

Investment Management
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Lecture - 01
Investment Management as a Process

Hi, there. Welcome to the course Investment Management as part of NPTELs MOOC and today, we are starting with the very basics of Investment Management as a Process.

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Concepts that we are going to cover today in this session will be the importance of investment management as a practice – why management of wealth management of investment is important; what are the first principles or the basic rules in the process of investment management and what exactly is the investment management process?

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KEYWORDS

- Budgeting
- Money management
- Investment
- Stocks

The slide includes a circular inset showing a speaker in a yellow shirt. At the bottom, there are logos for IIT Bombay and NPTEL.

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To before I start discussing about these concepts if I ask you whether you have used some mobile phone apps which help you decide about the budgeting and wealth management in a very handy in a very user friendly manner. So, here are some examples of mobile applications which help us in managing our wealth or at least managing the information pertaining to the wealth.

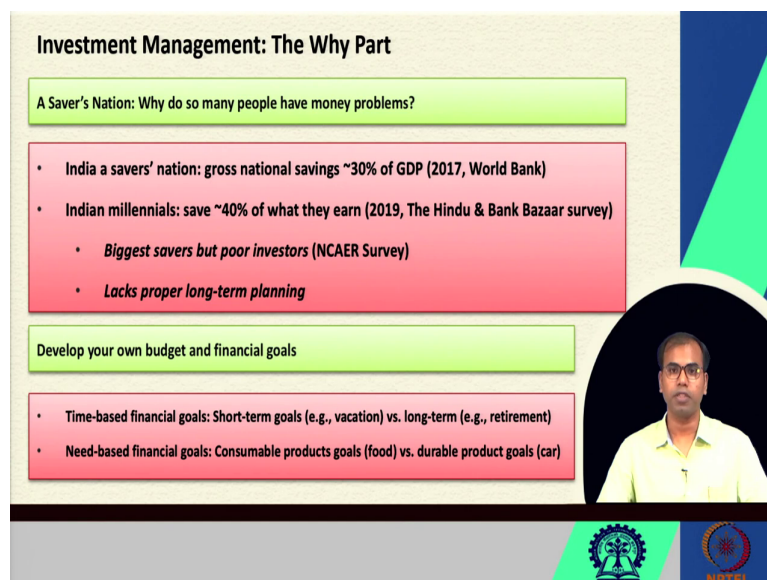
Most of these apps focus on two aspects how much you have been receiving or earning or saving and how much you have been spending. And, at the end of the day they will tell you about the status of the money that you have received as well as spent many a times most of these apps forget that this is just information coalition.

More important aspect of wealth management or investment management is to take control of your money which means it is not just about receiving and spending of cash flows, which is

basically cash inflows and cash outflows, but also to ensure that whatever is remaining needs to be invested appropriately so that it can create more wealth.

Making money does not mean that you have to spend and you do not make your money work for you. So, the course investment management basically focuses on where we can deploy or keep the extra money that we have or the surplus of cash inflows and cash outflows that we have generated, so that we can generate more cash flows more money in future.

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The slide is titled "Investment Management: The Why Part" and features a speaker in a circular inset on the right. The content is organized into three main sections:

- A Saver's Nation: Why do so many people have money problems?**
 - India a savers' nation: gross national savings ~30% of GDP (2017, World Bank)
 - Indian millennials: save ~40% of what they earn (2019, The Hindu & Bank Bazaar survey)
 - *Biggest savers but poor investors* (NCAER Survey)
 - *Lacks proper long-term planning*
- Develop your own budget and financial goals**
 - Time-based financial goals: Short-term goals (e.g., vacation) vs. long-term (e.g., retirement)
 - Need-based financial goals: Consumable products goals (food) vs. durable product goals (car)

The slide includes logos for IIT Bombay and NPTEL at the bottom.

Why is this important? To throw some statistics to support the argument if you know that India has been historically a savers nation which means we have been saving a lot we have been saving a majority part of our earnings as a nation or individually as well as a society.

If you look at the some numbers few years back about 30 percent of our gross national gross domestic g term product which is basically a GDP, 30 percent of the GDP has been put into savings. So, we were saving almost 30 percent of whatever we have been producing.

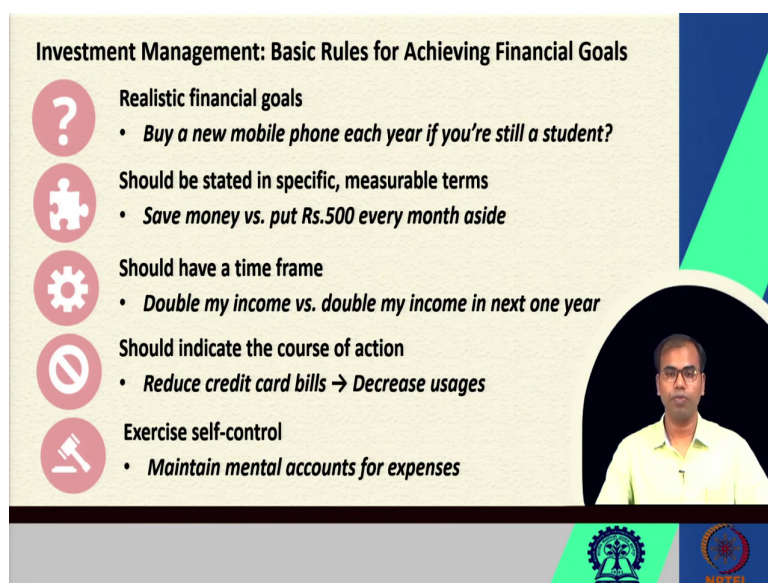
Of late, most of the people particularly belonging to the millennial segment have been saving almost 40 percent of what they have been earning. Although, we have been one of the biggest savers in the world still we are poor investors and that probably indicates the importance of or rather lack of proper long term wealth management or financial planning.

What we most of the time forget is that we have to develop our own budget and financial goal, so that we can figure out where to put the money that we have earned or that we have saved and how we can optimize the in cash inflows and cash outflow. Such that we can have more money more savings to invest in profitable investment ventures. So, if we talk about financial goals there are two categories of financial goals time based financial goals and need based financial goals.

If we talk about time based financial goals, it could be short term financial goal. For example, going on a vacation in the in next holidays or long term financial goals which could be savings for retirement, so that you can have a peaceful financially viable financial safe retirement time.

Similarly, if there are need based financial goals, we can have financial goals such as securing sufficient food for ourselves which is consumable product goals versus durable product goal which will include like buying a car and these are basically the financial goals that we are talking about. Now, talking about financial goal will let us know what we want to achieve, but how do we want to achieve this is to be discussed through a proper investment management.

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Investment Management: Basic Rules for Achieving Financial Goals

- Realistic financial goals**
 - *Buy a new mobile phone each year if you're still a student?*
- Should be stated in specific, measurable terms**
 - *Save money vs. put Rs.500 every month aside*
- Should have a time frame**
 - *Double my income vs. double my income in next one year*
- Should indicate the course of action**
 - *Reduce credit card bills → Decrease usages*
- Exercise self-control**
 - *Maintain mental accounts for expenses*

The slide features a list of five rules for achieving financial goals, each accompanied by a red circular icon: a question mark, a puzzle piece, a gear, a prohibition sign, and a hammer. A small inset video shows a man in a yellow shirt speaking. The bottom right corner contains the logos of IIT Bombay and NPTEL.

So, here when we talk about financial goals similar to what I have just discussed we can have some rules before we target or we set the financial goals. For example, financial goals should be very much realistic. Let us say I am a student and I want to buy a new mobile phone every year which is I want to replace my mobile phone every year.

Well, whether it is a realistic financial goal depends on how much cash flow I am receiving and how much cash flow I have to spend or cash outflow that I have. Second a rule is it has to be specifically identified or measured in realistic terms. For example, if I set up a financial goal that I have to buy a new mobile phone then I have to be very specific in terms of how I am going to achieve that.

So, the process could be we can save certain amount of money versus we can save a specific amount of money every period, so that at the end of certain number of periods we will have sufficient savings to replace that asset that is mobile phone here.

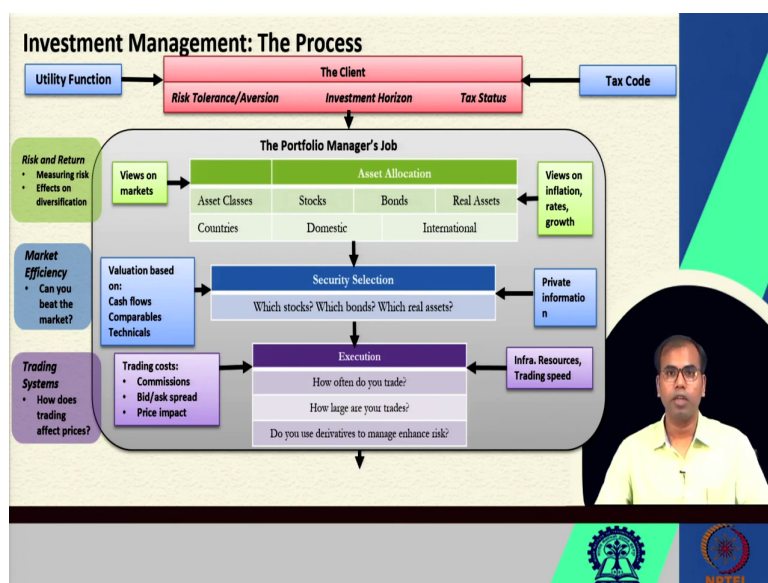
So, 1 – we should have realistic financial goals; 2 – these financial goals should be specified in measurable terms and 3 – we should have a time frame, without time frame no financial goal can be achieved. For example, if I set a target or set a financial goal that I will double my income, this is very vague. But, if I say I will double my income in next one year then I will have a time frame to achieve the target achieve the financial goal.

Next, it should be indicating the course of action. Whenever I set a financial goal these financial goal should also come up with some set of courses of action which will help us achieve those financial goals. For example, if I want to achieve a reduced credit card bills as a my financial goal I have to decrease the uses of credit card and then only I can achieve that financial goal.

And, finally, we have to exercise self control. No financial goal can be achieved without exercising self control. So, we have to probably create mental accounts for different expenses and income, so that we can maintain self control and achieve the financial goals.

Now, to give the context here we have a set of approaches to achieve some financial goal and in those approaches comes the technicalities or specific approaches of investment management or wealth management as a practice. So, here I am going to discuss about the step by step process for wealth management or investment management.

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So, let us try to learn about wealth management or investment management as the process. Typically, just like any other process, it starts with the ultimate beneficiary. In wealth investment management also, the ultimate beneficiary is the client or the investor. So, if I am the investment manager, I am acting on behalf of the client or the investor who has given the money or who wishes to give the money for investment.

So, the client is the ultimate beneficiary. So, we have to first understand the characteristics of the client. First, we will characterize the client or the investor and mind it this investor this client can be oneself. If I am taking decisions for investment management for myself, I am the client or I am the ultimate beneficiary. So, first I have to understand my own characteristics.

So, to characterize the client we will focus on three aspects first – investment horizon; second – risk tolerance and third – tax status. So, investment horizon implies that the client has

certain period or certain number of years in hand while taking this investment decision. If I have some spare money or I have saved some money and I want to invest it in some asset, I must have some investment horizon in my mind whether I am investing this for 6 months or 10 years or 50 years and so on.

Depending on the investment horizon only the decision can be made or rather appropriate decision can be made. Second aspect is risk tolerance or risk aversion. I might want to carry high risk because I have lot of time ahead, I am a more risk seeker type of person versus a person who does not want to take much risk. So, he or she is a risk tolerant or risk averse investor.

So, the second aspect that we need to understand about the investor it could be myself as well about the risk tolerance or risk aversion characteristics. And finally, the tax status because in most of the countries people of different levels receive different tax benefits or tax treatment. For example, senior citizen might have some waiver with respect to the tax rates. Similarly, people belonging to certain industries or earning income through agriculture might have a different treatment with respect to tax or tax payment.

So, we have to understand the tax status of the client as well. These aspects can be understood from the economic concepts of utility function as well as the tax code pertaining to that economy or that market or that country for that matter. Once we are able to understand the investor's characteristics with respect to investment horizon, risk tolerance and tax status we move to the investment management as a practice.

There comes the job of the portfolio manager. So, the portfolio manager's job begins with identifying and locating money to across the assets, different types of assets which are available for investment including stocks bonds real assets. Similarly, we can have these asset classes or these assets available for investment across different geographies which means an investor can invest in stocks in India as well as outside India.

Similarly, a person can invest in bonds which are issued by government of India or companies located in India as well as companies issue companies located outside India and so, so with

real assets. So, an investor have a choice to invest across asset classes, it could be stocks which are equity asset classes or bonds which are typically fixed income asset classes and real assets like land, properties, jewellery and so on.

Similarly, these asset classes can be belonging to different countries and the choice of these asset classes as well as countries depend on again in the clients characteristics whether client would want to take more risk. If the client is risk averse, then probably it is better to invest in bonds because bonds are considered as less risky.

Similarly, if the client has very long investment horizon, then investment can be made in real assets like land and properties or real asset. If the client is going to receive more tax benefit by investing in Bahamas or Mauritius or any other international location, then it is always beneficial for the client for the investor to invest in such a place so that it can receive tax benefits.

So, this is the job of asset allocation where you identify different assets available for investment and then you allocate the resources that have to be invested across these asset these alternatives. So, if Lakshmi has 100,000 rupees and this has to be invested across multiple asset classes or multiple alternatives then maybe certain amount of money can go into stocks, certain amount of money can go into bonds and so on and so forth.

Next task is about understanding the inputs related to asset allocation. When it comes to asset allocation, we have to see what inflation has in terms of impact on those assets whether there is high inflation in India or international market. If inflation is high then probably the earnings that we will be generating the income that we will be generating through these investments can be reduced because of high inflation.

Similarly, we have to see growth. We have seen that many investors from international market would like to invest their money in emerging economies because emerging economies offer substantial growth opportunities. So, the views on the market of these countries, these

asset classes, inflation, revealing growth, interest rates all these factors come into the play when it comes to asset allocation.

The concepts that we need to understand about asset allocation is the understanding of risk and return. So, first we will have to see how do we measure risk pertaining to a unique asset class, let us say stocks are bond for that matter. Similarly, what happens if we diversify? If we include both stocks and bond together as an investment opportunity then what happens to the risk and subsequently the return that we might expect.

Next step is security selection. So, once you identify or decide that the assets needs to be allocated across stocks and bonds both domestic or for that matter international, then we will have to do the security selection which stocks, which bonds, which real assets, right? So, so we are going on top down, we have decided how much time, we have for the investor how much risk we can bear, what is the tax status.

Then we narrow down our focus on which asset classes we have to get into, whether we need to be within the country or we can invest across the countries as well and then we move on to security selection which is identifying the right assets to invest in. For that, we need to do the valuation because if you want to invest in stock A versus stock B we need to find which stock is undervalued or overvalued for that matter.

We have to see the valuation using cash flow approach or comparable approach or technical analysis approach. Either of the approaches can be employed to understand the valuation and also, we have to see whether there are any private information available for you know exploiting in terms of finding the value of that asset. Let us say the asset is not listed in the stock market and we want to invest in it. So, we need to find some private information so that we can act upon that and maybe benefit out of it.

The concept that we are going to use here or probably understand in the context is market efficiency. We have to see whether the approach or the asset that we have invested in or the in

asset that we want to invest in can generate sufficient return that is outperforming the market return.

Because market in general, generates certain amount of return for all investors put together can be as an individual as a portfolio manager or as an investor beat the market can we earn more return than the market has earned. That will depend on the selection of assets as well as the tools that we have deployed to find the valuation and private information if any. And, third approach or third task of portfolio manager is the execution.

Once you have identified which stocks to invest in which bonds to buy, which real estate to buy then you do the execution – how often should we buy or sell, how often should we trade, how large should be the trade orders, should we buy if we have 1000 shares to buy should we buy all 1000 in one go or should we break the order in smaller pieces maybe 200 shares at one time so, we can buy in 5 times, whether we use some sort of risk management tools to enhance or manage the risk or enhance the security of the investment.

So, these are the aspects these are the question that typically portfolio managers acting on behalf of an investor needs to find the answer and then only take the decision. The things that we need to keep in mind before we take the execution here are the trading cost because the more often you buy or sell, the more trading cost you have to spend you have to incur. Nothing comes for free.

So, every time you make a transaction you have to pay brokerage, you have to pay commission, you have to see bid ask spread how many people are asking a particular security at what price and how many people are willing to sell those many securities at that price, whether this will reflect in price impact. Also, we have to see whether the infrastructure resources the tools that we are employing or we are using for taking these decisions are supporting.

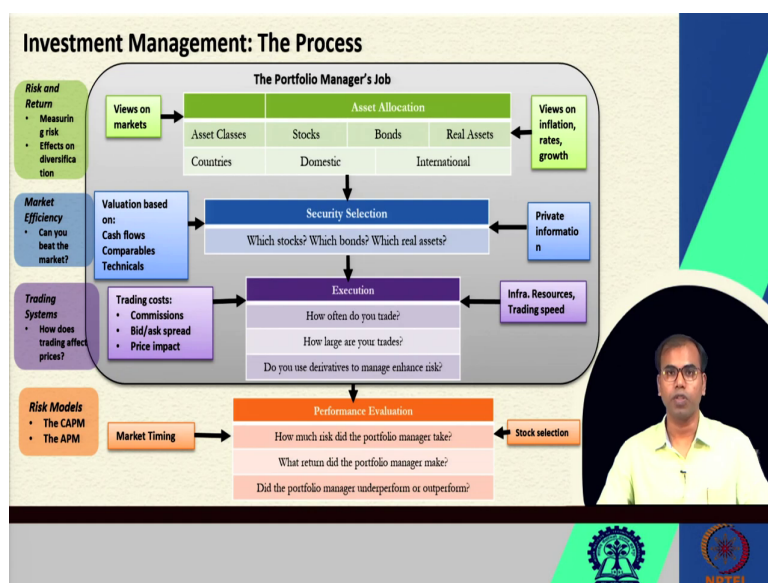
We can we buy as frequently as every second can we do this transaction can we break our transaction into 1000 pieces and every time one share is bought and sold. So, trading speed infrastructure resources all these things matter when it comes to execution.

The concepts here that we are going to apply or relate to is the trading systems because it is all about the market micro structure. How does trading affect prices? If one person or one investor selling 1000 share in one go will have impact on the prices differently than the same person selling 1000 shares in 5 times which is 2000 share each will that have the price impact in a similar fashion. These aspects need to be understood before you take a decision about buying or selling or investing in a particular asset.

Imagine there are 1000 real assets let us say for example, flats in a society or in a residential community and all people suddenly decide to sell their all their flats. All 1000 residents all 1000 occupants of those flats deciding to sell their flats in one go all what happens to the price of those flats? Intuition says that the prices will fall because suddenly there are so many flats available for buying, but not probably not adequate number of buyers.

So, the basic economic says if there is more supply and not adequate demand then prices are supposed to be going down. We will discuss more about these concepts in a more structured way in subsequent sessions. Here we are talking about portfolio managers job.

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Now, once the portfolio manager's job is done then comes the task of portfolio manager which is related to the evaluation and assessment of the performance of the portfolio or the investment. So, the final task is basically performance evaluation. How does performance evaluation happen?

So, basically the question that we try to find answers to is what is the level of risk that the portfolio manager has undertaken or the investor has undertaken? Whether the investor has undertaken higher amount of risk, then the return should be higher; if the portfolio manager has taken less risk then return should be commensurately less.

What return the portfolio manager has made? So, we have to see whether the risk and return are commensurate to each other or not. Whether a person assuming higher risk is rewarded with higher return vis-a-vis, a persons of assuming less risk is given or is earning less return.

Remember the old anecdote higher the risk higher should be the return. The more risk you assume, the more return you should expect – whether this philosophy this anecdote holds true. So, this is validated with the help of performance evaluation of the investment.

If once we have this idea, then the portfolio manager will be assessed on the basis of their performance in terms of taking decisions. Did the portfolio manager underperform or outperform? Now, when we talk about outperformance or underperformance we have to find a benchmark compared to what? How did we compare the performance of a portfolio manager?

Should it be compared with the market index or should it be compared with some other portfolio manager or maybe the expectation of the investor as well. So, we will see through this question how the portfolio manager has been doing or how the investor has been doing if the investor has been acting as the her own portfolio manager.

The concept that we learned here are market timing and stock selection. Again, these two things matter much because when you enter the market and when you leave the market decides how at what price you have bought and what price you have sold. And, the theories that are related to these arguments are the risk models.

For example, the capital asset pricing model, the arbitrage pricing model – these models will tell us whether the timing to enter the market is appropriate or not. Of course, these models also matter in other aspects. So, we will try to learn about these concepts subsequently.

So, as in a whole if we try to understand the overall investment management process it starts with understanding of the client or the investor. So, characterizing the investor and then accordingly we will pick up the asset classes, locations and then selection of the securities,

and finally, the execution and performance evaluation. And, this the entire exercise is known as the investment process.

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CONCLUSIONS

- Investment management an important aspect for wealth creation.
- Set the basics right: Investment goals!
- Investment process: from characterizing investors till performance assessment of investment and review!

The slide features a video inset of a man in a light blue shirt speaking. The background is light green with a dark green and blue geometric design on the right. Logos for IIT Bombay and NPTEL are visible at the bottom.

To conclude this session, we know and I emphasize that investment management is an important aspect for wealth creation not only for the corporations, but also for individuals. The first rule of the game is set the basics right. We have to set up set the financial goals set the investment goals in an appropriate way, in a very precise measurable terms with timeline as well as the steps to be undertaken.

And, investment process includes from steps from characterizing investors till performance assessment of investment and review, so that next time whenever you are doing the same exercise for yourself or for your client you know where you have made made many mistake

and whether you can correct it so that you can improve upon the performance of the investment decisions that you have taken till the next session.

Thank you very much. That is all.