Association of International Wealth Management of India

# FINANCIAL EDUCATION WEEK 2020

17th May - 23rd May 2020

A Financial Literacy Initiative by AIWMI

## Student Handbook

Membership Partner

exqualifi

AIWMI Membership Network

# Contents

# 1 Currencies of the world

We in India earn in Rupees, while someone in America get paid in Dollars, and Japanese get paid in Yen. There are 180 official currencies across the world. Currencies are the dominant medium of exchange across the world. The complete list of currencies can be found on Internet. Sample of some of the currencies are provided below. Can you find out which country they belong to and what they are called?

<table>
<tr><th>Currency</th><th>Which Country? What they are called?</th></tr>
<tr><td>


</td><td></td></tr>
<tr><td>


</td><td></td></tr>
</table>

| | |
|---|---|
|  5 CINCO REAIS | |
|  1000 CANADA EKA1822857 EKA1822857 1000 | |
|  中国人民银行 壹圆 1 UA56193200 1 | |

| | |
|---|---|
|  | |
|   | |
|  | |
|  | |

| | |
|---|---|
|  | |
|   | |
|   | |
|   | |

Why do we need different currencies?

# 2 Income and Expenses

## *2.1 Income*

All of us need money, so that we can live comfortably. We can get money either by working or have money from our investments. When we get money from working we are working for money, when we get money from Investments money is working for us. While in the initial part of our life we will have to work for money, sooner or later we will have to make money work for us.

It is important to understand classification of Income. Income can be classified as

1. Active Income
2. Passive Income

**Active Income**: When we earn money by working hard, it is called Active income. Some Active incomes are

1. Salary Income – If we don't work then we may not get salary
2. Bonus

**Passive Income**: When we earn money without working it is called Passive Income. Some examples of Passive Income are

1. Interest earned from Fixed Deposits : We don't have to do any work to earn interest from Fixed Deposits
2. Dividend from Mutual Funds or Equity Shares
3. Pension Income after Retirement

To live comfortably we must have good Active to Passive Income Ratio. For an average Salaried professional an ideal scenario of Passive and Active Income could be

| Age | % of Active Income | % of Passive Income |
|---|---|---|
| 20 -25 | 100% | 0% |
| 25-30 | 95% | 5% |
| 30-35 | 90% | 10% |
| 35-40 | 80% | 20% |
| 40-45 | 75% | 25% |
| 45-50 | 70% | 30% |
| 50-55 | 65% | 35% |
| 55-60 | 60% | 40% |
| After 60 | 0% | 100% |

It is expected that one may not be able to work after 60 years of age and hence after 60 years the expenses will have to be met by Passive Income only. So as we can see, the proportion of Active Income reduces as we grow older and proportion of Passive income increases as we grow older.

Till the time a family can manage sufficient passive income, there is always a threat of families suffering from want of money.

The threat can come from

1. Job Loss due to poor economic conditions

2. Loss of Life of the breadwinner from Accidents or calamities

Loss of job, in all probability will be temporary situation and sooner are later economic will bounce back and one can hope to have the job back soon. Till the time family can depend on the savings.

But, Loss of Life of the important person in the family is permanent and cannot be changed. If such a thing happens, then the remaining earnings of the important member is lost. To protect this future earning, families must consider Insurance. As a rule of thumb, 8 times present annual income of the key family member can be considered for sum assured through insurance.

It is important here to understand that Insurance is neither an Investment nor a Tax saving tool, but it is a tool to protect future earnings for the family.

What do we need to do to increase Passive Income?

## 2.2 Expenses

Like we have different types of Income, we also have different types of expenses. Some expenses can be eliminated or reduced, some expenses cannot be eliminated. For example – expenses that are incurred on our Food cannot be eliminated; where as expenses on going to Movies can be eliminated or reduced. Those expenses which are mandatory and must be spent are known as Non-Discretionary expenses, and those that are not mandatory or may be completely eliminated are known as discretionary Expenses.

Classify the following as discretionary or non-discretionary expenses

| Expenses | Discretionary/Non Discretionary |
|---|---|
| School Fees | |
| School Uniform | |
| Vacation to Darjeeling | |
| IIT JEE Preparation Course | |
| Rs 35,000 Smartphone | |
| Rs 8000 Smartphone | |
| Monthly Groceries | |
| Pizza | |

| | |
|---|---|
| Library Membership Fees | |
| Rs 400 worth New Story book from Book Store | |
| Car | |
| Insurance Cover for Life | |
| Insurance Cover for Motor Bike | |
| Tax Expenses on Income | |
| Electricity Bill | |
| Expenses incurred on Mineral Water bottle | |
| Fees for Hobby Activities | |

What do we need to do to increase our Savings?

# 3 Assets and Liabilities

We live to earn and spend, then how are assets and liabilities created? Every year we earn and spend.

### What happens if Earnings – Spending > 0?

If earnings are greater than spending, then we invest the surplus money in either Fixed Deposit or Mutual funds or Shares or Gold or Home. When we invest like this we create "**Assets**"

### What does "Assets" do for us?

Assets get us more income. Fixed Deposit will give us interest and increases our income. So in the next year we have more income and will have more surpluses next year, and we invest in more Assets. This positive spiral can go on forever and our assets will keep on increasing.

### What happens if Earnings – Spending < 0?

If Spending is more than Earnings, then to meet the shortfall, we may have to borrow. When we borrow we create liabilities.

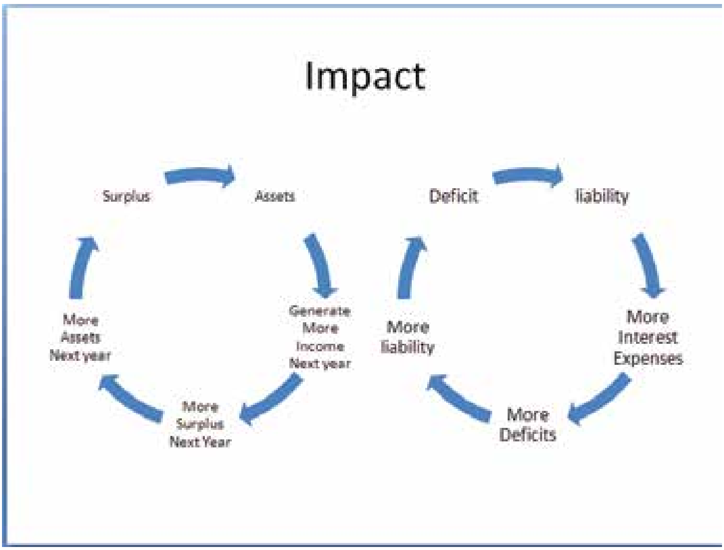
### What do liabilities do to us?

Liabilities increase our expenses further, because we have to pay interest on the amount we borrowed. We will more expenses next year and our deficit will further increase leading to more borrowing. This negative spiral can go on forever and one day we might become bankrupt when our interest expenses alone become more than our earnings.

Sometimes we can have both Assets and Liabilities, in that case

| Assets – Liabilities = Networth. |
|---|

Every year our Networth must increase. If it is not increasing then we may soon fall into debt trap.



Summary

| Assets | Liability |
|---|---|
| Created when Income > Expenses | Created when Income < Expenses |
| Provides additional Income or (reduces expenses – For example a home bought with own money can reduce our rent expenses) | Increases Expenses, because we have to pay interest |

Classify the following as Assets or Liabilities

| Item | Assets or Liability |
|---|---|
| Fixed Deposit | |
| Mutual Fund | |
| Home without Loan | |
| Car with Loan | |
| Gold Coin | |
| Credit Card Loan | |
| Degree from IIT | |

Are all liabilities bad?

# 4 Investment Return

In the last chapter we learnt that when we earn more than what we spend, we invest to create assets. When we invest one of the factors we consider is the Investment Return.

All of us know the formula for Investment Return

| $A = P(1+r)^n$ |
|---|

The "r" in the above equation is called the Investment return.

While studying school this equation become simple, but this most important equation become 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

| Investment return = 72/n |
|---|

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

R= 72/9 = 8%

Calculate

1. What is the return on investment if the investment doubles in 6 years?
2. If the investment is giving 10% return, in how many years will the investment double?
3. If investment is doubling every 6 years an investment of Rs 1 Lakh will become how much in 24 years?

**So, Money grows by Rule of 72**

If someone invests in NSC, say for your entire working life which could be for 27 years what will happen to money

2014 – Rs 1 lakh

9 year later

2023 – Rs 2 lakh

18 years later

2032- Rs 4 lakh

27 Years later

2041 – Rs 8 lakh

Suppose if NSC were giving 12% (before 2000 NSC was giving 12%) what will happen to your money.

What is the rate you are getting? 72/12 = 6 years. Money will double every 6 years.

2014

Rs 1 lakh

2020

Rs 2 lakh

2026

Rs 4 lakh

2032

Rs 8 lakh

2038

Rs 16 lakh

Can you see the impact?

You have become richer by twice in a shorter period of time. Every 3% improvement in return doubles wealth by twice in 25 year period. We don't need very high returns to become rich; we need reasonable returns and stay invested for a longer period of time.

If money is tripling then we can apply Rule of 114. For example if Rs 1 Lakh has become 3 Lakh in 19 years what is the return?

Return = 114/19 = 6%

What is the formula if money becomes 4 times in "n" years?

# 5 Inflation

In the last chapter we saw how our money grows. Not only has our money grown, but also our expenses. Every year our expenses are also increasing. Can you find out following information from your grandfather or some elderly person at home?

| Product | Cost in 1990 | Cost in 2014 |
|---|---|---|
| 1 Litre of Milk | Rs. | Rs. |
| 1 Pencil | Rs. | Rs. |
| 1 Movie Ticket | Rs. | Rs. |
| 1 Kg Wheat Flour | Rs. | Rs. |
| Monthly Travel Expenses | Rs. | Rs. |
| Monthly School Fees | Rs. | Rs. |
| Regular Monthly expenses | Rs. | Rs. |

Can you apply Rule of 72 or 114 or 144 to find out how much our expenses are growing every year?

In general, you will find that what every costing Rs 100 in 1990 must have grown atleast 5 times if not more. Every year Government of India also publishes an Index called cost inflation index, which lets us know how prices of various essential items which we buy for day to day living is increasing every year.

Can you find out the following from Internet?

| Period | Cost Inflation Index |
|---|---|
| 1980-81 | |
| 1990-91 | |
| 2000-01 | |
| 2010-11 | |

Based on the above information, answer the following questions?

1. If cost of 1 litre of Milk in 2014 is Rs 32, what would have been the cost of milk in 1980-81?
2. If the cost of 1 Kg of Rice in 1990-91 is Rs 5 what would have been the cost of 1 Kg rice in 2000-01

Is inflation the only thing that is increasing our expenses?

# 6 Tax

There are two major expenses which everyone would like to escape but we can't. They are Taxes and Insurance.

Anyone who is above 18 years and planning to earn money must apply for PAN Card. PAN can be applied online very easily. Once PAN card is issued we must file the returns every year before 31st July. PAN card has become necessary today for all investments.


How does a PAN No look like? **AAAAA1111M**

1. The first 3 "AAA" are just a sequence – from AAA to ZZZ
2. The 4th Alphabet can be C in case of Company, P in case of Individual, or H in case of HUF
3. The 5th Alphabet is the First letter of the Surname of the individual or Name of the Company
4. The last alphabet is the alphabetic checklist

Anyone who is below 60 years and having income needs to pay Tax as follows

| | |
|---|---|
| Income between Rs 2Lakhs and 5 Lakhs | 10% |
| Income between Rs 5 Lakhs and 10 Lakhs | 20% |
| Income above Rs 10 Lakhs | 30% |

Also as per the Income Tax there are different types of Income and they are taxed differently. While we can't minimize tax on the salary income, it is possible for us to minimize tax on the Income we may get from Investments.

How Investment Incomes are taxed?

| | |
|---|---|
| Interest on Fixed Deposits or Recurring Deposits | 10% or 20% or 30% depending on over all income |
| Dividend Income from Mutual Funds | No Tax |
| Interest Income from Public Provident Fund | No Tax |
| Capital Gains from Debt Mutal Funds held for less than 1 year | 10% or 20% or 30% depending on over all income |
| Capital Gains from Debt mutual fund held for more than 1 year | 10% without indexation or 20% with indexation |
| Capital Gains from Equity Mutual Funds held for less than 1 year | 15% |
| Capital Gains from Equity Mutual Funds held for more than 1 year | No Tax |

# 7 Fixed Deposits and other Fixed Income Investments

We can invest in 2 ways. One we can invest by way of giving loan to someone or we can invest by way of taking part in some one's business and share their profit or loss. In this chapter, we will discuss about investments by way of giving loans and in the next chapter we will discuss how we can take part in profit and loss of companies.

Who all can we give loan to?

1. Friends & Relatives
2. Companies
3. Government

But, what if my friends do not need money and not willing to take a loan from me or I don't know of any company who wants to borrow.

Many times it becomes difficult for us to find someone to we can give money and get some interest from them. This is where banks come in and help us. They take our money or borrow from us and they in turn give it to our friends, companies and government.

Who do you think is the biggest borrower in the country today?

1. Top 50 companies in India
2. Government of India
3. State Governments of India

4. Individuals

Yes. Govt of India is the biggest borrower in the country and we individuals can not lend to Government directly. We can give money to government through

1. Banks
2. Mutual Funds

When you give money to Government through Banks it is called as Fixed Deposits, when you give through Mutual Funds it is called as Fixed Maturity Plans or Debt Funds or Liquid funds.

Fixed deposits and Investments through Mutual funds are same expect in tax treatments. If we give loan to Govt or companies through Mutual funds they have lesser tax compared to Fixed deposits, provided we invest for a period more than 1 year.

# 8 Stock Market Investments

Chintan decided to set up a company that will manufacture Pencils for School Children. He needed Rs 25,000 but had only Rs 10,000 with him. He called 3 of his friends and explained to them his plans of starting the Pencil manufacturing business and informed them that number of children going to school in that area is increasing every day and this will certainly be a profitable business. His friends readily agreed to give Rs 5000 each and he could get the required capital of Rs 25,000/=

1. What is the total capital of the company?
2. What is share of Chintan's Capital in the company?
3. If Chintan's company makes a profit of Rs 5000, how much will each of the friends who contributed to the capital will receive? What is their % return?

Actually, Chintan made a profit of Rs 7500/= in the first year because there was so much of demand. So, Chintan decided to open one more plant to manufactures more pencils. Chintan did not distribute any dividend to his friends and instead told them that he is going to use the profits to build one more plant, for that he said he will use the profit of Rs 7500 and needs another Rs 17,500 investment.

While 2 of his friends agreed to contribute more capital, third friend felt there is no need for a second plant because they will not be able to sell so many pencils, he also felt that more and more students have started using computer and the need for paper and pencil is also reducing at school. So he fought with Chintan to distribute the dividend and not go for further expansion. But Chintan and other 2 friends did not agree and they decided to go ahead with the investment and two his friends contributed Rs 8500 each.

At the beginning of the second year the investments in the company stood as follows:

| Person | Original Investment | Profits reinvested | Additional Investment | Investment at the beginning of the year |
|---|---|---|---|---|
| Chintan | Rs 10000 | Rs 3000 | 0 | Rs 13,000 |
| Friend A | Rs 5000 | Rs 1500 | 0 | Rs. 6500 |
| Friend B | Rs 5000 | Rs 1500 | Rs 8750 | Rs 15,250 |
| Friend C | Rs 5000 | Rs 1500 | Rs 8750 | Rs 15,250 |

It was now becoming complex for Chintan to manage the % of shareholding in the company by various Friends. So he decided that Rs 50000 investment will be converted in Share certificates, each share certificate with Face Value of Rs 10.

4. How many Share certificates will Chintan create?
5. How many shares will Friend A get?

As warned by Friend A, Chintan could not sell all the pencils from second manufacturing plant and in the second year, the company made a loss of Rs 8000.

6. Will Company be able to declare any dividend in the second year?
7. What is the earnings per share at the end of Second year?
8. What was the % return company gave to investor in the first year?
9. What was the % return company gave to investors in the second year?
10. Why the returns are varying from one year to another year?
11. What is the variation in this return called?

While Friend B and Friend C invested additional investments in Chintan's company in the second year, Friend A invested Rs 8500/= in a different company which was creating online courses. He received 850 shares from this company. The second company declared Earnings per share of Rs 5 and distributed Rs 4 per share to all the share holders as dividends.

12. What is total dividend amount received by Friend A?
13. What is the total return for friend A from both investments?

14. Why did Friend A earn more compared to Friend B and Friend C?
15. What was the investment strategy adopted by Friend A called?

## *Solutions to Questions*

1. Rs 25,000
2. 40%
3. Chintan's Profit : Rs 2000, Friend A's Profit : Rs 1000, Friend B's Profit : Rs 1000, Friend C's Profit. All 4 of them will earn a Return on Investment of 20%
4. 5000 Certificates
5. 650 Shares
6. No – because it made a loss of Rs 8000
7. –Rs1.6 (-8000/5000)
8. 20%
9. -16%
10. Returns on Company investments are dependent on the profits of the company and not a fixed amount
11. Risk
12. Rs 3400
13. Friend A holds 13% share in Chintan's company and hence his share of Loss from Rs 8000 is Rs 1040. He made a earnings of Rs 3400 from second investments and hence total returns in the second year are Rs 2,360
14. Because he had profits from different company.
15. Diversifying or simply "Do not put all your eggs in one basket"

# 9 Mutual Funds

In the previous chapter, we saw that Friend A made an overall profit of Rs 2,360 from his two investments with one investment giving a profit of Rs 3400 and another investment giving a loss of Rs 1040, while Friends B and Friend C did not make any profit as they invested all the money in one company. It is important to understand that it is not possible to make profits by making investments in only one company. We need to invest in more companies, so that even if one or more companies make a loss, we are able to make profits from other companies.

Further if we are investing in fixed income as discussed in Chapter 7, we are likely to get 7-9% returns where as profits from companies can be more than 20%. So if we want higher returns we can choose to go for profits rather than fixed returns by giving loans.

All of us can adopt a strategy adopted by Friend A in the previous chapter to get positive returns from the investments. But in reality, as per the statistics available with Ministry of Corporate Affairs there are more than 8,00,000 companies in India. Is it possible to select good companies in India from these 8,00,000 companies ?

This is where we need professional help from someone who is knowledgeable about identifying future profits of companies. The professionals who can help us identify the companies where we can invest are Fund Managers and they work for Mutual Fund companies. Mutual Fund companies do the same job as Friend A in the previous chapters. They collect money from us and invest in different companies to get us a reasonable return on our investments.

Another factor we need to consider as we have seen from the previous chapter is the pencil making company made a profit of Rs 5000 in the first year and loss of Rs 8000 in the second year. We don't know what will happen in the third year. If we had invested all the money in the first year, then also there is a possibility of making a loss in the second year. We can see that if can spread the investments every year based on the situations, there is a possibility of making even better returns.

Mutual funds are best positioned to help us diversify and invest in small amounts to make best of out of our surplus financial resources.

How are Mutual Fund companies different from Banks?

# 10 Sample Family Financial Quotient Test

1. The Formula $A = P(1+r)^n$ is better known as
    a. Simple Return
    b. Compounding Return
    c. Inflation Adjusted Return
    d. Average Return

2. The Formula A = PNR/100 is better known as
    a. Simple Return
    b. Compounding Return
    c. Inflation Adjusted Return
    d. Average Return

3. If you have to invest Rs 100 for 2 years and options available to you are 10% Compounding Interest and 12% Simple Interest, which one will you choose?
    a. 10 % Compound Interest
    b. 12 % Simple Interest
    c. It doesn't matter, because both are same
    d. Rs 50 in 10% Compound Interest and Rs 50 at 12% Simple Interest

4. Assuming On 10th Feb 2009, NIFTY was 3000 and on 10th Feb 2014 NIFTY is 6000 what is the approximate return on Investment in NIFTY?
    a. 100%
    b. 10%
    c. 15%

d. 20%

5. If on an average NIFTY is giving a return of 12%, and if an investor stay invested for 24 years, how much will an investment of Rs 10 Lakh be at the end of 24 years?
    a. Rs 60 Lakh
    b. Rs 90 Lakh
    c. Rs 1.2 Crore
    d. Rs 1.6 Crore
6. If a Fixed deposit offers 9% interest and 30% Tax has to be paid on the Interest received, Real return on the fixed deposit is
    a. Cannot Calculate since Investment Amount is not known
    b. 5.2%
    c. 6.3%
    d. 7.4%
7. NIFTY Comprises of how many stocks?
    a. 20
    b. 30
    c. 40
    d. 50
8. Which is the right representation of PAN?
    a. AADPR1123K
    b. AADP12345K
    c. AASDFF1234
    d. 1234AAPPP

# Author/Publisher's Note

*This publication contains collective opinions and ideas of core team of Dyota Solutions Pvt Ltd. It is intended to provide helpful and informative material on the subject matter covered. It is given/sold with the understanding that owner/author/publishers of this material are not engaged in rendering professional services through this material. If the reader requires personal assistance or advice a competent professional should be consulted. The owners/authors/publishers specifically disclaim any responsibility for any Loss, Liability, or Risk, personal or otherwise, which is incurred as a consequence, directly or indirectly, of the use and application of any of the contents.*

*The contents are general information that is intended, but not guaranteed, to be correct or updated. The information is not presented as a source of Investment, Tax, Insurance or Legal Advice. You should not rely on statements or representations made within the publication or by any externally referenced sources. If you need investment or tax advice upon which you intend to rely in the course of your financial or business affairs, consult a competent, independent financial adviser.*

*The contents should not be taken as financial advice or as an offer to buy or sell securities/insurance/fund or any financial product. It should not be taken as endorsement or recommendation of any particular company or individual and no responsibility can be taken for inaccuracies, omissions or errors. The Information presented is not to be considered as investment advice.*

*The owners/authors/publishers do not assume any responsibility for actions or non-actions taken by people who have read the content and no one shall be entitled to claim for detrimental reliance based upon any information provided or expressed herein. Your use of any information provided herein does not constitute any type of contractual relationship between yourself and the providers of this information. The owners/authors/publishers hereby disclaim all responsibility and liability for all use of any information in this material.*