Behavioral and Personal Finance
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Module - 01
Behavioral Economics and Finance
Lecture - 01
Introduction to Behavioral Economics and Finance

Hello there, welcome to the course Behavioral And Personal Finance. Today's topic is the basics of finance, the theories that binds them together and how these financial theories and decision making helps us in our day to day life. If we talk about financial decision making in general and personal finance and behavioral finance in particular; we basically talk about how individual specific characteristics affect the decision making and how these decisions are actually affecting our financial wellbeing. Today I am here with the topic basic of finance and financial theories which have been developed over the years.

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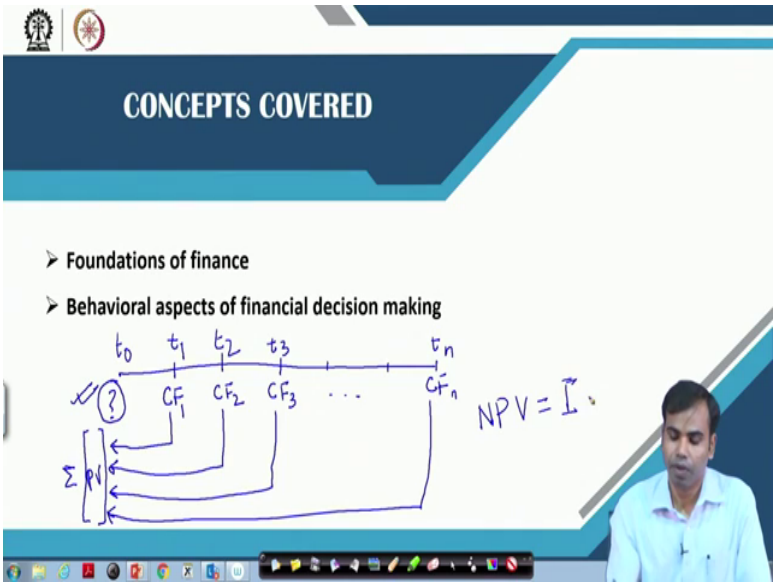

So, let us start the course with understanding of basic of finance. Most of the financial decision making framework are based on some cash flows that we expect from future or the future value of the investment that we make today. If we talk about basic financial decision making for example, whether to invest in stock market or to make a choice whether to go for an MBA or let us say whether to buy a house or live in a rented one.

All these decisions basically involve some cash flows that are incurred at present and that have some implications about the cash flows that might be incurring tomorrow or in future time. So, the basic framework explains that the utility or the benefit that we are going to derive from these decisions in future time should be calculated in terms of today's value. And, then if the benefits are derived are more than the cost or the investment that we are making today then we should go ahead with the decisions.

For example, suppose you want to decide whether to go for an MBA. So, going for an MBA requires a minimum of 2 years of time and some investment in terms of tuition fee and your cost of living for these 2 years. The benefits that you are expecting from doing an MBA would be a higher career growth and increased salary in future. Suppose, the future salary in today's terms becomes greater than the investment that you are making for these 2 years, then its worth while for going for an MBA.

Similarly, let us say you want to decide whether to buy a house or live in a rented one and you know that if you are continuing to live in a rented one, you have to pay rent. And, if you would for buying a new house then you have to make a payment in terms of the cost of the house. So, if the benefits that derived from the expected value of rent saved that you would not pay if you buy a house are greater than the cost of buying a house, then definitely one should go for buying a house instead of continuing to live in a rented one.

So, if we try to put it in a very simple framework it should look like this. Suppose you are here this is time 0 and this is the timeline where you have time 1 time 2 time 3 and so on; till let us say time n. If you are expecting from your decision that you will be getting some cashflow at different point of time, let us say cash flow 1 at time 1, then cashflow 2 at time 2, cash flow 3 at time 3 and so on till cash flow n at time n.

You need to make an investment today so, you have to decide whether to go for an MBA or to buy a house or to invest in stock market. So, your decisions should be based on the present value of all these cash flows brought to the present time. Now, if the present value of all these future cash flows are greater than what you are expecting to invest today, then you should go for a decision.

This particular approach is basically known as present value of future cash flows or also known as net present value, where you have some initial investment to make that will be adjusted with the. So, this approach of financial decision making is based on a concept called time value of money which basically explains that the value of money incurring at different points of time have different values. And if you try to make a decision at a single point of

time then you should bring all the cash flows or future expected value of benefits to present time.

And, then compare it with the initial investment or the cost of initial decision. And, if the cost of initial decision is less than the benefit derived in future you should go ahead with the decision. Let me give you a little more practical example here. Suppose, you are 22 years today and 3 years down the line you are expecting to complete your education and get a job. So, at the age of 25 you will be entering the job market.

So, you start earning salary at the age of 25 and you expect that you would be continuing to do the job for next 30 years. And, at the age of 55 years you want to leave the job and go for a world trip, for next 5 years once every year. So, at the age of 55 you will start going for world tour every year for next 5 years and at the age of 60 you want to retire peacefully in a monastery in Bhutan or some other place. So, this is your future plan. Now, let me put this plan on a timeline.

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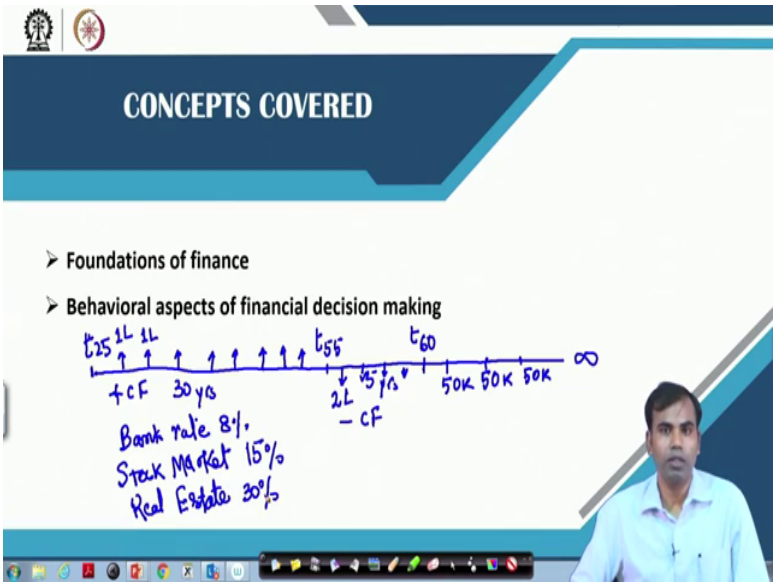

Suppose, you are starting the job at the age of 25 today and you continue to do the job for next 30 years which will be t 55. And, next 5 years you want to go for a world tour every year which will be t 60 and then after t 60 you want to retire and of course, I do not know how long a person can be living. So, let us call it infinite a period.

So, for first 30 years you should be getting some salary every year. So, this is your cash inflow, you are expecting to get some salary or from salary you can continue you can save some money and invest that in some investment avenues. So, suppose you get a salary of 1 lakh per annum; so, this is your cash inflow. So, positive cash flow period, I am sorry next 5 years you are expecting to spend let us say 2 lakh per year for 5 years.

Every year you are spending 2 lakh; so, negative cash flow and at the age of 60 you want to retire and settle down in a monastery. So, every year you need let us say 50,000, living in a

monastery will not require a lot of money. So, you can manage in 50,000 per annum of expenses and that will continue till infinity.

Now, this is a typical personal finance problem where you have to decide today that is at the age of t 25; you have to invest some money and you continue to work for next few years. And, then you want to use that saved money for holidays or travel or some other personal goals and then you need some money for settling down after retirement.

So, if I put certain more numbers in this example, let us say if you earned some money and want to invest in some investment avenues for example, bank deposit or stock market or maybe real estate you will get certain amount of income that is return. So, if you put your money in bank you will get bank interest, bank will pay you some interest rate at the rate of 8 percent. If you put your money in a stock market, probably you will be getting a 15 percent of average return and if you invest in real estate you will be getting 30 percent of average return.

Now, you have to make a choice, you have to make a choice today whether to go for job a or job b that will pay you some incremental salary and from that salary you will be saving some money. And, there you have to make a decision whether to invest that saved money in bank or real estate or stock market or any other avenues. Now, this is where your theoretical financial concepts merge with the behavioral aspects of decision making.

If you are a very risk seeker person which means you can take lot of risk for certain reasons, you would like to invest your money in risky investment avenues such as stock market or real estate. And, if you are risk averse which implies that you do not want to take a lot of risks then you would like to invest your money in safe bank deposits. So, this course will basically focus and try to help you understand how this traditional finance theory can be merged with behavioral aspect of decision making to make better financial decisions.

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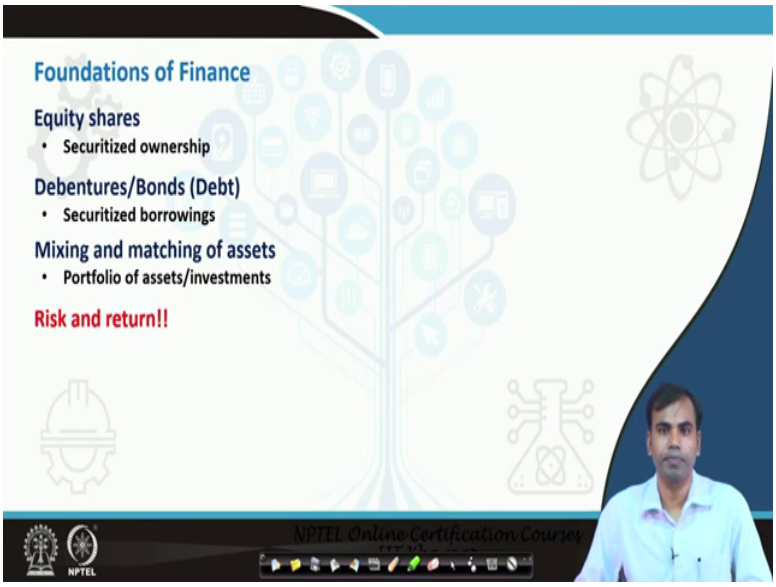

So, when it comes to financial decision making and investment decisions more often we hear about terms like stock market, shares, bonds, debentures, portfolios and so on. So, let me try to explain little bit about these terms and then we will move on. So, I will try to explain these terms with the help of an example. Suppose, I know a guy let us say Ram and Ram is a very brilliant student in my class. He has a wonderful business idea and he is convinced that this idea can be converted into a successful business venture.

But, being a student he does not have a lot of money and you know to start a business you need some money. So, what Ram does is he goes to his friend Mohan and ask for some money. Now, Mohan come from a very privileged background and he has lot of money inherited from his great grandfathers royalty. So, Ram goes to Mohan and ask for some

money to start his business and Mohan agrees to give him money. Now Ram gets money, he starts business and everything is going well.

Suddenly, after sometime Mohan wants his money back from Ram, now Ram does not have a choice; he has to give his money back, but he also continue wants to continue his business. So, he goes to let us say his another friend Shyam who also agrees to fund his business. So, Ram cancels the old contract with Mohan and writes a new contract to get money from Shyam. Imagine this case for a businessman who has a brilliant business idea, but does not have funds. So, he his most of the time will be spent in cancelling old contract and writing new contracts to find some source of money.

To keep this process simple if Ram and Mohan agrees to write a piece of paper which will say that whosoever owns this piece of paper will be owning a part of the business that Ram is running. So, in first instance when Mohan wants his money back, he instead of going to Ram he can just go to anyone else and says that if you want a piece of business that Ram is running you can just buy this piece of paper from me. And, that will make you the owner part owner of the business that Ram is running. So, this particular process in a very crude way is known as securitisation.

If that piece of paper is about the ownership of the business, this is known as securitized ownership which most of us know as shares or stocks. And, if this piece of paper is about some borrowing that Ram has taken from different sources that is known as securitized borrowings and we know it as bonds or debentures. And, as an investor if I am buying some piece of paper in the form of securitized ownership or securitized debt; I am basically trying to create an investment portfolio that will have some component of investment avenues that will be available in the market for investment.

So, suppose I have some ownership in Tata Motors stock and some ownership in National Highway Authorities of India bonds. So, my portfolio will be comprising of stocks and bonds, but then how do we decide about how much to buy from shares and how much to invest in

bonds. So, basically it is about decision making with respect to allocation of our assets to different investment avenues.

For an investor it is always important to understand whether to invest in asset a or asset b and so on. These decisions are driven by two major factors known as risk and return. So, return as we know is basically the income or the benefit that we derive from the investment and risk is defined as the uncertainty, that is associated with the return that we are expecting.

So, if you relate to previous examples: if I have to invest in stock market let us say stock of Tata Motors and I am expecting that Tata Motors continue to pay me some return in the form of dividends or capital appreciation. And, there is certain amount of risk that is uncertainty about expectation of return, then I am considering my decision of investment keeping in mind these two factors.

However, these two factors are very much interrelated; whenever we have to make a decision about investment or in general any financial decision we need to keep in mind that higher the risk, the return should be higher. For example, if you have to take a decision that will pay you x amount of benefit or return, but it is guaranteed and then you have to make a decision that will pay you 2 x amount of benefit. But, it has very uncertain expectation which means you are not sure if you are actually going to get 2 x amount of benefit.

Then of course, you have to make a choice whether to go for higher return with higher risk or lower return with lower risk or in no risk in certain cases. This is where behavioral aspect of decision making comes into the picture. Let me try to show this particular concept with the help of an example. Let me try to show certain more concepts that we need to understand before we go on to discuss more about behavioral decision making.

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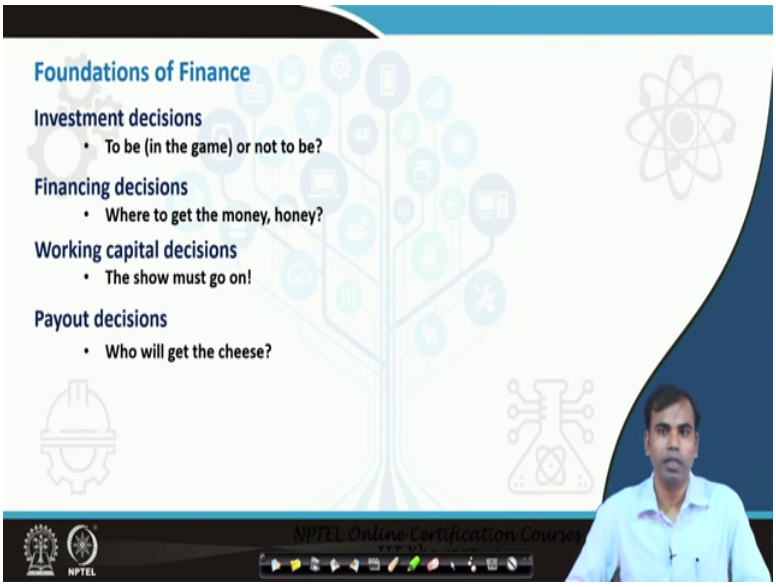

Suppose, you have to start a business or you have to make a decision about going for an MBA or buying a house or any other such major decision. So, you have to decide whether the benefit that you are going to derive from this decision is financially feasible or not; which means you need to understand, if the benefits or the income or the utility that you are going to derive from this decision is higher than the cost that you need to incur.

And, this particular type of decisions when in major chunk, this particular type of decision when carries a lot of investment and very high amount of risk are known as capital busting or investment decisions which implies that you have to decide whether to go for a particular decision or not. For example, if a particular company let us say Reliance Industries Limited wants to set up a new project in oil refinery business in Middle East.

This kind of decision would require huge amount of investment and it also carries lot of risks. So, this kind of decisions are basically driven by the factors that affect investment decisions which means it has to be financially feasible and it has to add value to the investor that is who is making an investment. In a personal context if I have to make a decision whether to go for an MBA or to go for a job, it will be very critical for me to decide at this point of time.

Because, going for an MBA means losing 2 years of salary which I can generate if I go for a job, also going for an MBA carries certain amount of risk which means I might not be getting the kind of job that I am getting right now after 2 years of MBA. So, these decisions are basically investment decisions and it has to be analyzed critically to understand whether the benefits that we derive are higher than the cost that we are going to incur. Once you are done with such decision we need to understand how are we going to finance such decisions.

Let us say in the example of going for an MBA case, if you have decided that you want to go for an MBA and MBA would cost you all put together let us say 20 lakh rupees; how are you going to fund that MBA cost of 20 lakh? So, the choice that you have is whether to borrow money from loan sorry. The choice that you have is to go for borrowing from a bank or to invest your own saving or the savings of your parents and the benefits that you might be expecting is of course, a higher salary after an MBA.

So, in the context of corporations let us say the Reliance Industry's case, if they want to set up a project in Middle East; they can either use their own resources that they have saved over the years or they can just borrow money from different financial institutions and invest that money into the business. This can this type of decision is known as capital structure decisions or financing decisions. After you are done with financing decisions, you need to understand how do I run the business or the investment decision that I have taken on a day to day basis.

For example, if Reliance Industries Limited decide to go for setting up the project; it has to understand how the business will be run on a day to day basis. Similarly, if you decide to go for an MBA you need to understand how are you going to continue for 2 years. Because, that

will involve certain cost in terms of living expenditure and the cost of tuition fee and books and other resources that an MBA requires.

These types of decisions are known as working capital decisions. And for god sake if you are successfully done through all three types of decisions at the end of the day you will have some benefits, some profits, some income that you can either keep with you or pay back to those who have invested in your business or in your idea or in your venture. These decisions are known as pay out decisions which means we have to decide whether to pay back to the people who have invested in your business or keep it with you.

For example, in the context of Reliance Industries Limited you can decide whether to keep the profit in the business to expand it. Or use that profit to pay back to the shareholders who have invested in your shares or to pay back to the banks who have lent you money for running the business. So, these are four major decisions that any individual or corporation need to take.

So, to sum up this session let me highlight that we have discussed about the basic framework of financial decision making through net present value approach, where we calculate the present value of all future cash flows and compare it with initial investment to understand if the benefits are more than the cost.

And therefore, we should go ahead with the decision and we also understand that these decisions could be of different types; ranging from capital busting decision to payout decision, where we need to understand different aspects. And to conclude these decisions can be relevant to individuals as well as corporations.

And, the concept that we have discussed and we will continue to discuss in the next session will also cover the basic theories of corporate finance and certain inputs from behavioral finance to understand how financial decision making can be made better.

Thank you.