

# Factors affecting the supply of steel



**ASSIGN  
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a) In an economy, there are three different types of market. They are free market, command economy, and mixed economy. However, the first two will be mainly described in this section. There are both advantages and disadvantages in using those two. If a country's resources are to be allocated on a basis of price mechanism, that is, resources are only determined by their supply and demand for them and there will be no intervention of government. It is, in other words, called free market.

#### ADVANTAGES OF FREE MARKET

There are many advantages in a free market economy. First of all, free market can make producers adjust to change easily. In other words, companies can change what they produce when there is a demand for one specific type. For instance, if one type of steel is becoming popular for construction, we can start produce that type of steel. There is no government restriction.

Thus, it encouraged rational self interest. It is because people have freedom to do what they want, make what they want and sell what they want to a certain extent. Although it is not true that government completely stays out, people can do most of their business as they please.

Another major advantage is that, the free market gives a lot of choices because of great variety of goods and services for the customers. This happens because of massive increase in efficiency and productivity.

Furthermore, the next advantage is that, the presence of competition. Competition is healthy as it encourages research and development.

Invention and innovation are made possible with science and technology. With the existence of such elements, economic growth can be achieved. Producers will keep on improving their techniques of production in order to compete with other firms.

#### DISADVANTAGES OF FREE MARKET

In contrast, there are also drawbacks of the free market economy. In reality, there are no perfect free market economies. The major disadvantage is that to be most effective it needs some ideal environmental conditions like full, free and instantaneous availability of all relevant information to all buyers and sellers. It also requires complete freedom to manufactures from one industry to another. Perfect conditions like these are possible only in theory.

Another major limitation of free market is that it cannot reduce the difference between the haves and have not since everyone can buy or sell freely according to their will. Thus, because of the imperfection in the system, the free market system just increases the disparities between people.

Another drawback of free market system is the existence of unemployment. As the economy is governed by the “invisible hands”, there is usually a disparity between demand and supply. If supply of labour is greater than the demand for workers, unemployment will occur. This point clearly explains the high unemployment rate in most capitalist states.

b) If a country's resources are allocated on the basis of planning and predicting, it is called planned economy or command economy. It has also

been defined in various ways. Government will be involved and use resources such as, land, labour and capital to promote the economy of the state. Alec Nove (1987) defined it as an economic system in which the central government makes all decisions on the production and consumption of goods and services. However, they are all the same.

#### ADVANTAGES OF PLANNED ECONOMY

Concerning the advantages of planned economy, the most important one is stability. Since the economy has already been planned, long-term investments can be made without worrying about when the economy will decline (market downturn), or losing confidence. Every investment needs to have stability. It is specifically important where returns are risky and diffuse. Thus, by having stability, investments can be made more safely.

The next advantage is that planned economy usually intended to serve collectively rather than individually. It is mainly used for systems such as rewards and wages which are to be distributed according to the value that the state ascribes to the service performed.

Another important advantage is that, planned economy can avoid major pitfalls of free market, which was among the most important factors for socialist economists of the early 20th Century. The planned economy is not subjected by business cycles, it do not experience crisis such as overproduction, since it is carefully planned for both present and future.

In contrast to the free market economy, in a planned economy, theoretically, there is no difference between the rich and poor. It is also considered as a

classless society. In other words, there is no difference between the haves and the have not. However, in practice, there is still a gap between the two groups although the gap is not as apparent as in a capitalist system.

#### DISADVANTAGES OF PLANNED ECONOMY

In contrast, there are also some major disadvantages in planned economy. There can be both surplus and shortage in resource distribution. From the modern point of view, shortage means an incorrect matching between supply and demand, in other words, the planners must have misjudged the demand for the product, the equilibrium price, or both. In a free market economy, such imbalance would be corrected within a year, will last longer even for decades. In addition, there is also a problem of surplus. Surplus in resource distribution means that there is a waste of labour and materials that can be used for both production and society.

Another major disadvantage is the lack of incentive for innovation. It is argued that planned economy is less likely to promote innovation than the free market. Lack of innovation will result in low morale level of the workers. If the workers are not motivated enough, they may not continue to work and a company's productivity will also decrease.

The final disadvantage is the infringement on individual freedoms. It is argued that the planned economy requires a state which intervenes highly in people's personal lives. For example, if goods are allocated by the state, people will not be able to move to another location without state permission because they would not be able to acquire food or housing in the new location, as the necessary resources were not preplanned.

## Section – 2 (Task – 2)

a)

The demand curve, D, shows the quantity demanded by the customers. Quantity demanded is an amount of quantity in which the consumers want to buy their required product. The supply curve, S, shows the quantity supplied by the customers, which is the amount supplied to the market by the producers. Equilibrium price is the price at which the quantity for the demanded equals the quantity supplied. The figure shows how the equilibrium price works. The point E indicates the equilibrium price. As mentioned, this happens when the quantity demand equals quantity supply. When E is established, equilibrium price, P1 and equilibrium quantity, Q1 can be easily determined. If the steel price is increased, from P1 to P2, the quantity supplied becomes excess as shown in the diagram. In contrast, if the price of steel is decreased, from P1 to P3, the quantity demanded becomes excess. Those two trends are clearly shown in the diagram.

b) In general, there are a lot of factors that affect the demand and supply for steel. For the demand, there are three main factors. They are the price of related goods, consumer incomes and preferences or tastes. As for the supply, technology, input costs and government regulation are the three main factors.

**FACTORS AFFECTING THE DEMAND OF STEEL**

## **The price of related goods**

The first one is the price of related goods, the price of substitutes. It can be assumed that aluminium is a substitute for steel since it has the same characteristics as steel and can be used instead of steel. Therefore it is possible that if the price of aluminium falls, the quantity demanded for steel will reduce. In contrast, if the aluminium price increases, the quantity demanded for steel will increase.

## **Consumer incomes**

If the consumers get higher incomes, it is likely that they are willing to improve their living standards. Once they are willing to do that, they will use more products, for example, brand new cell phones which are made with stainless steel. If the public is buying such products, the producers will produce more and the demand of steel will increase.

## **Preferences**

Another factor is the preferences. It is because there are many types of steel and many uses for steel. Although they are used in home appliances such as kitchen ware, steel is mainly used in construction sites. Even if it's narrowed down to construction sites, different types of steel are used for different buildings. Also, there can be occasions where certain types of steel and designs are becoming popular. If that happens, that certain steel type will get higher demand than other types.

## **FACTORS AFFECTING THE SUPPLY OF STEEL**

## **Technology**

Concerning the factors affecting the supply of steel, all three (technology, input costs, and government regulation) mention above are included. Every goods must be made with their own methods and since steel cannot be made in simple way, (it needs machines and tools) so, technology plays a vital role. If one company uses better and required machines and tools to produce steel than other company, that one will be able to produce more.

## **Input costs**

Input costs must also be considered. The reason is simple. Steel requires certain amount of iron and carbon, and different types of steel require different amount of components. Therefore, if a type of steel, which requires more amounts of components than the others, is going to be produced, the production cost would be very high and that will affect the supply.

## **Government regulation**

Government policies can both increase and decrease the quantity supplied of steel. Some forms of policies are production quotas and production subsidies. Production quota can be applied to individual worker, industry or country. Quota can be used to encourage production or limit it to control the supply of goods. Also, since quotas increase the domestic price of the restricted goods, just as tariffs, it affects the quantity supplied. If government provides direct production subsidies, by cash payments for production of steel, it is to encourage the development of steel industry.

Section – 3 (Task – 3)



a) The short run is the period in which the firm cannot fully adjust to a change in conditions. In the short run, the firm has some fixed factors of production. A fixed factor of production is an input that cannot be varied. In short-run, at least one factor of production is fixed. As mentioned above, there are three main factors affecting the supply of steel. Obviously, input costs are variable and since the use of technology cannot be varied, it can be considered as a fixed factor of production. Furthermore, due to the fact that the technology is the most important factor, the supply of steel largely depends on it. If one company had produced and still continuing to manufacture certain type of steel, for example high-speed steel, with the same method of production (technology), the supply of steel will be fixed in the short run.

b)

The diagram shows supply curve for steel in short-run. Since it is in inelastic condition, change in price, from  $P_1$  to  $P_2$ , is more than change in quantity supplied, from  $Q_1$  to  $Q_2$  and shown with a steep supply curve in the diagram.

Figure 3. 2 illustrates the supply of steel in long-run. Being in an elastic condition the supply curve is flatter than the inelastic one. In this condition, the change in price is less than the change in quantity supplied.

There are different types of steel that can be produced. Different types of steel require different methods and time. For example, steel that is manufactured for building sites would take days to complete while those for home appliances would take at most one day. The length of production process is one of the factors affecting the elasticity of supply. Elasticity of

supply will change if resources in production can be easily transferred from one good to another, for example, from carbon steel to stainless steel, although stainless steel costs only a little more than carbon steel.

Furthermore, there will be barriers to entry. Any forms of barriers will prevent supply from adjusting to any price changes. Therefore, it will consequently results in changing the elasticity of supply.

c) The aim of the price ceiling is to reduce the price of a product (steel). However, there are still some other ways to lower the price of steel. First of all, is having a rationing policy. Its purpose is to give fixed amount of commodity to each person during the time of shortages. It happens because of shortage in supply. Consequently, the problem of supply shortage will result in the reduction in price. Secondly, is by pegging the price. When the price is pegged (fixed), goods cannot be sold above or below the fixed price. Price is pegged only to reduce the original price of a good. The last method is to increase the import. By increasing the imported goods from other countries, it is possible that those goods are better in quality and worth more than the local goods. If so, the price for local products will be reduced.

#### Section – 4 (Task – 4)

a) A price ceiling is a government-imposed limit on how high a price can be charged on a product. Price ceilings are often intended to protect consumers from certain conditions that could make necessities unattainable. However, price ceiling can also cause problems if it is used for an extended period of time without controlled rationing.

b)

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The price ceiling creates a shortage of supply relative to demand by reducing goods and services' prices below their equilibrium level. The point E indicates the free market equilibrium, which occurs when the quantity supplied meets quantity demanded. When equilibrium is founded,  $P_1$ , free market price at equilibrium and  $Q_1$ , free market equilibrium quantity can be determined as shown in the diagram. The line AB is the excess demand, which was resulted when price ceiling at  $P_2$ , is established. It also reduces quantity supplied from  $Q_1$  to  $Q_2$ . Although the price ceiling succeeds in holding down the price, it leads to excess demand. Above diagram can also be used as a price ceiling for steel.  $P_1$ , and  $Q_1$ , are the equilibrium price and equilibrium quantity respectively for the steel. According to the theory of the price ceiling, when  $P_1$  is reduced to  $P_2$ , the quantity demanded for the steel will increase and the opposite for the quantity supplied. When the price is reduced, the amount of steel supplied  $Q_1$  moves to  $Q_2$ , thereby reducing the quantity supplied. It is because the steel suppliers will not supply as much as before as the price lowered down.

c)

The above diagram shows the effect of price ceiling on the demand for steel. The equilibrium price,  $P_1$ , and the equilibrium quantity,  $Q_1$  are founded once the quantity demanded for steel equals quantity supplied, resulting in equilibrium point, E, being established. Since the purpose of the price ceiling is to reduce the price of the steel, when  $P_1$  is reduced to  $P_2$ , the quantity demanded increased from  $Q_1$  to  $Q_2$ . It means that if the price of steel is reduced, the quantity demanded for steel will be increased, and the space between A and B becomes excess demand, as shown in the figure. The

reason is simple. For the supply, for every goods, the producers or suppliers will supply less and less as the price reduces since that reduce their income and profit. As for demand, steel users, for example, construction sites and car manufacturers will buy more in order to be able to build more and produce more, resulting in quantity demanded being excess.

#### Section – 5 (Task – 5)

a) The aim of a price ceiling is to reduce the price for consumers. When Politburo introduces price ceiling on steel, it is clear that the price of steel will be reduced. Since Politburo is intending to distribute the wealth to ordinary Russians, it is probable that even some poor people who require steel for their own reason will afford to buy. Although it is an advantage to the customers, it is not favourable to the companies that are producing steel. It is because, legally, they have to reduce the price to supply in the free market and consequently, that will lower their income and profit. The companies may still supply to some extent, however when some conditions, such as when the production costs become higher than the selling prices, arise, they may stop producing steel and shut-down cases might occur.

b) When Politburo introduces price ceiling, although it reduces price for customers, some negatives, which are shown below, might occur.

### **Reduction in quality**

Legally, it is true that price ceiling reduce the price for customers. When price ceiling is introduced, the most obvious thing that the supplier is likely to do is to reduce the input costs. Clearly, when input costs are lowered, the quality of steel will also be lowered. The period, before the price ceiling is

introduced, steel producing companies would use better raw materials (iron and carbon) than the period when the price ceiling is introduced. Therefore, in the latter period, the product (steel) becomes lowered in quality.

### **Black markets**

Illegally, price ceiling increases the price. When customers cannot obtain a good(s) they need, since price ceiling reduced the quantity supplied, they may look in the black market to get what they need. Those who got lucky or good management get more profit by selling the goods illegally in black market. The price in the black market is higher than the free market price since the quantity supplied is less than that on free market where more sellers could afford to sell the product.

### **Discrimination**

When there is a shortage in supply, because of price ceiling, the steel suppliers will discriminate in who is able to buy from them. It is possible that they will give favour to rich people. As a result, only rich people will get opportunity to use steel for their needs. However, this only occurs when there is a shortage in supply.

c)

Since the purpose of the price ceiling is to reduce the price of steel for consumers, it also decreases the income for the suppliers. If the income is lowered, the suppliers will not supply steel as much as before and thus, the quantity supplied decreases. Furthermore, some suppliers may stop producing steel and turn to other industry, thereby significantly reducing the

quantity supplied in market. As a result, it can be said that the price ceiling, introduced by Politburo is making the situation worse.

Figure 5. 2

Figure 5. 3

Even though price ceiling has advantages in some cases, there are some reasons why the price ceiling, imposed by the Politburo is making the situation worse. Since price ceiling reduces price for customers, legally, the steel producing companies gain less profit as shown in the figure and some companies might shut-down. Eventually, some companies which will not shut-down will turn their interests to black market. It is described in the first diagram in this section which is resulted in the steel producers selling in black market in order to get more profit. It is because the price in black market is higher than that in free market as less quantity is supplied in black market. Thus, it can be said that price ceiling, which is introduced by Politburo is making the situation worse.

Section – 6 (Task – 6)

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