EXERCISE 4

AGRICULTURAL REVENUE SUPPORTS

This exercise is an illustration of different agricultural revenue support policies ; its shows the underlying role played by price elasticity.

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The apricot harvest in South Utopia was so successful that if supply and demand were to decide, the price would be 15 utopias per kilo. The SUAPU (South Utopian Apricot Producers' Union) finds this price insufficient and is asking the Government to intervene.

There are two possible solutions :

a) the Government could decree a floor price of 18 utopias and commit itself to buying any eventual surplus at this price ;

b) the Government would not intervene via the market but would commit itself to paying the farmers 3 utopias for each kilo sold.

It is well known that the demand curve for apricots in South Utopia is a downward sloping straight line. Furthermore, apricots cannot be stocked nor exported.

Question 1

As farmers are asking for a rise in prices to increase their revenue, what can be asserted about price elasticity of demand for apricots, in this price interval?

Question 2

Compare the two policies, in terms of revenue and spending, from the point of view of the farmers, the consumers and the Government.

ANSWERS

Question 1.

Because the apricot producers expect that a rise in prices will result in a revenue increase, and because we are assuming that the demand is linear, demand at a price of 15 utopias is such that the absolute value of the price elasticity is less than 1.

Such an inelasticity of demand is frequently encountered in agriculture : often good crops yield low revenue for the farmers, if there is no government intervention, mainly because price reduction due to abundant harvests more than compensates for increase in the quantities produced.

On the other hand, as stocking and exporting are not possible supply, at harvest fine, can be represented by a vertical line.

Question 2.

Diagrams 4.1 and 4.2 illustrate the two policies available to the Government.

THE FLOOR PRICE

Fixing the price at 18 utopias, the Government reduces the quantity that will be effectively exchanged. Only OJ will be sold on the market while OH will be produced. A volume of JH will not be exchanged.

Without Government intervention producers who would have received a revenue of OHAL. Their revenue is shown by rectangle OHMK.

Consumers will suffer form this policy. First, the quantity they will effectively consume is smaller, moreover they will have to pay a higher price. Before Government intervention they were spending an amount equivalent to the rectangle OHAL ; now they are spending OJBK whose surface is greater.

As for the Government, it will have to spend an amount equivalent to the rectangle JHMB.

DIRECT SUBSIDY

This policy is easier to analyse.

From the point of view of the producers, this policy has the same effect as the previous one. Revenue that was shown by the OHAL area in the situation with Government intervention is now shown by the rectangle OHMK.

Consumers are not affected by this direct subsidy policy : they acquire the same amount of goods as before and their total spending stays the same.

The increase in the farmers' revenue is entirely supported by the Government. The cost for this policy is shown by the surface LAMK.

We must not however conclude that the second policy is preferable to the first. Other factors must be taken into consideration. In particular, the second policy costs the Government a great deal more and it will have to find the funds to pay for this policy : it will no doubt resort to income taxes or indirect taxes that will be borne by the consumer-taxpayer.

On the other hand, before choosing the floor-price policy, the Government must realize that if it appears easy to administer (by the market mechanism), it will encounter problems when managing (or destroying) the surplus.