

Exercise 1 , TIØ4116 Microeconomics and Investment Science

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task 1

a "ii. Difference between demand and supplied quantities at a given market price. " The market price increases with demand, as supply decreases.

b "i. Luxury goods " Imported, and not life essential.

c "ii. A big reduction in the crude oil refinery cost. " The upward swing in the supply curve comes from the fact that we can produce more oil at a lower cost, making the profits greater. Same production results in greater income, or the same amount of expenses generates more oil.

d "iii. Increased price-demand elasticity for fresh meat " Because people will buy meat when prices are low and store it for later, making the demand for meat sporadic and drawn out over time.

task 2

A technological innovation will change price over time. Not necessarily at once, but in the long term. Depending on the innovation for aluminium and plastic, we can see price increase or price decrease. Together with increased supply or demand.

<https://upload.wikimedia.org/wikipedia/commons/7/7a/Supply-and-demand.svg> The graph shows a standard supply-demand graph. It shows that as demand increases from d_1 to d_2 , we can follow the increase in supply. And from the supply see the increased price and quantity of sold goods. This is a possible outcome for the change in steel price.

We cannot be sure of price increase or decrease unless we know something about the innovation. Without more information we cannot make a sure statement about the price change of steel. If the innovation increases strength in plastic and aluminium the demand for those would probably increase, accompanied with the price. Which means that demand for steel is decreasing and we have to reduce the price to sell the same amount of steel. But we could also increase the price on steel because there is not enough supply of aluminium or plastic. This kind of price change is a trade-off. Either we lower the price to increase volume and keep profit. Or we lower volume to increase price and keep profit.

task 3

a What price policy should the financial director recommend? A slight reduction of price to 0.9 would be a good way to increase profit while the capacity doesn't increase too much. With price of 0.9 we can estimate that we have 47.5 person kilometre per year, and an income of 42.75 million. This reduction in price will result in slight increase in capacity, while the profits also increase.

The current price is good. The capacity would not have to be raised, while we still have quite a good income.

The important considerations are the operation cost per person kilometer, which decreases per additional kilometer. And the ticket price per person kilometer, which can be reduced when there are more people kilometer. The main problem is resource optimisation. Where we need to find the optimal point of profit for the minimum of transport cost.

No, a price reduction to 0.60Kr would not make sense. The capacity is too low, which would increase costs in other departments. A slow and steady increase of demand and capacity should be followed with a reduction in price.

b https://en.wikipedia.org/wiki/Arc_elasticity

$e = \% \text{ change in } x / \% \text{ change in } y$

$(30, 40) / (1.2, 1): 28.5 / 18.2 = 1.57$

$(40, 55) / (1, 0.8): 31.5 / 22.2 = 1.42$

$(55, 65) / (0.8, 0.6): 16.6 / 33.3 = 0.5$

The connection between elasticity and the ticket price is that while the price decreases and the kilometre increases the elasticity decreases. We get less flexibility as we increase capacity and decrease price.

c Drink prices are higher than food prices. One part of it is that people will drink something while eating. So the demand for drink is higher than the demand for food. And therefore the price is bigger.

Also the food prices are more competitive due to quality of the food and location of the place.

As for branded clothing. People pay for the social symbol it is to wear the right brand. The social norms drive the prices of some brands because the brand is cool or trendy, which increases demand and the price.