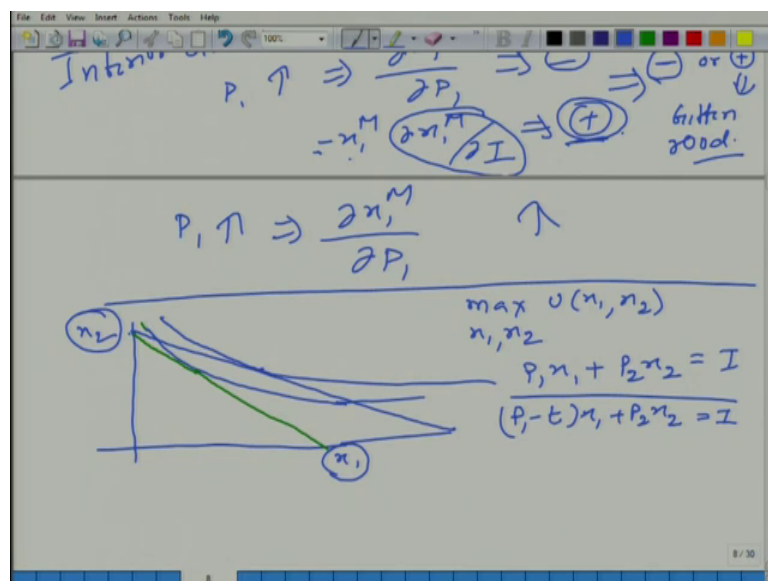


An Introduction to Microeconomics
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Lecture – 71
An Application: Subsidy Vs. Direct Benefit Transfer

Now let us that is the last topic in the consumption theory. Let us do a an application a simple application.

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See in the budget our finance minister announced that slowly at least for some particular goods government would move from specific subsidy to keys cash transfer.

Ok and Bihar government is already doing it for several product.

So, let us see what are the differences in these 2 scenarios. So, let us say let us let us say that; we have good 1 and good 2 again what we can say we are talking about good 1 on which there is subsidy and a good 2 is the composite good, it represents all other good like for example, let us say good one is LPG gas cylinder ok.

Now, let us say that this is the scenario, this is the indifference curve that this person is able to achieve of course, I should draw more indifference curve. Now what is happening

that government if government give subsidy on gas cylinder what will happen to the budget line? Budget line shift or budget line will.

Student: Rotate.

Rotate in which direction it will rotate?

Student: Anti clockwise.

Anti-clockwise pivoted at x_2 . So, it will be something like this fine of course, in this case the utility level of consumer that utility level that consumer can achieve will go up what is happening let us say here maximize x_1 u of x_1 comma x_2 . And what we have ? $P_1 x_1$ plus $p_2 x_2$ should be less than or let me put just equal to I.

Now, what is happening if government gives subsidy on good 1 and let us say it is the specific subsidy then, what will happen to the budget line?

Student: (Refer Time: 02:30).

Equation tell me the equation.

Student: (Refer Time: 02:31).

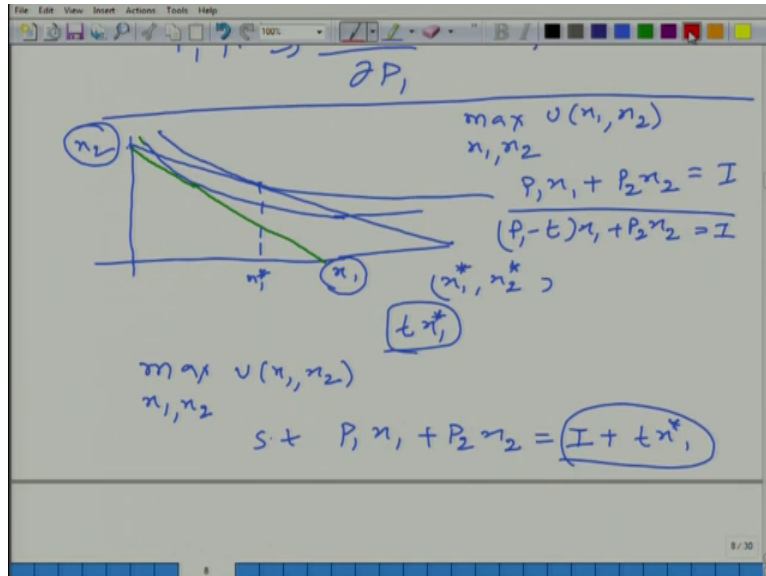
P_1 what did we do in case of taxes subsidy here is just opposite of taxes and it is a specific subsidy means; you why once cylinder gas instead of paying p_1 you pay p_1 minus t because t amount is given by the.

Student: Government.

Government. So, it is p_1 minus $t x_1$ plus $p_2 x_2$ it is clear.

Now, let us see.

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That optimal level we figure out is x_1^* x_2^* and this is the optimal level. We are of course, interested in x_1 how much will be the subsidy government subsidy.

Student: T.

$T x_1 t x_1^*$ and that is fixed ha that is given, that is that does not vary with x_1 because x_1^* is a fixed number. Now there is another way of giving this subsidy the another way could be that rather than giving it on gas cylinder government can do cash transfer equivalent to this much amount. So, rather than telling you that when you go and buy gas cylinder rather than paying the full price you pay something less.

Now government say figures out that this is the optimal level of consumption in this case and government says rather than giving you subsidy on gas cylinder I give you subsidy on income. In a sense that I gave I make some cash transfer to you.

So, in that case let us see what would be the problem maximize $u_1 u x_1$ comma x_2 such that; $p_1 x_1 + p_2 x_2$ plus.

Student: I plus $t x$.

I plus $t x^* 1$ and this is fixed.

Student: (Refer Time: 04:24) $t x$ how can we get $t x^* 1$?

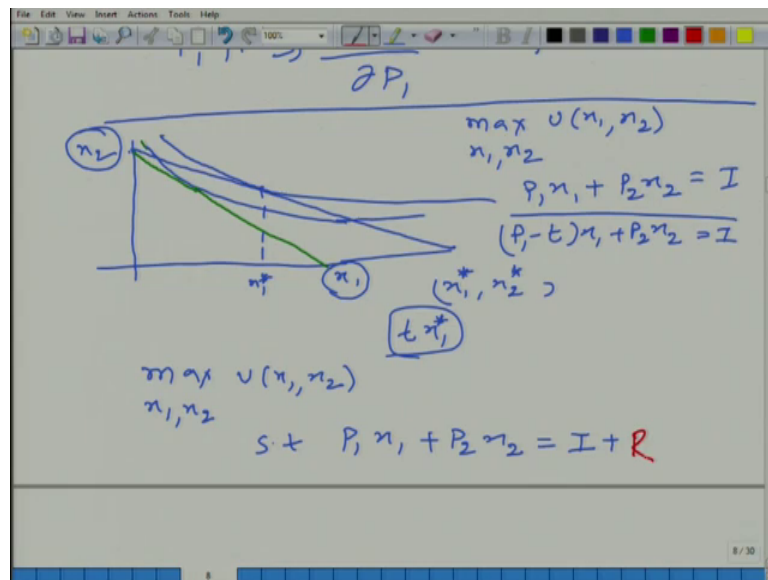
What did I say?

Student: (Refer Time: 04:29).

X star x 1 star is not unknown, let me give you in this example because government is moving from a specific subsidy to cash transfer on some matter government knows x 1 star, how many cylinders people are buying in generally ok. So, this is known. So, what government can do rather than giving this subsidy on cylinder we will just make some cash transfer to you. And how this cash transfer will change the problem, now let us see let me use the red color.

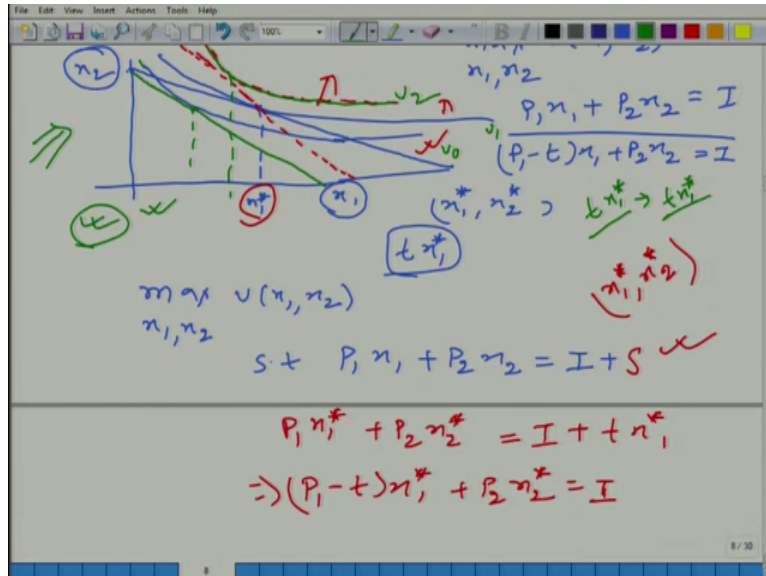
Now, what will happen? Now instead of writing tx 1 star to wide confusion let me write it here as R.

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This is the or S would be probably the better word.

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This is the subsidy

Now, what will happen to the budget line?

Student: Parallel shift.

It will be a parallel shift that we know that it will be parallel shift can I say anything more other than parallel shift. It will pass through this x_1^* x_2^* . Let us see whether this budget this new budget line satisfies whether it will pass through x_1^* x_2^* or not, what we can do? $P_1 x_1^* + P_2 x_2^* = I$, and what is S ? $T x_1^*$ this is P_1 minus $t x_1^*$ plus $P_2 x_2^*$ is equal to I .

That means this line this line is passing through x_1^* x_2^* .

So now we can draw a line draw this line, what we do? That there is a parallel shift and it will pass through x_1^* x_2^* . So, what we will have if and we also know that our new budget line is cheaper than this line.

Student: Thin line.

And it passes through this point. So, what is happening it will be something like this of course, these 2 lines will be parallel ok.

Now tell me that on this budget line the new budget line the utility the maximum level of utility that this consumer can achieve would be higher or lower.

Student: Would be higher.

Would be higher why? Because this line is not tangent to the the highest possible utility level that can be achieved in case of a specific subsidy it is crossing it.

it means; clearly what we have learned earlier during optimization? That if it crosses.

Student: Then.

The budget line then utility can be.

Student: Higher.

Increased, how it can be increased my moving in this direction. So, what will happen that?

Student: (Refer Time: 07:19) less of x 1.

Let me use green color. This will be the new utility level let us start with u_0 u_1 and u_2 , u_0 is the utility level achieved without any subsidy u_1 is the utility level achieved with a specific subsidy and u_2 level is u_2 is the level of utility that can that this person can achieve in case of cash transfer.

Now, see what is happening that when a person is given cash transfer he can decide optimally whether he should be using this transferred money to buy some gas cylinder or something else.

That is up to him. Now here government is forcing in a way that because you get subsidy only on.

Student: Gas.

Gas cylinder. So, it is not optimal for the consumer. So, what we see here that of course, cash transfer will make the consumer.

Student: Better.

Better off or government is the same scenario, why it is the same scenario ? In the earlier case also, the expenditure is tx 1 star and in the new case is also expenditure is tx 1 star subsidy remains the same.

Student: Same.

In both the cases, but in this case what happens that the utility level that a consumer can achieve goes up and is not it this is the aim behind the subsidy.

Student: (Refer Time: 08:55).

It is like you know we we talked about poor people cylinder is very expensive that is why it should be subsidized, but what we are saying equivalent amount we give you as rupee in as cash transfer and you can do whatever you want to.

Student: sir just a question sir what would happen if in the second kind of subsidize they give like the cylinder would be of 700 rupees and for each cylinder bought they would transfer 400 rupees. Now we do not know x 1 star. So, how would it matter [FL] it would just convert with the in the case like.

The earlier.

Student: (Refer Time: 09:33) subsidy know.

It will converse like the earlier case fine ok. So, again let us see it is not perfect let me tell you it is not perfect there are some problems with this ok. What are the problems? Again, like it is it is very easy to implement that when you go to buy gas you pay the fixed price.

Now, transfer would be very, very you know due to a ascertain the transfer would be difficult. And also let us say here people who use more gas cylinder typically they would prefer specific subsidy.

So that their gas cylinder becomes cheaper fine that is one problem the second problem is that we are talking it is this kind of analysis is called partial equilibrium analysis, because we are studying only one side of it tax will also change the supply pattern of suppliers that we are not taking into account fine.

Student: So, it how suppliers would be effected supplier the supplying on the same price ?

Supplier how supply will be affected because see what happens these days that this subsidy is given to the in company.

Student: Ha.

Subsidy is given to the company.

Now, subsidy will be given to the consumer.

Student: Consumer.

So, that will of course, depending on the shape of supply curve it would affect the supply.

Student: But some marginal cost to same.

Marginal marginal cost will change marginal cost will change, because of various other factors transportation and other factors that are that those are involved there.

Student: Ok.

It would change.

Student: So, so can this increase the price of cylinder also?

It can increase the price of cylinder to some extent.

Student: ok.

So, again we can know this is very you know one side of the story economists are famous to talk about the though both side of the story and that is where the problem is, but I just wanted to say one thing here that here the cash transfer, cash transfer in cash the consumer is making the choice about his consumption, that he gets this much of extra money what he should do about, what he should by using this money, but in the other case the government is already making the choice for the consumer it is in a way paternalistic. It is like saying you know that if you study medical you will be given some

extra money. So, government is making this choice at least imposing government is imposing his choice on you. I am not saying it is anything against it, but I am saying how it is working. So, in this case I say in a way that there is more personal freedom individual freedom that is.

But again, how economics these 2 are very similar kind of scenario. On onset they look very similar, but they lead to different kind of result. So, the idea is that the theory that you are learning you should be applying to different day to day problem, to think about them in more rational and in more meaningful manner fine.