

Foundation Course in Managerial Economics
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Lecture - 01
Principles of Economics

Welcome to the foundation course in Managerial Economics. I am Dr. Barnali Nag from Vinod Gupta School of Management, IIT Kharagpur. This course is about, we are primarily going to focus on microeconomic theories, which I used in decision making in different organizations.

We are basically going to go through different tools and concepts of economic theory to see how the different organizations, people in the organizations, the stake holders, the government, the consumers, the producers, firms, banks, how they interact with each other. So they make decisions at different, their own levels, and these decisions interact with each other in the market and result in certain kinds of market outcomes. So we are going to see how people make decisions and how are choices made in the economy.

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What is economics all about?

- Scarcity of resources
- Trade off
- And how people make choices

So, but this is about managerial economics. Now what is economics all about? Economics is about, it is actually many of us might think that economics is about how banks function, how investment is made, how prices are determined. Yes, but more importantly economics is about how people make decisions.

It is about people actually and how people, be it a homemaker, a student, a entrepreneur, a policy maker who is in the government making policies, how they make decisions. So this is about, so economics is more about how people make decisions, but why is it complicated? Why is it complicated?

It is complicated because everyone is faced with scarcity of resources. There is scarcity of resources in the economy and be it a person who is running a household, be it a student who is basically surviving on some stipend or some help from his home, or be it a government who is surviving on taxes, be it a nation which has its own endowments of natural resources.

So everyone is faced with some amount of scarcity and why are we using the term scarcity? We are using the term scarcity because wants and needs are unlimited and resources are limited. So that is the reason that scarcity is a problem because everyone has his, everyone, a person would like to has innumerable wants and desires but he has limited income.

Similarly, a government would like to do everything. It would like to eradicate poverty, it would like to take care of its environment. It would like to focus on its economic growth and boost its producers to improve production. So everyone has lot of goals in mind, but resources are limited. So scarcity of resources is a problem and that leads to choices. Basically you have to make a trade off. You cannot have everything together and how people make choices that is the question that we are trying to understand through different kinds of economic theories.

So before I move on to the various lectures, we are going to discuss lot of economic theories and concepts and we are going to study lot of models later, but in the first module of this lecture let me focus on certain principles, some fundamental principles of economics.

There are 10 principles of economics which has been laid down beautifully by Professor Gregory Mankiw whose book also I have recommended for this course and this is about principles of how people make decisions, how people interact with each other, and how different nations how they interact and how what are the principles which guide the nations, their macroeconomic decisions.

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Principles of how people make decisions

- PRINCIPLE #1: People Face Tradeoffs
 - Efficiency vs Equality
- PRINCIPLE #2: The Cost of Something Is What You Give Up to Get It
 - The **opportunity cost** of any item is whatever must be given up to obtain it
- PRINCIPLE #3: Rational People Think at the Margin
- PRINCIPLE #4: People Respond to Incentives

So the first set of principles of how people make decisions as I earlier already said, it is principle number one is people face tradeoffs, people face tradeoffs as I already said there is scarcity of resources and you have lot of goals and you have to make a choice. So people make tradeoffs, people face tradeoffs rather and they have to choose between two, three kinds of options.

One of the very important tradeoff in economics that which is a huge challenge for all economists is a tradeoff between efficiency and equality. I will give an example, I am not going to discuss, this is a very vast area of research and a huge problem, but I am not going to focus too much on it, but I will, it is worth a mention so I am going to just give a small example.

Say for example the government decides that everyone should be should have a minimum standard of living, should have some minimum income. Now, so it decides where is the government going to give this money to the poor from? So the government is basically going to tax the rich.

Now when they tax the rich it is a this incentive for the rich to work hard. So indirectly when the government is trying to improve the equality in the economy by taking the money away from the rich and distributing in the poor what the government is doing is it is basically reducing the efficiency in the economy right? So efficiency versus equality is a very important and very challenging tradeoff that every economy faces.

Second principle is the cost of something is what you give up to get it, what you give up to get it and this brings us to a very important concept in economics which we are going to come across

frequently later in the course, it is called the opportunity cost. The opportunity cost of any item is whatever must be given up to get it.

Say for example a student decides after completing his engineering that I am going to instead of taking the job that has been offered through the campus interview, I am going to pursue my pursue further education. What is the opportunity cost of the further education? The opportunity cost is basically the salary or the income that the student is foregoing by taking up the option of doing higher education.

So this is what opportunity cost is. So basically nothing comes for free. It is every choice has a opportunity cost. Third principle is rational people think at the margin. What does this mean? This is, this is also very important principle because later whenever we develop any kind of models and any kind of decision making, we are going to use this principle repeatedly.

Say for example, again taking the example of the same student who is going to say he decides that I am going to do a 1-year MBA course, 1 year management education course for which he has to pay some fee. Now the decision is going to depend on only the cost that he is going to incur during this 1 year of education against the income that he is foregoing for this 1 year of education. He is not going to look at any other of its expenses or his incomes in the past.

Or say another example, say a person is hiring people, a person a producer he is a manufacturer he is hiring people. Now one more person whether he should hire that person or not will depend on how much salary or how much wage he has to pay to the person against how much output he is going to get from the person. So it is always at the margin. He does not think about the in totality what his production is, what his cost is, no. He is basically thinking at the margin. This is what we all of us do.

So the fourth principle is people respond to incentives. This is easy to understand. Say for example the government decides that people need to smoke less. So the government basically imposes a tax on smoking cigarettes. There is a tax on cigarettes, and smoking, the amount of smoking comes down.

So this is a negative incentive to smoke. Similarly you could have positive incentives also. Say the government wants people to save more. So it has lot of, it offers a lot of tax benefits for saving, saving more. So people respond to incentives and this is true everywhere, in all walks of life right?

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Principles of how people interact

- PRINCIPLE #5: Trade Can Make Everyone Better Off
- PRINCIPLE #6: Markets Are Usually A Good Way to Organize Economic Activity
- PRINCIPLE #7: Governments Can Sometimes Improve Market Outcomes
 - When markets fail – e.g. externalities, public goods, equity etc

Now second is principles of how people interact. So people not only they make decisions for themselves they also interact with others, others in the sense they interact with other consumers, other producers, firms, when they go and go to look for job they interact with the employers. So there is always interaction across people, different people interact and they these interactions influence their decisions.

So these principles are going to guide us to understand how people interact with each other. So one of the principles is trade can make everyone better off. Now when I say trade can make everyone better off, I do not necessarily mean trade between countries. When I say trade it is basically exchange of goods for money across different individuals also.

What this basically means is if I am good at producing something and another person is good at producing something else, it makes sense for us to exchange the goods that we are good at making instead of trying to make everything myself okay?

So principle 5 is trade can make everyone better off and this is so true for countries also like the countries they do not have to if what whatever they are good at making they basically manufacture that and export those commodities and they import commodities which other countries are good at making. So as a result what is happening? We are getting cheaper products from other countries and other countries are being able to utilize the efficient production or the quality of production that we are able to offer.

So the next principle is markets are usually a good way to organize economic activity. Here 2 things are important. One is what do I mean by organize economic activity and the second is the

word usually. So that means it is not always the case that markets are good way to organize economic activity, but mostly they are. So what do you mean by organize economic activity?

Now organize economic activity means basically what to produce in the economy? How much to produce of anything? How to produce it and who is going to buy it? As I said in the beginning that there are unlimited needs and wants in the economy and various things are demanded in the economy right from fundamental basic stuff like food, clothes, and shelter to something as fancy as having a birthday party on moon.

So there is maybe it is possible to have at least some consumers at some part of the world who would like to have something like as fancy as this, but whether it gets produced in the economy or not that gets easily decided in the market. So market is a good way to organize economic activity and it decides, but how does it do so? How does the market do so?

So basically people can go to the market with their demands. They can go to the market looking for stuff they would like to buy and they have certain willingness to pay. They would like to pay a certain price for every stuff. So they can go to the market and express their needs and wants and the firms can decide that whether it is it makes sense for me to produce this these stuff and sell in the market or not and if they do so then there is the stuff gets produced in the market.

So this is how the market basically resolves the problem of what gets produced in the market, but how does it do so? It does by the demand. There is a demand for a certain products, people are willing to pay a certain price for it and price acts as a signal in the market. So when price acts as a signal in the market the basically the producer decides that if I am able to provide this stuff at this price and if he does so then that stuff gets produced in the market and this is how the price is acting as signal in the market.

They are like the invisible hand, the term coined by Adam Smith which says that basically the market guides people where they are basically trying to satisfy their own interest. People are satisfying their own interest, the consumer is trying to meet his own interest. Producer is trying to meet his own interest of maximizing profit and the people and the product that are being demanded in the market they get produced in the market. So this is how the market are, is usually a good way to organize economic activity.

But, now the second, the next principle basically talks about it is the continuation of the previous principle where we used the term usually. Now, markets are usually a good way but not always and when the markets are not good way to organize economic activity, governments can

sometimes improve market outcomes. So when do governments improve market outcomes? Basically governments improve market outcomes when markets fail. What do I mean by markets failing? When do markets fail?

Markets fail under lot of situations like externalities, public goods, the governments attempt to have more equality in the economy. These are certain situations where the markets may fail and what do I mean by externity, what is externality? Externality basically means that a certain, all activities do not have do not always it is not that when say for let me explain through example.

Say for example a tannery. It is producing, it is tanning leather and it is polluting the nearby stream, water stream. Now the people who are buying the products from this tannery, they are not affected by maybe may or may not be affected by this pollution. Similarly tannery itself it is it will be charging the price depending price of tannery depending on how much cost it is incurring.

It is not going to take into account the fact that it is polluting the water stream nearby. So who pays for it? So basically a activity is causing or affecting people or stakeholders who are not directly involved in this economic activity. These are not people who are either producing the leather. These are not people who are consuming the leather nevertheless they are getting affected. These are maybe people staying nearby who are using the water from the stream. So there is a cost to the economy.

There is someone has to incur that cost and who is going to incur that cost? Who is going to impose that cost on this activity, the government. So the government can impose a certain so the government can come and say to the tannery that look you are polluting the nearby stream and so you have to pay certain taxes extra with which we will clean the stream or the government might say that you have to directly pickup incur the cost of cleaning this stream.

So this is where the government has to intervene in the market. Another example is public goods. Say for example keeping the air clean. Who is going to do it? It is a public good. Public good is something from which you cannot exclude anyone. So if a organization says that look I am going to clean the air, air nearby and you pay for it. Can it exclude people who are not paying for it? No it cannot. So these are examples of public good where the government needs to step in and it needs to take the initiative to produce because here you cannot exclude people from consuming these goods and another example is say the, say the government wants more equality.

Say for example in the labour market or where people are getting hired, people are willing to work for a very low wage which is not acceptable to the government or which is not acceptable to the society in general because it is inhuman. So there the government needs to step in and say that look you have to pay a wage which is minimum, the minimum amount should be this amount. So these are situations where the government can intervene and these are situation where the markets fail.

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Principles of how the economy works as a whole

- PRINCIPLE #8: A Country's Standard of Living Depends on Its Ability to Produce Goods & Services
- PRINCIPLE #9: Prices Rise When the Government Prints Too Much Money
- PRINCIPLE #10: Society Faces a Short-run Tradeoff Between Inflation and Unemployment

Now the third set of principles is principle of how the economy works as a whole, basically how the economy works as a whole. This, these principles are more applicable in macroeconomics, which we are not going to focus on, which is beyond the scope of this course, but nevertheless I am going to go through the through these principles. One is that a country's standard of living depends on its ability to produce goods and services.

So how well a economy does or what is the amount of economic growth in a for a country solely depends on how the country is able to produce out of its limited resources. Every country has certain amount of say certain amount of natural endowment of resources, some amount of labour, some amount of capital stock, say for example machineries, equipments, infrastructure that a country has and given all these all this setup the economy basically produces.

Now how well the economy does and how the economy growth can be rapid in a country depends on how efficiently the country is able to produce out of its limited resources. So and that would basically depend on the productivity of these countries. So if a country is able to improve

the productivity of its economic activities, then it is able to do well. Another principle is that prices rise when the government prints too much money. Price rise is what?

Price rise is basically inflation. So inflation happens when the government prints too much money. That means there is too much money in the economy which is chasing too little goods. You are not producing enough but government has printed lot of money. So lot of money is chasing little amount of goods so the prices of these goods go up.

So this is the general principle that prices rise when the government prints too much money and that the last but not the least the principle that society faces a short-run tradeoff between inflation and unemployment. So it has been seen very often that various policies of the government which try to address unemployment or unemployment is basically what?

When economic activity is falling when the not enough is getting produced in the economy then the organizations are going to lay off workers. So when they lay off workers unemployment is going to rise. So basically there the what does the government do to target improvement in employment, in the economy? Basically they try to boost economic activity in the short run.

So when the government tries to boost economic activity through various policies it has been seen that in the short run they cause inflation or price rises and it is easy to understand because from principle 8 we already know that you cannot increase your output or economic activity from your resources unless and until you improve your productivity which is not possible in the short run and if you are not able to increase your productivity other ways of trying to increase output in the short run is done at the cost of inflation.

So these are the 10 principles of how the economy works, how people interact, how the different stakeholders they make decisions in the economy and later we are going to study various economic models to see how managerial decisions are made and we are going to use these principles often.

We are going to come back and revisit these principles while we discuss the different kinds of different models and quickly since I have gone through these 10 principles another thing that I would like to emphasize is that this course is on primarily on microeconomics and we are calling it managerial economics because this is about decision making process of individuals or managers who are who need to understand how consumers make decisions, how governments make decisions, how the producers they themselves need to make decisions in different kinds of market structures. So this is more about microeconomics where the individual is involved.

So the first 2 types of principles are more relevant here but nevertheless we are going to keep on referring to the first 7 principles that we have discussed here and macroeconomics is more about understanding the overall economy. Macroeconomics is more about understanding the how the economy in totality functions.

The different so we are going to primarily focus on microeconomics and the another thing that I would like to emphasize is we are going to develop various models. These models say for example we would like to see how is price determined in the market. We would like to see what kind of markets, what are the different kinds of market structures.

So there are various products that are sold. So each we are going to see these products, the nature of these products determine what kind of market they have. Say for example they are I am going to explain them later but like say they say monopoly or oligopoly or competitive market a monopolistic competition. So to understand each of these market structures we are going to develop models. Now what are these models? These models are basically they try to replicate the reality and we are going to make certain assumptions to make it very simple to understand the basic functioning of these markets.

So they do not necessarily mean that they take into account all the problems associated with this market but it is like if you are building a airplane you would like to first see how the plane functions, how it takes off from the ground and flies in the, so you are not going to look at the small intricacies how the seats are laid and how the window shutter works and so similarly we are going to exclude some, many of the details of a market, yet try to understand what is the fundamental functioning of these models. So this is what we are going to do and in the next module I am going to start with the supply demand framework. Thank you.