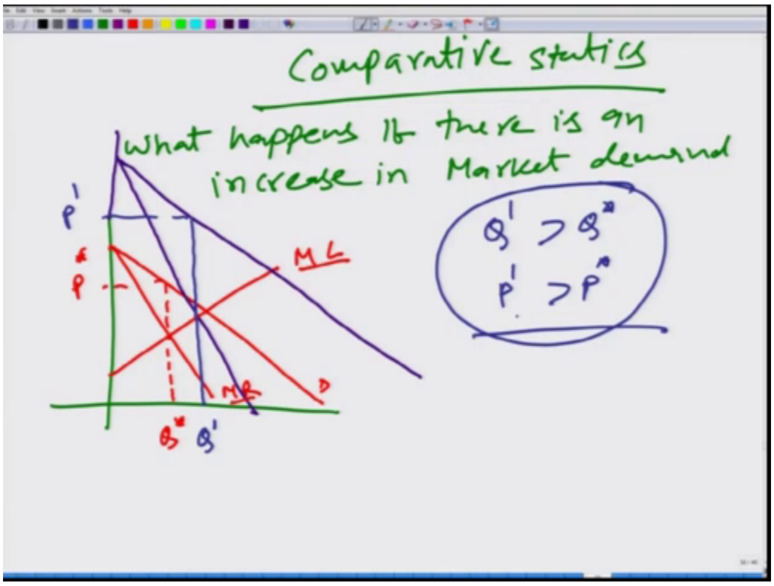
An Introduction to Microeconomics
Prof. Vimal Kumar
Department of Economic Sciences
Indian Institute of Technology, Kanpur

Lecture -130
Monopoly: Comparative Statics

Let us do some comparative statics.

(Refer Slide Time: 00:16)

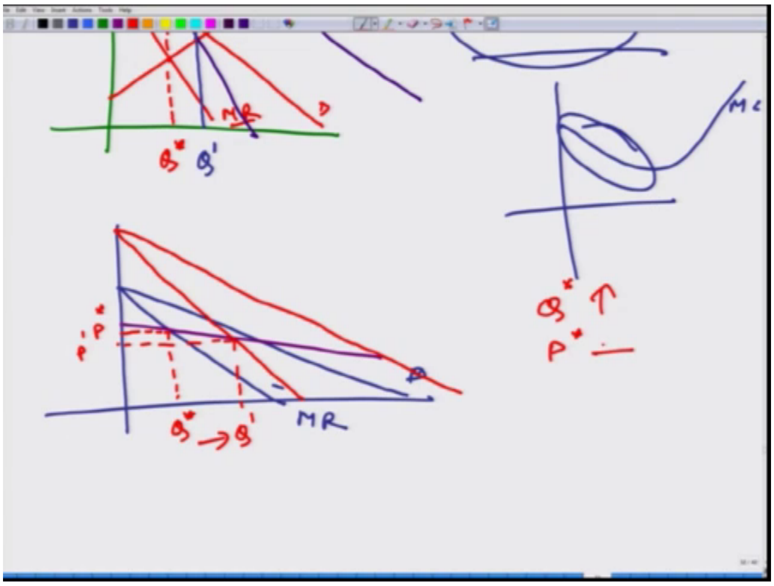


And this comparative statics we would do for the of course, monopoly as we are talking about the monopolist. So, let us say what happens if there is an increase in market demand? What it means is let us look at it graphically and we are going to do these things only graphically. So, very simple, let us see that this is the demand function, this is the marginal revenue function and let us say that this is the marginal cost function. Now what happens that, this demand curve shifts outward.

So, of course, the marginal revenue curve would also change and earlier we were having this as the equilibrium quantity and this as the equilibrium price. Now we see the intersection between M C and new M R is taking place at this point. What it means is? That the new equilibrium point let us indicate by Q dash that is equilibrium output and the new market price is P dash. Very clearly that Q dash is greater than Q star and P dash is greater than P star.

So, what we saw that if market demand shifts outward in that case the quantity supplied by the monopolist in the market increases as well the price at which it supplies its output in the market also increases. But the question is that is the case all the time? Or this is because the way we have drawn these graphs? So, let us look at another case that here we have looked at the marginal cost curve which is upward sloping.

(Refer Slide Time: 02:35)

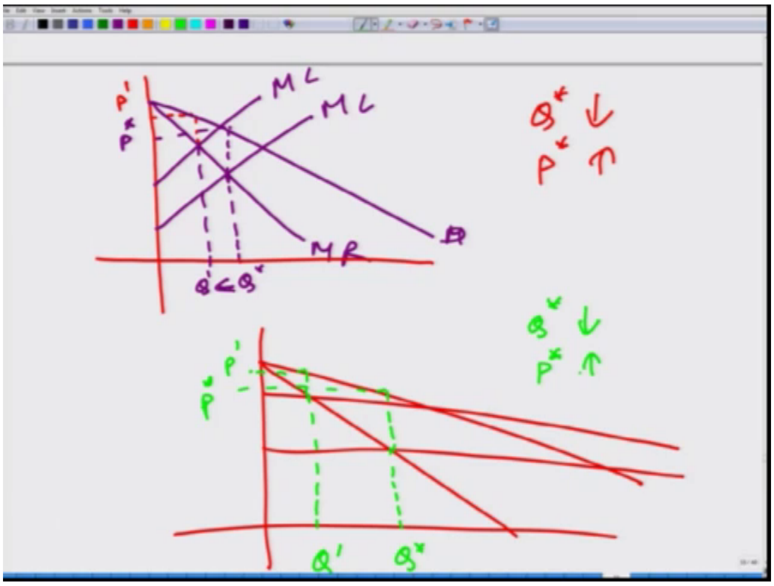


Remember that many times this is the way we have been drawing the marginal cost curve. So, it is also possible that the marginal cost curve can be downward sloping, this zone if we take a look at and let us see what happens in this particular case. So, continuing with it let us say that here is the market demand, here is the market revenue. This is demand, this is market revenue and let us say that; let me change slightly the color and let us say that this is the marginal cost curve.

Now what happens if market demand shifts upward? Let us say this is the shift. So, this is going to be the new marginal revenue curve.

What is happening to the quantity supplied? Quantity supplied still increases, but what happens to the price? Earlier this was the price, but now the price is slightly lower. So, what we in the two cases that we saw that Q star always increases as the market demand shifts outward. We cannot say the same thing about price. So, result about prices ambiguous, we cannot say. Let us do some other comparative statics and in this case, we will talk about, what happens if there is an increase in cost? So, again let us draw the diagram.

(Refer Slide Time: 04:17)



Here is the market demand function, this is D and this is marginal revenue and again here is the cost. And let us say the cost shifts upward, this is the marginal cost, this is the marginal cost. So, as marginal cost shifts upward, what happened to the quantity demanded? The quantity demanded decreases ok.

What happens to the market price? This is the market price earlier and the new market price is. So, what we see that as marginal cost increases or cost increases at all the point then what happens? Then the quantity supplied in the market decreases, but the price charged by the monopolist increases. What happens? Just to be sure try one more time. Oops, we have to draw the downward sloping one.

So, let us see what happens to the equilibrium? Earlier here is the equilibrium quantity and this is the price . Now with shift this is the equilibrium quantity and this is the price; exactly same result that we get as in the earlier case. So, we can say that as cost increases, the quantity supplied by the monopolist decreases and, but the price it charges in the market increases.

Thank you.