for borrowing, it buys government bonds, bills, or other government-issued notes. This buying can, however, also lead to higher inflation.

When the bank needs to absorb money to reduce inflation, it will sell government bonds in the open market, which increases the interest rate and discourages borrowing. Open market operations are the key means by which a central bank controls inflation and money supply ensuring price stability.

Microeconomic Influences

The RBI can also influence short term interest rates by setting the interest rate at which it lends to the other commercial banks in the country.

The rate at which commercial banks and other lending entities can borrow short-term funds from the central bank is called the Repo Rate (which is set by the central bank and provides a base rate for other interest rates).

The RBI can quickly squeeze or expand the supply of money by increasing or decreasing the reserve requirements of commercial banks. Currently, commercial banks are required to maintain the following statutory reserves and liquid assets

- → CRR: Cash Reserve Ratio. Banks are required to keep a certain percentage of their demand and time liabilities in the form of cash with the RBI.
- → SLR: Statutory Liquid Ratio. Banks are required to keep a certain percentage of their liabilities in specified liquid securities.

Fiscal Policy

Fiscal policy is the means by which a government adjusts its levels of spending in order to monitor and influence a nation's economy. It is the sister strategy to monetary policy. These two policies are used in various combinations in an effort to direct a country's economic goals. Economic growth is largely influenced by the fiscal policy. The Gross Domestic Product or the GDP is used by economists as a measure of economic growth. GDP is calculated as below:

$GDP = C + I + G + (X - M)$

Where,

C: Consumption of goods and services by households

I: Investments in capital goods by the private sector

G: Government expenditure

X: Export receipts

M: Import expenditure

An increase in GDP generally means that standards of living would rise, unemployment would reduce and profits of corporations would rise. Thus the impact of rise and fall of GDP can be seen in the unemployment rates, inflation, consumer spending growth, aggregate demand and supply of goods etc.

The government directly influences GDP by increasing or decreasing its expenditure. It can also exert influence indirectly by setting policies that encourage exports or imports or by creating tax laws that encourage consumption or capital investments.

The Business Cycle

Economies have a tendency to move in recurring cycles. A boom in the economy is invariably followed by a depression, which is again followed by a boom.

In order to determine the current state of the economy, we first need to take a good look at the business cycle as a whole. Generally, the business cycle is made up of four different periods of activity extended over several years. These phases can differ substantially in duration, but are all closely intertwined in the overall economy.

Growth (Expansion/ Recovery):

This is the phase of a business cycle when the economy moves from a trough to a peak. It is a period when business activity surges and gross domestic product expands until it reaches a peak. Employment, production, and income all undergo a period of growth, and, overall, the economic climate is good.

An expansion is one of two basic business cycle phases. The other is contraction. The transition from expansion to contraction is termed a "peak" and the changeover from contraction to expansion is a trough. Expansions last on average about three to four years but have been known to last anywhere from 12 months to more than 10 years.

This phase can also be termed as an "economic recovery".

Peak

Peak is the highest point between the end of an economic expansion and the start of a contraction in a business cycle. The peak of the cycle refers to the last month before several key economic indicators, such as employment and new housing starts, begin to fall. It is at this point that real GDP spending in an economy is at its highest level (implying that there is very little waste occurring).

At its peak, the economy is running at full steam. Employment is at or near maximum levels and income levels are increasing. In this period, prices tend to increase due to inflation; however, most businesses and investors are having an enjoyable and prosperous time.

Recession (Contraction)

Contraction is a period of general economic decline. Contractions sometimes lead to a recession.

After experiencing a great deal of growth and success, income and employment begin to decline. As our wages and the prices of goods in the economy are inflexible to change, they will most likely remain near the same level as that found in the peak period unless the recession is prolonged. The result of these factors is negative growth in the economy.

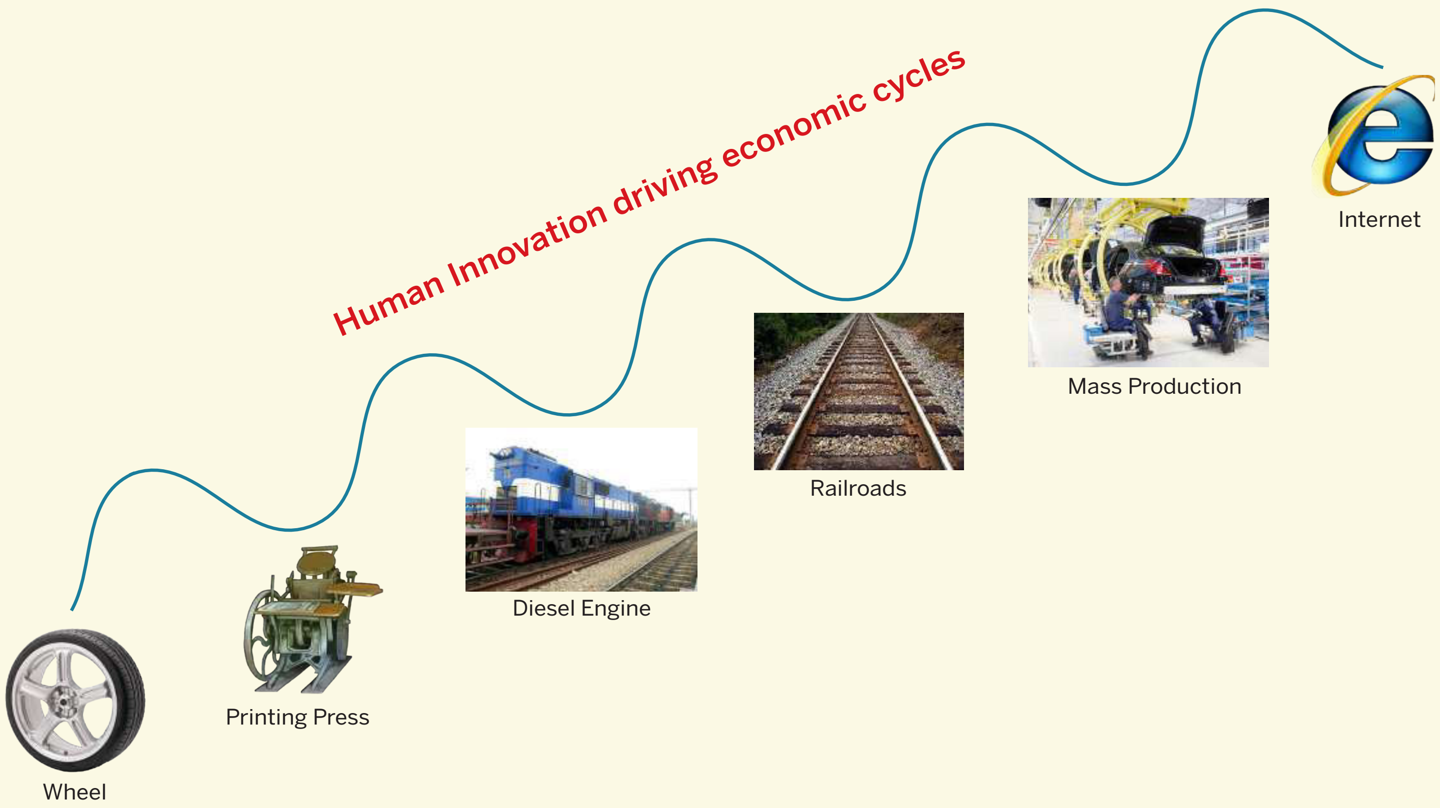
Recession marks a significant decline in activity spread across the economy, lasting longer than a few months. It is visible in industrial production, employment, real income and wholesale-retail trade. The technical indicator of a recession is two consecutive quarters of negative economic growth as measured by a country's gross domestic product (GDP).

Interest rates usually fall in recessionary times to stimulate the economy by offering cheap rates at which to borrow money. Recession is a normal (albeit unpleasant) part of the business cycle.

Trough

Trough is a stage of the economy's business cycle that marks the end of a period of declining business activity and the transition to expansion. This is the section of the business cycle when output and employment bottom out and remain in waiting for the next phase of the cycle to begin.

In general, the business cycle is said to go through expansion, then the peak, followed by contraction, and then it finally bottoms out with the trough.



Implications of Business Cycles

- Interest rates are also high when the economy is at its peak.
- The levels of imports and exports impact the exchange rate, which in turn impacts the profits of companies that have international operations.
- The share markets have a close co-relation with the stage of the economy. When the economy is in the growth phase, share prices are rising. Share prices generally follow the economy with a small lag. They reach their peak soon after the economy reaches it. As the economy enters the contraction phase, the share prices crash.

Personal Taxes

Personal tax rates and rules undergo frequent changes. Usually the changes are announced as part of Government Budget every year in February. Key points to consider for the purpose of financial planning are For the year FY 2017-18

1. **Standard Deduction Limit**
   a. Male/Female Less than 60 years of age : ₹2.5 Lakhs
   b. Male/Female between 60-80 years of age : ₹3 Lakhs
   c. Male/female greater than 80 years of age : ₹5 Lakhs

2. **Tax Rates :**
   a. Income Less than standard deduction limit – 0%
   b. Income between standard deduction and ₹5 Lakhs : 5%
   c. Income between ₹5 Lakhs and ₹10 Lakhs : 20%
   d. Income above ₹10 Lakhs : 30%

3. **What is considered as income?**
   a. Salary, Bonus, pension, perquisite value
   b. Interest income
   c. Rent Income
   d. Interest income from non-working spouse and minor children

4. **Exempt Income**
   a. HRA, LTA, Transport Allowance, Food Coupons upto ₹3000 per month
   b. Medical Expenses upto ₹15000
   c. Dividend, PPF Interest, Insurance Maturity amount

5. **Setoff against losses**
   a. Rent income can be set off against home loan interest
   b. Short term Capital Gains against Short term or Long term capital losses
   c. Long term capital gains against long term capital losses

6. **Deductions under Sec 80**
   a. 80C : Upto ₹1,50,000
   b. 80CC(1b) : Upto ₹50000
   c. 80D : For Self : ₹30000 For Sr.Citizen Parents : ₹35000
   d. 80E : Interest on Education Loan
   e. 80G : Donations

7. **Capital Gains Tax Rates**
   a. Debt Mutual Funds :
      i. Short Term (Less than 3 years) – Added to Income
      ii. Long term (More than 3 years) - 10% without indexation, 20% with Indexation
   b. Equity Mutual Funds or Stocks
      i. Short Term (Less than 1 year) – 15%
      ii. Long Term (More than 1 year) – 0%
   c. Real Estate
      i. Short Term (less than 2 years) – Added to Income
      ii. Long term (More than 2 years) – 20% after Indexation

It I very important that we plan our taxes in such a way that our wealth and prosperity of the country increases.

Pension System and Reforms

Pension reforms in India is gaining momentum. Till now reforms were carried out predominantly in banking and capital markets. Insurance and Pension is just beginning. Traditionally Provident Fund and gratuity schemes were widely used for pension need. They are lump sum schemes and the onus of getting monthly income is with the Individual. While Government sector employees who joined before 2004 are under “Defined Benefit Schemes” with guaranteed pension most other employees have no pension whatsoever.

Since administering pension scheme for large population will always remain a challenge, future governments are like to bring newer reforms to manage the situation. Last major reforms were initiated based on the report submitted in 2000 by S.A. Dave known as “Project Oasis”. Subsequent to the report National Pension System (earlier New Pension Scheme) was launched. NPS is a defined contribution pension scheme, mandatory for all employees joining services of Central Government (except Armed Forces) and Central Autonomous Bodies on or after 1st January 2004. Based on CG notification on NPS various States Governments have also notified NPS for their respective employees from various notification dates. All the government employees joining the government offices before 01/01/2004 are covered under the ‘defined benefit‘ pension scheme and they have the option to join NPS also.

Post Project OASIS, India's Pension system

DEFENCE (Army, Navy and Air force)	Defined Benefit Scheme - Guaranteed Pension with inflation adjustment + General Provident Fund
Other Central Govt Employees joined before 1/1/2004	Defined Benefit Scheme - Guaranteed Pension with inflation adjustment + General Provident Fund
Central Government Employees joining after 1/1/2004	Defined Contribution Scheme National Pension System
Public Sector undertaking and Private Sector	Defined Contribution Scheme National Pension System or Employee Provident fund
Voluntary for individuals	National Pension system and Public Provident fund

Chapter 17

Regulation and Consumer Protection

Contents

Regulatory Need

Since the business environment is fiercely competitive, many business adopt malpractices and cut corners for growth and profitability. Poor consumer services and malpractices such as mis-selling are often the result of such behavior. Particularly in financial services, where the products are intangible and complex, consumers can be duped easily. Hence there is a need for careful regulation in this Industry.

The Span of Regulation

Promoting Financial Literacy
Since financial products are complex, consumers need financial literacy for making informed decisions

Protection from Exploitation
Protecting consumers from discrimination, intimidation and unfair charges

Complaints and Resolution
Process and structure for raising complaints and speedy resolution

Dissemination of Data and Information
Trends, changes and data for decision making both by business and consumers

Ethical Business Practices
Discouraging, by way of Penalty, those involved in unethical practices

Preventing Deceptive Advertisements
Guidelines relating to consumer communication

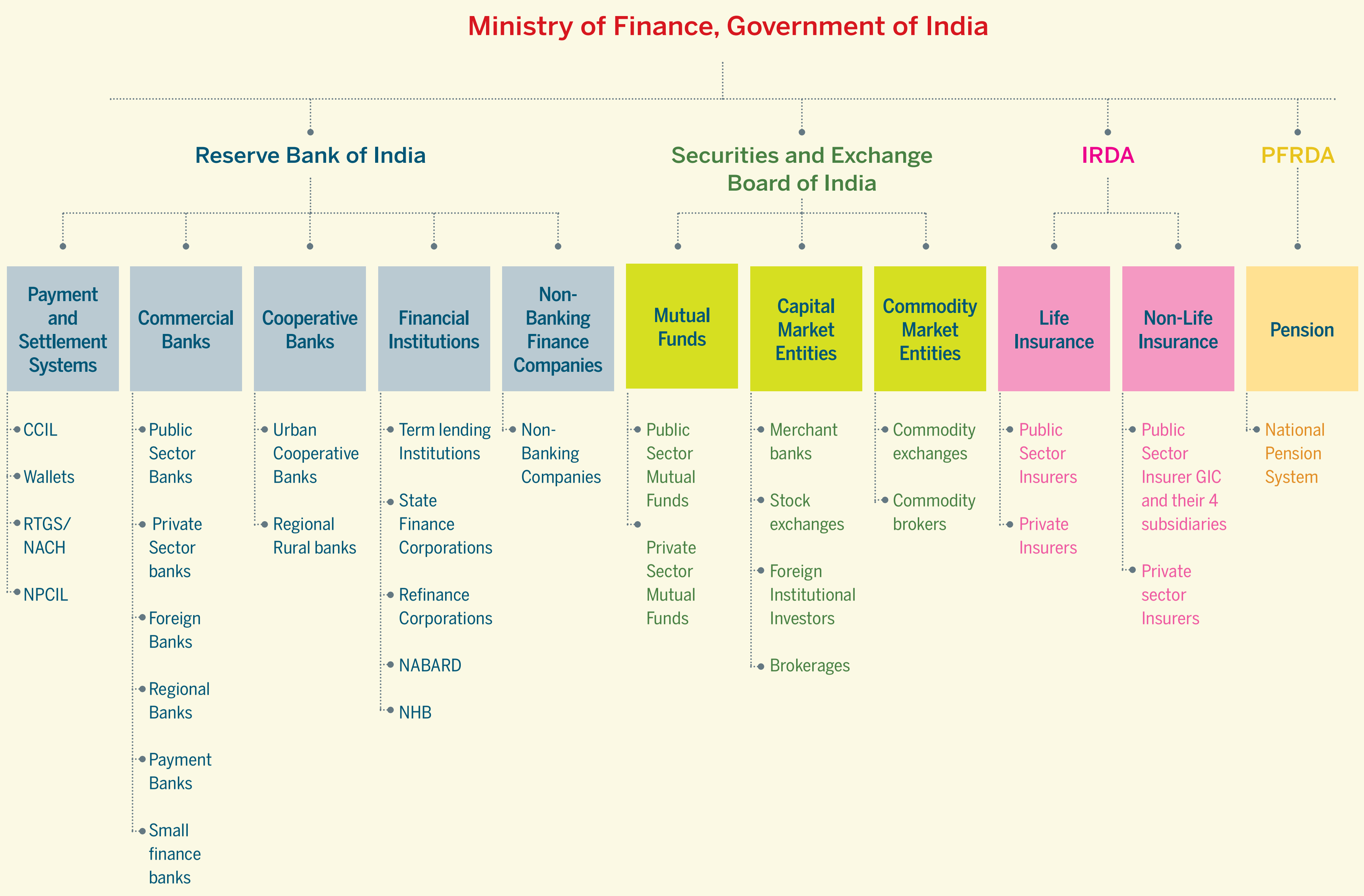
Legitimacy of Existence
Helping consumers to deal with authorised entities

Freedom of Enterprise
Creating a competitive environment for the benefit of consumers

Financial Services Regulators in India

There are 13 regulators in India set up by the government. Reserve Bank of India is the first regulatory organisation set up in 1935 to regulate financial system and for Monetary Policy. Other regulators in the Financial Services Sector are Registrar of Companies, Securities and Exchange Board of India, Insurance Regulatory and Development Authority, Pension Fund Regulatory and Development Authority.

Year Established	Regulator		Regulatory Purpose
1935		Reserve Bank of India	Financial System and Monetary Policy
1949		Institute of Chartered Accountants of India	Financial Audit and Accounting profession
1953		Forward Markets commission (Merged with SEBI in September 2015)	Commodity Futures Market
1992		Securities and Exchange Board of India	Security Market including Commodity Futures Market since September 2015
1999		Insurance Regulatory and Development Authority of India	Insurance Industry
2003		Pension Fund regulatory and Development Authority	Pension Sector


Ministry of Finance, Government of India
Reserve Bank of India
Securities and Exchange Board of India
IRDA
PFRDA
Payment and Settlement Systems
CCIL
Wallets
RTGS/ NACH
NPCIL
Commercial Banks
Public Sector Banks
Private Sector banks
Foreign Banks
Regional Banks
Payment Banks
Small finance banks
Cooperative Banks
Urban Cooperative Banks
Regional Rural banks
Financial Institutions
Term lending Institutions
State Finance Corporations
Refinance Corporations
NABARD
NHB
Non-Banking Finance Companies
Non-Banking Companies
Mutual Funds
Public Sector Mutual Funds
Private Sector Mutual Funds
Capital Market Entities
Merchant banks
Stock exchanges
Foreign Institutional Investors
Brokerages
Commodity Market Entities
Commodity exchanges
Commodity brokers
Life Insurance
Public Sector Insurers
Private Insurers
Non-Life Insurance
Public Sector Insurer GIC and their 4 subsidiaries
Private sector Insurers
Pension
National Pension System

Role of RBI (Main Functions)

Monetary Authority
Formulates, implements and monitors the monetary policy.

Objective: maintaining price stability and ensuring adequate flow of credit to productive sectors.

Regulator and supervisor of the financial system:
Prescribes broad parameters of banking operations within which the country's banking and financial system functions.

Objective: maintain public confidence in the system, protect depositors' interest and provide cost-effective banking services to the public

Manager of Foreign Exchange
Manages the Foreign Exchange Management Act, 1999.

Objective: to facilitate external trade and payment and promote orderly development and maintenance of foreign exchange market in India.

Issuer of currency:
Issues and exchanges or destroys currency and coins not fit for circulation.

Objective: to give the public adequate quantity of supplies of currency notes and coins and in good quality.

Developmental role
Performs a wide range of promotional functions to support national objectives.

Related Functions
Banker to the Government: performs merchant banking function for the central and the state governments; also acts as their banker.
Banker to banks: maintains banking accounts of all scheduled banks.

Role of SEBI

Though the Securities and Exchange Board was originally set up in 1988, it did not have any legal status to control securities market transactions. Legal Status was granted to SEBI in 1992 to help it curb malpractices in securities market like rigging of stock prices, insider trading, pricing of new issues without any basis, etc.

Entities Regulated by SEBI and SEBI's objective in their regulations are :

Issuers

Provide a fair market place for entities to raise money

Investors

Provide accurate information to take right investment decisions

Intermediaries

Provide competitive professional environment

Aims of SEBI

1. Regulate Securities Market Activities
2. Investor Protection
3. Prevent Malpractices
4. Code of Conduct for Intermediaries

Functions of SEBI

Protective	Developmental	Regulatory
1. Price Rigging 2. Insider Trading 3. Fraudulent and Unfair Trade Practices 4. Investor grievance reddressal mechanism 5. Punitive action against erring entities	1. Certification for Intermediaries 2. Technology adoption for faster business 3. Investment products	1. Registration of Intermediaries 2. Rules for Intermediary operations 3. Regulation of Mutual Funds

Role of IRDA

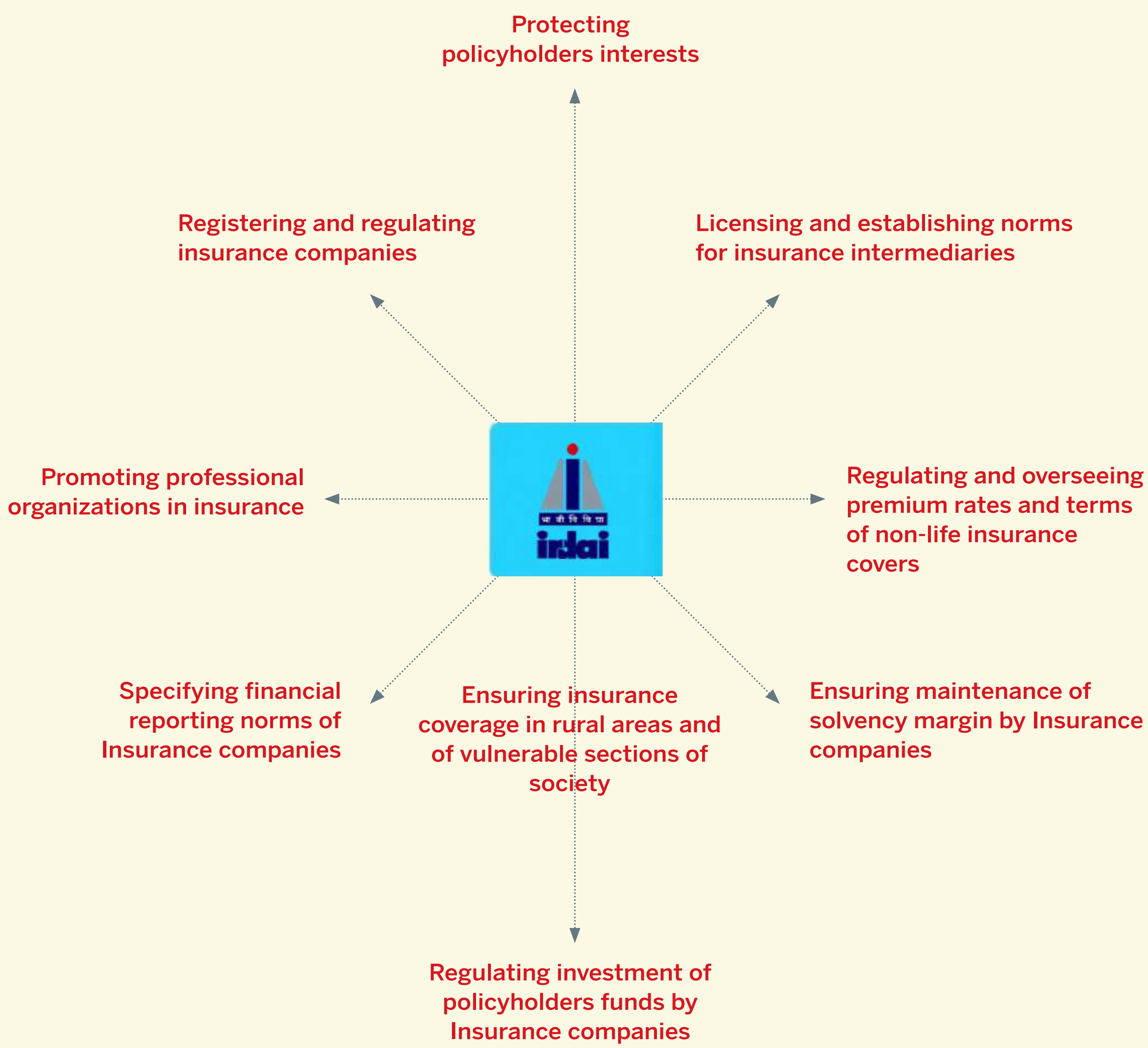
IRDAI's Mission

Insurance Regulatory and Development Authority (IRDA) Act, 1999 spells out the Misison of IRDAI as

"...to protect the interests of the policyholders, to regulate, promote and ensure orderly growth of the insurance industry and for matters connected therewith or incidental thereto..."

Functions and duties of IRDAI

Section 14 of the IRDA Act, 1999 lays down the duties, powers and functions of IRDA



Insurance Ombudsman Scheme

The Insurance Ombudsman scheme was created by Government of India for individual policy holders to have their complaints settled out of the courts system in a cost-effective, efficient and impartial way

There are 17 Insurance Ombudsman in different locations each one having jurisdiction over the location.

Approach Ombudsman with the complaint if

1. You have approached your insurance company and they have no resolved it, or resolved to your satisfaction or not responded at all in 30 days
2. Your complaint pertains to any policy you have taken in your capacity has individual
3. The value of the claim including expenses claimed is not above Rs.20 Lakh

Complaint is for

1. Any Partial or total repudiation of claims by insurer
2. Any disput about premium paid or payable in terms of the policy
3. Any dispute on the legal construction of the policies as far as it relates to claims
4. Delay in settlement of claims
5. Non-issue of any insurance document to you after you pay your premium

The settlement Process

The ombudsman will act as counsellor and mediator and arrive at a fair recommendation based on the facts of the dispute. If settlement is accepted then the Ombudsman will inform the company which should comply with the terms in 15 days

Award:

If the settlement by recommendation does not work, the Ombudsman will pass an award within 3 month of receiving the complaint and which will be binding on the Insurance Company, but not binding on the policy holder. The Ombudsman can also award an ex-gratia payment.

After the Award is passed:

- Accept the award in writing within 15 days
- Insurance company will have comply within 15 days

Role of PFRDA

Pension Fund Regulatory and Development Authority initially established by a notification of the Government of India, dated 10.10.2003, is a statutory Authority, set up through an Act of Parliament being the "The Pension Fund Regulatory and Development Authority Act, 2013" notified w.e.f. 01.02.2014 in accordance with the provisions of the said Act, PFRDA is mandated to promote old age income security by establishing, developing and regulating pension funds, to protect the interest of the subscribers to the schemes of pensions funds and for matters connected therewith or incidental thereto. The PFRDA has been entrusted with the responsibility to regulate, promote and ensure orderly growth of the National Pension System (NPS) and other pension schemes not regulated under any other enactment.

NPS Architecture

NPS architecture includes the following intermediaries, each offering specialized services

Central Record Keeping Agency (CRA):

The Recordkeeping, administration and customer service functions for all subscribers of the NPS is centralised and performed by a Central Recordkeeping Agency (CRA). The CRA issues unique Permanent Retirement Account Number (PRAN) to each subscriber, maintains a master database of all pension accounts and records the transactions related to each subscriber's PRAN. Also, the CRA, on the basis of instructions received from subscribers, transmits such instructions to the appointed Pension Funds on a regular basis. The CRA also provides periodic, consolidated PRAN statements to each subscriber.

POP's (Point of Presence) :

PFRDA registers Points of Presence (POP) to extend customer interface for non-government subscribers/ individual citizens. POPs perform the functions related to registration of subscribers, undertaking Know Your customer (KYC) verification, receiving contributions and instructions from subscribers and transmission of the same to designated NPS intermediaries.

Trust & Trustee Bank - A Trust is responsible for taking care of the assets under NPS and is the registered owner of all NPS assets. The Trust holds an account with a Bank and this Bank has been designated as NPS Trustee Bank. NPS Trustee Bank facilitates fund transfers across various entities of NPS system viz. subscriber, PFs, ASPs, etc. PFRDA has already established NPS Trust under the provisions of the Indian Trusts Act. The NPS Trust is being administered by the Board of Trustees, as constituted by the PFRDA.

Annuity Service Provider (ASP) - ASPs are responsible for delivering a regular monthly pension to the subscriber for the rest of his/her life. On receipt of personal and banking information details of subscriber from CRA and of specified sum from the trustee bank the ASP uses its access codes to confirm receipt. ASP then begins payments of annuities to the subscriber.

Pension Fund Managers (PFMs) - PFRDA selects Pension Funds, who invest the contributions received from subscribers across different type of asset classes in order to ensure the best return for their Investment. PFs use their secure access codes to confirm receipt of netted assets and instructions regarding fund allocation, confirm allocation of funds and communicate the NAV of each scheme to CRA on a daily basis. The PFs are required to invest strictly in accordance with guidelines issued by PFRDA.

Custodian - Holds the assets/securities purchased by the Pension Funds and the rights thereon

Consumer Rights

Banking service is one of the services which is covered under various services mentioned in the Act.

Important Sections of this act include:

Sec 2(1) (o)) –"Defines what service is"

Sec 2(1) g – "Defines what deficiency of service means"

Definition of Banking Service
- → Deposit taking
- → Collection of Premium
- → Money Lending
- → Locker Facilities etc

Grievance mechanism by Financial System regulators
One of the important roles of regulators is to provide consumer grievance handling process. Each financial system regulator has its own process and guidelines to support consumers

Users of Financial System need protection and several legislations in the interests of consumers have been enacted. The main Legislation is the Consumer Protection Act which was passed in the year 1986. Since then the Financial sector has undergone many reforms including the dilution in the Government's stake, deregulation and privatization. The competition in the banking system in India is very high. With the launch of schemes like Jan Dhan Yojna and Government's mission of financial inclusion each and every one in the country is expected to have a banking account. Many of the consumers are illiterate and need protection. While competition creates choices and better options at lesser prices, it may also lead to reduction in quality of services offered, particularly for the less aware customers.

Keeping the above in mind, the financial sector regulators have put in place systems and institutions for consumer protection and grievance redress. Banking sector consumers can look towards more support from
1. The In-house complaint redressal mechanism set up by banks
2. Ombudsman Scheme

The consumer needs to understand how to use all the above protection available against deficient services if any.

As a last resort, The consumer can approach the Courts if Law, the final forum available for redress of grievance

Deficiency of any service or unfair practices of Institutions can be brought to notice of consumer courts. Some of the deficiencies listed are:

1. Refusing or holding back the amount that was due on Fixed Deposit after maturity
2. Dishonouring of cheque due to error or negligence from bank
3. Dishonouring of Demand draft to error of bank officials
4. Refusing to grant loan without any valid reason
5. Causing delay in discharging of sanctioned loan
6. Charging of higher interest rate than what is mentioned in the contract
7. Non return of collaterals after the loan period
8. Bank's failure to honour guarantee, inspite of guarantee being in order
9. Not honouring liabilities on Locker
10. Lack of Security in Banking premises
11. Closing of Account without permission from Account holder
12. Refusing Cheque book due to lack of minimum balance
13. Failure of teller to account for money deposited at the counter
14. Misbehaviour of bank officials causing mental agony to consumers
15. Terminating Loan contracts without notice for non payment of dues
16. Dishonoured cheque not returned to the account holder

Banking Ombudsman Scheme

Banking Ombudsman Scheme introduced by RBI in the year 1995 is an Apex level, cost free grievance redress mechanism for vulnerable class of bank customers, who otherwise find it difficult to approach any forum for redressal of their grievances. RBI has appointed senior officials as banking Ombudsmen at 20 major cities across India with defined jurisdiction covering all States and Union Territories. The Banking Ombudsman Scheme has specified 27 grounds of complaints covering almost all type of banking services. Bank customer can approach the Banking Ombudsman if the complaint pertains to any of these grounds of complaints and the bank has failed to resolve or respond to their complaints

Charter of Customer Rights

Recently, a further step has been taken by RBI regarding consumer protection. This is known as Charter of Customer Rights and includes 5 basic rights which cannot be denied by banks to customers. The 5 rights are

1. **Right to Fair Treatment**
   Both the customer and the financial services provider have a right to be treated with courtesy. The customer should not be unfairly discriminated against on grounds such as gender, age, religion, caste and physical ability when offering and delivering financial products.
2. **Right to Transparency, Fair and Honest Dealing**
   The financial services provider should make every effort to ensure that the contracts or agreements it frames are transparent, easily understood by and well communicated to, the common person. The product's price, the associated risks, the terms and conditions that govern use over the product's life cycle and the responsibilities of the customer and financial service provider, should be clearly disclosed. The customer should not be subject to unfair business or marketing practices, coercive contractual terms or misleading representations. Moreover, the financial services provider cannot threaten the customer with physical harm, exert undue influence, or engage in blatant harassment.

3. **Right to Suitability**

   The products offered should be appropriate to the needs of the customer and based on an assessment of the customer's financial circumstances and understanding.

4. **Right to Privacy**

   Customers' personal information should be kept confidential unless they have offered specific consent to the financial services provider or such information is required to be provided under the law or it is provided for a mandated business purpose (for example, to credit information companies). The customer should be informed upfront about likely mandated business purposes. Customers have the right to protection from all kinds of communications, electronic or otherwise, which infringe upon their privacy.

5. **Right to Grievance Redress and Compensation**

   The customer has a right to hold the financial services provider accountable for the products offered and to have a clear and easy way to have any valid grievances redressed. The provider should also facilitate the redressal of grievances stemming from its sale of third party products. The financial services provider must communicate its policy for compensating mistakes, lapses in conduct, as well as non-performance or delays in performance, whether caused by the provider or otherwise. The policy must lay out the rights and duties of the customer when such events occur.

Samples of some of the cases where customers have fought and won compensation from banks for deficient service and some they lost

For Insurance sample insurance cases referred by consumers to Insurance Ombudsman and decisions taken by Insurance Ombudsman, kindly refer to Appendix I

Cases won by customers

Due to the wrongful dishonour of demand draft, the complainant was stranded at a very far off place from his home and it resulted in loss, mental agony and hardship to him. The primary duty of a Bank is to safeguard and protect the interest of their customer. It was held that if there has been a lapse or an omission committed by the officials of the Bank and if some inconvenience were caused to a customer due to the omission, negligence or default of the Bank, it amounts to a defective service according to the Consumer Protection Act.

N.Raveendran Vs. Branch Manager, State Bank of India 1991(2) CPR 473 (SCDRC- Kerala)

In this case the bank permitted withdrawal of a huge amount from the account of the complainant on the basis of a duplicate pass book and cheque book. It was held that complainant is a consumer and permission for withdrawal from his account by another is deficiency in service.

Premananda Nanda Vs. State Bank of India & Anr.- 1992(2) CPR 199 (SCRDC – Orissa).

A Cheque was dishonoured by Punjab & Sind Bank there being sufficient funds in the account of the customer on the ground that dealing official was an old man and he misread the amount outstanding in the account. This was held as deficiency in service. The District Forum had awarded ₹5000/- as compensation and ₹1000/- as costs and later the State Commission concurred with the observation of the District Forum.

Punjab & Sind Bank Vs. Manpreet Singh Sood 1994(2) CPR 627 (SCDRC, Punjab)

A cheque deposited with the bank for collection was dishonoured, but the bank failed to return it on the plea that it was lost in transit. It was held that due to the deficiency of service on the part of the bank, the complainant has suffered mental agony and harassment, as neither the money has been credited to the account of the complainant nor has the cheque, it was held, was is alleged to be dishonoured has been returned to the complainant. The complainant is clearly entitled for compensation.

Smt. Harmohinder Kaur v. State Bank of Patiala 1999(2) CPR 553 (SCDRC - Himachal Pradesh)

Where one of the two banks involved in the matter was negligent in issuing a bank draft without showing the issuing bank code number and branch and the other bank delayed the presentation of the draft beyond the date of closure of rights issue of a company for which the draft was purchased, the order passed by the State Commission holding both the banks liable for deficiency in rendering service to the complainant, and apportioning the negligence between the two banks was held to be valid.

SBI v. Dr. Kalika Charan Dube 1996 (2) CPR 110 (NC)

The bank had wrongly paid the complainant's fixed deposit maturity proceeds to some other person. The complaint was dismissed by the District Forum. It was held that if the bank without verifying the genuineness of the person claiming the amount of the FDR, had paid the same, and was now refusing to make payment to the original and genuine person, deficiency in rendering service is writ large. The bank was directed to pay the FDR amount and compensation by way of interest of 18 % per annum.	Malkiat Singh Bansal and Another v. Punjab National Bank and another 1998 (3) CPR 348 (SCDRC - Punjab)

The complainant/respondent deposited an amount in double deposit scheme with the appellant bank but on maturity was given only lesser amount on the ground that RBI had reduced interest rate w.e.f 8.10.1992 i.e. prior to the date the deposit was accepted. District Forum found deficiency in service on the part of the bank. The State Commission held that though a depositor cannot be paid interest higher than the one prescribed by the Reserve Bank of India but all such facts if not disclosed to the depositor while accepting the deposit would amount to deficiency in service on the part of the bank.	District Co-operative Central Bank Ltd Vs. Kailash Prasad Tiwari 2003 (2) CPR 195 SCDRC (MP)

The bank refused to pay the two FDRs jointly owned by the complainants and purchased by them in 1990 by invoking its general lien for enforcing guarantee given by one of the complainants. It was held that the bank was legally not justified in creating a lien unilaterally on the FDRs for enforcement of guarantee given by one of the complainants in 1983. It was held that there has been serious deficiency in service on the part of the bank.	Smt. Putlibai & Anr. v. State Bank of Indore 1998 (1) CPR 503 (SCDRC - Madhya Pradesh)

Complaints that were dismissed

PP.Devassy Vs. State Bank of India & 2 Ors. - 1992(2) CPR 603 (SCRDC – Ker) .

The complainant's employer had sent some amount to him towards his traveling expenses, but the same was not received in his account with Catholic Syrian Bank, Ernakulam. The employer's banker in Middle East had sent telex payment order to the first opposite party (SBI Overseas Branch, Bombay) in favour of the complainant's aforesaid account who in turn vide telegraphic transfer remitted the funds to second opposite party (SBT, Ayiroor Branch) for credit to complainant's account. However, the said telegraphic transfer was not received by the second opposite party. It was held that not only the persons who hires any service but also the persons who are the beneficiaries of such service other than actual hirers would come within the clutches of the term 'consumer'. However, in the present case, the complainant's employer had not hired the services of the opposite parties but had hired the services of their bank in Middle East for sending the money. Therefore, it was held that the complainant was not a beneficiary of the service rendered by the opposite parties and hence not a consumer as defined under the Act. Complaint was dismissed.

Corporation Bank v. Smt Nirmala Baliga 1996 (1) CPR 450 (SCDRC-Thiruvananthapuram)

Where the complainant was not provided with the withdrawal slip for the reason that she did not bring her pass-book, the same was held not to be a deficiency of service on the part of the bank when the rules required that a withdrawal slip is to be issued to a customer only on production of the pass-book. The order passed by the District Forum allowing the complaint, was set aside and the complaint was dismissed.

Grievance mechanism for entities managed by RBI

STEP 1

Lodge complaints to your bank by
Email
Website
Customer care Toll Free No

Wait for 30 days to receive response

STEP 2

If the bank gives no response or if the response is unsatisfactory, then approach Banking Ombudsman. There are 20 offices of Banking Ombudsman situated across the country. Contact details and area of jurisdiction of all Banking Ombudsman can be found from the link below:

https://www.rbi.org.in/Scripts/bs_viewcontent.aspx?Id=164

The ombudsman will try to bring a legally binding settlement between the bank and the customer and if mutually agreeable settlement is not possible then pass a decision or Award based on the facts and documents submitted to them.

STEP 3

Customer can take the legal route and file an appeal before the appellate authority within 30 days if not happy with the solution provided by Ombudsman.

The appellate authority is Dy. Governor of RBI

Arbitration mechanism available in all stock exchanges & deposition of faster reddressal of complaint

Punitive Actions

Provisions are made in SEBI Regulation within which investor compliant has to be reddressed failing which intermediary has to pay penalty per day for every day

Grievance Mechanism provided by SEBI

Any Complaint against Capital Market Issuers or Intermediaries can be lodged online through www.scores.gov.in

SCORES stands for SEBI Complaints Redress System

Step 1 : Approach the concerned company/intermediary and lodge a complaint. If the complaint is not handled satisfactorily, SEBI can be approached for reddressal

Step 2 : SEBI takes up complaints related to issue and transfer of securities, non payment of dividend by listed companies etc., In addition, complaints can also be lodged against intermediaries. Complaints can be lodged through www.scores.gov.in and responses can be viewed through the system.

Grievance mechanism by IRDA

IRDA has launched the **Integrated Grievance Management System (IGMS)**. Apart from creating a central repository of industry-wide insurance grievance data, IGMS is a grievance redress monitoring tool for IRDA. Policyholders who have grievances should register their complaints with the Grievance Redress Channel of the Insurance Company first. If policyholders are not able to access the insurance company directly for any reason, IGMS provides a gateway to register complaints with insurance companies.

Complaints shall be registered with insurance companies first and only if need be, be escalated then to IRDA (Consumer Affairs Department). IGMS is a comprehensive solution which not only has the ability to provide a centralised and online access to the policyholder but complete access and control to IRDA for monitoring market conduct issues of which policyholder grievances are the main indicators. IGMS has the ability to classify different complaint types based on pre-defined rules. The system has the ability to assign, store and track unique complaint IDs. It also sends intimations to various stakeholders as required, within the workflow. The system has defined target Turnaround Times (TATs) and measures the actual TATs on all complaints. IGMS sets up alerts for pending tasks nearing the laid down Turnaround Time. The system automatically triggers activities at the appropriate time through rule based workflows.

A complaint registered through IGMS will flow to the insurer's system as well as the IRDA repository. Updating of status will be mirrored in the IRDA system. IGMS enables generation of reports on all criteria like ageing, status, nature of complaint and any other parameter that is defined.

Thus IGMS provides a standard platform to all insurers to resolve policyholder grievances and provides IRDA with a tool to monitor the effectiveness of the grievance redress system of insurers.

Grievance mechanism by PFRDA

Option 1 Subscriber can raise the grievance/complaint through CRA Call centre using your T-PIN or through the CRA website using your I-PIN under Central Grievance Management System (CGMS)

Option 2 PAO/ DTO may be contacted to resolve the grievance if possible at their end or may lodge the grievance on your behalf in Central Grievance Management System (CGMS)

Option 3 Send a duly filled Form G1 (available at CRA website) to CRA for lodging a grievance Form G1 available at CRA Website - > Subscriber Corner -> Forms

Unregulated Entities

There are many entities in India which offer financial services but are outside the regulatory framework discussed earlier. Customer redressal mechanism is not available for anyone dealing with the unregulated service providers.

Government of India is making an effort to reduce the number of entities in the unregulated space. Recent attempt in this direction was the Securities Laws (Amendment) Ordinance, 2013, which considers any raising of resources by whatever means, if not regulated otherwise, as a collective investment scheme.

Former finance minister Shri. P Chidambaram once mentioned that, "Given the speed and dynamism in which the financial sector operates, it generates new space — sometimes undefined areas — which provide opportunities for unregulated players in the market. The existence of such players who operate in the twilight zone endanger the discipline of the markets, leading to systemic instability. Invariably, such activities adversely impact a large number of consumers. This reduces their confidence in the system. A large number of investors, particularly small investors, stay away from the system. It reduces the supply of blood to the body economic"

Selecting Financial Services Providers

Since redressal mechanisms are not available for any transactions done through unregulated entities it is highly recommended that for all financial needs only regulated institutions must be chosen.

Mobile wallets

Savings Account including Jan Dhan Yojana Account

Short term deposits/ NPS

Banks regulated by RBI

Life Insurance

Health Insurance

Motor Insurance

Theft Insurance

Insurance companies regulated by IRDA

Short Term and Long Term investment through Capital Markets

Mutual Funds and Advisors regulated by SEBI

Deposit Insurance Act

Protective	Developmental
1960	Collapse of Laxmi Bank and Pallai Central Bank causes considerable losses to depositors and faith in banking system takes a beating
1962	Deposit Insurance Act was enacted
1962	Deposit Insurance Corporation (wholly owned subsidiary of RBI) was set up with an objective of providing necessary protection to depositors against the risk of losing their savings in case the bank fails to meet the liabilities. Each depositor of the bank was provided with an Insurance cover of ₹1500
1968	Deposit Insurance Act amended to include State Cooperative Banks, Central Cooperative Banks and Primary Cooperative Banks and provide Insurance cover to each depositor raised to ₹5000
1970	Insurance cover to each depositor raised to ₹10000
1972	Number of Cooperative Banks insured increased to 404
1976	Insurance cover to each depositor raised to ₹20000
1978	Deposit Insurance corporation was merged with Credit Guarantee Corporation of India and renamed Deposit Insurance and Credit Guarantee Corporation
1980	Insurance cover to each depositor raised to ₹30000
1993	Insurance cover to each depositor raised to ₹100000

Insurance Premium

The rate of insurance premium was initially fixed at 0.05 or 1/20th of 1 per cent per annum. It was reduced to 0.04 or 1/25th of 1 per cent per annum with effect from 1 October 1971. However, it was again raised to 0.05 or 1/20th of 1 per cent per annum with effect from 1 July 1993.Since 2001,the Corporation has had to settle claims for large amounts due to the failure of banks, particularly in the Co-operative Sector causing a drain on the Deposit Insurance Fund (DIF). While there is sufficient corpus in Deposit Insurance Fund for the present, it is necessary to build up a sound DIF in the long term to protect the interests of the banking system. With this objective, the Corporation decided to enhance the deposit insurance premium from 5 paise per 100 of assessable deposits per annum to 10 paise per 100 of assessable deposits per annum in a phased manner over a period of two years. In the first phase, the premium was raised to 8 paise per 100 of assessable deposits from the financial year 2004-05 and later to 10 paise per 100 assessable deposits from the financial year 2005-06. The Corporation will continuously review the DIF and will consider revising the premium further from time to time with the objective of maintaining a strong DIF. The premium paid by the insured banks to the Corporation is required to be absorbed by the banks themselves so that the benefit of deposit insurance protection is made available to the depositors free of cost. In other words the financial burden on account of payment of premium should be borne by the banks themselves and should not be passed on to the depositors.

Important Points to note regarding deposit Insurance Act

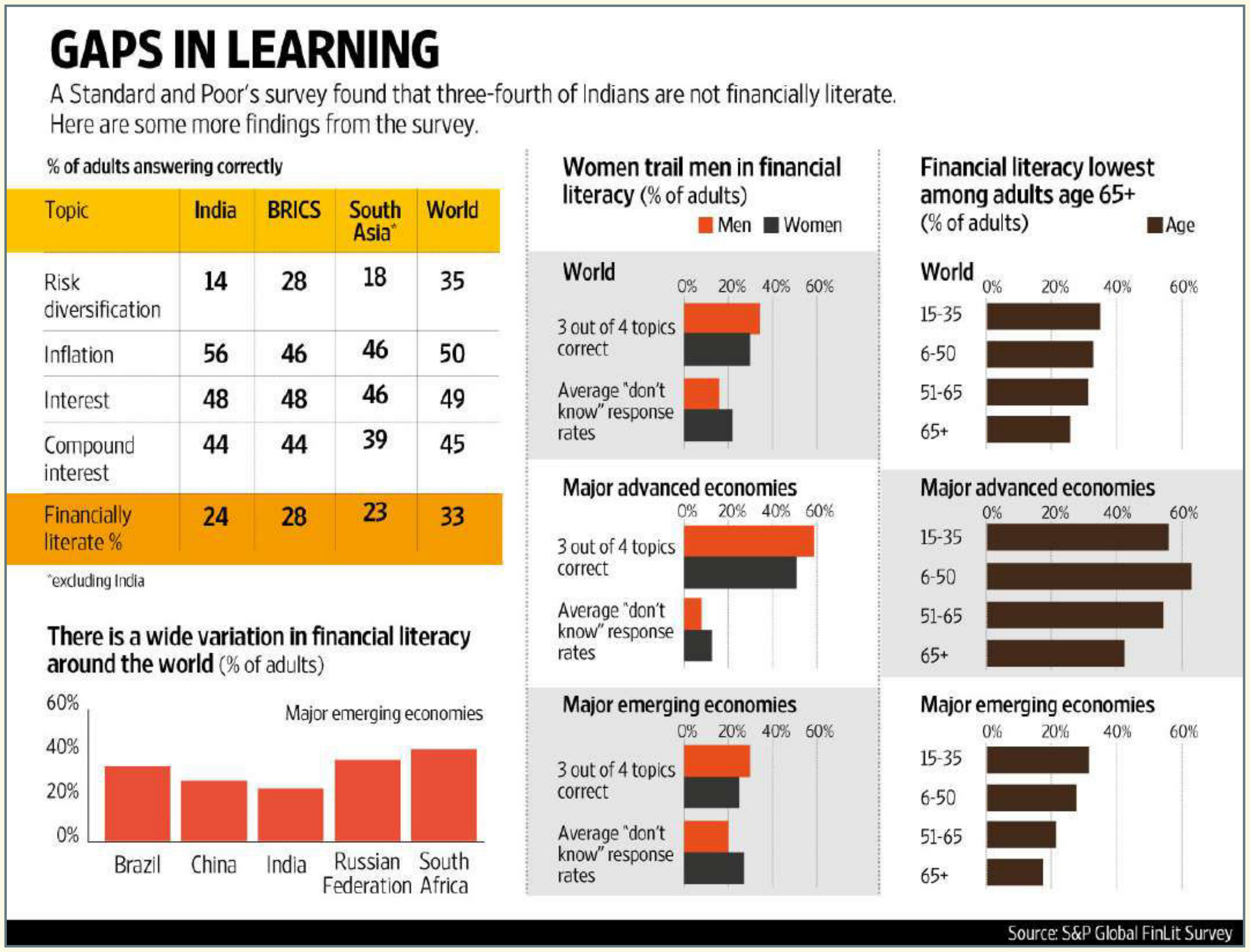
1. List of commercial banks having Insurance cover
   https://www.dicgc.org.in/english/FdLibCommercialBanks.asp
2. Deposits in different banks will be insured separately
3. Deposits held in same capacity and same right in one bank will be insured together and hence eligible for cover of ₹1 Lakh only
4. In case of any doubt about banks registration with DICG Corporation, consumers should specifically ask the bank for the DICG Number to ensure that their deposit is insured.

Chapter 18

Education, Information and Advice – Rights and Responsibilities

Contents

A fool and his money are soon parted



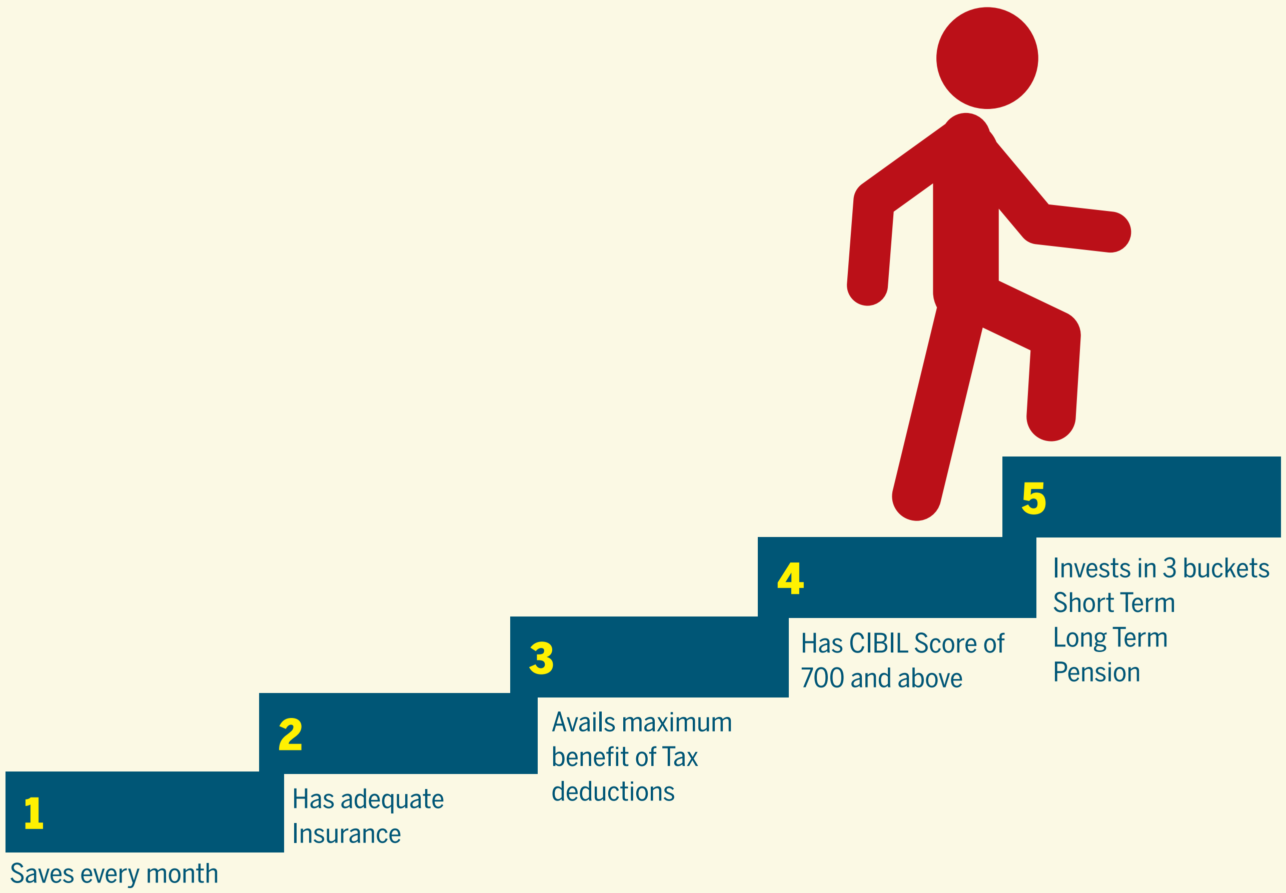
Topic	India	BRICS	South Asia*	World
Risk diversification	14	28	18	35
Inflation	56	46	46	50
Interest	48	48	46	49
Compound interest	44	44	39	45
Financially literate %	24	28	23	33

As per Standard & Poor's Global Financial literacy survey, India's financial literacy rate is estimated at 24%. Financial Literacy is lowest among older people (aged 65 and above), but even among people who are in the prime of their working life (age : 35 to 50), financial literacy is not high, at about 30%.

Since so many people are financially illiterate, scamsters find it easy to defraud people of their hard earned money.

Improving financial literacy is an important step in preventing ourselves from falling prey to Financial Scams and tricks.

The Financially Literate



Sharpening the saw

Higher the Return, Higher the Risk

Seek information on risks involved whenever high return is offered

Asset Allocation & Diversification

Do not put all eggs in one basket

Compounding Principle

Number of years invested has bigger impact than the amount invested

Time Value of Money

Money not invested today will lose its value over time

Foundations of Financial Literacy

Financially Literacy is founded on 4 powerful concepts

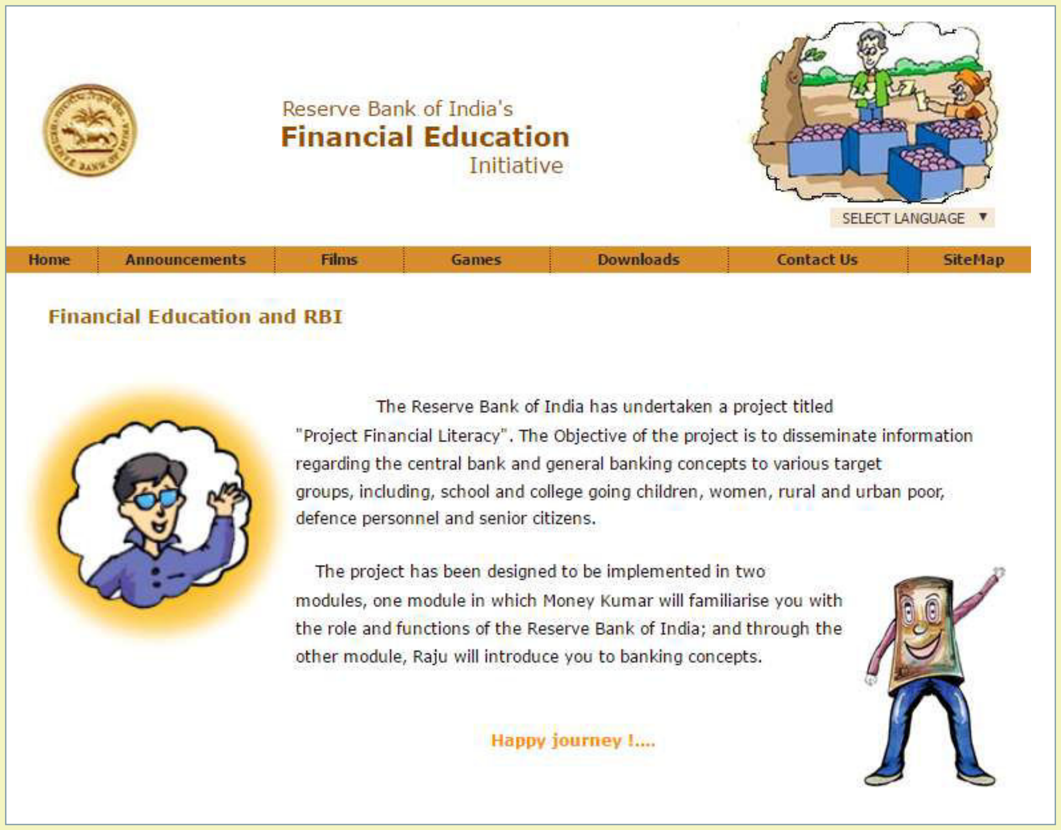
→ Time Value of Money
→ Compounding Principle
→ Asset Allocation and Diversification
→ Risk-Return Equation

These fundamental principles are immutable and ever relevant. Financial literacy is more about building a skill rather than acquiring knowledge. As we know, it is not possible to learn cycling or swimming by reading a book on how to ride a bicycle or swim in a pool. Until we take the cycle on the road try pedaling and balancing and fall a few times we will never learn cycling. Similarly without regular practice in the swimming pool, it is difficult to learn swimming.

Financial literacy is also a skill like that. Unless we start practicing, it will be difficult to acquire the skill of Financial Literacy. As we start practicing, we will make mistakes and we have to learn from mistakes and use that opportunity to enhance our learning.

Attitude of continuous learning

While the foundations of financial literacy are eternal, the market environment is dynamic and keeps changing. It is essential to keep track of changes in market environment by continuously upgrading knowledge on financial matters. There are many opportunities available for continuous learning and one must make full use of it.

<table>
<tr>
<td>Financial Education Websites from Regulators</td>
<td>


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<tr>
<td>Awareness Programs</td>
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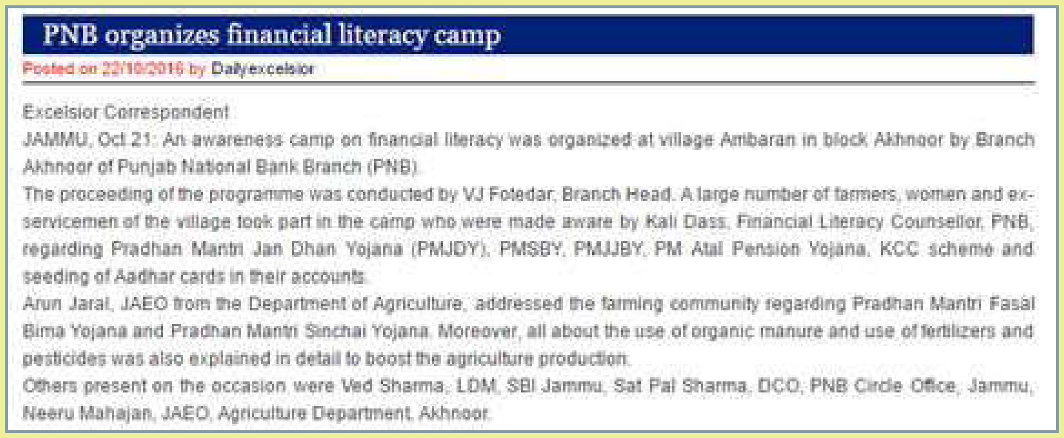

PNB organizes financial literacy camp
Posted on 22/10/2016 by Dailyexcelsior
Excelsior Correspondent
JAMMU, Oct 21: An awareness camp on financial literacy was organized at village Ambaran in block Akhnoor by Branch Akhnoor of Punjab National Bank Branch (PNB).
The proceeding of the programme was conducted by VJ Fotedar, Branch Head. A large number of farmers, women and ex-servicemen of the village took part in the camp who were made aware by Kali Dass, Financial Literacy Counsellor, PNB, regarding Pradhan Mantri Jan Dhan Yojana (PMJDY), PMSBY, PMJJBY, PM Atal Pension Yojana, KCC scheme and seeding of Aadhar cards in their accounts.
Arun Jaral, JAEO from the Department of Agriculture, addressed the farming community regarding Pradhan Mantri Fasal Bima Yojana and Pradhan Mantri Sinchai Yojana. Moreover, all about the use of organic manure and use of fertilizers and pesticides was also explained in detail to boost the agriculture production.
Others present on the occasion were Ved Sharma, LDM, SBI Jammu, Sat Pal Sharma, DCO, PNB Circle Office, Jammu, Neeru Mahajan, JAEO, Agriculture Department, Akhnoor.
</td>
</tr>
</table>

Media Alerts and communication from Regulators	

Chapter 19

Financial Products and Services – Taxes and Public Spending

Contents

Financial Product Categories

Insurance
- Life Insurance
- Accident Insurance
- Health Insurance
- Motor Insurance
- Fire Insurance
- Theft Insurance

Purpose of Insurance is to minimise financial loss that can happen unexpectedly in our lives

Deposits

Fixed and recurring deposits from Banks, Post Office, Corporates.
These deposits are used mainly for meeting big and planned expenses that are likely to happen in the Short Term (less than 3 years)

Liquid or Debt Mutual Funds

Schemes with different tenors ranging from overnight period to investment for 10 years
Liquid and Debt Mutual funds are similar to Fixed Deposits, however coupon is not fixed, but have added advantage of tax benefits

Stock Market Investments
- ETF's
- Equity Mutual Funds
- Direct Investments in Stocks

Stock market related investments are high risk and high return investments. They can help us grow our wealth.

Payment Products
- Checking A/c
- Cheques/DD
- NEFT/IMPS/RTGS
- Cards
- Wallets

Payment products can be used by us to do everyday transactions

Pension Schemes
- NPS
- EPF
- PPF

Pension products are designed to accumulate savings towards meeting post retirement expenses

Loans
- Home Loan
- Education Loan
- Auto Loan
- Personal Loan

Bonds
- Tax Free Bonds
- Gold Bonds

serve same purpose as Deposits are liquid/debt mutual funds, but generally used for Future Expenses which are long term in nature.

Products and their Features

Deposits
- Interest Rate
- Investment Period
- Interest Payout Frequency
- Safety Rating

Stocks/ETF
- P/E Ratio
- 52 Week High
- 52 Week Low
- Brokerage
- 1 Yr, 3 Yr, 5 Yr Beta
- Standard Deviation

Equity Mutual Fund
- Risk Level
- Top 10 Investments
- Average Return
- Standard Deviation for measuring Risk
- Exit Load
- Expense Ratio
- Dividend or Growth Option
- Direct or Regular Plan

Insurance
- Sum assured
- Premium Amount
- Premium Payment Frequency
- Term of Insurance
- Risks covered/excluded
- Nominee

Liquid or Debt Mutual Fund
- Average maturity of scheme (Higher the maturity period, higher the risk)
- Top 10 Investments
- Average Return
- Duration (Risk is measured in Duration)
- Exit Load
- Availability of SIP
- Expense Ratio
- Dividend or Growth Option
- Direct or Regular Plan
- Rating of underlying Assets

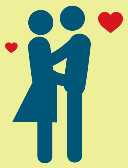
Payment Products
- Fees & Charges
- Validity of the product
- Limits

Pension Schemes
- Return Type – Fixed Income or market linked
- Maturity Date
- Maturity payback restrictions
- Extension of maturity
- Partial redemption facility
- Loan against accumulated amount

Loans
- Interest Rate
- Interest calculation frequency
- Processing Charges
- Pre-mature Closure charges
- Fixed or Floating Interest Rates
- Repayment Method (Bullet Payments, EMI, Interest Only, Fixed Principal etc)

Bonds
- Coupon
- Coupon Payout Frequency
- Taxability of Coupons
- Taxability of Capital Gains
- Pre-mature redemption facility

Life Stages and Suitable Financial Products

Single without any dependents 	Since the person is single and has no dependent, there is perhaps no need for life insurance. But Health Insurance may be needed. This person can consider Fixed Deposits or Liquid Mutual Fund for short term needs and National Pension System or Equity Mutual Funds for long term needs Recommended Products → Fixed Deposits → Recurring Deposits → Liquid Mutual Funds → NPS → Equity Mutual Funds → Health Insurance
Newly Married 	Marriage brings with it responsibility - the need to ensure that family does not suffer financial loss if anything happens to the bread winner. Term Life insurance is highly recommended in addition to the other products mentioned for Single person.
Married with new born child 	Children bring both joy and financial responsibilities. It is an ideal time to buy a home closer to the school. Home can be bought through home loan. In addition to products mentioned above, home loan is added to the list of recommended products.
Middle aged with High School Children 	A large number of big expenses are just round the corner. Some of the long term Investments may have to be redeemed and rebalancing of assets will be required at this stage of life to meet upcoming life goals.
About to retire 	Most of the long term investments must be redeemed and consolidated to upcoming retiring life. Life Insurance may not be required.
Retired 	Majority investments to be held only in fixed deposits or debt mutual funds. Life Insurance not required.

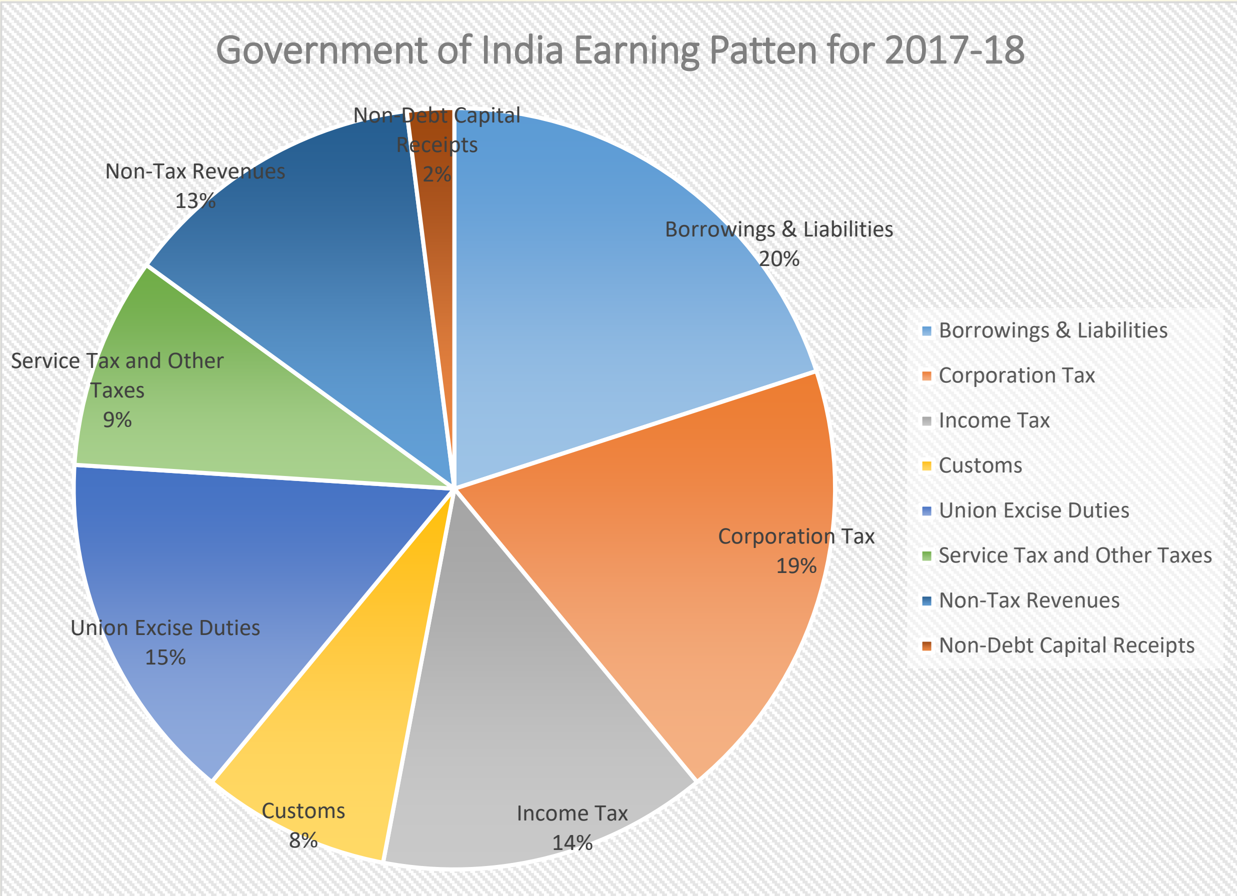
Government of India – Earnings and Spending

Just as we manage our incomes and expenses to run our households, the Government also has to keep an eye on its own income and expenses. The amounts involved are huge, but the basic principles do not change. For instance, when income falls short of expenses, even the Government has to borrow. And when the Government becomes indebted, its freedom to act in interests of its family -the people of the country- becomes severely constrained.

The chart below shows the projected income and expenditure pattern of Government of India for for the Fiscal Year 2017-18

The Revenues Sources for Government of India*

Tax is the major source of Income for Government.



It is the duty of citizens of the country to pay their taxes regularly and correctly to support government initiatives

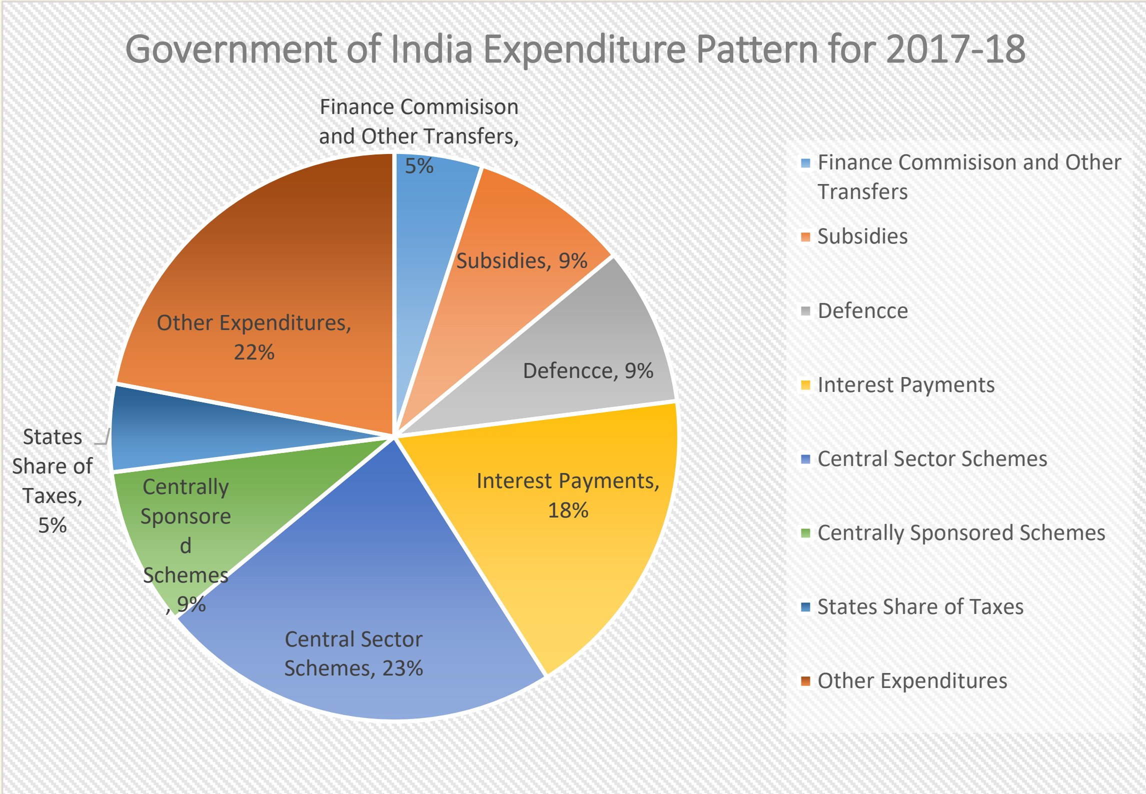
*Source:

Government of India Income and Expenditure data for FY2017-18 is sourced from PWC report

"India Budget 2017 On the growth path"

https://www.pwc.in/assets/pdfs/budget/2017/pwc-union-budget-publication-2017-18.pdf

For the fiscal year 2017-18, the estimated government expenses is 21467Billion INR. The breakup of expenses for major categories is presented below. Defence takes up the maximum expense for Government of India.



Financial Products and Taxes

Different financial products are taxed differently. Some products get tax benefits even at the time of investment, some products get tax benefits on the gains and some may get tax benefits at the time of maturity.

Financial Product	Tax treatment at the time of Purchase	Tax treatment of Returns or Capital Gains	Tax treatment of maturity amount
Regular Fixed Deposit	No tax benefit available	Interest is added to the Income of the tax payer Taxed at accrual (not actual) at the applicable rates is to be paid in the same financial year. If Interest amount is not received the tax must be paid by the investor in the same year it is accrued	Only the interest for which tax has not been paid till date to be added to the income in that particular financial year
Tax Saver Fixed Deposit	Tax Benefit at the time of purchase available under Sec 80C	Interest is added to the Income of the tax payer Tax at accrual (not actual) at the applicable rates is to be paid in the same financial year. If Interest amount is not received the tax must be paid by the investor in the same year it is accrued	Only the interest for which tax has not been paid till date to be added to the income in that particular financial year
NSC	Tax Benefit at the time of purchase available under Sec 80C	Tax benefit available on accrued interest under Sec 80C. If the interest income above Sec 80C limit then Interest Income will be added to Income and applicable tax needs to be paid	Tax benefit available on accrued interest under Sec 80C. If the interest income above Sec 80C limit then Interest Income will be added to Income and applicable tax needs to be paid
PPF/EPF	Tax Benefit at the time of purchase available under Sec 80C	Interest Income is Exempt from tax	Interest Income is exempt from Tax
Life Insurance	Premium paid is eligible for tax benefit under Sec 80C subject to Sum Assured being atleast 10 times the premium amount.	Returns are Tax free provided policy is not surrendered before 5 years of purchase	Maturity amount is tax free. In case of Risk covered happens before maturity and sum assured is paid to the nominee, the same is tax free at the hands of nominee
Health Insurance	Premium paid is eligible for tax benefit under sec 80D	Not Applicable	Claims received are tax free
Motor Insurance	Not Applicable	Not Applicable	Claims received are tax free

Financial Product	Tax treatment at the time of Purchase	Tax treatment of Returns or Capital Gains	Tax treatment of maturity amount
NPS	Upto ₹50000 is eligible for tax benefits under Sec 80 CCD (1b)	Not applicable	Maximum 40% can be withdrawn upon attaining 60 years of Age, which will be taxed at prevailing rates
Liquid Mutual Fund or Debt Mutual Funds or Gold savings fund	Not applicable	Dividends received is tax free in the hands of investor, but Mutual funds before distributing dividends must deduct applicable dividend distribution tax	Capital gains realised within 3 years of investment is called short term capital gains and are added to Income and taxed at applicable rates Capital gain realised after 3 years of investment is called Long term capital gain and have the benefit of indexation. 10% of gains without indexation or 20% of gains with Indexation, whichever lower is to be paid as tax
Equity Mutual Fund/ Stocks/ETS	Not Applicable	Dividends received is tax free in the hands of Investor	Capital Gains realized within 1 year of investment is called Short term capital gains and are taxed at 15% Capital Gains realized after 1 year are exempt from tax
ELSS Mutual Funds	Investment of upto ₹1.5 lakh is eligible for deductions under Sec80C	Dividends received is tax free in the hands of Investor	Capital Gains realized after 1 year are exempt from tax. No withdrawal is allowed before 3 years
Gold Sovereign Bonds	Not Applicable	Annual Interest is added to the income and applicable tax to be paid	Capital Gains on maturity is exempt from tax
Home Loan	Principal repayment is eligible for deduction Sec 80C upto ₹ 1.5 Lakh	Not Applicable.	Claims received are tax free
Capital Gains on Property	Not applicable		Capital Gains realized within 3 years will be added to Income and applicable taxes need to be paid Capital gains realized after 3 years will be eligible for Indexation benefit and 20% of Gains after Indexation need to be paid as tax.
Savings Account	Not Applicable	Interest earned is added to Income and applicable tax is to be paid,	Maximum 40% can be withdrawn upon attaining 60 years of Age, which will be taxed at prevailing rates

Income Tax Returns

Income tax returns are to be filed before 31st July every year. Tax returns for the financial year are to be filed for the financial year, which ends on 31st March. Following information is required for filing income tax returns

1. Form 16 – Issued by Employer
2. Form 16 A – Issued by entities who have deducted tax at source
3. Form 26 AS – Summary of All taxes that has been deducted and credited to PAN

Step 1

Choose the right Form (ITR 1, ITR 2, or ITR 4)

ITR 1: To be used only if income is from Salary/Pension and one house property

ITR 2: To be used when there is capital gains

ITR 4: When there is professional or business Income

Step 2

Prepare Income Tax return using XL utility provided by Income Tax

If any tax is pending after adjusting for all the tax credits, pending tax with penalty must be paid.

35% of the total tax must be paid before 15th Sep

65% of the total tax must by paid before 15th December

100% of the tax due must be paid before 15th march.

Any tax which is not paid till 15th Mar, for the financial year will attract penalty

Step 3

After payment of pending taxes if any return, XL Sheet to be converted to XML File and uploaded

Once uploaded, acknowledgement is generated immediately

Step 4

ITR V must be verified

Verification can be done through

1. Aadhar Card OTP

2. Bank Account OTP

3.Physically Sign and couriered to CPC

E-verification is to be done within 120 days of filing the return.

Step 5

Receive final communication from Income tax department on acceptance of Returns submitted

If there are any discrepancies Income tax department may send their own tax calculations and may demand additional tax. If the tax demanded is wrong, response can be filed online to correct errors. If Income tax calculation is correct, additional tax must be paid and tax paid details to be submitted

Step 6

If there are no discrepancies and there is refund, refunds are processed and issued.

If refund is less than ₹50000 it will be paid through ECS and if Refund is more than ₹50000 then it will be sent by way of cheque to communication address

In case returns are not filed before 31st July next year, returns can still be paid before 31st March next year. But any unpaid tax will attract additional interest and penalty.

Chapter 20

Scams and Frauds

Contents

Caveat Emptor

There have been so many incidents across the world, when depositors and investors have been shocked to hear news of their financial institution closing down and going onto bankruptcy.

Other incidents, such as higher interest or charges on loans have also occurred causing distress to customers.

What is worse, when they approach the institution for rectification or redress, they are shown a document which show that themselves had agreed to those clauses.

In the interactions between sellers and buyers of financial products, it often happens that the seller has more information and knowledge than the buyer. While the seller is required to disclose as much information as possible to the buyer as prescribed by the regulator, the buyer may not be in a position to understand all the facts that have been disclosed. In some cases, the seller may omit certain information which are vital and may also mislead buyers by diverting their attention to irrelevant matters by putting them in bold and putting the relevant matters in fine print.

Most financial products don't have warranty or guarantee which makes it difficult for buyers to claim compensation from the seller.

Caveat Emptor is a Latin term which means "let the buyer beware". This means that the seller of the product can be held responsible for failures only if he gives a warranty or guarantee.

Since most financial products do not carry any guarantee, the term "Caveat Emptor" becomes applicable to Financial products

As consumer protection rules becomes stronger, "Caveat Emptor" will lose importance. However, this will only happen if buyers become more aware and vigilant and demand enough details before they buy a financial product.

Seek complete information before purchase

Institutions' Credibility Before interacting with any financial institution, check if they are regulated by at least one of the following Regulators → RBI → SEBI → IRDA → PFRDA	Past Performance of products It is recommended that only traditional products which have been in operation for long time to be considered. Purchase is to be considered after studying past track record of the products. Any new products may be avoided	Documentation Documentation and contract are very long and boring. However do not ignore them. Do not sign any contract before reading and understanding. If you do not understand the terms approach Toll free help line **1800-11-4000** of the National Consumer Helpline for any clarification and support
Interest Free EMI Interest Free EMI schemes have become very popular in the last few years. While many of the schemes really offer Interest free EMI, the EMI schemes are generally offered against Credit limit sanctioned against the credit card. The Interest free EMI schemes are valid on conditions like → The loan availed should be within the credit limit sanctioned against the card. At any point of time the credit card limit is exceeded the interest free facility offered will be withdrawn. → There may also be other conditions like delayed card payments which can lead to withdrawal of Interest free facility Before signing up for Interest free EMI facility it's advisable to understand conditions under which the Interest free scheme will be reversed		Interest Rate Care should be taken and interest rate charged should be studied properly → Is the rate quoted per annum, per month, per quarter? → Is the rate floating or fixed? → Is the rate flat or reducing balance? → Is the rate simple or compounding? → Is there a pre-closure charge? → Is there a Processing fee? → Are there any other fee to be paid? If it is not clear seek more details

Fine Print

There is hardly any financial product communication that does not carry the symbol "*". Whether it is fixed deposit, car loan, personal loan, home loan, attractive high interest on savings account/fixed deposits compared to normal rates offered by most competitors of the institution, product comparisons, product benefits etc., always look for "*" in the communication. What is written in bold is often not the true terms and conditions, but the real conditions are always mentioned at the bottom in as small a print as possible.

Examples of "*"

EARN HIGH INTEREST RATE* ON SAVINGS ACCOUNT

Banks offering higher interest on savings bank account may impose conditions "*" like higher minimum balance maintenance to receive higher interest. This condition will be available as fine print in small letters at the bottom of the communication

DOUBLE YOUR MONEY IN TEN YEARS WITH 10%* RETURN

Some communication may show very high interest on fixed deposit, but "*" may reveal that what is offered is "Simple Interest" or "Yield"

INTRODUCTORY OFFER – HOME LOANS AT 6%*

Home loans offering low interest rate may have "*" which could state that the lower interest rate offer may be for short duration of 6month or 1 year and prevailing interest will be charged post offer period

NO FEES. TRANSFER YOUR CREDIT CARD BALANCES*

Low or No balance transfer with attractive low interest could have "*" mentioning that the benefit is only for shorter duration

SAVE RS.43000 TAX*

Some product comparisons may show tax benefits accruing to the investor with a "*" which may mean the benefit is mostly available for Investor in 30% tax bracket

TAKE HOME A CAR AT AN UNBELIEVABLE EMI*

Communication for car finance schemes which offer Low EMI's may have a "*" which states that in addition to the regular EMI's additional one time bullet payment to paid once every year.

Social Media and Online – The Hackers Paradise

Sarita works for a foreign embassy in New Delhi. One day she received a friend request on her social media page from someone posing as a diplomat working in the same foreign country with which Sarita is associated. (Scamsters have done their research!)

Sarita accepted the friend's request, thinking that it will help her in the Job. After all, she is working for their country's embassy. During the course of her interaction, she shared her personal information such as mobile no, date of birth etc. She interacted regularly with the diplomat friend. The diplomat friend mentioned that he will soon be coming to India and will meet her at the Embassy. He also mentioned that they are looking for promoting some people to the next level.

A week later, Sarita received an International Call on her mobile from someone posing as the diplomat friend's wife. The caller informed Sarita that her friend had travelled to India in connection with embassy work last week. On his way to India, he lost his passport and got arrested by Indian Police.

The diplomat has been booked on criminal charges and the police is tracing all his friends and contacts. The caller also mentioned that Sarita was in danger of being tracked by Police and may be interrogated. The caller further mentioned that it is important that the diplomat be given adequate legal support so that all other friends of his can be spared from interrogation and possible arrest. Since a lawyer would have to be hired in India and his fees would have to be paid immediately, the caller asked Sarita to deposit ₹10 lakhs in a bank account to meet the expenses. The caller also asked Sarita to keep this matter.

Sarita was shocked beyond her imagination. Since she did not have ₹10 lakhs insert, she started thinking how to arrange the money. She even contemplated ignoring the request thinking it may be hoax. Two days later the caller called again and this time, the caller sounded scared. She told Sarita that the matter is getting very serious and Police have discovered the link between the diplomat and Sarita through the social media interactions they have had. It was just a matter of time, before police approached her. Without adequate legal support, both the diplomat and Sarita are in danger of being convicted for major crime.

Sarita could not think rationally anymore. She immediately approached all her friends and borrowed ₹10 Lakhs and transferred the money to account the next day. After that there was no call and when she logged into her social media site two days later, she could no longer find her diplomat friend.

That's when Sarita realized that she had been duped. It was indeed a very expensive lesson for her.

Almost everyone we see today is on social media. Along with our real friends many of the hackers are also there. It is very difficult to identify who is genuine and who is a scamster. For all we know, each one of us may have one or two scamsters in our network. **Social Media and Online – It's a Hacker's Paradise. Let's tread carefully.**

Data Security

Phishing: the fraudulent practice of sending emails purporting to be from reputable companies in order to induce individuals to reveal personal information, such as passwords and credit card numbers, online,

Hacking: breaking into computer systems and networks using bugs and other techniques

Scamming: Creating a fraudulent scheme to dupe innocent people - have become very common and every day we hear more stories of and people like Sarita getting duped of lakhs of rupees.

The only way to protect ourselves from such activities is to be vigilant about our data and protect the data from getting into the hands of scamsters and fraudsters.

The important data that scamsters are looking for are

- PAN
- PASSPORT NO
- Date of Birth
- Credit Card/Debit Card No
- CVV of Credit or Debit Card
- Card Expiry date
- PINs and Passwords
- Account Numbers
- Email linked to accounts
- Mobile no linked to account
- Name of Close family and Friends

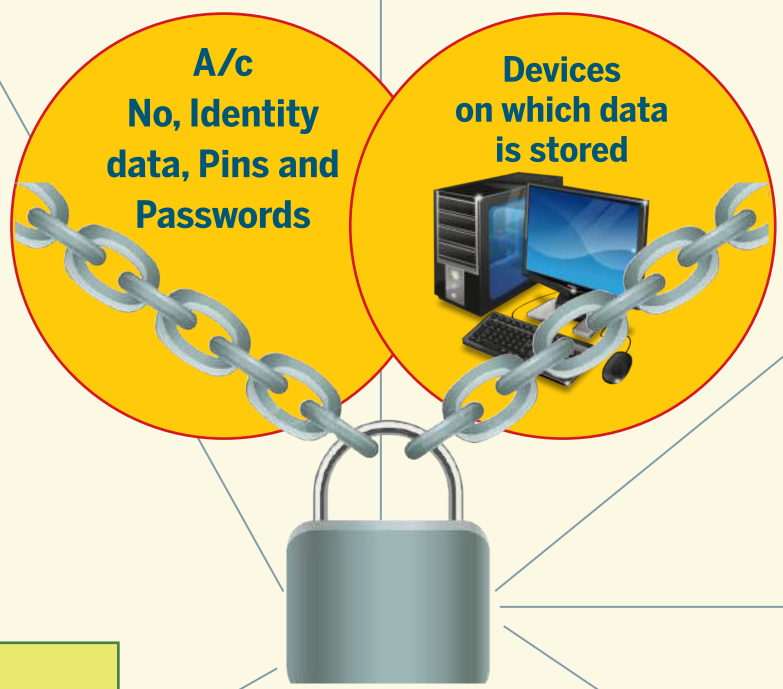
No financial institution will call or email customers to collect any of the above data. If anyone is asking for these details be extra vigilant and do not share these vital information with anyone other than those who can be trusted.

Scamsters have innovative ways to gather data and once they gather data, they create innovative scams to dupe people.

The most popular data collecting channels used by hackers

- Email
- Free service Websites
- Phone
- Software downloads
- Point of Sale
- Public Wifi and Devices
- Social Media Sites

How do we lose data?



Public Wifi and Devices

When communication is done through Public Wifi network and device Information can be intercepted or collected

Free Software downloads from internet

Many scamsters tempt people with free music, movies and games. Particularly, Torrent files which are huge and used for downloading movies. When these files are downloaded, virus also get downloaded.

Responding to emails or clicking on email links in mails with following subjects

Exciting International Job offers

Invoice for Gift Delivery

Tax Refunds

Fines

Tax Payments

Lottery win

Email Quota Warning

Delivery returned

Complaint letter

Social Media Sites

Befriending, following and tagging by scamsters on social media sites

Free Service Websites

There are many websites which offer free services and their only business is to collect data and sell

Phone Calls

Sharing personal data and vital information on incoming telephone calls

Point of Sale

Unattended receipts, misplaced cards, sharing of PIN

Appendix I – Insurance Ombudsman Cases

Here are some typical cases where policyholders made complaints to Ombudsman and the judgements in those cases. The reasons for the complaints, the findings of the cases and the basis for the judgements all throw light on the various aspects of such cases and underline the importance of documentation and declaration of material facts on the part of the policyholder.

S.No.	Ombudsman	Reference Case No.	Brief facts of the case	Findings of the case	Decision
1.	Bhubaneswar	21-002-0217	Insurer alleging suppression of material fact concerning health and pre-existing illnesses by the Life Assured	Insurer could not prove beyond doubt that the Life assured suffered from serious illnesses before taking the policy.	Insurer was directed to settle the claim within one month from the receipt of the consent letter.
2.	Ahmedabad	21-001-0314	While taking the policy the life assured had informed in great detail the state of his health and habits due to which several Special Reports were called for and the proposal was accepted with extra premium.	The life assured died within ten months from the date of proposal. The claim was repudiated on the grounds of suppression of material facts on the basis of certificate of treatment, prescription, letters of doctors and hospital. It was observed that all the diagnosis/treatment commenced after 7 days from the date of acceptance of risk. All the documents proved that the deceased was not aware of his ailment at the time of taking the proposal.	The respondent (the insurer) was directed to pay the full claim amount.
3.	Bhopal	L.I-1025-21/09-07/IND	The deceased life assured had produced voter I.D Card as age proof and the agent filled up the proposal form. It was an early claim. Date of Birth mentioned was 1-1-1950. His actual Date of Birth was 1-8-1943 and was working as postman in postal department. Had he declared his correct age, the proposal would not have been accepted. He had deliberately understated his age.	The deceased was a government servant and deliberately understated his age to defraud the respondent (Insurer), in order to accept the proposal and there by misled the respondent in taking proper underwriting decision.	The decision taken by the respondent (Insurer) in repudiating the claim is just and fair and hence does not require any interference. Therefore the complaint is dismissed without any relief.
4.	Chandigarh	HDFC/397/Mumbai/Hissar/21/07	Insurer alleged that it was a case of suicide as per complaint of the father of the diseased to police; hence suicide clause applies and nothing is payable. The claim was repudiated.	The father was not present at the scene of the death. No suicide note was found. Chemical analysis did not find any poison in the body. Post Mortem report also did not find any poison in the body. The report of Panel of doctors did not confirm that death was due to consumption of poison.	Held that the sum assured of Rs. 5 lakhs along with accrued bonus if any be paid to the nominee/complainant.

Appendix I – Insurance Ombudsman Cases

S.No.	Ombudsman	Reference Case No.	Brief facts of the case	Findings of the case	Decision
5.	Chennai	IO(CHN)/ 21.003.2264	The insurer alleging non disclosure of material fact of suffering from Acute Lymphoblastic Leukaemia (ALL) with relapse with refractory disease in the proposal form and hence the claim is repudiated.	The deceased had been undergoing treatment for ALL since 2000 and he underwent Orchiectomy for relapse in 2003. Did not disclose this in proposal form submitted in Dec 2005	There is clear medical evidence to show that the deceased was suffering from Leukaemia well before signing the application for insurance. Hence the complaint is dismissed and the decision of the insurer was upheld.
6.	Chennai	IO(CHN)/ 21.006.2420	The deceased life assured had not disclosed that he had suffered from pulmonary TB with Haemoptysis in his proposal form. The claim was repudiated by the insurer on the grounds of non-disclosure of material facts.	The life assured had suffered from TB and did not mention the same in the proposal form since he thought that TB is curable. The discharge record of K.T.V.Medical foundations clearly mentioned that the policyholder was a case of Cirrhosis of liver, old pulmonary TB with Haemoptysis.	The complaint was dismissed and the decision of the insurer in repudiating the claim was upheld.
7.	Chennai	IO(CHN)/ 21.05.2544	The life assured (lady) lapsed her policy and it was revived with Declaration of Good Health (DGH) on 9.1.2005. The actual date of maturation was 7.12.2004 where as it was mentioned in DGH as 29.12.2004. The revival of policy was done on 10.1.2005 and the life assured died on 19.5.2005. Insurer repudiated the claim on the basis of suppression of material fact in DGH.	The life assured died within 4 months from the date of revival. Did not disclose that she had Caesarean operation in 2000. She had miscarriage during 2nd and 3rd month of second pregnancy. At the time of death, she was pregnant. Had she declared the date of last menstruation as 7.12.2004, the insurer would have postponed the revival of the policy. She died of pregnancy related complications.	The complaint was dismissed since there was wrong information about her date of last menstruation and insurer was deprived of the opportunity of assessing the risk properly. Had it been declared correctly, the insurer would have postponed the revival.
8.	Chennai	IO(CHN)/21.03.2616	A man his wife and her brother were travelling in a two-wheeler from Kinathu Kadavu to Pollachi at night. Three people were travelling in a two-wheeler and they met with an accident. The Wife and her brother died in the accident. The insurer refused to pay the accident benefit sum assured since the accident was caused due to breach of law.	The FIR and PIR had concluded that it was breach of law since 3 people were travelling in a 2-wheeler in which only 2 are allowed to travel. Though the life assured was only pillion rider, she was travelling as one of the passengers on the Motor Cycle (as per the MV Act only two persons are permitted), which amounts to breach of law.	The complaint was dismissed on the ground that the accident happened and death occurred due to breach of law and insurer is correct in repudiating the Accident Benefit SA.

Appendix I – Insurance Ombudsman Cases

S.No.	Ombudsman	Reference Case No.	Brief facts of the case	Findings of the case	Decision
9.	Chennai	IO(CHN)/21.02.2648	The life assured submitted proposal on 30.3.2005. Policy commenced from 28.3.2005. The life assured died of road accident on 13.5.2005. The insurer refused to pay accident sum assured since the life assured was under the influence of alcohol at the time of accident. The claimant argued that the life assured was not driving the vehicle and hence the double accident benefit claim cannot be rejected.	The insurer contended that as per Medico-Legal-Manual if the alcohol content is 100 to 300 MG % the person would have some mental confusion, emotional instability, loss of critical judgment, impaired memory, sleeplessness, slowed reaction time, loss of muscular coordination etc. As the policy conditions of DAB, if death of the life assured is caused by intentional self-injury, attempted suicide, insanity or immorality or when the life assured is under the influence of intoxicated liquor, drug or narcotic, the insurer is not liable to pay the additional sum assured.	The complaint was dismissed since the forum did not wish to interfere with the policy conditions.
10.	Hyderabad	L-21-009-0438-2006-07	Death claim under ULIP policy. The insurer produced the evidence, which proved that the life assured was under the treatment of High BP prior to the issue of the policy. Due to non-disclosure of the material fact the SA claim was repudiated.	The life assured is suffering from Hypertension. Did not disclose in the proposal form. Life assure died within 9 months from the date of commencement of the policy. The sum assured under the claim was repudiated.	The decision of the insurer was upheld since there was suppression of material facts. Since the policy has the provision for savings, the insurer was ordered to pay the investment portion (Fund Value).