Principle of Economics

Consumers, producer & efficiency

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So so far we established at that when the government intervenes in the markets.

Market prices and quantities would be changed but and we established that depending on the shape of market curves either consumers or producers share a bigger burden of the government regulation.

But let's talk about the underlying changes in the consumers' welfare, so in chapter 7 we cover some basics about what's welfare consumers and producers received from participating in the market and how this well being changes when the government intervenes.

Welfare economics is the study of how and equilibrium in the market allocates resources and well being to different participants in the market.

First of all, we should remember that in the marketplace, because buyers and sellers affectively decided to trade each other, both of them have to receive some welfare from being willing to participate, to trade with each other.

And we will study how exactly buyers and sellers benefit and how their welfare level compares to each other.

We will say that the equilibrium in the market can be evaluated based on how much welfare it gives to consumers, producers and in case, there is a government intervention and maybe government collects tax revenues also well being of tax payers and in the economy.

So again let's continue reviewing what we learn so far we sent to that market demand curve represents the willingness and ability of consumers to pay for particular amount of commodity.

So this demand curve shows us the amount that consumers would be willing to pay for particular amount of the commodity and if consumers have to pay a certain price level such as p one, we would say that in this market with the price of P1 consumers will be willing to buy q one, amount of the commodity, this is the amount of willingness and ability to pay for this quantity and this is the actual amount that

consumers have to pay to producers.

Later we will say that this is the revenue of producers with this market quantity and this price.

That means that there is this triangle between what consumers have to pay what consumers were willing to pay and we will call this area, the surplus that consumers receive from participating in the market.

And if we if the price in the market changes if it falls to P2, we would say that this surplus of consumers increases and we can distinguish two parts by which it increases.

We would realize that now the existing consumers receive greater surplus, they're still willing to pay this amount for the commodity, and they (are) only have to pay this price level, so their surplus increases by this rectangle.

In addition, their new consumers who decided to purchase the commodity now, so there is this additional triangle which is the surplus of new consumers of the commodity.

Okay?

Similarly, on the supply side we can say that the supply curve shows us the minimum payment that producers would have to receive so for particular quantity of the product.

So it's the willingness and ability to accept of producers for the commodity.

And so this is the, so this line show us the minimum amount that producers would have to receive to sell particular quantity of the product and if the price in the market is P1, we would say that producers would be willing to supply Q1 amount of the commodity.

The revenues would be equal to be rectangle here, this area would be the cost effectively the cost of production of this quantity and we would say that producers receive a surplus equal to this triangle, and we can understand that is the surplus in access of the costs of a production.

And if the price in the market place increases, existing producers would receive greater surplus because now with the same cost of production, they collect greater revenues and in addition, new producers would enter the marketplace, new producers would start selling their product and producer surplus would also increase by this triangle.

So we can distinguish these two changes in producer surplus when price in the market changes.

Okay? Now to evaluate total surplus in the market and as a, keep in the back of your

head that we are discussing free markets without government intervention so far, so we will say that total surplus in the market is the sum of consumer surplus plus producer surplus.

And if we look at the expressions for consumer surplus and producer surplus, we would realize that amount paid by buyers and the amount received by sellers can get cancelled out in this summation.

So the total surplus only depends on the value to buyers and the cost to sellers.

Later we will introduce the revenues of the government from in equilibrium.

Okay? So we would say that if the society only cares about efficiency, the society would try to achieve market solution that maximizes the total surplus that market participants receive.

And as a side note keep in the back of your head that efficiency might not be the only criterion that the society is after we may also care about equity which is the relative distribution of welfare in the society, so we may care about relative size of consumer surplus and producers and the market place.

So in particular, the picture doesn't have to look like this, the consumer surplus and producer surplus don't have to be of equal size depending on the shape of market curves consumer surplus might be much smaller than producer surplus.

And a final thought on efficiency of free markets, remember one of the ten basic principles of economics was that in most situations free market achieves the greatest welfare possible.

We will say that in the equilibrium quantity we can notice that all the units for which value to consumer is greater than costs to producers are being produced and all the units for which value to consumer is less than costs of producers are not being produced.

So all of the units that we would want the society to produce are actually being produced and all of the units which would be inefficient produce don't get to be produced.

In that sense, we would say that if there are no complications, no market failures, free market maximizes total surplus.

And here, the footnote on this comment is that in the presence of market failures, this property may not hold the market price and market quantity might be set at a wrong level by a profit maximizing monopolist.

Or if some costs and benefits of production are not accounted for in the simple graph of market demand and supply, then the market solution may not include all of the effects of trade and we may not expect the free market solution to be the same as the welfare maximizing solution.

So there topics are very important for evaluation of what market equilibriums are preferred and how government regulation affects the welfare in the markets.

In the next chapter, we will study what happens to consumer and producer surplus in the presence of government intervention and you will see that in many of the chapters to come these topics will pop up again.

So please understand consumer and producer surpluses intuitively, don't memorize the material but understand the concepts intuitively.