

Investment Management
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Lecture - 22
Mutual Fund Basics

Hello there. Welcome back to the course Investment Management and we are discussing about Mutual Funds. In this module we are talking about mutual fund as a tool of investment and if you refer to the previous discussion, we have learnt about two fund theorem which helps us develop as many portfolios as possible given certain situations in terms of investment availability.

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CONCEPTS COVERED

- Mutual funds as an investment tool
- How does a mutual fund work?

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In this particular session we will talk about mutual fund as a tool for investment that is available for investors. And we will also talk about how mutual funds work. Basically we will try to see the mechanism and structure of mutual funds and subsequently we will discuss about mutual funds mechanism and advantages and disadvantages for an investor.

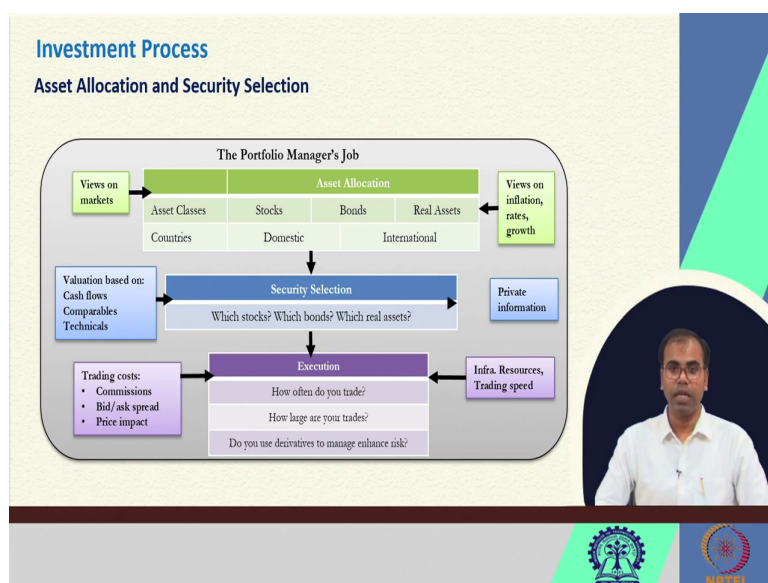
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KEYWORDS

- Mutual fund
- Asset management company
- Risk and return

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To start with if we recall the job of a portfolio manager, we know that primarily it starts with asset allocation where the investment manager is supposed to be choosing from different asset classes available for investment such as stocks, bonds, equity, real estate, real assets and so on.

Similarly, in the process of diversifying or asset allocation in a wider spectrum the portfolio manager would like to diversify the portfolio in case of domestic portfolio or international portfolio. There are factors like the market views, the macroeconomic indicators which might have some impact on the choice of asset to be allocated as part of the portfolio.

And then once we decide about the asset allocation as in what percentage of total investable fund should go to a particular type of assets, then we go further to identify the securities among which primarily are stocks, bonds, real assets and so on. Earlier we have learnt about

portfolio theory which helps us decide what proportion of funds should be given to a particular asset given the risk return characteristics.

Of course, there are factors like information and cash flows, comparable ratios, technical indicators are there which might help us in deciding whether to pick a particular asset as part of the portfolio or not.

And then we take the decision to buy, sell, time the market, try to understand when should we sell, when should we buy, what should be the frequency of the trade, how large should be our trade, factors like transaction costs, commissions, taxes, the difference between bid and ask values, whether we should have some risk management practices.


All these factors come in the picture. And that is completes the first part of a portfolio managers role. Now, if we know that asset allocation and security selection are two major tasks that an investment manager, a portfolio manager or for that matter we ourselves as investors should do, we may choose not to directly expose our self to the particular asset class, rather we will go for some sort of indirect exposure or indirect investment in different assets or different instruments.

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Investment Process
Goal: Investment Must Outperform Inflation!

Money in savings account	+	100,000
Interest earned in 1 year (@3% per annum)	+	3,000
Gross Value at the end of year 1		103,000
Tax on Interest (@30%)	-	900
Impact of Inflation (@6% per annum)	-	6,000
Net Value of Money at the end of year 1		97,100

What it takes to invest money smartly? Time, Skills, Information,...



And that is where the mutual funds come in the picture. Let us take a look at this hypothetical situation. Suppose an individual or an investor has some of 100,000 rupees in her savings account.

And savings account offers 3 percent per annum of interest, which means at the end of 1 year the investor will have 100,000 of principal amount and 300, 3,000 of interest that will be earned in the first year. So, at the end of one year the gross value of the total investment or total funds available will be 103,000 which is 103,000.

And if we assume that a flat 30 percent of tax is imposed, a value of 900 rupees will be deducted as tax at source. And subsequently if we assume that given the trends we have 6 percent per annum of inflation, which means the value of money is depreciating at the rate of 6 percent per annum. So, the loss of because of impact of inflation will be 6 thousand. So,

investor will have 97,100 at the end of 1 year in terms of net value of money or real value of the money.

Now, here the investor is worse off. Ideally the process of investment, the process of financial management should lead an investor to be better off than previous period rather here the investor is worse off; which means there are certain skills, there are certain factors which is required to invest money smartly.

Is it time or skills, information or the ability to pick assets, time the market or hold the assets for certain period of time, having certain insider information or having a keen eye on reading and interpreting the impact of certain information or a combination of all of these?

So, if we look at the mutual fund basically that helps a retail investor or an individual investor avoid these kind of crucial skills which might be required for direct investment in particular asset class.

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The slide titled "Investment Process" features a central blue circle labeled "Challenges" surrounded by four other circles: "Liquidity" (red), "Safety" (orange), "Easy Decision" (green), and "After-tax Returns" (light green). To the left, under "Challenges and Considerations", are four numbered points. A video inset shows a man in a white shirt. Logos for IITM and NIFTA are at the bottom right.

Investment Process

Challenges and Considerations

1. **Liquidity:** An investor should be able to cash in whenever needed;
2. **After-tax Returns:** You get as much as possible after paying taxes. How much is left?
3. **Safety:** You must be sure of getting the money back (preferably, along with returns!)
4. **Convenience:** How easy is it to make an investment decision (buy, sell, hold, adjust, revise...)

So, an investor faces certain challenges which are basically the liquidity which is basically the availability of opportunities for an investor to buy or sell a particular asset. Which means an investor should also always look for an opportunity to invest in instrument which can always be encased whenever needed.

If I have some sum of money to be invested in an instrument, this investment should be liquidated, should be converted into cash whenever I need which means it should be liquid enough. That is the first challenge or first thing that investors will look at. Subsequently, investor would also want to have a look at the after tax returns; which means basically an investor would get as much as possible after paying taxes.

And what is the impact of taxes on the post tax returns? If I am earning sufficient return for example, let us say in previous example, we earned 3,000 of return on our deposit, but 30

percent of interest tax is paid. So, we are better off only 2100. So, what is the impact of tax on the return that investor is earning. And then comes the safety of the investment.

An investor must be sure of getting the money back preferably along with the returns; which means if I am investing today, tomorrow I should be able to get my money back along with the return on investment.

And finally, the convenience of making an investment or withdrawing from it, how easy it is to make an investment decision such as buy or sell or hold, adjust the previous decision, revise the portfolio and so on. So, for all these four challenges and considerations, an investor would look at mutual fund for solutions.

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Mutual Funds

Basic Concepts

- Mutual Funds: Trust that accumulate savings from a large number of small investors who typically have a common investment/financial goal.
- These small investors can have as little surplus fund as a few hundred rupees that can be invested in a mutual fund of their choice.
- The pool of small funds thus collected is then managed by a professional fund manager who invests funds in assets such as shares, bonds, commodities, and money market instruments, based on the investment goal(s) of the fund.
- In most cases, the return on such a fund is market-/instrument-linked, and not the assured return. Risk is varying as well.
- Mutual funds are expected to yield better returns than several other assets in the long term (mostly because of low costs and persistence).

The slide features a video inset of a man in a white shirt speaking. At the bottom, there are logos for 'MOTIL' and 'MOTIL'.

And basically, mutual fund offers these solutions or these characteristics in built with the mutual fund as a tool for investment. If you look at the mutual fund as an instrument, basically it is an offering of a trust that accumulate savings from a large number of small investors who typically have a common investment or financial goals.

That is the first sort of definition of a mutual fund. There should be certain characteristics for example, there should be sufficient number of small investors, typically retail or individual investors who have something in common such as a financial goal, may be wealth creation, may be return on investment better than the market return or beating the inflation or anything similar.

These small investors can have as little surplus fund for investment as a few hundred rupees in case that can be invested in mutual fund or any financial instrument of their choice. So, it is not required for these small investors or marginal investors to have large sum of money which can be invested or which might be required for investment in different financial assets.

Here in mutual funds, they can offer or they can invest as little as few hundred rupees for investment in mutual funds of their choice. And when such large number of small investors accumulate their few hundred rupees, that pool of small funds thus collected is given to professional fund manager or a trained fund manager who takes decision about investing these funds into assets such as shares, bonds, commodities and money market instruments, etcetera, based on the stated investment goal of the fund.

Which means smaller investors pool their small sum of money and give that money give that pooled money to the trained professional money manager who would take decision on their behalf and help them earn return that they desire.

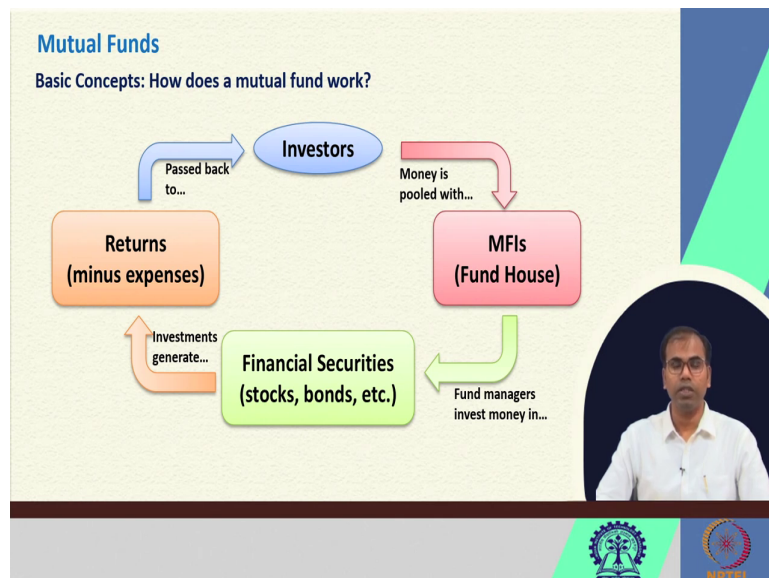
And in most cases, this return on such a fund is usually market linked or sometimes instrument linked and not a guaranteed return; which means the investor would not be given an assurance of earning certain percentage of return unless it is a fixed income security or

fixed income fund. So, here the risk is varying from time to time from instrument to instrument and so on.

But eventually mutual funds are expected to yield better returns than several other asset classes in the long run preferably because of low costs and persistence. These all characteristics make mutual funds an attractive tool for investment for small investors.

Because here they can pool their small sum of money to make it a large use fund which can be given to or which can be managed by professionally trained money managers who would take decisions to invest in selected or identified shares, bonds, commodities and other financial instrument of their choice, depending on the goal of the fund that they have decided in the beginning.

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So, if you try to understand how does a mutual fund work. Typically, in a short basically mutual funds is all about investors coming together pooling their funds and then that fund is given to money managers.

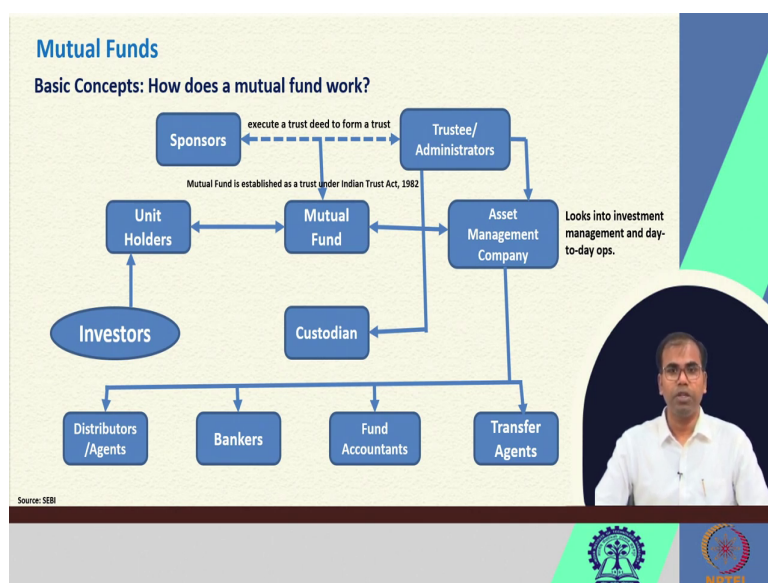
And subsequently money managers taking decision on their behalf, investing that money in instruments, financial instruments and thus financial instrument generating sufficient return and then the return is passed on to investors. So, it all begins with investors who pool their money and the pool money is given to mutual fund institutions typically a fund house.

The mutual fund institutions appoint or recruit money managers who take decision of investing money in different financial securities such as bonds, stock, commodities, derivatives, sometimes real assets, golds, crude oil and so on. And then this investment generates return from that return the expenses of managing the money such as fund managers fee and brokerage charges and so on is deducted and the remaining is passed back to the investors.

So, this is the typical flow of mutual fund which typically starts with large number of investors coming together with a common financial objective, pooling their money, giving that money to the fund house which eventually manages the money with the help of professionally trained money managers, who invest these funds into different financial securities to generate sufficient return, take a cut from that return and pass back remaining return to the investors.

Now, this is a very simplified flow. Of course, there are different type of entities different agents, different individuals are associated with managing money on behalf of large sum of large number of investors.

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So, let us take a look at the way mutual fund mutual funds work with more detailed input. So, typically what happens if we follow the SEBI guidelines; we observe that mutual funds are typically originated or proposed by a set of sponsors. Who might be fund house or financial institutions or any other financial services agency or a company which can act as a sponsor.

This sponsor execute a trust deed to form to establish a trust which have trustees or administrator. And this trust then establishes a mutual fund under the Indian trust act 1982 and thus mutual fund is created. So, here sponsors can be a banking company, it can be a financial services company or insurance company or any other financial entities which can act as a sponsors, which can also be a fund house.

And these sponsors will form a trust under the relevant act and the trust is then going to establish a mutual fund which will be given to the interested people in lieu of some of investment.

Now, here the trustee will also engage or appoint sort of asset management company which will be basically comprising of professionally trained money managers. And this asset management company will also look into the investment management and day to day operations of the mutual fund.

Which means typically trustees appoint asset management company which will have fund managers, money managers research, analyst and other support services to look into the investment management decisions, day to day operations of the mutual fund and subsequently taking care of the operational activities of this mutual fund given established under the relevant act.

Now, trustees will also have a custodian. Because sometimes custodians are required to take care of the mutual fund related activities particularly when it comes to risk management or larger administration of the mutual fund. They will also have through Asset Management Company different entities such as there should be a distributor who will act as an agent to sell or to pass on the mutual funds or products related to mutual funds to relevant investors.

There will also be bankers, who might act as a selling outlet or mid intermediary through which mutual funds can be sold. Then there are fund accountants which will take care of the accounting requirement or accounting process of the funds. And there should be a transfer agent which will take care of the transfer of assets between different entities and management of those assets. Now, this is the organizational setup of mutual fund.

If you look at this hierarchy or this structure, you understand that there are different entities such as sponsors, trustees or administrator, asset management company and bankers and all can be coming under same organizations all the different divisions. And they can act in sync with each other to offer a mutual fund product to the investors.

So, once this kind of setup is done or taken care of, then comes the investors who will be the unit holders into the mutual fund; which means mutual funds established by asset established by trustee of a sponsors under relevant act and managed by asset management company will be sold to investors in the form of units mutual fund units or mutual fund shares.

And on the other side trustees or administrators will also have a custodian and asset management company will also engage with distributors or agents bankers, fund accountants and transfer agents. And this completes the organizational structure or setup of mutual fund company or mutual fund as a investment for product.



Having understood the mechanism of mutual funds, we know that there are different entities. And these entities can work together to offer mutual fund product for investors. And as discussed earlier these products these mutual fund offerings could be of different type.

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Mutual Funds
Basic Concepts: Risk versus Returns

Types of Mutual Funds	Objective	Funds Hold	Growth Potential	Income Potential	Stability
Money Market Funds					
Taxable money market	Current income stability of principal	Cash investments	None	Moderate	Very high
Tax-exempt money market	Tax-free income, stability of principal	Municipal cash investments	None	Moderate	Very high
Bond Funds					
Taxable bond	Current income	Wide range of government and/or corporate bonds	None	Moderate to high	Low to moderate
Tax-exempt bond	Tax-free income	Wide range of municipal bonds	None	Moderate to high	Low to moderate

Source: Hirshey & Nohinger



Now, let us take a look at different types of funds which are that are available for investors to invest their money in. We know that if we invest in different types of assets we are supposed to have different objectives, different investment objectives, we will have different type of asset composition in our portfolio.

And will accordingly the risk return characteristics of these portfolios will also be unique. So, here let us try to understand what kind of mutual fund are there that have different risk return characteristics and potential for generating return or growth for investors. To start with we will have money market instruments or money market funds. I am starting with money market fund because these funds typically have very high level of stability which means there will be very low level of risk.

So, money market funds are mutual funds or funds in general that invest the fund, that invest the assets into taxable money market or non-taxable or tax exempt money market instruments. For example, treasury bill or government bonds these are certain types of instruments where fund houses or mutual fund can be mutual fund can be invested in. The objective of these money market funds could be to provide a stable income for the investors and security of the principal amount as well.

For example, if we look at the taxable money market fund, the objective typical objective of a taxable money market fund is to provide current income stability of the principal. And on the other side if we have tax exempt money market fund then the objective is to provide a tax free income and stability of principal.

Typically, taxable money market funds hold cash investments most of the time it is very liquid and tax exempt money market fund might have investment in municipal cash investments. There is no or almost no growth potential in both these cases. Because they are secure instruments, they do not invest in anywhere any instrument any financial securities that might have chances for growing in terms of value.

But the income potential is moderate which is basically typically risk free and stability is very high which means the investors will have the surety or certainty about getting their money back at the end of the day. And however, the growth potential is almost nil and income potential is low to moderate. If you look at another class of mutual funds they are bond funds or fixed income funds. Again, here as well we see taxable funds and non-taxable fund or tax exempt fund.

The objective of the taxable fund is to provide to generate current income and these funds invest money in wide range of government or corporate bonds. For example, bonds issued by government entities such as National Highway Authority of India or corporate entities companies issuing bonds to generate funds. These are the instruments that are held by taxable bond funds or taxable fixed income funds. Again, just like money market fund here there is no growth potential.

Because these are also risk free or almost risk free instrument. Income potential is moderate to high and stability is low to moderate. Now, if you look at the tax exempt bonds, they are having the objective of tax free income for their investors. And the tax exempt bonds or tax exempt bond funds hold typically wide range of municipal bonds where there is no growth potential, but moderate to high income potential and low to moderate stability.


Now, these are two categories or two classes of mutual funds which are available and they provide certainty about principal as well as the fixed income or fixed return for the investors. If you look at the other side of categories.

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Mutual Funds
Basic Concepts: Risk versus Returns (cont.)

Types of Mutual Funds	Objective	Funds Hold	Growth Potential	Income Potential	Stability
Common Stock Funds					
Balanced	Current income capital growth	Stocks and bonds	Moderate	Moderate to high	Low to moderate
Equity income		High-yielding stocks, convertible bonds	Moderate to high	Moderate	Low to moderate
Value funds		Low P/E, P/B stocks	Moderate to high	Low to moderate	Low to moderate
Growth and income		Dividend-paying stocks	Moderate to high	Low to moderate	Low to moderate
Domestic growth	Capital growth	U.S. stocks with high potential for growth	High	Very low	Low
International growth		Stocks of companies outside U.S.	High	Very low to low	Very low
Small cap		Stocks of small companies	Very high	Very low	Very low
Specialized		Stocks of industry sectors	High to very high	Very low to moderate	Very low to low

Source: Hirshey & Nofsinger



Typically, they are common stock funds. With in the common stock funds, we can find or we can create different types of funds. For example, we can have equity funds, we can have value funds, we can have growth and income funds, we can have balanced funds for which the

objective investment objective could be the current income or capital growth. And most of the time these instruments, these funds hold assets such as stocks and bond.

In some cases, they might have high yielding stocks, convertible bonds particularly in case of equity income funds. These funds also hold stocks or instruments which have low price to equity ratio or price to book value ratio. Referring to price to equity ratio basically it implies about the price which is to be paid for every rupee of profit.

If we say price to equity ratio is one which means an investor is paying 1 rupee of price for every 1 rupee of earnings. If price to equity ratio is high which means an investor is paying more rupees for every single rupee of earnings in the company.

Similarly, there is price to book value ratio which gives an indicator about the value of a company. And these funds can also have investment in or assets allocated in terms of dividend yielding stock. Most of the time if you look at their characteristics there is moderate to high growth potential.

For example, if an investor is holding balanced common stock fund, then the chances of growth is moderate, but for equity income, for value funds, for growth and income funds the chances of growth is moderate to high. Of course, income potential is also commensurate to the growth potential as well as the risk. So, we see moderate to high or low to moderate potential for income and low to moderate stability in all these cases.

Subsequently we can also see funds which will have diversification across geographical territories. For example, funds having investment in domestic growth where the objective is capital growth, it can have domestic investment in international growth stocks or growth funds where investors might be investing in stocks with high potential for growth or stocks of companies which are outside the home zone or home country.

For example, if it is US then any company investing in outside us funds, outside us instruments will be international funds. And if the company is focusing on domestic funds, domestic companies for investment then it will be domestic growth fund. Growth potential is

very high in these cases particularly for domestic or international growth fund and a small cap or a specialized fund.

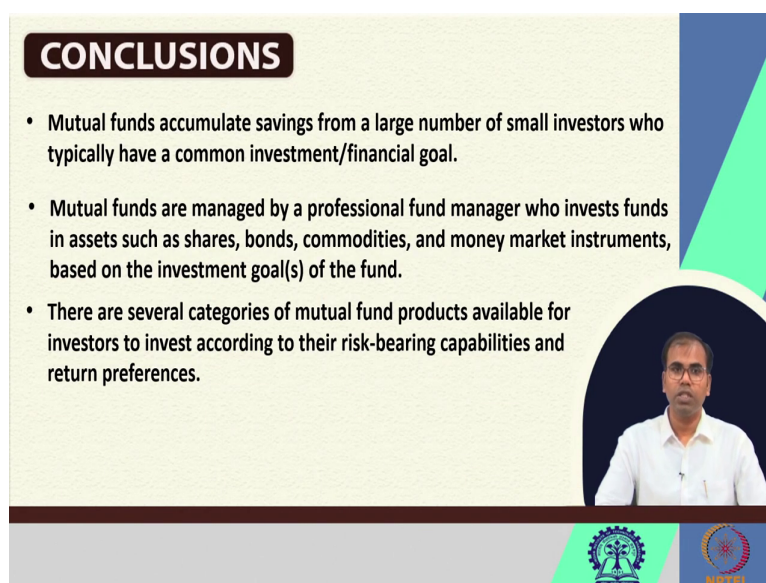
But income potential is sometimes low or very low because of the growth potential being high and the chances of regular income coming in the early stage of the business. So, if an investor is investing in a fund that puts the investment or investable fund into companies which are in a growing stage.

The chances that the company will be able to generate sufficient income for the investor is very low. Because they will be ploughing back the money to generate further growth for the business. And stability is also very low because the chances of money going bad or the company going burst is also high.

There are specialized instruments or specialized funds which might have exposure to stocks of industry sectors. For example, if an investor or a group of investor wants to invest in a pharma sectors alone, then there can be a mutual fund which invest only in pharma sector stocks and that will be very specialized fund. Because they invest in stocks of industry or sectors.

Income potential is very low to moderate, but growth potential is high to very high and stability is very low to low. We will talk more about these categories and subsequently we will see how mutual fund can be beneficial for small investors.

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CONCLUSIONS

- Mutual funds accumulate savings from a large number of small investors who typically have a common investment/financial goal.
- Mutual funds are managed by a professional fund manager who invests funds in assets such as shares, bonds, commodities, and money market instruments, based on the investment goal(s) of the fund.
- There are several categories of mutual fund products available for investors to invest according to their risk-bearing capabilities and return preferences.

The slide features a video inset of a man in a white shirt speaking. At the bottom, there are logos for IIT Bombay and NIFTM.

To conclude this session, we know that mutual funds are instruments or financial instrument which accumulate for savings from a large number of small investors, who typically have common investment or financial goals and agree to pool their money to be invested in certain financial instruments.

And this investment decision is taken by professional fund managers, who act as money managers or fund managers and invest pooled funds in different types of asset depending on the preference of the investors or investment goal of the fund. And as we have seen there are several categories of mutual fund products which are available for investor to invest according to the risk return preferences.

If someone is willing to have higher risk and higher return possibility as well the funds fund offering for such an investor will be different from an investor who is willing to have more of income potential rather than having high risk. So, with this I conclude this session.

Thank you very much.