History of Economic Theory

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Economic Theory at the time arrival of Keynes

The arrival of Keynes and his general theory in 1936, heralds a big break in the history of economics. Prior to the arrival of Keynes, we could think of the subject as being largely influenced by the ideas of the Adam Smith, who wrote his wealth of nations in 1776. The impact of Adam Smith was not so theoretical as in the fundamental suppositions of economic theory, which dominated the subject in the next 150 years. The coming of Keynes heralded a complete change in the beliefs underlined economic theory, in other words from Smith to Keynes, we see a major change in the prospective of economics. So, let us look at the state of economic theory before the arrival of keynes.

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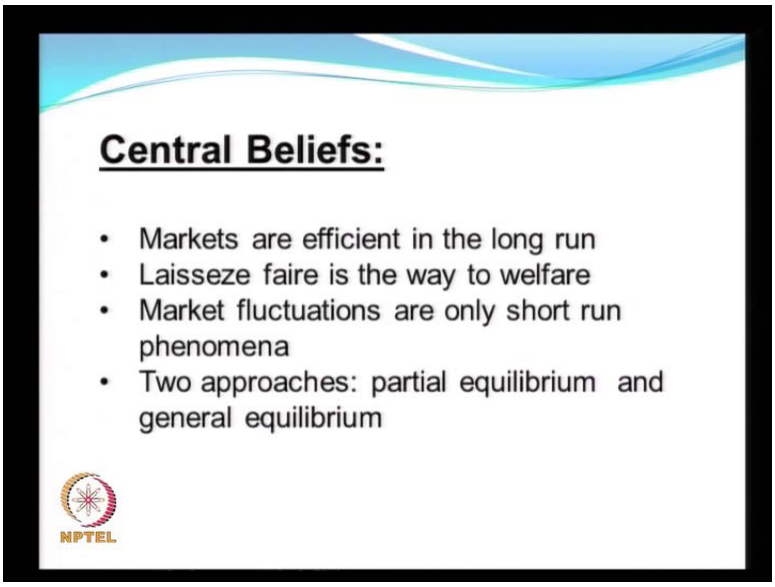

Now, there were some central beliefs which characterized economists and not only economists, but also people who thought about economic processes in the tradition of Adam Smith. Briefly to recap, we know that Adam Smith was a firm believer in the power of market in ensuring efficiency in the economy. Adam Smith was highly

suspicious of not only monopoly and such other factors that tended to harm the competitive aspect of markets, but he was also highly suspicious of the government, because he looked upon the government has the most solidified of monopolies.

So, it is implicit in the tradition of Adam Smith believe that economic processes are efficient if free market is responsible for the conduct of economic processes, this is the logic of the famous argument of the invisible hand in Adam Smith as we already know. So, free markets ensure efficiency which also means, that the way to welfare in an economy is ensured by a minimal presence of the government, Laisseze Faire the policy of non interference is very crucial in the arguments of Smith and his followers. It was very clear that the government was necessary to defend the nation, it was very clear that the government was necessary to ensure law and order, it was very clear that the government was necessary to ensure protection of property. But beyond that the less the government did the better it is for the economy, this was the philosophy of Laisseze Faire.

If we look back a little bit the philosophy of Laissez Faire is something like an economic justification of the ideas of John Lock. John Lock for instance argued or created the first libertarian argument as it were which said, that the individuals freedom in contracting a social organization as an how the individuals wanted are very central to the welfare of a people. Now, the economic phase of the lockian political arguments is Smith's economics. So, efficiency in the economic process is ensured would also mean that the political system based on such individual choices is also efficient in a moral sense. So, the central belief are that the markets are efficient and implicit in this is the notion that markets ensure the freedoms of the individuals in ensuring in turn welfare.

What does mean about markets, does it mean that markets are always efficient, does it mean that markets always deliver the goods. Well certainly by the time of the earliest of the market oriented Laissez Faire disciples of Smith namely J B say the opinion had solidified crystallized to the point of understanding let there could be short run problems with the markets that is in the short run you could have excess demand, you could have excess supply in specific markets which show disequilibria and which therefore, show possibility of improvement of efficiency. However in say's arguments there can be no general over production in the economy which means that in the long run such short run variations such short run disequilibria tend to vanish.

So, market fluctuations are only short run phenomenon has one of the central beliefs of the disciples of Adam Smith, must be remembered. Combined with this is a notion that in the long run there is no scope for any fluctuation, because in the long run is also a period when all adjustments have taken place and there are no more adjustments to take place. So, this perspective this set of central beliefs takes on two forms of analytical dogma in economics. One set of analytical dogma believe in the generality of equilibrium in the economic process in the market, the other sets of dogma believe in the partiality of equilibria. In other words efficiency is ensured in each and individual market and that study of each market is a partial equilibrium analysis and in aggregate the whole economy (( )) shown to be in efficiency.

Whereas in a general equilibrium analysis simultaneously all the markets are considered to be in equilibrium, the equilibrium in one market, orchestrates equilibrium in other markets and therefore, all markets are simultaneously in equilibrium. So, we have two distinctive approaches as we already seen the general equilibrium and the partial equilibrium approach. We have already seen that the general equilibrium approach is attributable to Leon Walraas and the partial equilibrium analysis is attributable to not just to (( )) and others of his time. But, also subsequent day to Marshal and all other economics including Higgs, Samuelsson and in others much later who contributed to this jar of economics known as neo classical economics.

So, broadly we have the two approaches, the walrasian approach and neo classical approach defining two dogmas of freedom of the market.

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Let us now, look at both of them simultaneously or both of them one after another. As I said he premises of partial equilibrium analysis relate to individual markets and therefore, individual actors in these individual markets. So, some basic premises are involved relating to the behavioral norms followed by these individual actors. One is hedonism, hedonism of course, as we all know means pleasures seeking human beings are congenitally hedonistic according to this premises, human beings are cognitive pleasure seekers.`And consequently avoiders of pain everything else in life is included in a matrix of pain and pleasure things which are avoided by people, which are painful things, which are sort by people, which are pleasurable and therefore, all human beings are hedonistic according to this premise.

The second premise is that not only are individual actors in individual markets hedonistic namely pleasure seekers, but these individual actors and individual markets or also rational. Now, the world rationality has many interpretations it could be a very narrow interpretation to mean a very given set of objectives which have to be reached with a specific set of tools. So, you use these tools to obtain, obtain these objectives you could be calling yourself rational in a more general, in a much more broad spectrum application of the world rationality. We could think in terms of people who use the power of reason, who use the power of reason in order to articulate their way through the problems of existence the problems of choice.

In this way rationality would mean that people are constantly perceiving life perceiving existence as a series of choice, one choice situation after another, one choice situation after another adnosium. And in each choice situation the actor is asking the question what is to be gained out of this choice and what is to be lost in other words what is the price is to be paid. So, should I or should I not have this particular commodity for my consumption if so, that is the gain then the loss would be what I have to pay for it. So, the rational activity in this case would be a comparison of the price to be paid for a commodity and the valued that particular commodity affords to the consumer. So, all situations are viewed as choice situations and all such choice situations are viewed as being resolved on the basis of rationality in the sense in which we have just seen it.

Now, this is a very strong assumption this is a very strong assumption, because it assumes that fundamentally or non rational situations in life cannot be considered within economic theory. For example, somebody falls in love, he comes and tells you I am in love, you cannot tell him to be in love rationally. You can only tell him you are in love so what do you feel? The man says, I am feeling very happy or the woman says, I am very happy. So, what do you want to do about it? Well I want to spend a lot of time with this other person great. So, how longer it going to go on doing it? I do not know I just want to spend a lot of time, you see here is a situation where rationality is not resolving anything for you. There is a demand to spend time with the other person, you go on spending time with the other person, you do not know what price is to be paid does not matter why, because you are in love it is a non rational situation.

So, there are a whole lot of non rational situations in life where the people act on the basis of the decisions which are not really rational. Another example which one could talk about is a situation where causes are involved, causes in the sense that these are ideals for which people would like to sacrifice. For example, nationalism is a cause, an appeal can be made save money and contribute to the national development fund. Now, this is not a rational choice an appeal for a rational choice, you might like to spend the money very usefully in your idea by buying yourself something to eat or buying something to wear. But this appeal which tells you to spend your money for national development is going beyond the choice of rational choice of options that you are facing. It is merely telling you get beyond all these things the nation needs your money put it in the national kitty and we will use it for the betterment of the nation.

Now, here is the situation which is non rational in the sense that the choice in which we have talked about it earlier does not come into play at all. So, what we are trying to show at this point is that there are a whole lot of human situations where rationality is not involved in any choice situation, sometimes choice situations themselves are not very clear and very evident. Now, one of the central facets of the partial equilibrium analyses is that, it is not possible to consider any of these situations unless it is viewed as a rational choice. This is a very restrictive premise, in the sense that it seems to restrict human behavior into a very narrow corridor into which you want to see everything moving, well that the way partial economic analyses is and we have to accept that.

Another very crucial aspect of partial equilibrium analyses at least at the time of Marshall, we shall now see also, how it what happened after Marshal. But at the time of marshal certainly cardinal utilitarianism was accepted as the norm, what is utilitarianism? We know that utilitarianism is a philosophy which stated that the worth or the value of anything is to be seen in terms of the utility that it offers, the usefulness which it offers. And the utility according to utilitarians is something measurable, some of the early utilitarians were thinking in terms of measures like util, eating this is so many utils, drinking that is so many utils, taking a walk is so many utils, they try to bring in some such measurements into it that was their power of belief. But whether they could measure in terms of utils or not, the fact was that.

There was a very clear assumption that nothing was worth anything either in a philosophical sense or in ethical sense or in the sense of being worthwhile unless it had utility to offer. So, utilitarianism then was centrally based on the idea that everything has utility and the choice among situations in life was basically depended upon utilities offered by different situations in life. If they are ranked and they are compared, then you could order life into more satisfactory, less satisfactory, higher level of welfare, less level of welfare, according to the ranking of the utilities in different life situations, this is utilitarianism in brief.

Now, utilitarianism of this type is very central to partial equilibrium analyses, for one thing everything in equilibrium analysis is attributed to the utilities that that thing has. Whether it is an event or it is an object or whether it is a service it is considered as being useful only if that thing has a power to satisfy your want. If you want a glass of water, you assume that you are thirsty and the glass of water will have a power to satisfy your

thirst. The power of the glass of water to satisfy your want is the utility of that water, likewise everything that you consume, the water that you drink, the food that you eat everything else virtually has utility.

Now, the crucial thing about partial equilibrium analyses as in the case of early utilitarian's is that they assumed, that this utility was measurable, you could strictly quantified so that ranking of utilities was possible very rigorously and very tightly. This cardinality of assumption, namely that you could fix numbers on the utilities of objects and thereby you could be comparing them and ranking this fix the ability of ask to fix numbers from the utility objects is what is called cardinality. So, cardinal utilitarianism is a very central, very central premise of partial equilibrium analyses, at the time of marshal it was assumed actually, that money measure the utility of objects to us. In otherwise you could measure this cup of ice cream, the utility that it offers me it is worth five rupees. So, I just had five rupees worth ice cream, if I had a cup of ice cream.

Now, added to that are other rules to which come into play, that if I keep having one cup after another ice creams, then ice cream will have a declining utility, because you know it is less and less satisfactory, you get tired of the sweetness of the ice cream, you get tired of the coolness of ice cream. So, each additional cup of ice cream means less and less to you, in other words you are thinking in terms of a situation where utility can also decline through repeated use of something. In that situation you say the first cup perhaps had a five rupees worth of utility the second cup perhaps had a four rupees worth of utility and so on and so forth. In other words not only can you rank utility, you can rank utility in terms of the value measured by money. Now, this is central, absolutely central to the economics of marshal and to the cardinal utility analyses of marshal.

Now, there are lots problems here, if money measures the utility of objects then, what measures the utility of money see what I mean. See I have ten rupees in my pocket, I can say the ten rupees measures the value of may be five chocolates. So, we say each chocolate is two rupees then I say okay what is the utility of ten rupees? Is not ten chocolates, because it could be ten chocolates, it could be fifteen peppermints, it could be one something large, in other words money can buy a lot of things and so, it is worth can be measured in a number of ways. So, what is the utility of money it becomes highly variable.

Now, imagine a situation where you are measuring cloth whether meterstic. And as you go on measuring the meterstic keeps expanding and contracting in size, then how can you measure cloth. Imagine that you are measuring milk and you say here is one liter of milk measured by a liter jar and then, another liter of milk a liter jar suppose, the liter jar keeps changing its size its shrinks and expands shrinks and expands. And each time you pour it might be a liter or more you do not know, you do not know at all, because the measuring jar itself is changing. So, when you want to measure something with something that which measures has to be constant, here marshal was using money as a measure of utility of objects.

So, the utility of everything on earth could be measured with money it is three rupees worth, two rupees worth, ten thousand rupees worth, fifty thousand rupees worth and so forth. But what measures the utility of money what about the utility of money.

Now, this was a major question which had to be faced and taken care of by means of a very special assumption. Marshal assumed that the utility of money is constant at some given value, for instance constant at some value one. So that whatever money measured its utility did not change and therefore, the utility of objects measured by money also remained constant and absolute. Now, therefore we have got two sets of issues here one utilities of objects are measurable, utilities of services are measurable, to their measurable in terms of money. And in order to make this possible you have to assume that the utility of money itself is constant at some one, some unity, some neutral number like that. More than one it keeps changing the value of utilities measured so, you do not want to do it, less than one it changes one is a neutral number so that is great.

So, this is the assumption of cardinal utility as measured by money, this is the premise. Granted this premise, the analysis worked the analysis worked quite efficiently. There are a numerable markets for innumerable goods, there are a large number of buyers for these goods and there are large number of sellers of these goods. So, people go to the market they look around and they say here are p nuts, here is butter, here is a chair, there is a piece of fabric some cloth great. Let me buy the fabric it close attractive may be a good curtain or a big cloth whatever what does it cost. The Prasan says sir, this is fifteen rupees, then I say fifteen rupees is it worth fifteen rupees to me, is it worth more than fifteen rupees to me.

So, if the utility of something measured in money is worth is more than its price has great I am gaining, I pay only fifteen rupees, but I get something which is to me worth a lot more than fifteen rupees so, I will buy it. But if it just fifteen rupees worth I will say I mean I can just about manage it, because its I have to pay fifteen rupees and I getting fifteen rupees worth of utility that is ok it is a good trade of I do not loose; but if it fifteen rupees price and if I have to consider it when I think it is less than 15 rupees worth. Suppose, I say oh I have got three bed sheets already, this will be the forth bed sheet it is pretty, but I have got three bed sheets already, so the forth bed sheet is gone to be in waiting list for being used. So, maybe I can think of its pretty so I will give it five rupees so, the utility of that forth bed sheet is only five rupees, but the prices fifteen rupees.

So, in this situation the utility that I get out of the bed sheet is less than the price I pay for it, I am not going to buy it. So, choice in terms of what you have to pay as price and what is offered by the good or commodity to you in terms of the utility measured in money terms, this is the way partial equilibrium analysis worked with marshal. All the consumers constantly compared the utilities that they get of the commodity with what they have to pay which is the loss of money as price paid to it and see whether there is a net gain, whether there is a net loss and that decides their choice.

But, then as I said there is a little catch to it, remember the ice cream's story, I said it is possible that the first ice cream might be worth five rupees to you, then you have the next one it is not so sweet, it is not so refreshing, it is not so cool say oh it is not good as the first ice cream. It is not really true when the fellow made it he put the same ingredients in both the ice creams it is just that your taste buds are satisfied a little bit. So, your second ice cream is not giving you that much of a thrill as the first one did. So, what is actually happening is that the utility of the second is now lower to you, then the utility of first ice cream am I right. In which case we have to say the first ice cream may be it is worth five rupees, the second ice cream may be 4 rupees 50 paise, but not five rupees.

Then I gone I have a third ice cream, I still think it is attractive it is got a nice pink colour very attractive I eat it, but I said oh I am fully seated I do not like anything sweet any more, I do not like anything cool any more, I had this third ice cream it is not really good to me as first and second ice cream. So, what is happening the third ice cream probably worth two rupees not four fifty not five. So, what is happening here according to marshal

is that there is particular behavior which utility is following, when you consume things. When you keep continuously consuming something according to marshal the utility of that thing declines now, that rule is expanded when you consume something continuously it utility declines fine.

When you use a labourer in the same situation its productivity might change. For instance you have one labourer to clean up this studio, the person is doing some work, you bring in the second labourer, you also clean the studio. Now, there are two people getting in each others way so how much they can clean the studio is now, much less then before. So, in other words the productivity of the first labourer, when he or she is all alone cleaning this room might be one thing, but when the second one comes in they get in each others way productivity of the labourers fall. When you introduced the third one the first two labourers are certainly irritated this now you do not need the third person he or she is going to certainly get in the way and that happens. So, by the time the third labourer comes in the productivity falls even more know.

So, just as in the case of ice creams so too in the case of labour, so too in the case of machines, so too in the case of ever so many things which are used in the production process. So, marshal is thinking in terms of a very general law, a very general law which acquired all most the same significance in economic theory has Newton's laws acquired in physics. And this law is the law which says that repeated use of something makes its utility fall, the law of diminishing utility. Of course, it does not happen all the time for instance suppose, you take a spoon of ice cream immediately followed by the second spoon, followed by the third spoon you will see you will be able to see the taste declining.

But suppose, you have a spoon of ice cream now, an hour lated you have the second spoon of ice cream, you might be even more thirty, you might like the second spoon better. And third ice cream you might have two days later, third spoon you might have two days later and you might feel the third spoon even more, even tastier. In other words the reputation of consumption has to be in suitable time, you needs suitable time gaps, in other words there has to be reasonable margin of time between consumption. And similarly, you cannot say one bucket of ice cream is a first consumption and second bucket of by the time you are through with the you cannot consume any more ice creams.

So, again the units of consumption must be reasonable. So, there are lots of context in which you got to modify this law, but the fact remains that the law is accepted from the time of marshal, the law is accepted as universal, all economist come to accept that the law of diminishing utility its application in consumption or production is universal. Now, that is very central that is very central, because that determines a whole lot of theory. What happens is when you are comparing the price of an ice cream with its utility the question arises, is it the first ice cream or the second ice cream or the third ice cream, because they prices the same. The price in the shop of one cup of ice cream is five rupees, your first ice cream give you utility of six rupees, you may say it is great I am having great fun with this ice cream I am getting much more out of this then what I have to pay for it lovely.

Then you come to the second ice cream gives you less utility and you say it is worth five rupees, what the price? Five rupees the second ice cream is just about worth while. The third ice cream 4 rupees 50 paise oh no, I cannot pay five rupees for an ice cream which is now only four rupees fifty paise worth to me so I do not want it. In other words how you make your choice, how you spend your money is very crucially determined by this law of diminishing utility. The utility of objects is not constant it keep changing according to the law which simply says as you go on using them it should (( )) false. And therefore, what price are you comparing with, what item become very crucial. If you are comparing an ice cream price stranded one ice cream is five rupee, five rupee, five rupee it does not mean that you will compare every ice cream in the same way no, because the first ice cream has higher utility, second ice cream has less utility and so forth.

So, the fact that utility is declining is a very crucial factor in determining how many ice creams you will eat I may right. In other words choice in economics is not only a function of the measurability of utility in money terms, but also is condition by the fact that utility declines. These utility laws might be compared to an tropic laws in physics, in other words the law of entropy in physics simply says that as you have more and more and more of objects which manifest energy, the amount of free energy in the system goes less and less and less. The utility laws pretty much the same as you go on have more and more and more goods to consume the utility available to you became less and less and less.

So, very often people who were thinking of comparing disciplines they compare the utility laws with the entropy laws of physics. But whether you compare with entropy laws of physics or not the fact remains that cardinal utility analysis means, that you measure utility and money terms not only that, you measure utility which is declining. So, the whole problem of economic choice is determined not only by the fact it utility is measurable in money and you will pay for money terms, but it is also determined by the fact that the utility declines. So, three basic premises for partial equilibrium analysis, the people are hedonistic people are rational and utility is cardinal and measurable in money terms.

Now, the problem of choice through which economics studied in all economic problems with the partial equilibrium or general equilibrium, the problem of choice relates to the question of am I solving my problem of choice efficiently or not. In other words am I using the resources at my disposal efficiently or not, remember you have so many rupees in your pocket, you have twenty rupees in your pocket and each ice cream costs five rupees. So, the maximum number of ice creams that your budget can provide for is four ice creams and you say well if I am getting more than five rupees worth of utility from every ice cream. And each ice cream cost only five rupees and four ice creams great, I can have all four and still make something extra in other words I get something gain something more then what I pay for.

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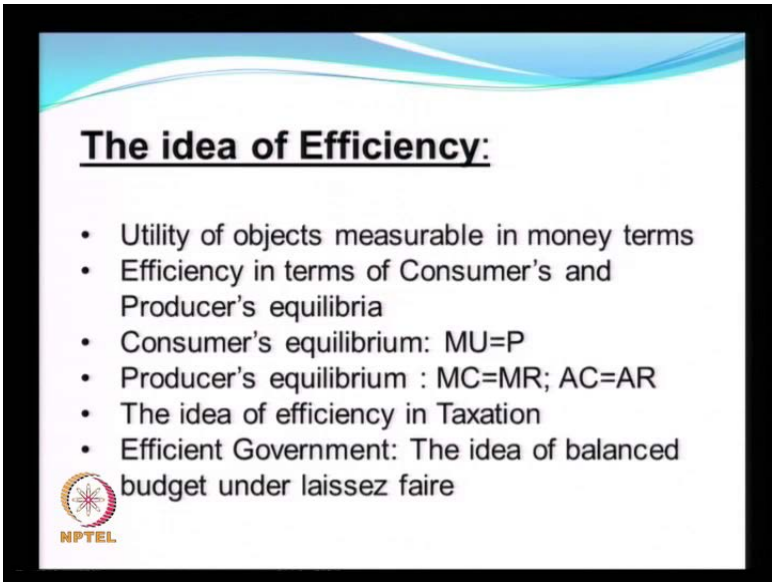

So, the problem of efficiency in economics is always tied up with the question of gains and losses. Whenever you make a choice to buy something, you get the utility of that thing as we have just now, seen that measured in money terms. And in order to get that thing you have to lose something that is some little bit of money from your purse, the price that you pay. So, there is a loss of purchasing power from you, which you incur in order to gain some utility. So, efficiency in economics is measured in terms of whether what you are paying, what you are losing is more than compensated by what you get, which as I said if I am getting an ice cream which has a utility of six rupees, if I am paying only five rupees for it, then it is a very efficient choice, because I am getting one rupee worth of extra utility there is a net gain.

Now, as an go on consuming ice cream this net utility might drop drop drop till I have to pay four rupees fifty paise, I have to pay five rupees for an ice cream which is only four rupees fifty paise worth. In this case I will think what is the net gain minus fifty paise, I am loosing in this choice I do not want this choice. So, I do not choose that ice cream I stop when the price of ice cream is five rupees and the utility got from it is at least five rupees or more. In short the idea of efficiency in economics is always in relation to the resources which have to be used for satisfaction of demands for consumption.

In other words you have to spend resources in order to get utility. And for a given unit of resources that you spent how much utility can you make for a determine your efficiency in the case of ice cream. Five rupees is the resource you have to spent and what you get is a utility of ice cream that might be six rupees or five rupees or four fifty and that will tell how you choose ice creams. Efficient choice is one way utility of ice cream is more than the price paying for it and in efficient choice is one where you are force to buy an ice cream, but you pay much more than what the utility of the ice cream is to you.

So, the idea of efficiency in economics is always tied up with how resources are used. Are they resources which are used bringing me sufficient returns or are they not bringing sufficient returns. Now, in the case of ice cream we know that the returns is a utility of ice cream, but in all other commodity is in all other consumption activities, there is always a utility which is measured in money terms so efficiency moves like this.

Now, the way in which the partial equilibrium analysis discusses this issue is when this choice is shown in as an equilibrium or a disequilibrium situation. Initially let us say,

because the consumption is valuable to me, the utility I get out of it high and I go on consuming more and more and more the utility goes on falling. Till such time as the utility becomes the same as the price which I have to pay for it and at that point I stop, I stop because I say I am getting just about moneys worth. Now, that equilibrium is called the consumers equilibrium in economics. You can see in the power point presentation that the consumers equilibrium is marginal utility MU equals P the price.

In other words marginal utility is utility of the last unit I am consuming. Before that there are more units which I had already consumed which are higher utility, the utility is declining declining declining, but the last unit I am going to consume now, does it have enough utility which will at least tell me that I can pay the price for it. In other words the marginal utility has to be equal to price beyond that when marginal utility declines below price then it is not worth it. So, the equilibrium condition for the consumer economics then is MU equals P as you see in the power point presentation.

Like the consumer, the producer uses a lot of resources, the consumer is using only the money in his pockets. The producer is using raw materials, the producer is using labour power, the producer is using power, the producer is using space, go down, machines all sort of resources are being used by the producers. And he has to consider whether these resources are being used efficiently, how does that happen, he cannot look at all these resources and look at production in one totality, because then it is a very complex problem, he has to look at each resource as separate market. So, then he looks at the market for labour, how many labourer should I employ that choice. Then market for finance, how much can I borrow from the market depends upon how what their money is going to my business so that is another choice.

Third how much power should I used for producing goods in my factory, given the power tariff how much power should I used, in other words once again a choice relating to another resource. So, the producer is faced with the number of choice situations with each resource that he is using. And in each case that particular resource is bringing in some return and he has to pay a particular price for that resource. In other words take the example of labour, if you include a labour in production process he might be able to produce let us say twenty pieces of soap each day in a soap factory. Then he say twenty pieces of soap is a productivity of this labourer, what can I sell each piece of soap for

five rupees, what does this labourer want seventy rupees, he can produce five into twenty hundred rupees worth of output I pay only seventy rupees.

So, the productivity of the labourer is higher than the price I pay for labour I shall employ. In other words, the rule that you follow is that the productivity of that particular resource is higher at least equal to the price is paid for that resource. So, in this way the producer looks at all the resources and engages in a calculation of this type with each resource, then what happens as a product of this is the cost of paying all the resources bring in a certain cost of production to him.

So, for each addition soap that he produces, he may be paying so much labour, he may paying so much interest to the bank for the funds that it wants, he may be paying so much power for electricity used in production process and so forth. So, each soap might have a cost of production consisting of so much for labour, so much for electricity, so much for raw material, so much for this that etcetera this is the cost of producing soap. Then what does it sell in the price, that is a revenue from soap. So, the producer will say is it worthwhile my being in business, it is worthwhile if my being in business ensures profit it, it is not bringing profit it is not worthwhile.

In other words the revenue that I make from the business has to higher then the cost I incur, then I make a profit is worthwhile. But as the revenue goes on declining and does the cost is constant comes a point when the revenue equals cost. The revenue brought in by the last piece of soap which I produced is just about equal to the cost of the last piece of soap beyond that I do not want to produce soap. The rule is marginal revenue equals marginal cost, very much like the consumer the producer faced with the problem of the price that you have to pay to produce one piece of soap and the money that you make out of it.

So, the difference here is, the difference is between the cost of production and revenue from the production as oppose to the price and utility in the case of a consumer, but the choice is the pretty much same. So, producers equilibrium would be marginal cost equals marginal revenue, more importantly not just marginal not this last piece of soap which I manufacturing. But what is the average price of all these soaps that I made, the cost is varying and the revenue is varying, but an on an average is the revenue from soap at least equal to the cost of soap, then it is worthwhile. But on an average if the revenue from

soap is higher then the cost of soap, great I am making good money, but if on an average the revenue from soap is not as good to meet the cost then I do not want to make soaps.

In other words, efficiency for the producer means, rules which say marginal cost equals marginal revenue or average cost equals average revenue. So, we have producers equilibrium, you have consumers equilibrium in partial equilibrium analysis. In both cases there is a cardinal utility measurement involved, either it is productivity or utility. And this value of the consumption in terms of productivity or utility as the case may be is compared with the resources which the use of that particular activities costing. Whether it is consumption or whether it is production you spend money and you say this is the cost, this is the price either way then you compare it the gains with the losses.

So, efficiency conditions in Neoclassical economics, Marshalian economics in partial equilibrium analysis, involves the study of efficiency in terms of equilibrium conditions. The utility marginal utility of something must be at least equal to the price if not more, marginal revenue from some production activity should be at least equal to the costs of undertaking that activity. In other words marginal revenue should be at least equal to the marginal costs, but more generally in the long run the average revenue must be at least equal to the average cost.

Now, these are the rules which are there in partial equilibrium analysis which ensure that on the one hand consumer is in equilibrium. And therefore, efficient producer is an equilibrium and therefore, efficient and these lead to efficiency of the system as a whole. So, if every consumer is behaving efficiently like this, if every producer is behaving efficiently like this, then the market economy which is nothing but a collection of these consumers and producers is an efficient economy. In other words, Lezzifaire as we saw an non interference with the government is worthwhile, the economy solving its own problems it does not need any government. In other words, partial equilibrium analysis tried to provide for an Adam Smith premise in the analysis of equilibrium conditions. At this point in time, we shall take a break and after the break going to look at general equilibrium analysis or what we have seen as Walrassian economics.