An Introduction to Microeconomics
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Lecture - 63
Demand Revisited

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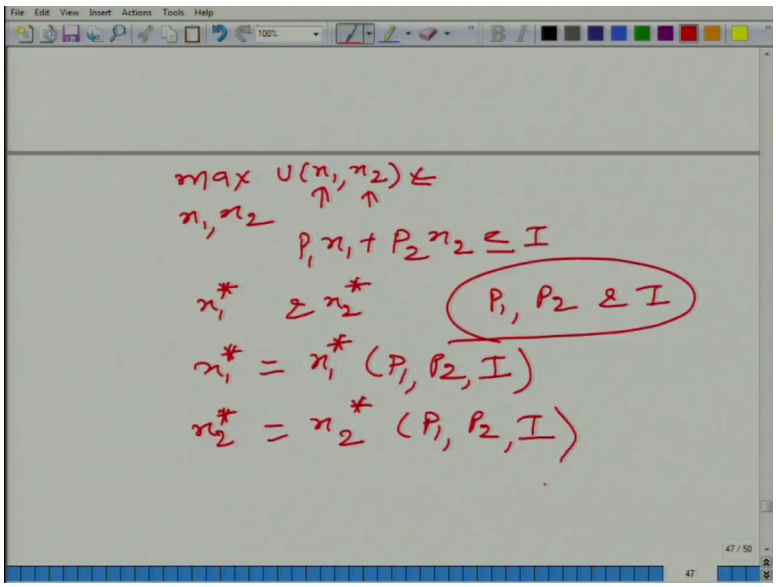

Now, we are going to again revisit topic on demand ok, but now we are going to do it using the concept that we have learnt in the chapter of consumer theory ok. So, what we have learned in the consumer theory, that consumer tries to maximise his utility given his budget constraint. If I say of course, in very you know in mathematical and precise way to say it, but this is what we have learned ok.

When you solve it, when you solve this you know, what do we do we solve for x 1 star and x 2 star fine. If you pay attention to this x 1 star, x 1 and x 2 are variable utility function depends on the preference of this particular person, what kind of parameter we have? The parameters are p 1, p 2 and I by the way what are the parameter what do I mean by parameters variable given a parameter is variable, but its beyond the control of the user beyond the control of consumer in this context and also parameter parameters do not change in the short period of time. But of course, all the interesting results that we are going to get we will get by varying the parameters ok.

So, what we get x 1 star is basically a function of p 1, p 2 and I and similarly x 2 star is also a function of p 1, p 2 and i.

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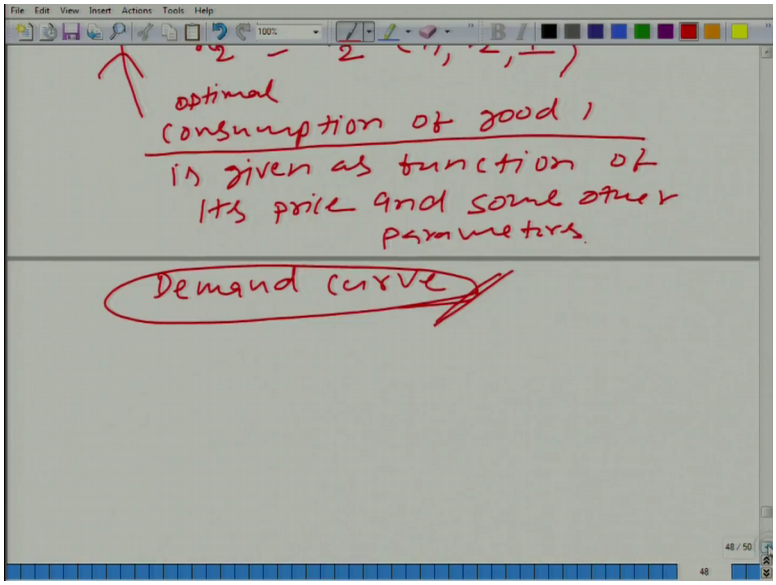

In other word consumption of good one is given as function of its price and some other parameters . Right now we are not worried about some other parameters and what is this the optimal consumption, this is the optimal consumption. If this is your optimal consumption it means that this is basically quantity demanded of good one as a function of its price, if you here if you give the value of p 2 and I and leave p 1 in the variable form what do we get the quantity demanded as function of this price. So, basically this is what demand curve.

So, so far what we have been doing basically that we have been deriving the demand curve using preferences, using some building blocks that we have discussed in the this particular chapter, but the ultimate aim was to derive the demand curve and that is what we have done ok. So, can you just for example, if you go back if you have solved then goods are perfect substitute let say we are talking about 2 good worlds?

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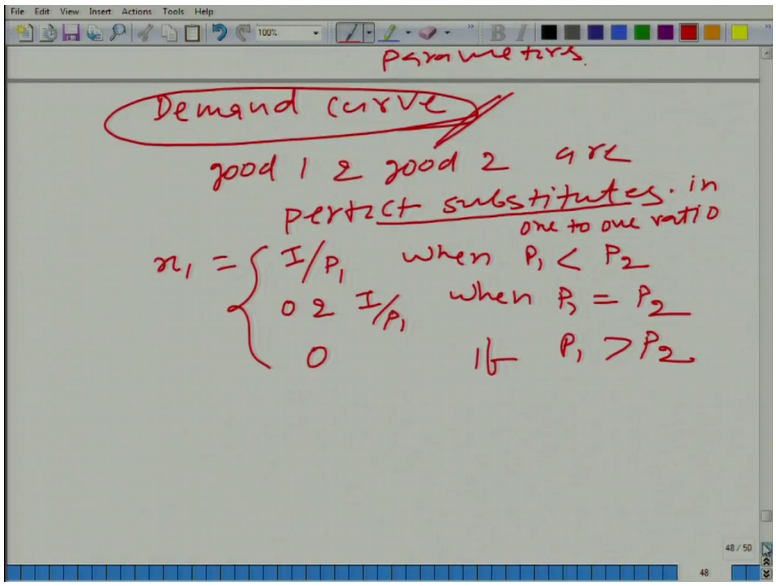

Where good 1, and good 2 are perfect substitute, perfect substitute in this case the demand function for good 1 can be given as this particular function this is equal to I divided by p 1 when and perfect substitute of course, one thing I am leaving out here that perfect substitute in 1 to 1 ratio because perfect substitutability does not ensure that the exchanges 1 is to 1. So, I am saying here 1 to 1 ratio.

So, this is going to be I divided by p 1, when p 1 is less than p 2 and anything between 0 and I p 1 when p 1 is equal to p 2 and 0 if p 1 is greater than p 2, this is what we observed.

Student: one doubt ah, you are saying that the consumer things use 1 to 1 ratio, but when we (Refer time: 05:15) bread and butter they will be ratio 1 is 2.

No I did not say that they have to be in the 1 to 1 ratio, I am saying here that here the example that we are taking good 1 and good 2 are perfect substitute and they are in 1 to 1 ratio. What is the definition that I gave for the perfect substitute, that 2 goods are perfect substitute for a consumer if he is willing to exchange 1 good for the other good in the fixed ratio, that ratio can be anything 1 is to 2, 2 is to 1 anything, but here I am saying for this example that he is willing to exchange good 1 for good 2 in 1 to 1 ratio ok. In that case this is the demand function we will get, is it clear and that is how we obtain demand function ok.

So, now let see, let us do a simple experiment.

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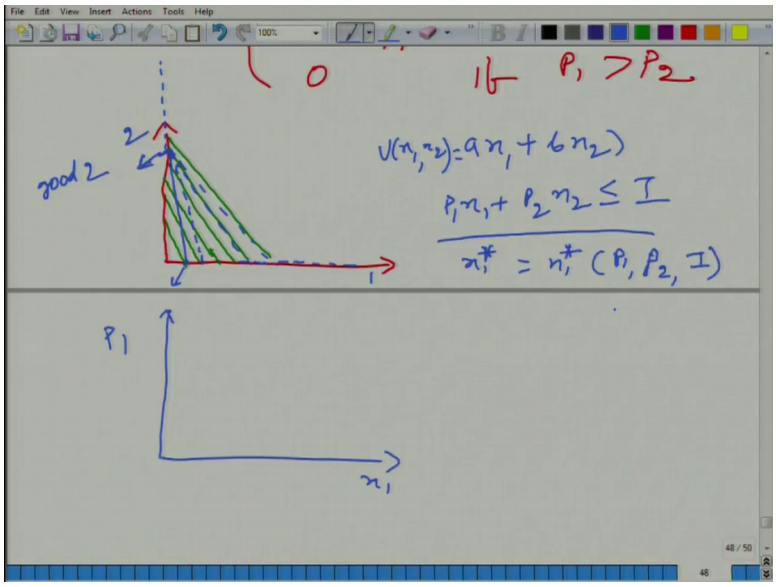

Here we have, let say these are the indifference curve these are the indifference curve fine. They are parallel at assume them assume that these are parallel ok, now let say this is the budget constraint; this is the budget constraint ok.

Now, of course, it all depends on the value let say if they are perfect substitute their utility will be given by this equation and budget constraint will be p 1 x, 1 p 2 x 2 should be less than I. Now, what we do we will start increasing p 1, we will start increasing p 1 what will happen, when we start increasing p 1 how would it become or you can say let us start decreasing in this scenario particular scenario start decreasing p 1, how would it look like from here we will move to this, we will have anticlockwise rotation pivoted at the maximum amount of good 2 possible, is it clear.

So, what I am saying of course, I did not give you value and randomly I had drawn that p 1, plus p 2 x 2 is equal to I is going to be a straight line and I do not know where it will be I am just I have drawn something randomly, but now if we increase let say this blue line gives this budget line.

What happens if we decrease the price of good 1 the, this point represents the maximum amount of good 2 that you can buy if this is your budget line and this is the maximum amount of good 1 that you can buy. So, if p 1 is decreasing and p 2 is remaining the same

this point will not change, this point will not change and this will swept and we know that 2 points are sufficient to draw the straight line. So, the new budget line is going to be like this and then it is going to be like this and so on fine ok.

From here what we are basically doing, we are varying the price by varying price basically what we are doing I just told you the mathematically, but I am telling you here graphically that we are obtaining the optimal consumption bundle. If we keep on decreasing the price of good 1, let us say in this graph it is it looks like it in this according to this graph at this price the person is buying only good 2, but as we start decreasing the price of good one what will happen there will be a point where this person would start buying good 1 and he will keep on buying the amount of good 1.

So, how will the optimal bundle look like here either in this zone or it is in somewhere in this zone, after it becomes flatter than this and then what we are doing here that here we keep x 1 as it is and we put p 1 here of course, by solving it mathematically we obtain x 1 star is a function of x 1 star, p 1, p 2 and i and it. So, happen in this case that x 1 star is largely independent of p 2 it depends only on p 1.

So, now we have to transplant these points in this graph and when we do it how would it look like, that above certain point we do not know let say, but we do not know it depends on value of a b and p 2. So, we can say above certain point there will be no demand ok, at p 1 what is going to happen.

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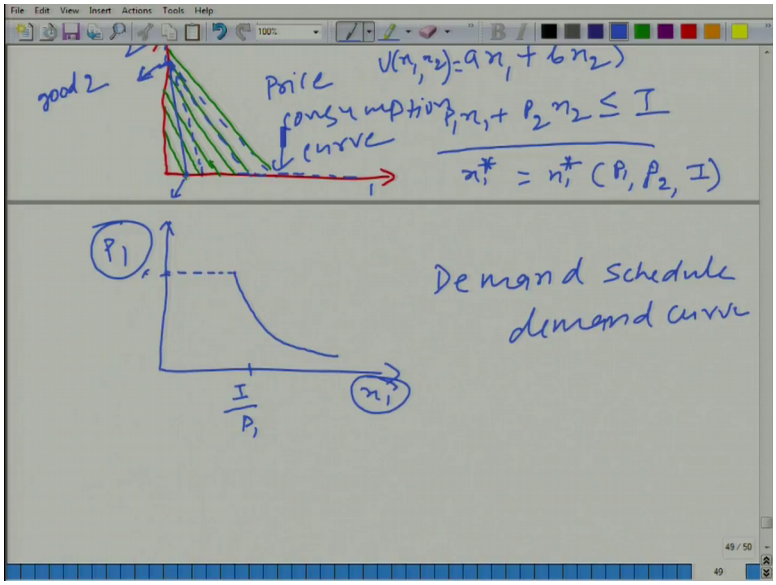

Somewhere from 0 to i p 1 something like this and after this what will happen something like this.

So, what do we get basically the demand schedule or demand curve and how about a curve denoting the curve passing through all the optimal bundles that we have obtained by decreasing the price of good 1, if we chart those the bundles then what do we get is price consumption curve, the name is price consumption curve there are other names also. So, we obtain price consumption curve of course, this will be the given by blue dotted line, blue dotted lines.

Of course, here it is on x axis, but why because on y axis we have 2 good on all those points good 2 amount of good 2 consumed is 0. So, that is why we get all these points on the x axis, but here on y axis we have price of good 1 and on x axis we have amount of good 1 and this is what we obtain. So, basically we end up getting the demand curve fine.