Mostafa Anil

CONTENTS

MICRO-ECONOMICS

Chapter #1: Basic Economic Concepts and Resource Allocation

- ✓ Introduction to Concept Multiplier Academy and Grand Class......2
- ✓ Economics Systems and Production Possibility Curve and Opportunity Cost......3
- ✓ Money, Functions and its Characteristics......21
- ✓ Classification of Goods and Services......23

Chapter #2 The price system and the theory of the firms

- ✓ Demand and Supply......30
- ✓ Price Elasticity of Demand and Supply......34
- ✓ Income and Cross Elasticity of Demand......42
- ✓ Consumer and Producer Surplus......52

Chapter #3 Government Microeconomic Interventions

- ✓ Minimum and Maximum Prices......52
- ✓ Taxes, Subsidies and Direct Provision......57

MACRO-ECONOMICS

Chapter #4 The Macroeconomy

- ✓ Aggregate Demand, Aggregate Supply, Types and Consequences of Inflation & Deflation......65
- ✓ International Trade, Terms of Trade and Economic Integration......76
- ✓ Balance of Payment and Exchange Rate......89

Chapter #5 Government Macroeconomic Interventions

- ✓ The Aims and Tools of Government Policy......104
- ✓ Data Responses......107
- ✓ Other Books by Qamar Baloch......142

Chapter # 1

Microeconomics

Basic Economic Ideas and Resource Allocation

1.1 Fundamental problems of limited resources, unlimited wants, production possibility curve and opportunity cost., Economic systems, Money and specialization.

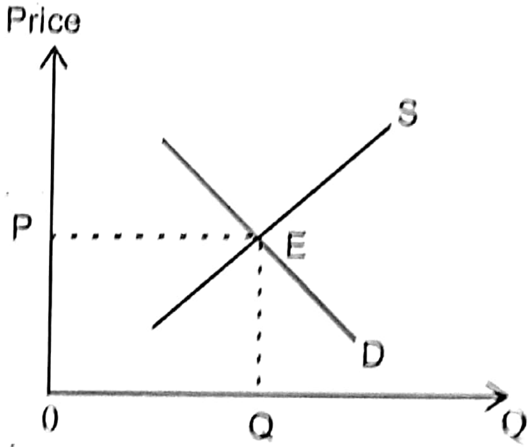
Questions No.2a June 2018

2 (a) Explain the different ways in which resources are allocated in a market economy and in a mixed economy. [8]

Envisioned Answer

Free market economy is the one in which resources of the country owned, controlled and utilized by private individuals and companies for their profit motive and mixed economy is the one in which some of the resources are owhed and utilized by the government and some of the resources are under private ownership of individuals and companies.

Resources in a free market economy are allocated in way that can satisfy wants of the consumers. They allocate resources according to the free forces of demand and supply, they set prices accordingly and trade quantities accordingly as shown in the figure;



According to the above diagram, free market economy sets its equilibrium at point E, where market clearing price or equilibrium price is "P" and quantity traded is "Q". So, private producers in free market economy produce and supply those goods which are demanded by consumers. They ensure high quality luxurious products, using capital intensive techniques to captured highly affording class which can pay a very good price.

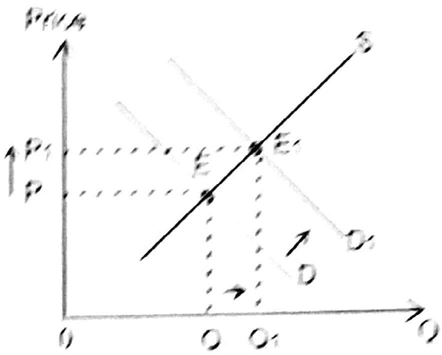
It helps private producers to fulfill their aim of profit maximization. If they don't care of high quality, then they may have to lose their customers because customers are sovereign and they can easily switch to other sellers since millions of similar sellers are easily available. In mixed economy, price mechanism, the forces of demand and supply and government control both work together. Government focuses on the production of merit and public goods which are very costly but much necessary for the general public. Public goods being non-excludable and non-rival are not produced by private sector so government has to produce them. Government intervention is also there and government provides subsidy to those producers who are willing to produce merit goods for the welfare of society. It also imposes high indirect taxes if private producers produce demerit goods; the goods which are harmful not only for the health of consumers but also harm the overall community and non-consumers. Government also sets minimum price above equilibrium to support producers and ensure sufficient supply, if it thinks that producers are not getting reasonable price mainly in case of farmers. Similarly, government sets maximum price below equilibrium to support consumers, if it thinks consumers are being exploited by the sellers. Government allocates more labour to produce goods and services unlike to the private sector because its aim is also to increase employment in the country.

Question No.2 June-2017

2 (a) Explain the role of the factor enterprise in allocating resources in a market economy when there is an increase in the demand for a good. Use a diagram to support your answer. [8]

Envisioned Answer

The role of the factor enterprise is to take risk of combing all of the factors of production including land, labour and capital with a view to produce goods and services for profit as a reward. The two prominent roles of enterprise in this definition include; taking the risk of production and combining the other factors of production. The person who takes the risk of production is known as entrepreneur. Whenever, there is a rise in demand in market economy (privately owned), enterprise has to take the risk of extending its supply. The phenomenon is explained in the following figure.



According to the above figure initial equilibrium is at point E where market price is P and quantity traded is Q. Owing to increase in demand, demand curve shifts towards right from D to D_1 and new equilibrium takes place at E_1, price has risen to P_1 and Quantity traded to Q_1.

The demand may rise due to rise in income of consumers, taste and fashion, habits, population, successful advertisement and rise in price of substitutes or fall in price of compliments. Whatever, reason for a rise in demand is there, the factor enterprise has to play its role to extend its quantity supply from point E to E1.

To ensure extension in supply enterprise has to keep more stocks by producing larger output which can be achieved by employing greater quantities of other factors of production. It will also be helpful for the private business owners to achieve the ultimate aim of high profit.

Question No. 2 November 2002

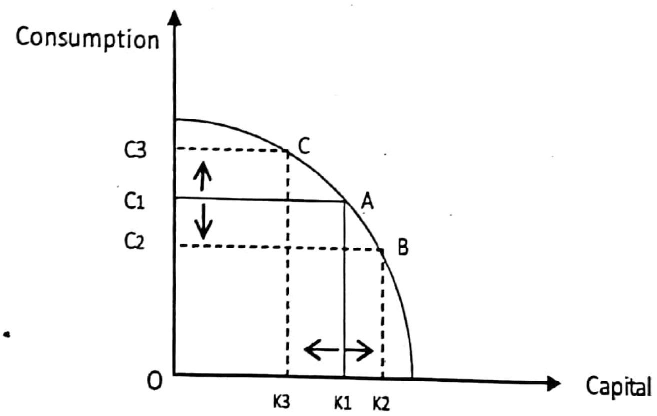
2(a) Explain the link between the basic economic problem of scarcity and opportunity cost. [8]

Scarcity refers to the limited resources and unlimited wants. It is basic economic problem faced by all economic societies of the world. Resources refer to land, labour and capital. All these resources are limited to satisfy all the wants of society. Scarcity enforces us to make choices because all wants cannot be satisfied with finite resources. When we are making choices, opportunity cost will occur.

For example, if we have a piece of land we can construct a factory on it as well as we can use it as a parking lot. If we decided to construct a factory, then parking place will be the opportunity cost. Similarly, if a fish monger decided to collect coconuts instead of catching fish then the benefits forgone from fishing will be the opportunity cost.

The amount of opportunity cost depends upon the efficiency of one resource to produce two different goods. If a resource is equally efficient for both the goods, its opportunity cost will be equal/constant. On the other hand, if it is not equally efficient for both the good then opportunity cost will be increasing which means decision maker would be getting less and sacrificing more.

These examples clearly show that there is an immense link between scarcity and opportunity. This link between scarcity and opportunity cost can be further explained with the help of production possibility curve which shows different combination of two products which we can be produced with the help of given resources. Let's suppose we have to options to use money. The one is to consume it for routine matters (consumption) and the other option is to purchase capital and invest it into the business. How this decision will create an opportunity cost through trade-off is explained as under;



According to the above diagram suppose, initially, economy is operating at "A" where capital amounts to "OK_1" and consumption is "OC_1". Now, if we decide to invest more to "K_2" which is shown with combination "B" then consumption will fall to "C_2". The gap between *C1 and C2 is the opportunity cost of this decision. This will lead to fall in current standard of living but future standard of living* and production possibilities will rise.

Vice versa is true for the movement from "A" to "C". Scarcity is an everlasting problem of every society. It cannot be completely solved but it can be controlled to some extent through conservation of resources. If we explicit the resources moderately and try to conserve them for future use, we can control this problem to some extent. This problem can completely be solved if all prices are set to be zero but it is again never possible to set prices at zero level. It means it is ever lasting problem and every time we take a decision, we face opportunity cost.

(b) Discuss whether planning has any role to play in the allocation of resources in a modern, mixed economic system. [12]

Mixed economy is defined as an economy in which part of the resources is under private ownership and part of the resources is under ownership and control of the government and decisions are taken accordingly. In today's world almost all the economies of the world have mixed system because it is very rare to find examples of pure market system and planned economy. In mixed economy, planning plays a vital role in allocation of resources because mixed economy has a clear element of command economy and government intervention.

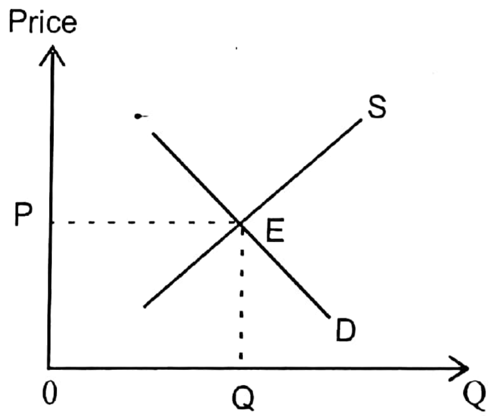
Therefore, government takes decisions regarding what, how and for whom to produce. Pakistan and almost every mixed economy plans to get money from tax payers and gives it to the educational institutions, medical colleges and hospitals to provide better education and health care to the residents and non-residents of the country who are temporarily living there. All this allocation had been made possible through planning. In 2010, in Pakistan, Punjab Government introduced maximum price for sugar. Sellers of sugar were selling it around at Rs 70 per kg but government fixed it at Rs. 40 per kg. It resulted in shortage of sugar in the market and consumers suffered a lot. Later on, sugar sellers were compensated through subsidy by the government and were asked to sell it at Rs 40 per kg to the general public. This planning removed the shortage problem. Therefore, from the above examples we can say that planning has a vital role to play for proper functioning in a modern mixed economy.

However, the importance of and role played by free forces of demand and supply cannot be ignored.
If free forces are allowed to work properly without government intervention, situation can be made even better. Let the market forces ration the allocation of resources of the private producers and consumers for their maximum benefits instead of planning by the government. Most of the time planning and intervention causes government failure where a decision taken to improve the economic condition further deteriorates the situation.
In mixed economy, people work for their profit motive. They produce those goods which maximize their profits. They use those techniques of production which result in minimizing costs. Government produces public and merit goods for social benefits. Both the sectors play equal role for proper functioning of the economy. Those departments which are too much costly, private individuals and companies are unable to invest in such departments then government will produce those goods and will crowed out.
While crowding out means fall in private investments and rise in government investments. The key industries like defence are controlled by the government and there is no contribution from private sector. It is also beneficial for the economy to have such industries under the ownership of government.
Invisible hands also help in deciding prices and output in an economy. People can enjoy better quality goods and services because both private companies and government will be competing each other. So, they will try to produce better quality goods. For example, around 10 years back Pakistan Telecommunication Company was not as much efficient and quick as it is today because of chronic competition between PTCL, Warid, Telenor, Jazz and Ufone.
Private investors and companies can be prohibited to produce those goods which are socially undesirable. If private investors are producing such goods, government will intervene and it will try to reduce the production of demerit goods which are creating negative externalities. Government will tax such goods and their supply will fall. It leads to the movement towards optimum level of production for over produced demerit goods.
Government can also withdraw subsidy on such goods if it was providing the same. In the same way, if government considers it suitable to be shutdown then government can ban such organizations to operate in an economy. Private sector is not spare to produce socially undesirable goods and services. The basic necessities of life are provided by the government. Resources are utilized more efficiently and productive and allocative efficiency is achieved. People can get goods at very cheaper rates, because government's aim is not to maximize its profits. People can also work hard to earn and produce higher output.

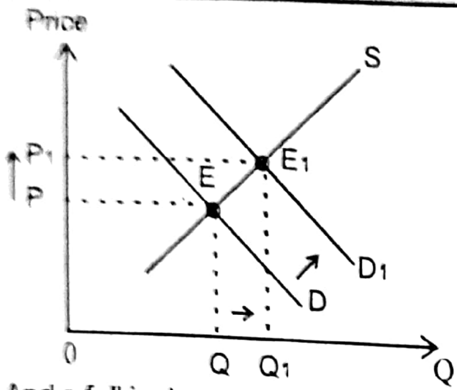
Question No. 2 June 2003

2(a) Explain the functions of price in a market economy. [10]

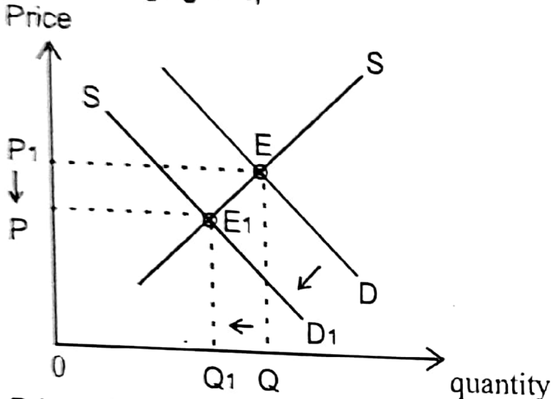
Market economy is an economy in which resources of the country are owned and controlled by the private individuals and companies. Free market economy takes all the decisions on the basis of price mechanism where prices are determined by the intersection of demand and supply as shown below;



Following left hand side diagram depicts that a rise in demand shifts the demand to the right form "D" to "D_1". Equilibrium will shift from "E" to "E_1". Price will rise to "P_1" and quantity traded will rise from "Q" to "Q_1".
In the graph below equilibrium price is initially "P1" and quantity is "Q" and fall in demand decrease price to P and quantity to Q1. Automatic adjustment in the market economy is observed in real life. Any rise in demand will lead the price and quantity traded to rise.



And a fall in demand will result in fall in market price and quantity traded to fall as shown in the following figures;



Prices signal the relative importance, scarcity or abundance of goods and services to the producers and consumers. All the basic economic decisions in free market economy are taken on the basis of prices, like what, how and for whom to produce? Private producers produce those goods which are profitable for them. So, private producers re-allocate the resources to the best possible combination which lead to optimum outcome.

Market economy involves minimal government intervention. In short, price performs central function for the allocation of resources in the presence of demand and supply in market economy.

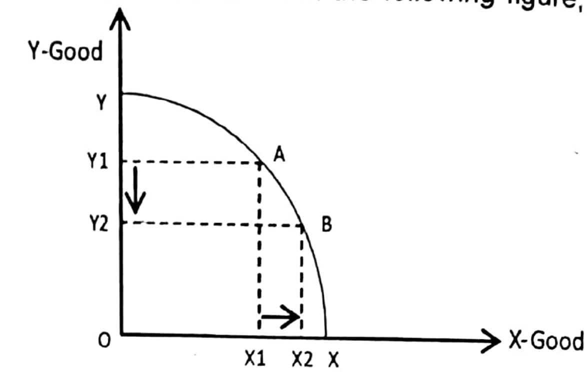
Question No. 2 June 2004

2(a). An economy is faced by the exhaustion of an important natural resource at a time when it is introducing improved technology.

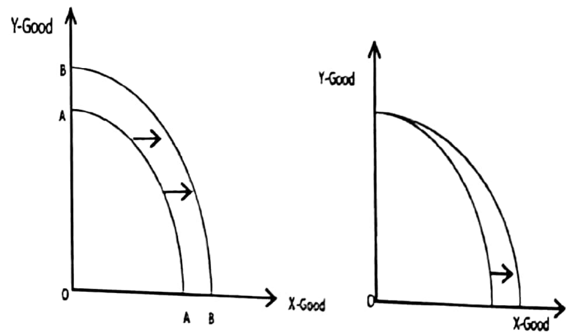
Explain how these events will affect the economy's production possibility curve. [8]

Envisioned Answer

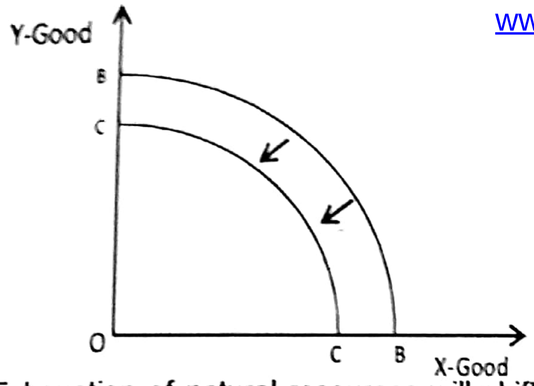
Production possibility curve is a curve which shows different combinations of two products which can be produced with the help of given resources. It is shown in the following figure;



The above figure shows trade-off between two goods. If an economy employs all of its resources on X-Goods, then it can produce "OX" quantity of X-Goods but it will have to sacrifice "OY" quantity of Y-Goods. So, "OY" will be the opportunity cost. Combination "A" shows that we can produce "OY_1" units of Y-Goods as well as "OX_1" units of X-Goods so the gap between Y and Y_1 is the opportunity cost. Similarly, movement from "A" to "B" shows an increase in production of X-Goods from X_1 to X_2 will lead to fall in Y-goods from Y_1 to Y_2. So, the gap between Y_1 and Y_2 will be the opportunity cost. Improvement in technology shifts the PPC to the right. Better technology shifts the PPC from AA to BB as shown below in left hand side graph. If there is improvement in technology only for X-Goods, then shift in PPC will be the pivotal as shown with right hand side graph.



On the other hand, exhaustion of natural resources leads to the leftward shift in PPC from BB to CC as shown below;



Exhaustion of natural resources will shift the PPC from BB to CC. However, the net effect remains uncertain. If the rise in production possibilities due to improved technology is more than the fall in production possibilities due to exhaustion, then PPC will finally shift to the right and vice versa.

For example, if production due to technology rises by 10 %, but production due exhaustion falls by 8% then there is 2% positive net change. Therefore, PPC will shift to the right. If rise due to technology and fall in production possibility due to exhaustion is equal, then PPC may remain the same. However, the final position remains uncertain.

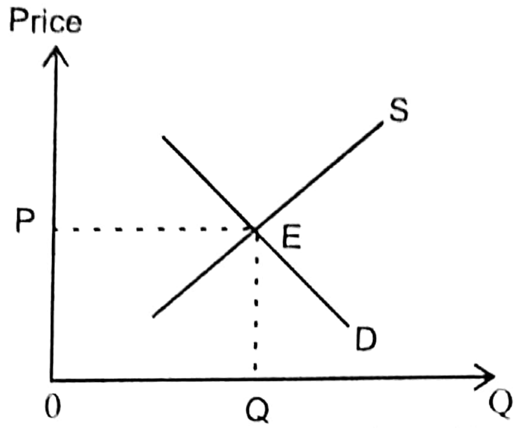
(b) Discuss whether the operation of a market economy always produces a desirable outcome. [12]

Market economy is an economy in which private individuals and companies are allowed to use the resources to produce goods and services. This economy is characterized with private ownership and self-interest where private producers work hard to earn high profits.

Goods are candidates, customers are voters and money acts as a vote, which means that if the people are going to purchase more quantities of some specific product, they are casting their vote in favor of that product and they want that the product must remain in the market. Competition is the main feature of such economy and role of the government is very limited.

In this economy, private producers respond their customers very quickly. So, the needs and wants of the people are satisfied in time. All the decisions in this economy are taken on the basis of invisible hands (i.e. the forces of demand and supply. The economic decisions of what, how and for whom to produce are taken on the basis of price mechanism.

Where prices are decided at a point where demand and supply curves intersect each other.



Price will be charged at "P_1" and quantity will be traded at Q_1. High competition in the economy leads to higher efficiency and better quality of goods and services to satisfy the needs and wants of society. People have a legal right to hold their private property. Consumers are sovereign and they can choose or reject the goods and services according to their own will. No one can enforce them to buy some specific product. People have opportunities to grow those who are competent enough and hardworking, they can earn high as compared to the lazy, Lethargic and idle people. But this economy has some draw backs as well.

Private producers do not care about the welfare of the people living in the society. They just keep an eye on the level of profits. They aim at their own growth instead of social welfare. Most of the time private producers keep on producing demerit goods which are dangerous for the health of the people.

To get competitive advantage over others they advertise their goods and services and a lot of funds are spent out for this purpose which results in wastage of resources. It may also lead to higher cost for the producers and finally they charge high prices to the customers to cover up their costs. In this way, the burden of the consumers rises. Sometimes, they may start unfair trading practices with the customers, employees and government.

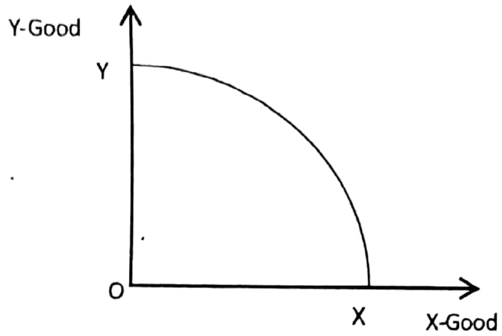
They may threat the government to withdraw investments if it is not giving tax relaxation or subsidies. Therefore, employees are also threatened to face unemployment. This economy, also leads to high level of disparities among the income of the rich and the poor.

The rich grow to become richer and poor are getting poorer. So, from the above discussion we can conclude easily that market economy does not always produce desirable outcome. It creates harmful effects for the society as well. Most of the economies are converting their system to the mixed economy, because the role of government planning cannot be ignored. Government keeps an eye on the actions of private producers. It becomes necessary for the government to interfere in such state of affairs.

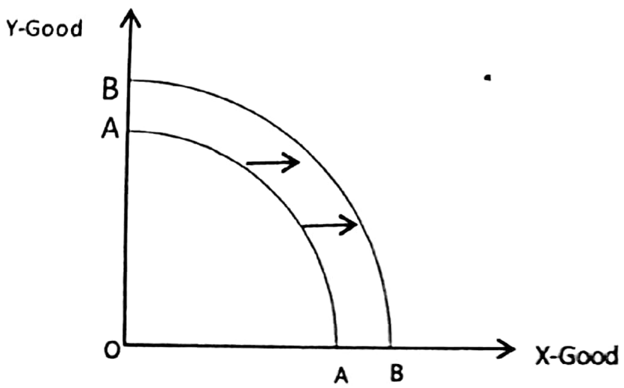
Question No. 2 November 2006

2(a) Explain how production possibility curves might be used in assessing a country's economic performance. [8]

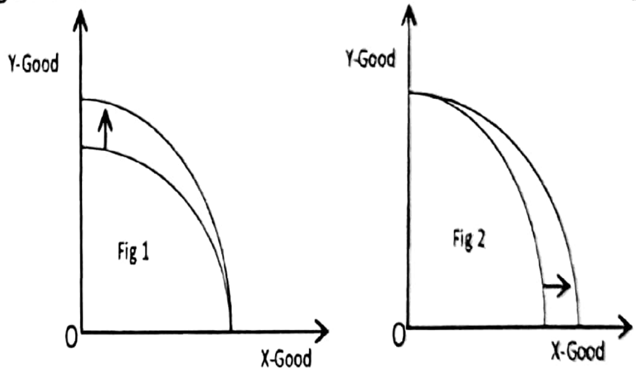
Production possibility curve is a curve which shows different combinations of two products that can be produced with the given number of resources.



According to the above diagram an economy can produce "OX" units of X-Goods or "OY" units of Y-Goods. Increase in productivity of labour and other resources shows better economic performance and it will shift the PPC towards right.



Improvement in productivity shifts the PPC towards right and decrease in productivity may shift the PPC towards left. Rightwards shifts show better economic performance. On the other hand, leftwards shift shows poor performance. A rise in productivity for both the goods will shift the PPC completely to the right as shown above figure. On the other hand, improvements in productivity of only one good will result in pivotal shift in the PPC towards right. If productivity improves for X-good or Y-good then the shift in PPC will be as under:



It also happens through increase in investment in the country which also creates more job opportunities and higher government tax revenue. This entire phenomenon shows better economic performance and better standard of living due to higher GDP per capita and economic growth.

On the other hand, leftwards shift in PPC shows poor performance and depletion of resources. If economy moves to the left from BB to AA as shown in the above figure it indicates poor economic performance and it needs improvement in its resources, technology or management.

From the above discussion, we can conclude that PPC can be used to assess the economic performance of a country. Rightwards shift in PPC shows a good economic performance of a country because it shows that labour and other resources have become efficient which is possible through providence of training to the workers and innovation in techniques of production or introduction of new technology.

(b) Discuss whether a mixed economy is the best way for a country to deal with the basic economic problem. [12]

See Q. 2b November 2002

Question No. 2 June 2005

2(a) Explain the differences in the features of a market economy and a planned [8]

Free market economy refers to the economic system in which most of the resources of country are owned and controlled by private individuals and companies. While planned economy is an economy in which most of the resources are under the ownership and control of government.

Market economy possess the features of self-interest or profit motive in which private individual work hard to earn higher profits, it leads to high efficiency and productively. In planned economy, there is no self-interest or profit motive. People receive fixed salary even though they are working very hard and contributing a lot of effort for the growth of a government institution.

There is a greater competition in free market economy which helps in low prices for high quality products. But sometimes, they spend rashly on advertisement to get advantage over others. It leads to wastage of resources. While in planned economy, there is no competition and government needs not to advertise to persuade the people to buy the product or service.

Individuals respond their customers very quickly so that they can satisfy their needs and wants timely. On the other hand, government responds its customers very slowly, because of complicated documentation and procedures. Everything is centrally planned and no one can take decision on his own behalf. So, sometimes, customers have to face huge losses, as their demands are not satisfied in time. However, government works for the social welfare of the country.

In free market economic system, goods are considered as candidates and customers are voters. It shows freedom of choice for the private people but this is also missing in planned economy, where government is sovereign and takes decisions to produce goods and services without taking into account the will of the customers.

However, government produces public and merit goods which will be produced in a little quantity if handed over to the private sector. Free market works for the satisfaction of wants of people and government produces basic necessities. It means both the sectors are very necessary in the form of mixed economy to get desirable outcome in the country.

Question No. 2 June 2007

2(a) Explain the contributions of enterprise and division of labour to an economy. [8]

Enterprise is the risk-taking ability to combine land, labour and capital to produce goods and services. Enterprise can be a small scale as well as large scale. Nature of enterprise depends upon the availability of capital to invest into the business and needs of the society. When the market for some specific enterprise is small then there will be need to start a small business enterprise and vice versa is true for a very large market.

While division of labour refers to the specialization of economic activity by product or process. Specialization can be at individual, regional or national level. When each person is assigned, some specific task to perform it is specialization at individual level. It improves the efficiency of workers. They become more productive as they are repeatedly doing the same task.

Quality of goods improves which also leads to higher standard of living of the people. Firm can achieve great economies of scale in the form of lower average cost of production. So, enterprise can earn higher profits because of more output and low cost. But sometimes, it may harm the productivity, if workers get bored and they lose their efficiency to perform their duties.

It gives rise to high dependency of workers on other workers. So, production may face un-necessary delays due to the absence of a few people. Sometimes, consumers also get bored by using the identical products which are standardized because of specialization. Firms may have to arrange for music after constant intervals to refresh the workers to gain their productivity. It may cause higher average cost of production.

Specialization can bring benefits to country in the form of comparative advantage. Country may specialize in the production of that good in which it has maximum advantage or least disadvantages. Countries can specialize and trade with each other. They concentrate on the production of specific product. They keep on producing it and import other goods from trading partners. It may lead to improved efficiency and higher output.

Nevertheless, it also increases the element of dependency, which can be harmful.

However, enterprise and division of labour brings benefits for an economy as it can achieve economic growth, price stability and higher level of employment, which in turn improves the standard of living of the people. Resources of the country are also used more efficiently. Countries can also share their techniques of production and technologies.

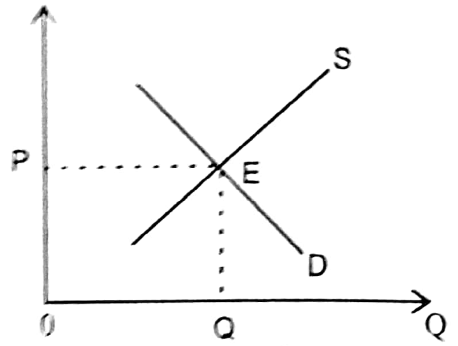
(b) Discuss the desirability of the worldwide movement towards the market economy and away from the planned economy. [12]

Market economy is an economy in which private individuals and companies are allowed to use the resources to produce goods and services. Worldwide movement towards the market economy is because of the following;

This economy is characterized with private ownership and self-interest where private producers work hard to earn high profits. Goods are candidates and customers are voters and money acts as a vote, which mean that if the people are going to purchase more quantities of some specific product, they are casting their vote in favour of that product and they want that the product must remain in the market. Competition is the main feature of such economy and role of the government is very limited. In this economy, private producers respond their customers very quickly.

Therefore, the needs and wants of the people are satisfied in time. All the decisions in this economy are taken based on invisible hands (i.e. the forces of demand and supply). The economic decision of what, how and for whom to produce are taken because of price mechanism. While prices are decided at a point where demand and supply curves intersect each other. In the following diagram Price will be charged at "P" and quantity will be traded Q. High competition in the economy leads to higher efficiency and better quality of goods and services to satisfy the needs and wants of society. People have a legal right to hold their private property.

Consumers are sovereign and they can choose or reject the goods and services according to their own will.



No one can enforce them to buy some specific product. People have opportunities to grow. Those who are competent enough and hardworking, can earn high as compared to the lazy, Lethargic and idle people. But this economy has some drawbacks as well. While planned economy is an economy in which. Most of the resources are under the ownership and control of government. People are moving away from planned economy because of the following;

Market economy possess the feature of self-interest or profit motive in which private individual work hard to earn higher profits, it leads to high efficiency and productively.

In planned economy, there is no self-interest or profit motive. People receive fixed salary even though they are working very hard and contributing a lot of effort for the growth of a government institution. There is a greater competition in free market economy, which helps in low prices for high quality products. But sometimes, they spend rashly on advertisement to get advantage over others. It leads to wastage of resources. While in planned economy, there is no competition and government needs not to advertise to persuade the people to buy the product or service.

Individuals respond their customers very quickly so that they can satisfy their needs and wants timely. On the other hand, government responds its customers very slowly, because of complicated documentation and procedures. Everything is centrally planned and no one can take decision on his own behalf. So, sometimes, customers have to face huge losses, as their demands are not satisfied in time.

However, government works for the social welfare of the country. In free market economic system, goods are considered as candidates and customers are voters. It shows freedom of choice for the private people but this is also missing in planned economy, where government is sovereign and takes decisions to produce goods and services without taking into account the will of the customers.

However, government produces public and merit goods, which will be produced in a little quantity if handed over to the private sector.

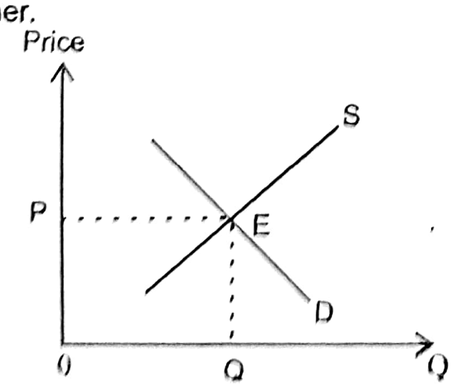
Free market works for the satisfaction of wants of people and government produces basic necessities. It means both the sectors are very necessary in the form of mixed economy to get desirable outcome in the country.

Question No. 3 Nov 2007

3(a) Explain how resources are allocated in a market economy? [8]

Market economy is an economy in which private individuals and companies are allowed to use the resources to produce goods and services. This economy is characterized with private ownership and self-interest where private producers work hard to earn high profits. Goods are candidates and customers are voters and money acts as a vote, which mean that if the people are going to purchase more quantities of some specific product; they are casting their vote in favour of that product and they want that the product must remain in the market. Competition is the main feature of such economy and role of the government is very limited.

In this economy private producers respond their customers very quickly. So, the needs and wants of the people are satisfied in time. All the decisions in this economy are taken on the basis of invisible hands (i.e. the forces of demand and supply. The economic decisions of what, how and for whom to produce are taken on the basis of price mechanism and prices are determined at a point where demand and supply curves intersect each other.



Price will be charged at "P" and quantity will be traded Q. High competition in the economy leads to higher efficiency and better quality of goods and services to satisfy the needs and wants of society. People have a legal right to hold their private property. Consumers are sovereign and they can choose or reject the goods and services according to their own will. No one can enforce them to buy some specific product.

People have opportunities to grow those who are competent enough and hardworking, can earn high as compared to the lazy, Lethargic and idle people. In short, in private sector of economy all the basic economic decisions to allocate resources/factors of production are taken on the basis of price mechanism. Resources are allocated to produce luxurious goods for the affording people by using capital intensive techniques.

Question No. 2 June 2008

2(a) Explain the three economic questions that all economies face because of the basic economic problem. [8]

The basic economic problem faced by all the societies of the world is scarcity which refers to the limited resources and unlimited wants. Limited resources enforce us to make choices and so opportunity cost also occurs. All the wants cannot be satisfied because of scarcity. This is ever lasting problem and can only be solved if prices are set to be zero which is again impossible. The three questions are what, how and for whom to produce?

The first question relates to the selection of goods to be produced by the firm. Due to scarcity all goods and services cannot be produced due to which individuals and government has to decide to produce some specific product.

In free market economy, private producers focus on the profit motive, so they produce those goods which can yield high profits. While government produces public and merit goods for the whole society.

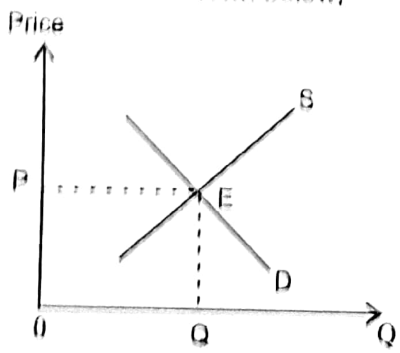
When the first question has been answered successfully then the firms and government has to decide about the technique of production which gives them the answer for the second question while different techniques of production can be labour intensive and capital intensive. Labour intensive technique refers to the method in which more labour and less machinery is being used. Government uses more labour-intensive techniques to maximize the level of employment. On the other hand, capital-intensive technique uses more machinery and less labour. Private producers use more capital-intensive techniques to produce more to earn high profits.

When the second question has been clearly answered then the firms and government has to decide about the class of people for whom goods and services are to be produced. Government produces for all in the society while private individuals produce and distribute goods and services for the affording people to earn high profits.

(b) Discuss whether the price mechanism is an effective way to solve the basic economic problem. [12]

The price mechanism is the feature of free market economy in which most of the resources are owned and controlled by private individuals and companies. Basic economic problem refers to scarcity of resources which means that resources are limited.

It operates through the forces of demand and supply. Prices and quantities are determined where demand and supply curves intersect each other as shown below;



According to the price mechanism, price will be determined at "P" and quantity traded will be "Q". Any change in demand and supply will shift the equilibrium accordingly. It shows that goods are candidates and customers are voters. Self-interest is also the main characteristic of free market. Economies which show that individuals work for their profit motive, those who work more hard, earn more and vice versa.

There is a competition in the market where a large number of firms may try to attract the customers. It may reduce the price level as well.

Firms and individuals work more efficiently and they bring innovations to produce high quality products at low rates. A wide range of goods and services will be available to the people. So, they can enjoy a good standard of living as well.

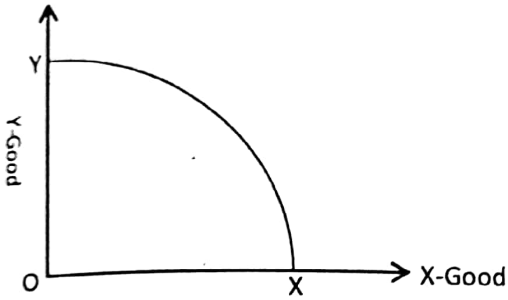
Consumer's sovereignty is also there and people can select the goods and services which they like and they can reject what they dislike. Role of the government will be very limited over there. Consumers can get luxurious products to satisfy their wants which are not available to the people in planned economy. Producers respond their customers very quickly due to which people can satisfy their needs and wants timely.

But most of the time private producers may produce less than the optimum level which results in loss of positive externalities in the society, resulting in dead weight loss and market failure. It also gives rise to disparities or income inequalities among the members of society. Rich grow to become richer and poor are getting poorer. Lack of government intervention also results in lack of public and merit goods. Public goods having the factures of non-excludability and non-rivalry are not produced by the free market economy because of free rider problem. So, the problem of market failure can be solved depending upon the degree of failure and effectiveness of price mechanism. However, the basic economic problem cannot be completely solved through price mechanism but it is thought to be effective when operating efficiently.

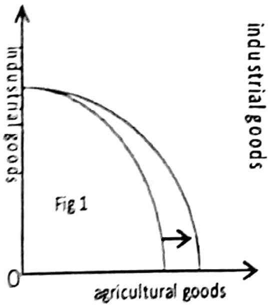
Question No. 2 June 2009/21

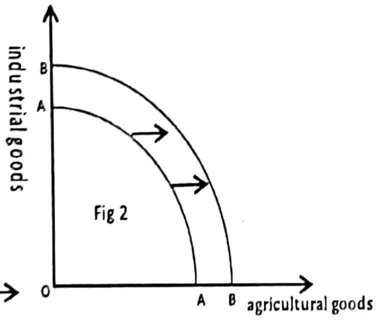
2(a) An economy can produce agricultural and industrial goods. Explain the possible effects on its production possibility curve if there is an increase in the productivity of its agricultural workers. [8]

Production possibility curve is a curve which shows different combinations of two products that can be produced with the given resources. It is shown in the following figure;



According to the diagram an economy can produce "OX" units of Agricultural-Goods or "OY" units of Industrial-Goods. Increase in productivity of agricultural labour will shift the PPC to the right. It can be a pivotal shift as shown below in fig 1.





If productivity improves for Agricultural-Goods only then the shift in PPC will be pivotal to the right on X-axis only. Now economy has potential to produce more of agricultural goods even with the same amount of resources. But rise in production possibilities of agricultural goods may also help in availability of more resources and raw materials available to produce industrial goods as well and in the long-run PPC may completely shift to the right as shown in fig 2.

(b) Discuss whether a market economy can solve the problem of scarcity more effectively than a command economy.[12]

Free market economy refers to the economic system in which most of the resources of country are owned and controlled by private individuals and companies. While planned economy is an economy in which most of the resources are under the ownership and control of government. Market economy possesses the features of self-interest or profit motive in which private individual work hard to earn higher profit. It leads to high efficiency and productively.

In planned economy, there is no self-interest or profit motive. People receive fixed salary even though they are working very hard and contributing a lot of effort for the growth of a government institution.

There is a greater competition in free market economy which helps in low prices for high quality products. But sometimes, they spend rashly on advertisement to get advantage over others. It leads to wastage of resources. While in planned economy, there is no competition and government needs not to advertise to persuade the people to buy the product or service.

Individuals respond their customers very quickly so that they can satisfy their needs and wants timely. On the other hand, government responds its customers very slowly, because of complicated documentation and procedures. Everything is centrally planned and no one can take decision on his own behalf.

Therefore, sometimes, customers have to face huge losses, as their demands are not satisfied in time. However, government works for the social welfare of the country. In free market economic system, goods are considered as candidates and customers are voters. It shows freedom of choice for the private people but this is also missing in planned economy, where government is sovereign and takes decisions to produce goods and services without taking into account, the will of customers.

However, government produces public and merit goods which will be produced in a little quantity if handed over to the private sector. Free market works for the satisfaction of wants of people and government produces basic necessities. It means both the sectors are very necessary in the form of mixed economy to get desirable outcome in the country.

Scarcity refers to the limited resources and unlimited wants. This problem is faced by all the economies of the world. Free market economies, where private individuals focus on their profit motive may use the resources more efficiently so they may reduce the element of scarcity however, when basic needs are satisfied their wants tend to rise due to which scarcity still remains in the economy. The command economy has achieved lower standards of living but with the more even distribution of income.

However, the problem of scarcity remains although its nature differs in different economic systems. This problem can only be solved if prices are set to be zero and again, it is never possible to set prices at zero level. So, it is ever lasting problem.

Question No. 2 Nov 2009/21

2(b) Discuss whether government intervention always improves the operation of the market. [12]

Market system refers to the situation where resources of the country are used by private individuals and companies for their profit motive. Most of the time, they may over charge and under-produce which may cause market failure. Sometimes, they may over-produce as well. So, government intervention becomes necessary, which is observed in mixed economy.

Mixed economy is defined as an economy in which part of the resources are under private ownership and part of the resources are under ownership and control of the government the role of planning and government intervention is very important for welfare. It is the best economic system because it contains the benefits of both market and planned economy.

In mixed economy people work for their profit motives. They produce those goods which maximize their profits. They use those techniques of production which result in minimum cost of production. Government produces public and merit goods for social benefits. Both the sectors are playing equal role for the proper functioning of the economy. Those departments which are too much costly private individuals and companies are unable to invest in such departments then government will produce those goods and will crowed out.

While crowding out means fall in private investments and rise in government investments. The key industries like defence are controlled by the government and there is no contribution from the side of private sector. It is also beneficial for the economy to have such industries under the ownership of the government. Invisible hands also help in deciding prices and output in an economy. People can enjoy better quality goods and services.

Because both private companies and government will be competing each other. So they will try to produce better quality goods. Private investors and companies can be prohibited to produce those goods which are socially undesirable. If private investors are producing those goods, government will intervene and will try to reduce the production of demerit goods which are creating negative externalities.

Government will tax such goods and their supply will fall. Which leads to optimum level of production, government can also withdraw subsidy on such goods if it was providing the same. In the same way, if government considers it suitable to be shutdown then government can ban such organizations to operate in an economy. Private sector is not spare to produce socially undesirable goods and services.

Basic necessities of life are provided by the government. Resources are utilized more efficiently and productive and allocative efficiency is achieved. People can get goods at very cheaper rates, because government's aim is not to maximize profits. People can work hard to earn and produce more. So, we finally concluded that government intervention up to a certain limit is beneficial. However, over intervention deteriorated the whole situation.

Question No. 3 June 2010/21

3(a) 'A free market price operates as a rationing and allocating mechanism.' Explain how it does this. [8]

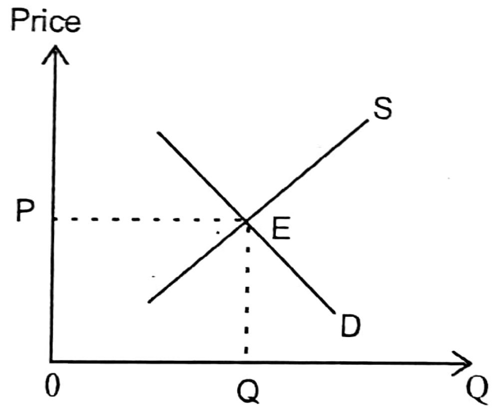
Market economy is an economy in which private individuals and companies are allowed to use the resources to produce goods and services to earn profit and to satisfy the wants of affording people. A free market price operates as a rationing and allocating mechanism because those goods are being produced which can fetch a good price and for those people who are able and willing to pay the price. Those who are not able or willing to purchase the product at a market price are automatically excluded from the list.

So, rationing mechanism decides for whom to produce or who will get the product and allocating mechanism decides what and how to produce.

This economy is characterized with private ownership and self-interest where private producers work hard to earn high profits. Goods are candidates and customers are voters and money acts as a vote which means that if the people are going to purchase more quantities of some specific product; they are casting their vote in favour of that product and they want it to be in the market. Competition is the main feature of such economy and role of the government is very limited.

In this economy private producers respond their customers very quickly. So, the needs and wants of the people are satisfied in time. All the decisions in this economy are taken on the basis of invisible hands (i.e. the forces of demand and supply).

The economic decisions of what, how and for whom to produce are taken on the basis of price mechanism and prices are decided at a point where demand and supply curves intersect each other. It is shown in the following figure. Price will be charged at "P" and quantity will be traded Q. High competition in the economy leads to higher efficiency and better quality of goods and services to satisfy the needs and wants of society. People have a legal right to hold their private property.



Consumers are sovereign and they can choose or reject the goods and services according to their own will. The price of a product determines who has the purchasing power to afford the goods. A higher income means greater ability to purchase. Therefore, the price system favours the richer in society. It rations the restricted quantity available between those who might wish to buy. The price also allocates resources between competing uses. The higher the price the greater the potential reward to factor owners. This will attract resources to those activities which pay the highest price in determining the employment of factors of production.

Question No. 2 November-10/21

2(a) Explain how microeconomic and macroeconomic issues may be represented using production possibility curves. [8]

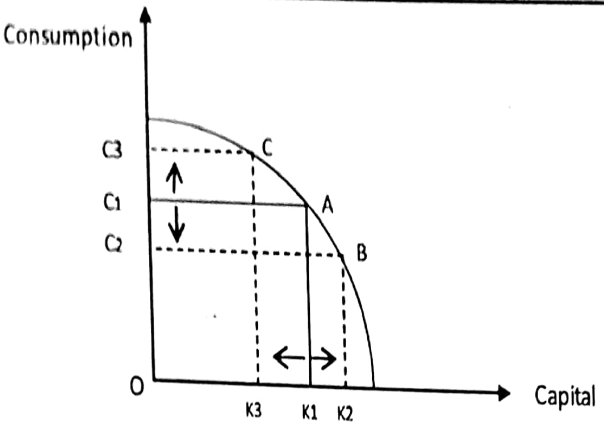
Micro. economics is the branch of economics which studies the economy at individual level while macro-economics is the branch of economics which studies the economy as a whole. Economic growth and unemployment are macro – economic issues while opportunity cost and scarcity can be micro-economic applications. Scarcity refers to the limited resources and unlimited wants it is the basic economic problem faced by all the economic societies of the world.

The resources refer to land, labour and capital. All these resources are limited to satisfy all the wants of the society. Scarcity enforces us to make choices because all wants cannot be satisfied with finite resources. When we are making choices, opportunity cost will occur.

For example, if we have a piece of land we can construct a factory on it as well as we can use it as a parking lot. If we decided to construct a factory, then parking place will be the opportunity cost.

Similarly, if a fish monger decided to collect coconuts instead of catching fish then fishing will be the opportunity cost. However, the amount of opportunity cost depends upon the efficiency of one resource to produce two different goods. If a resource is equally efficient for both the goods, then its opportunity cost will be equal/constant.

On the other hand, if it is not equally efficient for both the good then opportunity cost will be increasing which means that he will be getting less and sacrificing more. However, the link between scarcity and opportunity cost can be explained with the help of production possibility curve.



Production possibility curve is a curve which shows different combination of two products which we can produce with the help of given resources.

According to the above diagram, initially, economy is operating at "A" where capital amounts to "OK_1" and consumption is "OC_1". Now, if we have decided to invest more to "K_2" shown with combination "B" then consumption will fall to "C_2" is the opportunity cost. This will lead to fall in current standard of living, future standard of living and production possibilities will rise. Vice versa is true for the movement from "A" to "C".

Scarcity is an everlasting problem of every society. It cannot be completely solved but it can be controlled to some extent through conservation of resources. If we exploit the resources moderately and try to conserve them for future use, then we can control this problem to some extent. This problem can completely be solved if prices are set to be zero but it is again never possible to set prices at zero level. It means it is ever lasting problem.

Question No. 3 Nov 2010/21

3(b) Discuss the importance of price in the effective operation of a mixed economy. [12]

Envisioned Answer

Mixed economy is defined as an economy in which part of the resources are under private ownership and part of the resources are under ownership and control of the govt. the role of planning and govt. intervention is very important for welfare. It is the best economic system because it confers the benefits of both market and planned economy.

In mixed economy people work for their profit motives. They produce those goods which maximize their profits. They use those techniques of production which result in minimum cost of production. Govt. produces public and merit goods for social benefits. Both the sectors are playing equal role for the proper function of the economy. Those departments which are too much costly private individuals and companies are unable to invest in such departments then govt. will produce those goods and will crowed out.

While crowding out means fall in private investments and rise in govt. investments. The key industries like defence are controlled by the govt. and there is no contribution from private sector. It is also beneficial for the economy to have such industries under the ownership of the govt. Invisible hands also help in deciding prices and output in an economy. People can enjoy better quantity goods and services. Because both private companies and government will be competing each other. So they will try to produce better quality goods.

Private investors and companies can be prohibited to produce those goods which are socially undesirable. If private investors are producing those goods, govt. will intervene and will try to reduce the production of demerit goods which are creating negative externalities. Government will tax such goods and their supply will fall which leads to optimal level of production? Government can also withdraw subsidy on such goods if it was providing the same. In the same way of govt. consider it suitable to be shutdown then govt. can ban such organizations to operate in an economy.

Private sector is not spare to produce socially undesirable type of goods and services. Basic necessities of life are provided by the govt. resources are utilized more efficiently and productive and allocative efficiency is achieved. People can get goods at very cheaper rates because Government's aim is not to maximize profits. People can work hard to earn and produce more.

Question No. 2 June 2011/22

2(a) Explain the role that a government should fulfill in a mixed economy. [8]

See Q.2b November 2002

Question No. 2 November 2011/22

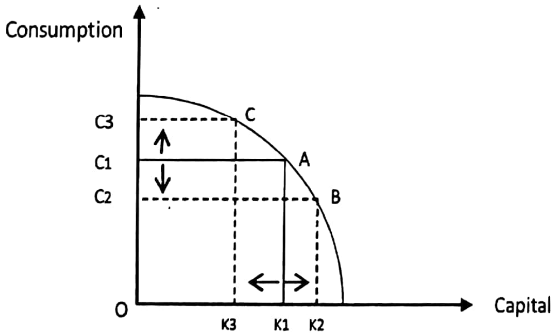
2 (a) Show how production possibility curves may be used to explain any two economic ideas.[8]

Two economic ideas can be scarcity and opportunity cost which can be explained with the help of production possibility curve. Scarcity refers to the limited resources and unlimited wants. It is basic economic problem faced by all the economic societies of the world. Resources refer to land, labour and capital. All these resources are limited to satisfy all the wants of society.

Scarcity enforces us to make choices because all wants cannot be satisfied with finite resources. When we are making choices, opportunity cost will occur. e.g. if we have a piece of land we can construct a factory on it as well as we can use it as a parking lot. If we decided to construct a factory, then parking place will be the opportunity cost. Similarly, if a fish monger decided to collect coconuts instead of catching fish then fishing will be the opportunity cost.

The amount of opportunity cost depends upon the efficiency of one resource to produce two different goods. If a resource is equally efficient for both the goods, then its opportunity cost will be equal/constant.

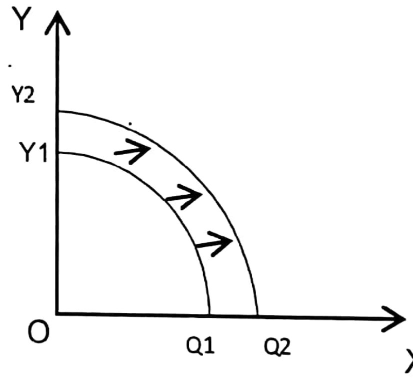
On the other hand, if it is not equally efficient for both the good then opportunity cost will be increasing which means that he will be getting less and sacrificing more. However, the link between scarcity and opportunity cost can be explained with the help of production possibility curve. Production possibility curve is a curve which shows different combination of two products which we can produce with the help of given resources.



According to the above diagram, initially, economy is operating at "A" where capital amounts to "OK_1" and consumption is "OC_1". Now, if we have decided to invest more to "K_2" shown with combination "B" then consumption will fall to "C_2" is the opportunity cost. This will lead to fall in current standard of living, future standard of living and production possibilities will rise. Vice versa is true for the movement from "A" to "C".

(b) Discuss whether the combination of improved technology and globalisation will result in solving the basic economic problem. [12]

The basic economic problem is scarcity of resources due to unlimited wants. Scarcity shows that resources are limited to satisfy all wants. Improved technology increases productivity and production possibilities in the country as well as the world will rise. It is shown in the following figure;



The above diagram shows that production possibilities were initially less and we were able to produce OQ1 quantity of x-goods or OY1 quantity of y-goods. But improved technology has resulted in increase in production possibilities to OQ2 for x-goods or OY2 for y-goods. It means now the economy has potential to produce more as compared to the past. Similarly, globalization may lead to increase in production possibilities of the country as globalization bridges the countries and they can trade with each other easily. Globalization may result in specialization and when countries are specialized their output level will rise.

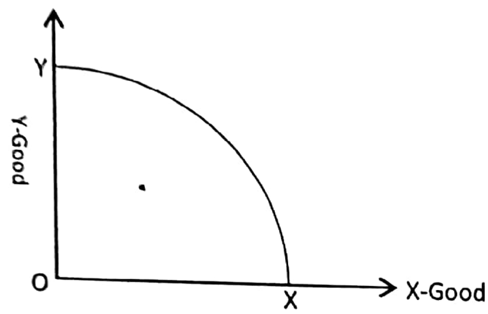
Again production possibilities can increase. Countries will make best use of resources. Hardship may be reduced but whether all this will solve the problem of scarcity or not. It is described as; Improved technology, globalization and even progress cannot solve the scarcity issue because wants evolve through time and because our wants are social and changes in steps with those of others; these wants have no set limits. In the unceasing race between output and wants, there is little doubt that the latter will always win.

However, same milestone of wants can be established to evaluate it. But again the reliability of that milestone is questionable. It is also very difficult to find that milestone as a marked boundary of wants. So, we assume that scarcity is inevitable and even improved technology and globalization cannot allay its bite in a way we can clearly explain. Therefore, scarcity is the basic and inescapable problem.

Question No.2 June 2010/22

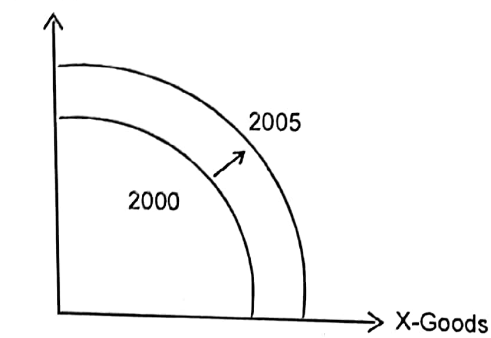
2(a) Explain how a country's production possibility curve depends upon its factors of production. [8]

Production possibility curve is a curve which shows different combinations of two products that can be produced with the help of given resources. It is shown below;

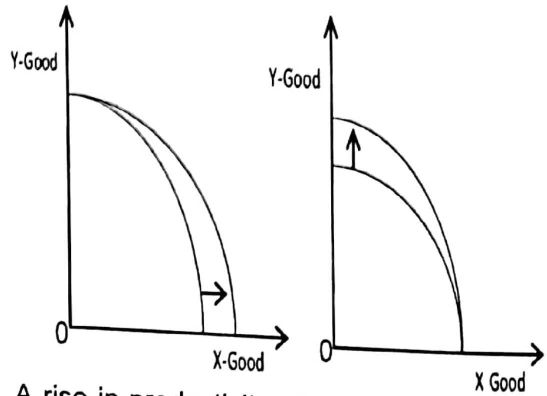


According to the above diagram an economy can produce "OX" units of X-Goods or "OY" units of Y-Goods. Change in productivity of labour or other resources will shift the PPC. Improvement in productivity shifts the PPC towards right and deficiency in productivity may shift the PPC towards left.

On the other hand, factors of production include land, labour, capital and enterprise. These factors are available in different countries irregularly. One country may be rich in one factor and the other may be in some other factor of production. Their production possibilities also depend upon these factors of production. Seas, rivers, minerals are included in land. Skilled labour is human resources and technology is capital. Combining all these factors will help to produce goods and services. Availability of more factors will shift the PPC to the right as shown below;



A rise in productivity or availability of resources for both the goods will shift the PPC completely to the right as shown above and improvement in productivity of only one good will result in pivotal shift in the PPC shown below;

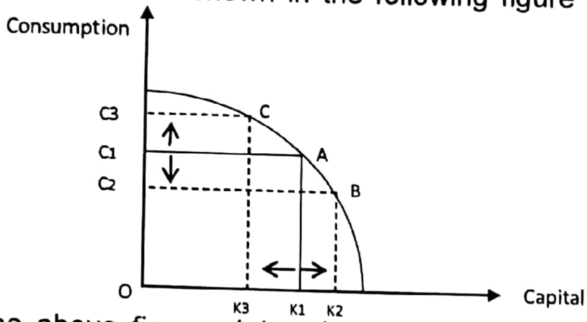


A rise in productivity of Y-Goods will shift the PPC on Y-Axis and if there is increase in productivity of X-goods then PPC will shift to the right on x-axis. PPC might be used to assess the performance of a country as well. Rightwards shift in PPC shows a good economic performance of a country in the form of use of resources while left wards shift shows poor performance and depletion of resources/factors of production.

Question No.2 June 2012/22

(b) Discuss whether an economy's production possibility curve is more likely to move inward or outward over time. [12]

Production possibility curve is a curve which shows different combinations of two products which can be produced with the help of given resources. It is shown in the following figure

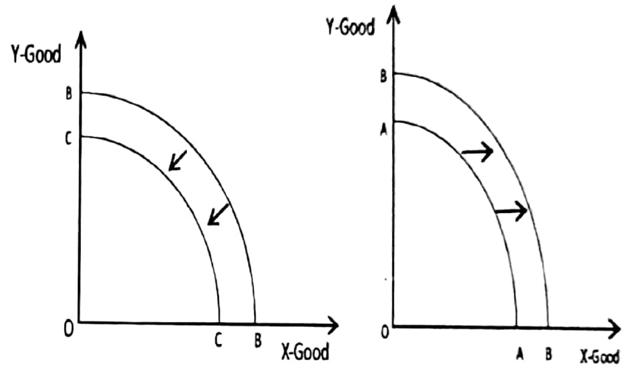


The above figure states that if an economy employs all of its resources on capital then it can produce "Ok" quantity of Capital-Goods but it will have to sacrifice consumption completely which will be the opportunity cost. In this diagram consumption is shown on Y-axis.

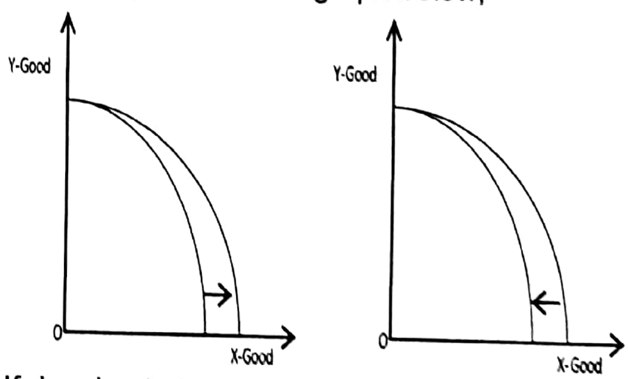
Combination "A" shows that we can produce "OC_1" units of Consumer-Goods as well as "Ok_1" units of Capital-Goods. Similarly, movement from "A" to "B" shows an increase in production of Capital-Goods from k_1 to k_2 which will lead to fall in consumer-goods from C_1 to C_2. So, the gap between C_1 and C_2 will be the opportunity cost.

Production possibility curve (PPC) may shift to the right as well as to the left. It depends upon different factors. PPC may completely shift to the right as shown in following right hand side figure. It happens if new natural resources are being discovered. Discovery of new natural resources means now the economy would be having more resources to produce more quantities of both the goods.

Its potential to produce will rise. Improvement in technology also shifts the PPC to the right. Better technology shifts the PPC to the right from AA to BB as shown on right hand side graph. It also shifts to the right if there is increase in productivity of labour as well as other factors of production.



Exhaustion or depletion of natural resources will shift the PPC inwards or leftwards as shown in the left hand side graph above from BB to CC. Fall in productivity also shifts the PPC towards left. However, the net effect remains uncertain. If the rise in production possibilities due to improved technology is more than the fall in production possibilities due to exhaustion, then PPC will finally shift to the right and vice versa. But there will be rightwards pivotal shift in PPC as shown in the left hand side diagram below if there is discovery of new natural resources only for x-goods or technology and productivity improves only for x-goods. Vice versa will be true for right hand side graph below;



If rise due to technology and fall in production possibility due to exhaustion is equal, then PPC may remain the same. However, the final position remains uncertain.

Question No.2 June 2005

2(a) Explain the differences in the features of a market economy and a planned economy. [8]

Free market economy refers to the economic system in which resources of country are owned and controlled by private individuals and companies. While planned economy is an economy in which resources are under the ownership and control of government.

Market economy possess the features of self-interest or profit motive in which private individual work hard to earn higher profits. It leads to high efficiency and productively. In planned economy, there is lack of self-interest or profit motive. People receive fixed salary even though they are working very hard and contributing a lot of effort for growth of a government institution.

There is a greater competition in free market economy which helps in low prices for high quality products. But sometimes, they spend rashly on advertisement to get advantage over others. It leads to wastage of resources. While in planned economy, there is no competition and government needs not to advertise to persuade the people to buy the product or service.

Individuals respond their customers very quickly so that they can satisfy their needs and wants timely. On the other hand, government responds its customers very slowly, because of complicated documentation and procedures. Everything is centrally planned and no one can take decision on his own behalf. So, sometimes, customers have to face huge losses, as their demands are not satisfied in time. However, government works for the social welfare of the country.

In free market economic system, goods are considered as candidates and customers are voters. It shows freedom of choice for the private people but this is also missing in planned economy, where government is sovereign and takes decisions to produce goods and services without taking into account the will of the customers.

However, government produces public and merit goods which will be produced in a little quantity if handed over to the private sector. Free market works for the satisfaction of wants of people and government produces basic necessities. It means both the sectors are very necessary in the form of mixed economy to get desirable outcome in the country.

Characteristics and Functions of Money

Question No. 2 June 2010/21

2 (b) Discuss how the operation of a barter economy would be affected by the introduction of money. [12]

Barter system refers to exchange of goods with other goods instead of using money and requires a double coincidence of wants. Our primitive ancestors used to use this method to satisfy their needs and wants and money is something which is generally acceptable as a medium of exchange and at the same it is used to store the value or wealth.

Introduction and use of money has enhanced specialization due to which efficiency has also increased. Introduction of money has affected the operation of barter economy because money performs four functions;

- ✓ Medium of exchange,
- ✓ Measure of value/unit of account,
- ✓ Standard of deferred payments and
- ✓ Store of value/wealth.

In barter economy goods were exchanged with other goods which was very difficult task but invention of money has solved this issue. Now, people can get goods and services in exchange of money because it is generally acceptable by everyone ranging from a fruit vendor to a big multinational company and it can be divided into smaller units to make payments of different amounts. For example, consumer can buy a very small article, a needle, which costs only one rupee and it can be obtained by paying exactly one rupee, unlike the barter trade in which goods were indivisible and consumer had to give sometimes a very big and expensive product against a small article. It was totally unfair system. Therefore, money has replaced it with the new and a fair system of exchange.

Money also performs its function of measuring value of goods and services. In barter economy, it was very difficult to measure value of one against multiple products. There was no common measuring rod. Every time, people had to measure of product with different product. For example, measuring value of a book against pens, pencils, rulers, thumb pins, water bottle, bag and marker would be a challenge every time.

The people had faced such issues during barter trade in the past. But money has affected barter system in this regard as well because now we have money as a common measuring rod. The buyers and sellers can easily set and negotiate prices of different products and factors of production in terms of money. For example, the value of a book can be simply represented as its price in terms of money like the price of an economics book is rupees 1000. Similarly, we can determine the value of mountain, particles of sand, cars, houses, furniture and a pens in terms of money. It is really easy job now as compared to the old system of barter trade.

Money also performs its function to be used as a means of deferred payment, which are the payments which people have to make in future. Sometimes, people buy goods and services on credit and have to pay later. This is a deferred payment which can be made with money because of its stable value and acceptability. Making deferred payment in the past was again an uphill task because value of goods in most of the cases was unstable because the goods they used to use for this purpose don't had stable value. So, money has affected that old system in this regard as well.

Last but not the least, money performs its function to store the value and wealth. Those who save more money in their bank account or even at home, they become wealthy and rich as compared to those who have less money or other property representing wealth. Barter is again affected by money because goods people used to use to become wealth did not have stable value and durable nature. Since, most of them were perishable goods, so storing them could not make people wealthy.

It is concluded from above discussion that an effective money will have properties of acceptability, durability, portability, divisibility, homogeneity and scarcity which makes trade easier, quicker and more widespread as compared to barter system. It makes specialization and exchange easier and become common and it can extend to international level.

Banks have confidence in advancing loans because of its stable value. Enhanced trade can increase economic activity and improve standard of living of nations.

However, it may lead to hyperinflation and counterfeiting if it loses its value due to oversupply as it happened in Zimbabwe in November 2008, where prices of very small articles like a loaf of bread and a pack of cigarettes cost millions of dollars. In such situations people may prefer to exchange good with other goods instead of using money.

Question No. 2 June 2012/22

2 (a) Explain why all types of economic system benefit from the existence and use of money.

[8]

Different types of economic systems include free market, planned and mixed economies. Free market refers to the economic system in which resources of the country are owned and controlled by private individuals and companies where prices are determined through the forces of demand and supply. People work hard for their profit motive. Competition is also there in the economy. There is very limited role of the government.

On the other hand, planned economy is an economy in which resources of the country are owned and controlled by the government. Government produces public, merit goods and basic necessities of life. Equal job opportunities are available in the market. While in mixed economy some of the resources are owned and controlled by the government and some of the resources are under private ownership.

While, money is something which is generally acceptable as a medium of exchange and at the same time it is used to store the value. All type of economic systems benefits from the existence and use of money because it helps them through its four functions;

- ✓ Medium of exchange.
- ✓ Measure of value/unit of account.
- ✓ Standard of deferred payments.
- ✓ Store of value/wealth.

Note: Explanation of these functions is given in previous Question-June 2010. Please read it and add it to your answer here but there is no need to give conclusion because when key word is "Explain"; conclusion is not required.

Types of goods and information failure

Question No.2 Nov 2017

2 (a) Explain the difference between public goods and private goods. Consider why profit can be made through the supply of one type of good, but not the other. [8]

Envisioned Answer

The difference between public and private goods is mainly identified from their features which are explained as under;

Private Goods are the goods which are bought and used by individuals and firms for their own benefit, against market price. These goods are traded in the market by private firms to earn profit. These are identified through their following features;

(i) Excludability
(ii) Rivalry
(iii) Rejectability

Excludability, the first feature of private goods, means some of the people can be excluded to use it. Only those can benefit, who pay the price. For example, the personal car of an individual is excludable for others because people don't allow others to use their products without paying for it. The people can hold private goods as their private property and can exercise their property rights.

Rivalry means; if the product is purchased and consumed by one individual, its availability for others diminishes. In above example, if owner of the car allows someone to use it, then he himself would not be able to enjoy its benefits for the time it is used by another person.

Other examples of private goods may include; private house, light bulb, fan, furniture, book, food items, bed and laptop etc. Some of the parks are privately owned where consumers have to pay some amount as an entry fee. Therefore, those who are not able or willing to buy ticket will be excluded. In case of food items like the piece of fried fish purchased and consumed by one person would no longer be available to someone else is also an example of private good.

Rejectability is another prominent feature of private good which means, individuals cannot be forced to purchase and consume a certain product. They have their free will to accept or reject it. If it does not match their requirements, fashion or budget, they can easily reject to purchase it. For example, if someone doesn't like Pepsi in soft drink, no one can force him to buy it. Similarly, people select to purchase cars of their own choice for their own satisfaction that's why variety of cars is being sold in the market instead of just a single car.

On the other hand, public goods are different from private goods because of their three different features:

(i) Non-Excludability: It means; everyone is allowed to use it. Once, it is provided to someone, we cannot stop others to get benefit from it. The ones who benefit without paying for it are known as free-riders.

(ii) Non-Rivalry: It means; good can be extended to many people at zero marginal cost. If some extra people use it, the benefit to those who are already using it do not decrease.

(iii) Non-Rejectability: Once, the good has been supplied, it cannot be rejected by the people, for example, flood defence system, construction of dam and motorways.

Profit can be made through the supply of private goods but not from public goods. Private goods being excludable and rival are available to those only who are willing to pay the price, free riders are not allowed. Therefore, producers can sell them in the market against a market price to earn profit. For example, the producer of a car will not sell it to someone at zero price, so it can earn profit.

Public goods on the other hand, cannot be supplied to earn profit because of non-excludability and non-rivalry. Free riders are allowed to use these products.

For example, streetlights; everyone passing through the street can benefit from it and its benefit to the existing people will not diminish. Similarly, soldiers and policemen deployed to save people do not exclude someone to provide security and safety.

In the same way, lighthouse built to warn ships to remain away from dangerous rocks will not exclude some specific ship from getting benefit while the benefit of existing ships will not reduce.

Public goods are not traded (bought and sold) in the market. Therefore, no one can purchase it which is completely at his disposal. Being non-rival and non-excludable, private individuals and companies don't produce such goods due to free-rider problem.

(b) Discuss why merit goods may be under-consumed in a mixed economy. Consider whether maximum prices or education campaigns would be more effective in ensuring that these goods are supplied in appropriate quantities. [12]

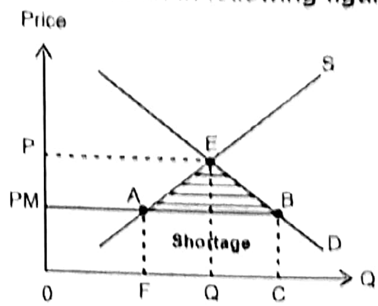
Envisioned Answer

Mixed economy is an economy in which part of resources are owned, controlled and utilized by the government and part of resources are under ownership of private sector. While merit goods are those, which not only give benefit to the consumers but also to the non-consumers or the third party. These goods may be provided by the government or private sector or by the both in mixed economy. Generally, they are provided by the government and government thinks that all people do not afford them but they must have them. Therefore, government produces them at its own or provides subsidy to private producers to sufficiently produce them. Such goods create positive externalities or positive side effects, which are benefits to nonmembers of transaction. These goods provide benefit more than the consumers themselves perceive.

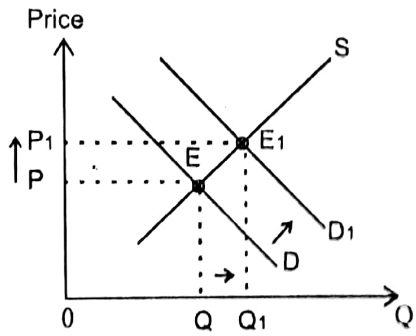
For example, plantation, public parks, education and healthcare (like vaccination) etc. Plantation not only gives benefit to the person who has grown it but also to the non-members like neighbors and other people living in that area, in the form of refreshing environment. In mixed economy, merit goods may be under-consumed due to lack of affordability of consumers or due to lack of information about extended benefits of these goods. Therefore, the issue of under-consumption can be solved through government intervention by;

✓ Imposing maximum price or
✓ Using education campaigns

Maximum price is the price set by government below equilibrium to increase affordability of consumers. Therefore, more people will be able to buy these goods, consume more quantity and the issue of under-consumption may be solved. However, maximum price creates shortage, since it is set below equilibrium as shown in following figure;



This figure shows equilibrium price for a merit good is P and quantity traded is Q. PM is maximum price set by the government and it has resulted in shortage equal to AB or FC. Those who would be able to get merit goods at price PM would definitely benefit from this government action. However, because of shortage in the market, many consumers would not be able to get the product and it may lead to black marketing. In this way, this policy seems to be less effective unless government provides subsidy to private producers to ensure production and increase supply which is sufficient to satisfy needs of all of the consumers at this price. Secondly, government can solve the issue of under-consumption of merit goods through provision of information, using education campaigns. These campaigns will provide information about benefits of merit goods and as a result many people would get convinced to use them. Therefore, the demand for these goods will rise and the issue of under-consumption will be solved. It is further explained with the following figure;



This figure depicts, initial equilibrium is at point E where market price of a merit good is P and quantity traded is Q. Owing to provision of information through education campaigns, demand for these goods will rise and demand curve will shift towards right from D to D_1 and new equilibrium will take place at E_1, price will rise to P_1 and quantity traded will rise to Q_1. In this way, the issue of under-consumption of merit goods will be solve and it will also lead to extension in supply from E to E1. Therefore, there would be lesser chances of shortage.

However, this method is very expensive may lead to higher cost for the government. The success of this policy also greatly depends upon the presenters of information. If the policy is not appropriately designed, implemented of presented, then it may not lead to increase in demand for merit foods and may not solve the issue under discussion. Therefore, government should also ensure; policy is designed and implemented properly by the people having greater communication skills to convince consumers that the information they are giving is really important to them and has a proper sequence to be conveyed in good manner.

In short, we concluded that both of the policies have their pros and cons. However, provision of information through education campaigns seems relatively effective as compared to the policy of maximum price, since the policy of education campaigns not only increases demand for merit goods but also extends the quantity supplied of these goods by private producers and it involves less financial burden for the government.

Question NO.2 June 2016

(a) Use examples to illustrate the difference between private goods and public goods, and explain why only private goods will be supplied in a free market economy. [8]

See Q2(a) Nov 2017

(b) 'The factor enterprise and the free working of the price mechanism always ensure a satisfactory outcome for consumers even when imperfect information exists.'
Discuss this view. [12]

(b)

The factor enterprise and the free working of price mechanism refers to the free market economy where resources are allocated by the private individuals and companies according to the demands of the consumers. Invisible hands play their role to determine the prices of goods and services. Firms and individuals work hard for their profit motive. Prices keep on changing depending upon the changes in demand and supply of goods and services. The price increases for those goods which have greater demand. Similarly fall in supply increases the price level and increase in supply decreases the price. In this system consumers' preferences determine which goods to be produced.

In free market economy due to imprecation of information consumers and producers cannot identify the need to produce and consume merit goods and harms of demerit goods. Merit goods are the goods which have positive effects on the users as well as non-users of the product. It means it affects the third party in positive way. On the other hand, demerit goods are the goods which have negative side effects on the consumers as well third party. Third party is the person who is neither consumer not producer but he is affected production and consumption of goods and services.

Merit goods are provided by the government generally for the welfare of society and demerit goods produced by the private sector for their profit motive.

Merit goods if provided by the private would be under-produced and under-consumed. For example, education and health care. If only private sector provides education, it will be under-produced and under-consumed because private sector will not produce sufficient quantity and will create artificial shortages to get higher prices. Similarly, there would be very less people who would be able to pay that price and therefore, will be under-consumed. E.g. if education in Pakistan is only provided by the private schools like Beaconhouse, Lahore Grammar School, LACAS and DPS School, then there would be very few families who will be able to educate their children.

Demerit goods are more likely to be over-produced and over-consumed because these are habit forming like cigarettes. Imperfect information about the effects of merit and demerit goods make the people unable to perceive the benefits and costs of a product or a service. They don't know how good or bad something is. However, if people realize the benefits of merit goods they will never under-consume them and similarly, if they come to know about the costs of demerit goods they will never over-consume them.
The social cost of merit goods is lesser than the private cost which leads to the creation of positive externalities or positive side-effects on the third party. However, the social cost of demerit goods is greater than the private cost which cause negative externalities in the society and has negative side-effects.
It is important to note that who is perceived authority to identify which goods are good and which are bad for a person. The smokers never say that it is bad for them rather they think it makes them active. It is a question of value judgment which depends upon the opinion of each person. However, paternalism helps us to resolve this issue where society judges which goods are acceptable and which are not.
So, concluded that price mechanism does not always ensure satisfactory outcome due to lack of information. Merit goods completely left over to the private sector would be under-produced due to which society will suffer. On the other hand, demerit goods are over-produced causing health issues and increasing burden on the hospitals. But it is satisfactory in a sense that it responds its customers very quickly due to which their demands are satisfied in time. Those work hard get more benefit as compared to the lazy and lethargic people. Luxurious items are also produced for the affording people. But it can waist the resources on advertisement and unproductive expenses. The advertisement can also be misleading, misrepresenting and fraudulent.

Question No.4 Nov 2002

(a) Explain, with examples, the meaning of the terms public good and merit good. [8]

(b) Discuss how a government might increase the provision of public and merit goods. [12]

Envisioned Answer

(a)

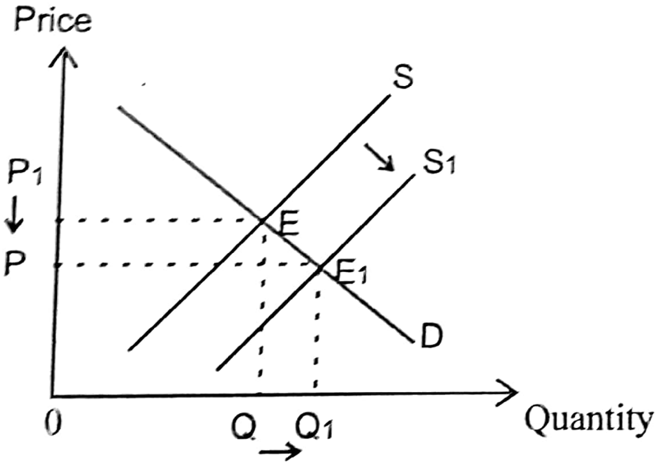
Public goods are characterized by three important features of non-rivalry and non-excludability. The first feature means that consumption by one person does not in any way reduce the consumption by another individual. The second feature refers to the fact that the consumption of a public good cannot confined to those who have paid for it so there can be free riders. People can enjoy the product without paying for it.

Examples of public goods include national defence, the police service, lighthouse, flood control schemes, street lightening, pavements, public drains, radio and television broadcast etc. So, public goods cannot be provided by the private individual because of free rider problem. As a result, the state must finance them by means of taxation, and sometimes, by borrowings or through any other source of income like earnings from public sector organization and fines charged for violation of rules by the general public.
Some public goods such as defence, are provided by the central government and street lightening by the local authorities and are provided directly by the government. Others, such as flood control, are provided by giving contracts to the private firms. Most of the goods are private goods which are rival and excludable but some Economists identify a third category of mixed goods. These lie in between the two, hence public and private goods.
The best example in this context can be road. Economists claim that many miles of road are non-rival. However, with becoming possible to excludable for non-payers like on motor ways and high ways private car users have to pay toll tax. Government is concerned to increase the consumption of merit goods which create positive externalities. They are special form of private goods. The best examples are state healthcare and state education. Other examples include training, inoculation (i.e. vaccination), insurance, public parks, plantation etc.

Most Economists argue that state intervention is necessary to ensure a greater provision of merit goods. Government can provide these goods free of cost to the people like state education and healthcare. But training programs should be handed over to the private firms. Some Economists claim that merit goods do not exist because individual consumers are the best judges of what to consume and that the government is taking an over-paternalistic approach in promoting the consumption of these goods.

Government directly may provide public and merit goods to achieve efficiency and equity because private sector producers' main aim is to maximize profits and they are most of the time involved in under production and over charging. It reduces consumer surplus.

However, government may provide subsidy to private producers to produce more quantities of such goods. Providence of subsidy will lead to higher production of these goods at lower prices. But again the issue is that government will have to keep an eye on the functioning of private producers. The impact of subsidy is shown below;



It shows the availability of more public and merit goods at lower prices and it removes the element of under production and over charging. However, governement may have to supervise the conduct of private producers to ensure efficiecy and equity.

Question No.4 Nov 2004

4(a) Explain the meaning of 'public good' and 'private good'. [8]

See Q.2 (a) Nov 2017

Question No. 3 Nov 2006

3(a) Explain, with examples, the difference between a demerit good and a merit good. [8]

(b) Discuss two methods that a government might use to influence the consumption of demerit goods. [12]

Envisioned Answer

(a)

Merit and demerit goods are exact opposite to each other and the difference between them can be made through their features and examples as given below;

First of all, merit goods are mainly provided by government. All people do not afford them buy but government thinks, they must have these goods. Therefore, government produces these goods itself or provides subsidy to private producers to sufficiently produce them. Such goods create positive externalities or positive side effects, which are benefits to nonmembers of transaction. These goods provide benefit more than the consumers themselves perceive.

For example, plantation, public parks, education and healthcare (like vaccination) etc. Plantation not only gives benefit to the person who has grown it but the non-members like neighbors and other people living in that area benefit in the form of fresh environment. Similarly, good behavior and attitude of an educated person through his polite manners will also create positive externalities.

State intervention in case of provision of merit goods is very important. If government cannot produce such goods, then it provides substantial amount of subsidy to private producers to ensure their provision.

Generally, merit goods are under consumed because people do not perceive full benefits of merit good due to information failure. In case of education, people don't perceive benefits they themselves would receive after competition of their qualification benefits to the society. Similarly, if education is left over to private sector, it will be under produced because third party cannot be excluded from its benefits and it is not the aim of private producers to provide benefits to the nonpayers, at their own cost.

Contrarily, demerit goods are generally provided by private sector of economy and they create negative externalities or negative side effects, which is cost to the third party e.g. smoke of factory, cigarettes, alcohol and non-prescribed drugs etc. not only affect consumers but also the nonmember. These goods are over consumed in free market system. Over consumption of these goods might be due to information failure since people don't perceive the real problems caused by these goods. Government can ban production and consumption of such goods, can create awareness about its harmful long term effect through education campaign or can impose heavy indirect taxes to control negative externalities. Sometimes, it is a source of confusion whether a specific good should be classified as merit or demerit.

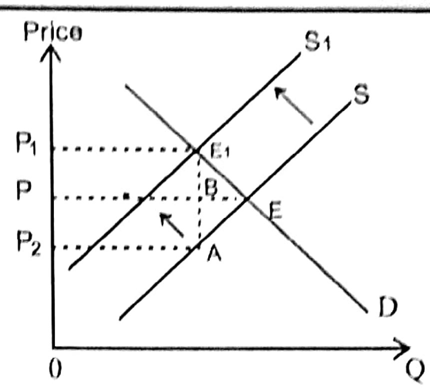
It is entirely based on value judgment or opinion. One person might consider one thing 'good' but it might be 'bad' in the eyes of another person. Therefore, we allow **paternalism** as legal part of Economics, where society can be the good judge to evaluate whether something is good or bad rather than the opinion of a certain person.

(b)

The two methods government can use to influence the consumption of demerit goods include; imposition of heavy indirect taxes and education campaigns.

Indirect tax is imposed on production of producers and spending of consumers and they are mostly added to the prices of products. However, how much indirect tax would be added to the prices depends upon price elasticity of demand and supply. Whenever, demand is inelastic, producers easily shift maximum tax burden on to the consumers because consumers can't easily stop buying them. Contrarily, if demand is elastic, producers bear maximum burden of indirect tax.

An imposition of indirect tax will help in reducing the consumption of demerit goods because it discourages the production and consumption of these goods as shown in the following figure;



The above figure depicts; initial equilibrium is at E where equilibrium price is P. The rise in indirect tax increases price for consumers to P1. Now consumers have to pay greater price and it may discourage some of consumers to consume lesser quantity of demerit goods.

Although, demerit goods are habit forming and more tax burden lies on consumers yet there will not be substantial fall in its consumption since its demand is relatively inelastic. Many consumers with still keep on purchasing with a little fall in quantity. This method will lead to increase in government tax revenue but seems less effective to reduce consumption of demerit goods.

So, government should opt for some other methods to reduce consumption of demerit goods' like education campaigns to create awareness about their harmful effects in the short as well as long run period of time. For this purpose, teachers, doctors and officially hired presenters by the government can help to achieve this goal. Teacher in educational institutions like schools, colleges and universities can create awareness about harmful effects of demerit good like cigarettes and junk food as well as fast food. They can let them know about the effects of fast and junk food how they cause stomach issues and can cause obesity and obese may have to face issues like diabetes.

This method of creating awareness would be effective and will have long term impact on society. Similarly, doctors can play their part using print, electronic and social media to create awareness about the harmfulness of demerit goods. They can make relevant videos shows how these goods have damaged the health of consumers like on

Facebook a videos get viral which contained the stuff relevant to the use of cigarettes and its impact on lungs and how it can cause lungs cancer. It was really alarming and effective way to convey the true message. Similarly, motivators and presenters can also create awareness by conducting seminars.

However, this method may not produce desirable results since it takes long time to change the minds of consumers. Similarly, the effectiveness of these campaign entirely depends upon communication skills of the person conveying relevant information. If the presenters don't have sufficient communication skills to convey the right message in right way, then all this practice will be not more than a waste of time and resources of the government.

From above discussion, we concluded that imposition of indirect tax and education campaign can help to solve this issue but up to a certain limit subject to effectiveness of each policy. Therefore, government should use multiple policies at one time to have quick and long term effects like fixing production and consumption quota, banning some products, issuing pollution permits etc. to tackle this issue effectively.

Chapter # 2

The Price System

Demand and supply

Question No. 3 November 2011/22

3 (a) **Explain the influences which determine the level of demand for healthcare in an economy. [8]**

Envisioned Answer

There are several factors that affect the demand for healthcare. Some important factors out of them can be price, population size, health condition in the country, income, weather conditions, future expectations, availability of health services, awareness about healthcare, family planning issues and rate of interest etc. These factors are explained as;

Income: If there is a change in income then demand for healthcare will change. For example, if there is a rise in income of individual so his purchasing power will rise and he can be able to afford more and better healthcare and vice versa will be true for the fall in income.

Population: A sudden rise in population will lead the demand for health to rise dramatically and vice versa will be true for fall in population. Population changes suddenly due to migration or diseases or natural disasters like floods and wars etc.

Weather: It also affects the demand for healthcare. Frequent fluctuations in the weather conditions may lead to increase the demand for healthcare because changing weather creates health problem in the society.

Advertisement and impulsive buying: The tactics used by the healthcare providers also affect the demand. Like advertisers may attract the people for hair plant, liposuction reducing fats and getting smart etc will lead the people to demand more healthcare.

Future expectations: Expectations of more need for medicines and health facilities will lead to increase demand of the masses currently.

Price: Availability of healthcare at low and comfortable prices will lead to increase in the demand and vice versa.

Interest rate: Fall in interest rate on loans will motivate the people to get more loans from the financial institutions which will increase their potential to buy goods and services and resultantly they will demand more for healthcare. On the other hand, if there is rise in rate of interest then people will tend to save more in their saving account to earn more interest. So demand will fall.

Income Tax: Income tax changes the disposable income of the people. Rise in income tax means there will be lesser disposable income of the people and fall in income tax will result in higher disposable income of the people. Higher disposable income increases the demand and lower disposable income decreases the demand.

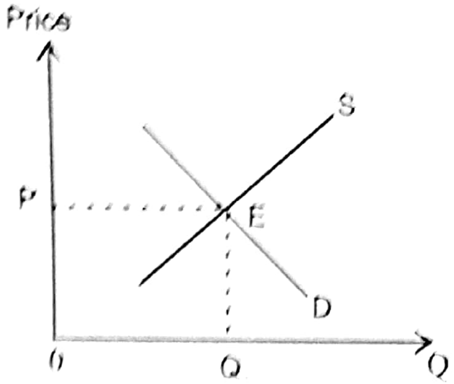
Disposable income = Total personal income – income tax

Equilibrium

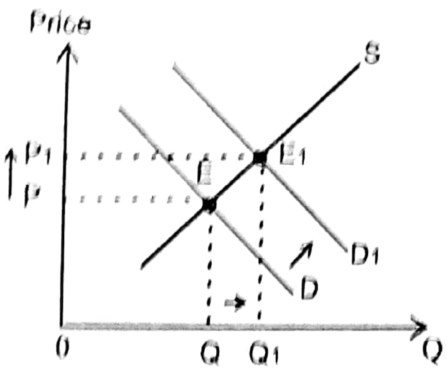
Question No. 3 November 2005

3(a) Explain the meaning of the 'equilibrium price' of a good and how it is set in a free market. [8]

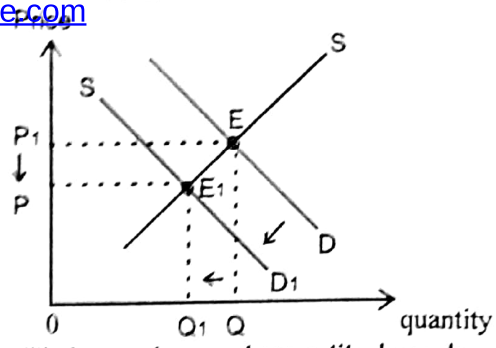
Equilibrium refers to the situation in which quantity supplied and quantity demanded are equal. In other words, it is the intersection point of demand and supply curves.



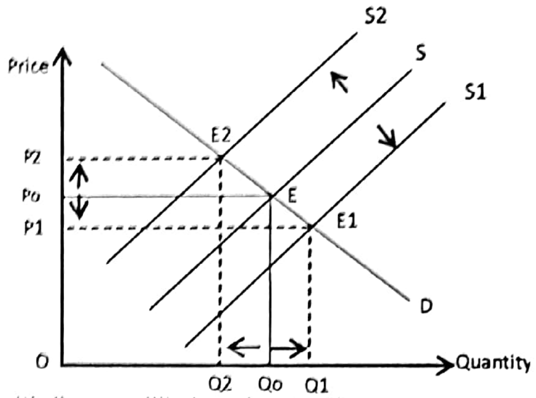
According to the figure, equilibrium takes place at "E" where equilibrium price is "P" and quantity is "Q". Free market economy is an economy where decisions are taken on the basis of price mechanism. Price and quantity keeps on changing depending upon the demand and supply. Any disequilibrium is corrected by reactions to the price level. This process is shown in the following figures;



Initially equilibrium is at point "E" where equilibrium price is "P" and quantity is "Q". Rise in demand sets the equilibrium price at "P_1" and quantity at "Q_1" and again the market is in equilibrium. There is no shortage or surplus. Similarly, fall in demand also makes automatic adjustments in the market. It is as:



Equilibrium price and quantity has decreased due to fall in demand. Similarly, any change in supply will change the market condition through same phenomenon.

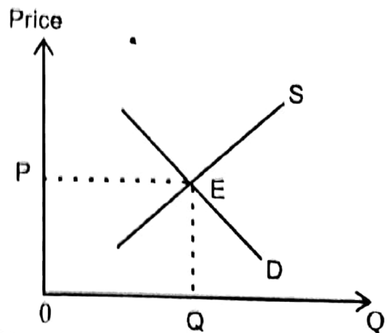


Initially, equilibrium is at "E" where price is "P_0" and quantity is "Q_0". Rise in supply shifts the equilibrium to "E_1". Price falls but quantity traded will rise. Fall in supply shifts the equilibrium to "E_2" price will rise but quantity traded will fall.

Question No. 2 November 2007

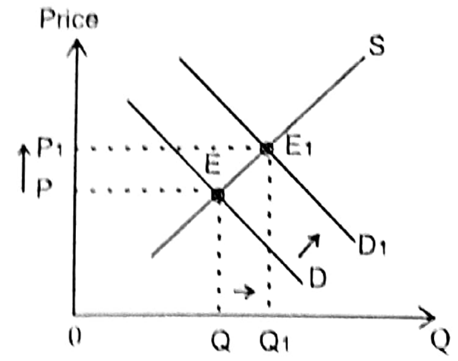
2(a) Explain how an equilibrium price for a product is established in the market and how it may change? [8]

Equilibrium refers to the situation in which quantity supplied and quantity demanded are equal. In other words, it is the intersection point of demand and supply curves.

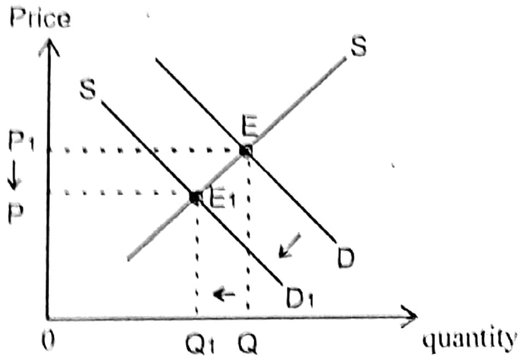


According to the figure, equilibrium takes place at "E" where equilibrium price is "P" and quantity is "Q". Free market economy is an economy where decisions are taken on the basis of price mechanism.

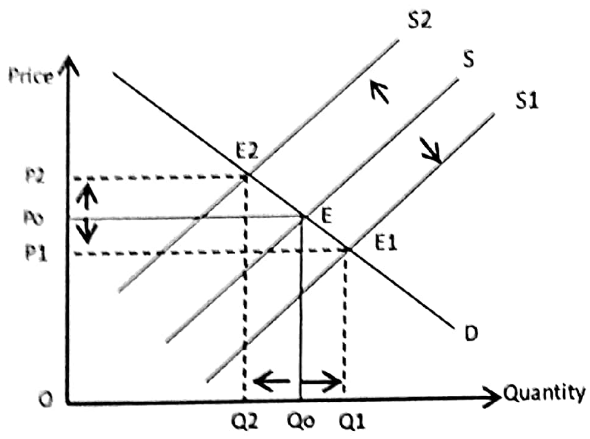
Price and quantity keeps on changing depending upon the demand and supply. Any disequilibrium is corrected by reactions to the price level. This process is shown in the following figures;



Initially equilibrium is at point "E" where equilibrium price is "P" and quantity is "Q". Rise in demand sets the equilibrium price at "P_1" and quantity at "Q_1" and again the market is in equilibrium. There is no shortage or surplus. Similarly, fall in demand also makes automatic adjustments in the market. It is as;



Equilibrium price and quantity has decreased due to fall in demand. Similarly, any change in supply will change the market condition through same phenomenon. It is shown the following figure.

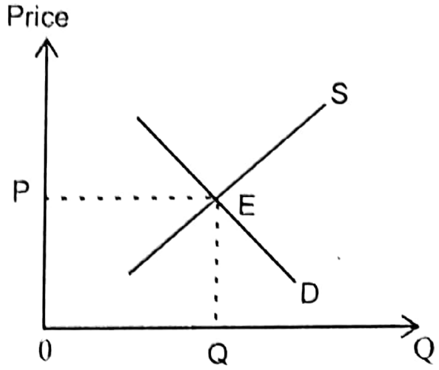


Initially, equilibrium is at "E" where price is "P_0" and quantity is "Q_0". Rise in supply shifts the equilibrium to "E_1". Price falls but quantity traded will rise. Fall in supply shifts the equilibrium to "E_2" price will rise but quantity traded will fall.

Question No. 2 November 2009/21

2(a) Explain, with the help of a diagram, how the price of a product moves to a new equilibrium following a decrease in its supply. [8]

Equilibrium is a situation where quantity demand is equal to quantity supplied. It is shown in the following diagram;

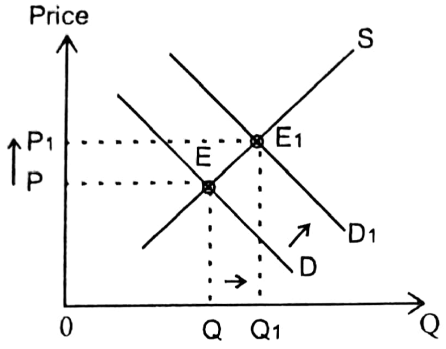


The above figure depicts that equilibrium is at point "E" where equilibrium price is "P" and quantity traded is "Q". Decrease in supply shifts the supply curve to the left due to which market price will rise and quantity traded will fall. Supply falls due to non-price factors like imposition of indirect tax, removal of subsidy, increase in cost of production and unfavorable weather conditions etc.

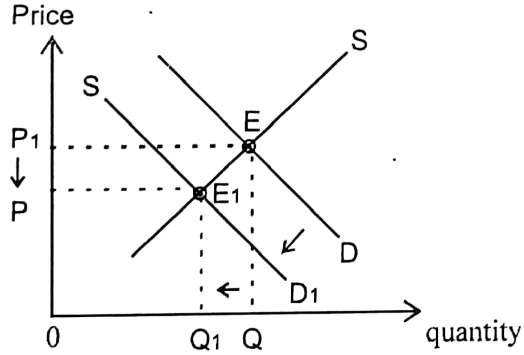
Indirect direct tax is imposed on spending of the people and it increases the burden on producers as well due to which they could not purchase raw material at lower price and consequently they cannot produce and supply more. Removal of subsidy has also the same impact as indirect tax. Increased cost of production reduces the power of producers to produce and resultantly they can produce and supply less.

Cost of production includes the cost of labour, cost of raw material, interest, rent of the building and other overheads. High wages of labour force the producers to hire lesser amount of workers and due to employment of lesser workers output falls.

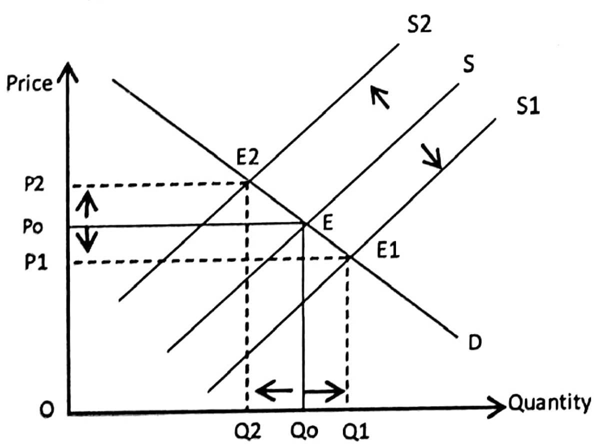
Price and quantity keeps on changing depending upon the demand and supply. Any disequilibrium is corrected by reactions to the price level. This process is shown in the following figures;



Initially equilibrium is at point "E" where equilibrium price is "P" and quantity is "Q". Rise in demand sets the equilibrium price at "P_1" and quantity at "Q_1" and again the market is in equilibrium. There is no shortage or surplus. Similarly, fall in demand also makes automatic adjustments in the market. It is as;



Equilibrium price and quantity has decreased due to fall in demand. Similarly, any change in supply will change the market condition through same phenomenon. It is shown the following figure.

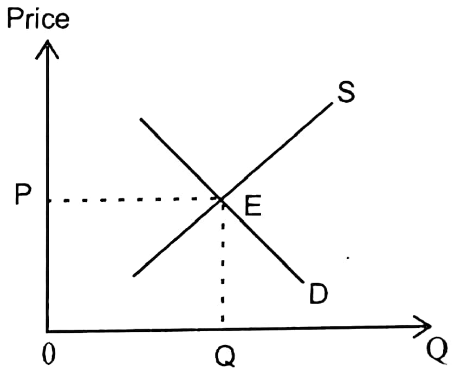


Initially, equilibrium is at "E" where price is "P_0" and quantity is "Q_0". Rise in supply shifts the equilibrium to "E_1". Price falls but quantity traded will rise. Fall in supply shifts the equilibrium to "E_2" price will rise but quantity traded will fall.

Question No. 2 November 2009/21

2(a) Explain, with the help of a diagram, how the price of a product moves to a new equilibrium following a decrease in its supply. [8]

Equilibrium is a situation where quantity demand is equal to quantity supplied. It is shown in the following diagram;

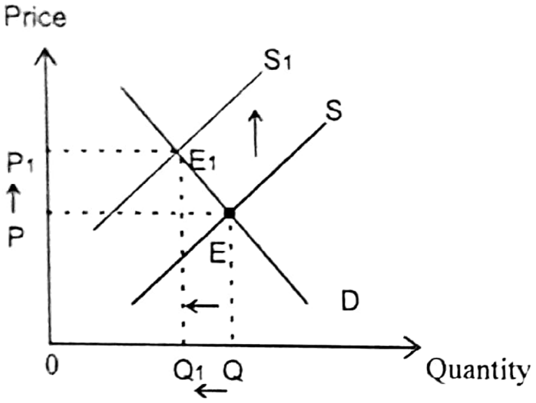


The above figure depicts that equilibrium is at point "E" where equilibrium price is "P" and quantity traded is "Q". Decrease in supply shifts the supply curve to the left due to which market price will rise and quantity traded will fall. Supply falls due to non-price factors like imposition of indirect tax, removal of subsidy, increase in cost of production and unfavorable weather conditions etc.

Indirect direct tax is imposed on spending of the people and it increases the burden on producers as well due to which they could not purchase raw material at lower price and consequently they cannot produce and supply more. Removal of subsidy has also the same impact as indirect tax. Increased cost of production reduces the power of producers to produce and resultantly they can produce and supply less.

Cost of production includes the cost of labour, cost of raw material, interest, rent of the building and other overheads. High wages of labour force the producers to hire lesser amount of workers and due to employment of lesser workers output falls.

High interest rate makes it uncomfortable for the producers to get loans from financial institutions and again they cannot purchase machinery and raw material to enhance supply. The impact of fall in supply is shown below;



The above figure shows that initially, equilibrium is at "E" where equilibrium price is "P" and quality traded is "Q" fall in supply shifts the supply curve to "S_1" and new equilibrium takes place at "E_1" where market price is "P_1" and quality traded is "Q_1". In this way, price has increased and quantity traded has decreased.

Question No. 2 June 2013/22

2 In a free market price rations scarce goods.

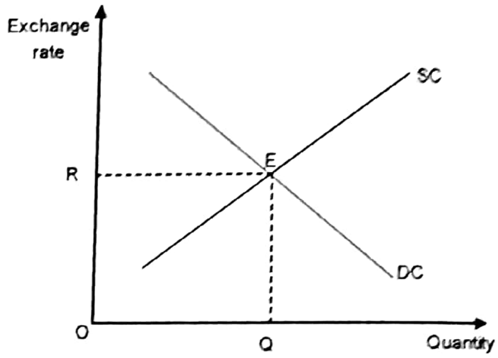
(a) Explain this statement and, with the help of a diagram, show how price rations scarce goods when there is an increase in the costs of production. [8]

Scarce goods refer to the limited number of goods available to satisfy human needs and wants in a society and free market refers to the type of economy where resources of the country are owned, controlled and used by the private individuals and companies to produce goods and services. In this type of economy prices are determined through the forces of demand and supply in the market which are also termed as invisible hands.

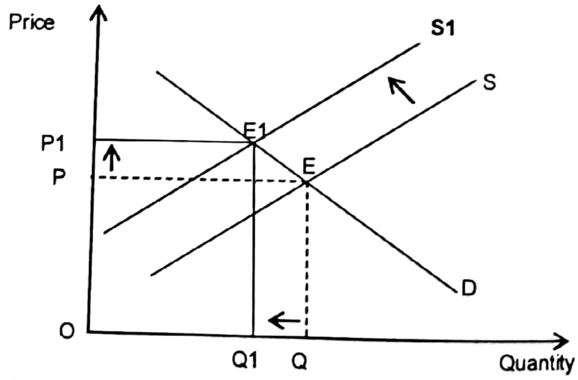
There is competition in the market and consumers are free to accept and reject the goods by taking into mind their income, price of goods, and the utility of goods for them. The person who takes the decision to buy goods by considering his income, price of goods and the satisfaction that is expected from the good is known as rational consumer.

The statement "in free market price rations scarce goods" refers to the phenomenon that private individuals and companies decide to purchase limited available goods by taking into account their price and utility for them.

Therefore, prices of the goods in the market are determined where demand and supply curves intersect each other. It is shown below;



According to the above diagram in free market price rations scarce goods and these goods will be demanded and supplied at point "E" where equilibrium price will be determined at "P" and quantity traded will be determined at "Q". Any change in demand and supply will change the price again to ration the consumers in the market. An increase in cost of production will change the equilibrium position due to leftwards shift in supply curve. It is shown below;



The above diagram shows the impact on the market after increase in of cost of production. Initially equilibrium is at point "E" where demand and supply curves are intersecting each other. At this equilibrium price is at "P" and quantity traded is "Q". Rise in cost of production has shifted supply curve to "S1" and new equilibrium is established at "E1" where price has increased to "P1" and quantity traded has increased to "Q1".

In this situation we can see that how consumer will act rationally, the contraction in demand from point E to E1 shows that he has decreased his quantity demanded or purchased due to rise in price. Therefore, we concluded that price rations in free market and consumers as well as producers adjust their quantity demanded and supplied according.

Question No. 2 June 2014

2 (a) **Explain the meaning of the term 'equilibrium price and quantity' in the market for a good or service and show how a new equilibrium is established when there is an increase in demand. [8]**

See November 2007, 2a only explain till first two graphs. You should also add factors that cause demand to rise and those include; rise in income, successful advertisement, rise in price of substitute, fall in price of complement, lower interest rate, increased population and development of its taste and fashion.

Question No. 2 November 2016

2 **(a)** Explain, with the help of a diagram, what happens in the market for a product when the price of a substitute increases, and how economists would measure the relationship between these two products. [8]

Try to attempt it at your own

Price elasticity of demand, PES

Question No. 3 November 2017

3 (a) **Explain the factors that are likely to make the supply of a product relatively price inelastic. [8]**

See Q.3a June 2003

Short run period of time, lesser availability of stocks, lesser reserve capacity in production plant and perishable nature of product makes supply relatively price inelastic.

(b) Discuss the ways in which businesses might attempt to increase the price elasticity of supply of their products. Assess whether these attempts are likely to be successful. [12]

Envisioned Answer

Increasing price elasticity of supply means making the product more responsive to the changes in price and it happens when a small change in price brings greater change in quantity supplied. Businesses can increase the price elasticity of supply of their products by removing all the causes which make supply inelastic. Price elasticity of supply is inelastic when the product is out of stock, it takes longer time to produce and supply in the market, there is lack of excess capacity in production plant and lack of availability of labour to produce it as well as by changing the nature of their products.

If supply of the product is inelastic and business wants to increase its elasticity, then it should keep stocks in larger quantities. The availability of greater amount of goods in stock makes supply elastic because businesses can easily increase supply whenever, there is increase in price of their products.

Secondly, businesses can attempt to increase price elasticity of supply for their products by reducing time period required to produce them. It will make easier to immediately produce and supply products in response a rise in their prices. For this reason, they will have to bring new technology to increase their efficiency to produce. Businesses can also achieve this by providing recent education and training to the workers to make them more efficient and quick to undertake production process.

Thirdly, nature of products also determines price elasticity of supply. Products with perishable nature which cannot to store for longer time have less elastic supply. Businesses can increase their price elasticity of supply by changing their nature and increasing their durability. They change use some useful chemicals improve the storability of these goods for relatively longer time or they can even entirely change their production from perishable to durable products.

However, doing all this to increase price elasticity is not an easy job. It may involve many problems while trying to increase elasticity. For example, in first case of increasing stocks involves huge cost to construct warehouses or getting them on rent to stock goods. Furthermore, extra managers and other workers would be required to manage and run it properly. It will also increase the burden of businesses. Similarly, businesses forecasting a higher demand for their products may over produce and stock goods which may not actually be demanded in future. It may also cause a huge loss for the business.

Secondly, to reduce time to complete production, needs the purchase of recent technology as well as education and training of workers to increase their efficiency requires to allocate large amount of budget and efforts. It may cause budget flow issues for the business. Similarly, workers after getting training and becoming more efficient may switch their job for better salaries and facilities offered by other firms may be problematic for the existing employer since it may have to again hire fresh staff and all of his efforts may go in vain.

Lastly, changing nature of the product is not so easy. Even producing the same product and using extra preservative to store them for longer time may be costly and may also reduce brand loyalty and taste of products. Changing entire nature of product is again very difficult job and new product again needs substantial time period to capture market.

So, we concluded from above discussion that businesses can increase price elasticity of supply of their products by changing different factors but again changing those factors is not an easy job and involves high costs from the businesses.

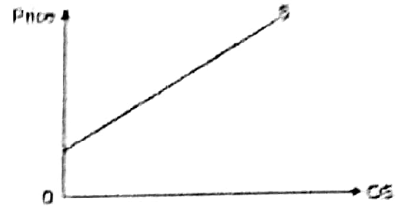
Question No. 3 June 2003

3(a) Explain what influences the price elasticity of supply of a product?[8]

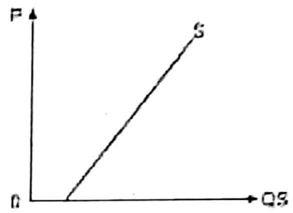
Price elasticity of supply refers to the responsiveness of quantity supply to a change in price. It is calculated by using the formula;

$$PES = \frac{\%\ \text{change in Qs}}{\%\ \text{change in price}}$$

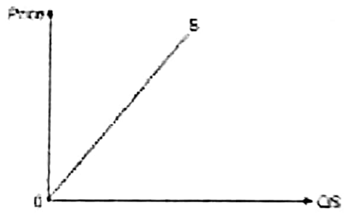
Supply can be **elastic**, when a change in price brings more than proportionate change in quantity supplied. Price elasticity of supply in this situation will be greater than one. It is shown in the figure below;



But when a change in price brings less than proportionate change in quantity supplied it is **inelastic** supply and it is shown below;



While equal proportionate change in price and quantity supplied shows **unitary** elastic supply. In case of elastic supply, supply curve will start from origin as shown in figure;



Supply is unitary elastic when supply curve is a straight line and it starts from origin point. It will be inelastic when it on x-axis below origin point and supply curve in this situation is said to be steeper.

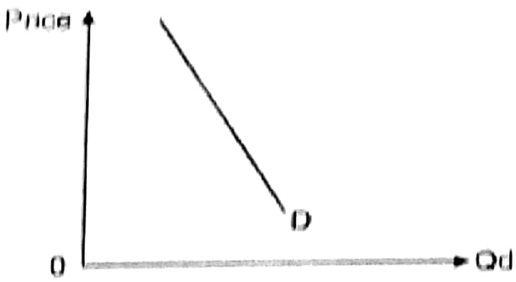
Price elasticity of supply is influenced by availability of stocks, time period, mobility of factors, nature of product and existence of spare capacity. When stocks are available with the firm, supply would be elastic because a small rise in price will lead the suppliers to supply with greater proportion to earn more profit, and vice versa is true for non-availability of stocks.

In the short run period of suppliers cannot increase the supply in response to a rise in price.

So, it will be inelastic but in the long-run period of time when the firm has sufficient period to employ more labour, land and introduce better technology, supply becomes elastic.
Mobility of factors of production (input) from one use to the other also affects the elasticity of supply. If it is easy to move the resources from one use to another, then supply will be elastic and if resources are immobile in this regard then supply will be inelastic. Existence of spare capacity in the production plant makes supply elastic and non availability of spare capacity results in inelastic supply, because when the plant is operating at or nearer to the full capacity, it would not be possible to increase supply. So, its supply becomes inelastic or low.
Elasticity of supply also depends upon the nature of product. Primary products and products having perishable nature have inelastic supply while manufactured durable product due to easy storability have elastic demand.

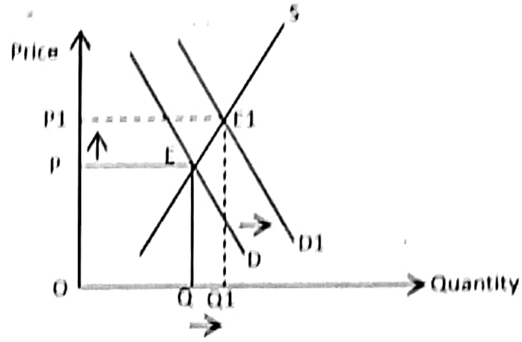
3(b) Discuss whether farmers will benefit from producing goods which have low price elasticity of demand and supply? [12]

Low price elasticity of demand refers to the situation in which a change in price brings less than proportionate change in quantity demanded. It shape is as;

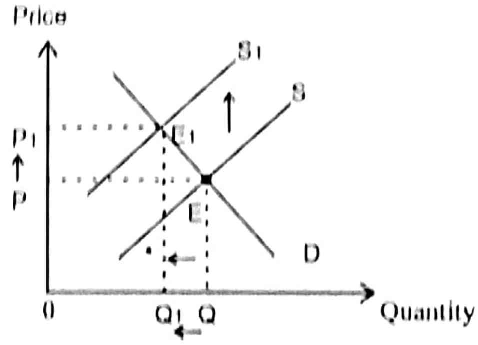


In this situation demand curve will be comparatively steeper. Basic necessities of life, goods having lesser number of close substitute or goods on which a small proportion of income is spent, have inelastic demand. Similarly, inelastic supply is when a large change in price brings a smaller change in quantity supplied. It is as;

Supply curve in this situation would be steeper. Primary products need longer period of time to be produced and have inelastic supply. Farmers will benefit from producing such goods when there is a rise in price. In this situation total revenue of the farmers will rise. While price may rise due to rise in demand for a product as shown below;



Price may also rise due to fall in supply as shown below;



In both the cases above, farmers will get benefit because their total revenue will rise. On the other hand, a fall in price will lead to a fall in total revenue of the farmers. So, in this case, farmers will be the losers. While price may fall due to rise in supply or fall in demand. Due to fall in demand or rise in supply price will fall sharply and farmers' revenue will tend to fall.

Government should interfere in such markets because in case of farmer's Cobb Web situation is observed which shows the divergence from the initial equilibrium. Government should fix the prices of agriculture products instead of relying on the forces of demand and supply. Decisions of the farmers create uncertainty in the market. For example, if the farmer is getting a good price of wheat in the 1st year then he will produce more wheat with the intention to earn more but it results in gluts due to which price will tend to fall. Similarly, in the upcoming year he tends to produce less wheat as he thinks that in the last year prices were not good so, he will produce less wheat and consequently shortage will occur and prices will go up. This divergence continues if there are no government interventions.

Question No. 3 Nov 2004

3(a) Explain the difference between elastic, inelastic and fixed supply. [8]

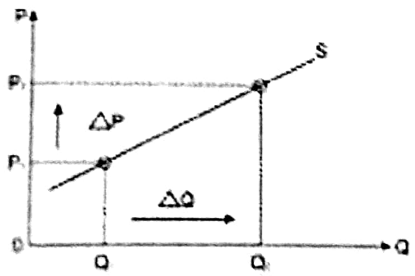
Price elasticity of supply is the responsiveness of change in quantity supplied due to change in price. It is calculated by using following formula;

$$PES = \frac{\%\text{ change in Qs}}{\%\text{ change in price}}$$

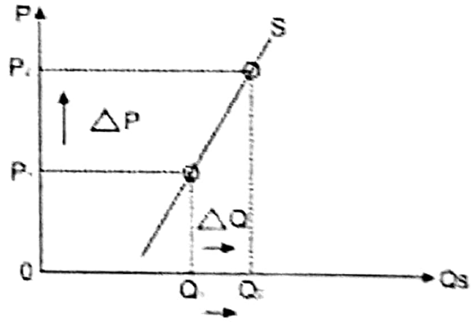
The three cases relate to the given values:

- Elastic supply (P.E.S Greater Than 1)
- Inelastic supply (P.E.S Less Than 1)
- Fixed supply (P.E.S Equal to Zero)

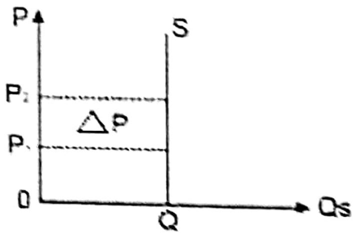
These values reflect the degree of change in quantity supply to changes in price. Supply is said to be elastic if a change in price brings more than proportionate change in quantity supplied. It shows that producer is able to produce and supply more in short-run as spare capacity exists in the plant. Availability of stocks also makes it elastic e.g. if a 10% rise in price results in increase in quantity supplied more than 10% it is elastic supply. Supply curve in this situation will be flatter.



Supply is said to be inelastic if a change in price brings less than proportionate change in quantity supplied (QS). It shows that plant is operating at or nearer to full capacity. Non-availability of stocks also makes it inelastic. Supply curve in this situation will be steeper, as;



While fixed supply means that quantity supplied does not respond to price changes. Supply curve in this situation will be vertical straight line.



(b) Discuss whether the elasticity of supply of manufactured goods is likely to be greater than the elasticity of supply of agricultural goods. [12]

Elasticity of supply is influenced by different factors including the available stocks, excess capacity available in the plant, ease of entry to the industry, mobility of factors, the length of the production process and the time period required to produce the product. Supply is said to be elastic when a small change in price brings a larger change in quantity supplied. Manufactured goods are normally elastic as such goods can be stored for a longer period of time. So, a rise in price will lead to a larger increase in quantity supplied as the stocks are available.

If the mobility of factors is possible towards the production of these goods, then they will be comparatively elastic.

On the other hand, immobility of factors of production towards the production of manufactured goods will make supply inelastic. In the same way, if spare capacity is available in the plant to produce more of manufactured goods then it will be elastic because the firm has more available capacity, just hiring more workers enables the firm to produce and supply more. In contestable market where entry of new firm is almost free, many new firms can enter the market. So, overall supply will rise making the supply more elastic.

For example, in case of electronics, if new firms enter the market which are involved in the production of electronic products will lead to high production in that market. So, supply will become elastic. Those manufactured goods which take a longer period to be produced then the supply of such goods will be inelastic, and vice versa is true for short-run period of time. The supply curve in case of manufactured goods will be flatter. Manufactured goods are elastic but in some cases supply can equally be inelastic.

Primary products or agricultural goods are of perishable nature and they lack the element of storability due to which they cannot be stored for a longer period of time which makes the supply inelastic.

There are very lesser chances of new entry to the industry to produce more agricultural goods which again make them inelastic. Mobility of more factors towards agricultural goods will make it elastic and immobility of factors makes it inelastic. In real life we can observe that production of most of the agricultural products is not possible immediately to supply more as price rises.

For example, it takes two to three month to produce wheat and it is only possible to produce wheat once in a year. So, its supply will be inelastic. However, wheat can be stocked for more than one year if warehouses are properly available. It will make supply elastic. We cannot exactly conclude about the elasticity of two industries.

However, in most of the cases, the price elasticity of supply for manufactured goods is elastic but in some cases it can be inelastic as well depending upon the nature of the product. While agricultural products have inelastic supply, but in a few cases it can be elastic like wheat which is explained earlier.

Question No. 3 June 2006

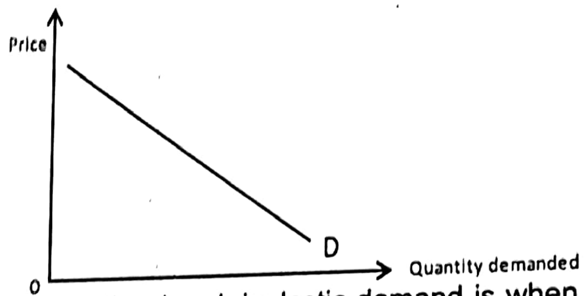
2(b) Discuss whether the demand for mobile phones (cell phones) is likely to be price-elastic or price-inelastic. [12]

Price elasticity of demand is the responsiveness of change in quantity demanded to change in price of a product. It can be calculated as;

$$PED = \frac{\%\text{ change in Qd}}{\%\text{ change in price}}$$

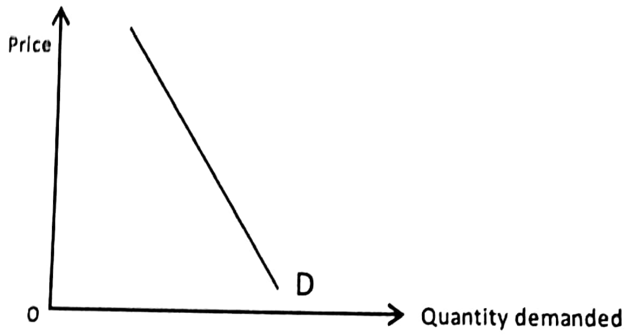
Price elasticity of demand can be elastic (i-e PED >1), or inelastic (i-e PED <1).

Elastic demand is when a small change in price brings a larger change in Qd in this situation fall in price will lead to rise in total revenue for the firm. Luxurious goods, manufactured goods and goods having a large number of close substitutes have elastic demand and demand curve in this situation will be comparatively flatter as shown below;



On the other hand, inelastic demand is when a larger change in price brings a smaller change in Qd and a rise in price in this situation will help the producers to earn more and vice versa.

Habit forming goods, goods having lesser number of close substitutes, and primary products will have inelastic demand. Demand curve in this situation will be comparatively steeper.



Mobile phone may have elastic as well as inelastic demand. It depends upon class of people, number of substitutes available and area of the country. It will be inelastic for the business class as they have to use it even it is very expensive or cheaper. It is a basic necessity for them as they have to use it in any case. But it will be price elastic for the poor class, as more people will be using it when it is cheaper and they will leave it as it becomes expensive.

Availability of larger number of close substitutes will make demand for a mobile phone price elastic and on the other hand, non-availability or lesser availability of substitutes will make it inelastic. In developed areas where the people are earning large amounts of money, mobile phone will be inelastic in those areas and vice versa is true for under-developed areas and region. So, finally, we cannot conclude with certainty whether it is demand elastic or inelastic.

Question No. 3 June 2012/22

3 (a) Explain, using elasticity of demand, why a train company might introduce a policy of raising fares at busy travel times and lowering fares at less busy travel times. [8]

The word elasticity means flexibility in something. Price elasticity of demand refers to the responsiveness of change in quantity demanded (Qd) due to change in price. It is calculated by using the following formula;

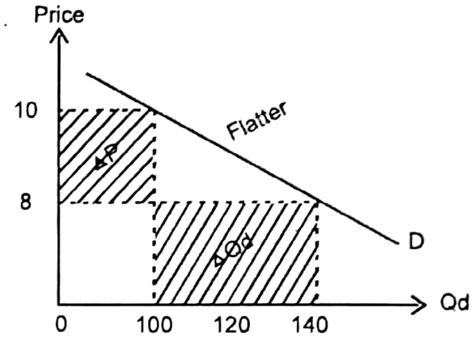
$$PED = \frac{\%\ \triangle Qd}{\%\triangle P} \quad \textbf{OR}$$

$$PED = \frac{\triangle Qd}{\triangle P} \times \frac{P1}{Q1}$$

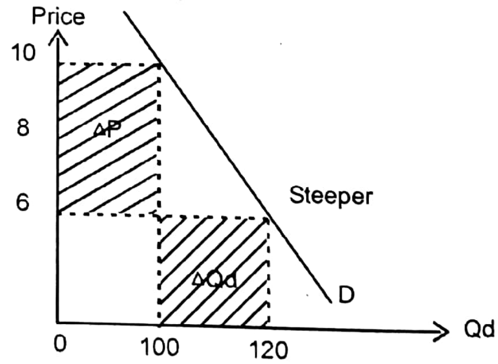
Demand will be elastic in less busy hours and it would be inelastic in busy hours.

Elastic demand is when a small change in price results in a larger change in Qd. In this situation company would use the policy to reduce fares because if fare falls then total revenue (TR) of the bus company will rise. It is so because a fall in fare will lead to more than proportionate increase in quantity demanded and finally their revenue will rise.

However, if Bus Company increases fare in this situation then it would have to face reduction in revenue. It is also clear from the schedule given above where fall in price from \$10 to \$8 has resulted in increase in total revenue from 1000 to 1120. Demand curve in this situation will be flatter.



Inelastic demand refers to the situation in which a larger change in price results in a smaller change in Qd. In this situation if price rises TR will rise but if price falls then TR will also fall. It means seller should increase his price in this situation rather to decrease it. The same policy is adopted by the bus company to raise more revenue. In this situation travelling is considered to be the necessity due to which demand will be inelastic. Demand curve will be steeper in case of inelastic demand as shown below;



Question No. 3 June 2016

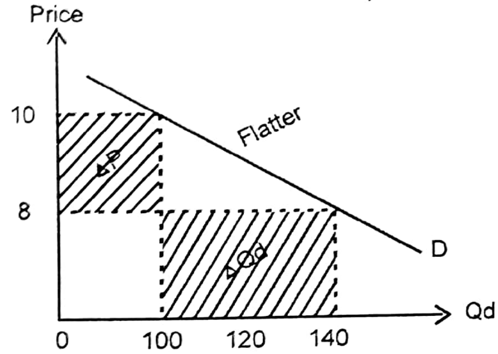
3 (a) Explain the meaning of 'price elasticity of demand' and, using examples, outline the factors that would cause the demand for a good to be relatively price-elastic. [8]

(b) Discuss why entrepreneurs might want to change the price elasticity of demand for their products, and consider the extent to which this is achievable. [12]

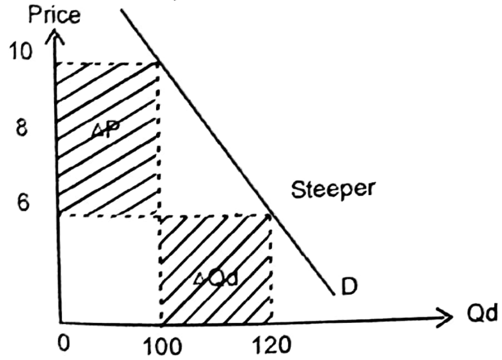
3 (a)
Price elasticity of demand refers to the responsiveness of quantity demanded to a change in price. It is calculated through the following formula;

$$PED = \frac{\%\ \text{change in Qd}}{\%\ \text{change in price}}$$

The demand can be elastic or inelastic. Elastic demand is when a change in price results in more than proportionate change in quantity demanded and the coefficient would be greater than one because of greater numerator and smaller denominator. It is shown in the following diagram where fall in price from $10 to $8 has resulted in extension in quantity demanded from 100 to 140 units of a product. The demand curve in this situation will be flatter as shown below;



On the other hand, in case of inelastic demand, a change in price brings less than proportionate change in quantity demanded. The coefficient in this case would be lesser than one because of greater % change in price and lesser % change in quantity demanded. The demand curve will be steeper in case as shown below;



In the above figure % change in quantity demanded is 20% and the change in price is around 67%. So, 20% divided by 67% is 0.29 which is lesser than one.

The factors that cause price elasticity of demand for a product to be relatively elastic are given below with examples;

Time period: In short run period of time price elasticity of demand (P.E.D) would be inelastic because it would be very difficult for a person to switch to some other product as the price of one product rises. However, in long run period of time it becomes elastic because people would have more time to find out some alternative products.

Nature of products: Primary products having perishable nature have inelastic demand because people have to buy these goods on routine basis as those cannot be stored for longer time like vegetables and fruit etc. While manufactured durable goods have elastic demand because when these goods are available at cheaper rates people can buy more and can store them for future use.

Number of close substitutes: If there is lesser number of close substitutes available for a product then its demand will be inelastic because people have lesser options to switch their demand. If there is no substitute available in the market, then demand will be perfectly inelastic as people are forced to buy that particular product like in Pakistan there is no alternative of electricity and people are forced to buy electricity from WAPDA only. So, its demand is perfectly inelastic. But availability of larger number of close substitutes makes demand elastic as people can shift easily from one product to the other due to rise in the price of one product like if Coke gets dearer people will tend to buy more Pepsi.

Proportion of income spent on the product: If smaller proportion of income is spent on a product then demand will be inelastic on the other hand if larger proportion of income is spent on some specific product then its demand will be elastic.

(b)
The primary aim of every entrepreneur is to earn maximum profit. This aim can be achieved by increasing total revenue or by decreasing total cost.

In the situation in hand, entrepreneurs should try to increase revenue to achieve this aim. Therefore, the knowledge of price elasticity of demand is much important because it helps to adopt pricing policies to earn more revenue and of course profits. If the businessman knows the nature of price elasticity of demand, he will charge the prices accordingly.

For example, if the demand for the product is elastic, entrepreneurs can increase revenue by decreasing the price, because a small decrease in price will lead to a larger increase in quantity demanded. Consequently, the total revenue will tend to rise. In this situation, they will never increase the price because it will result in a dramatic fall in quantity demanded and finally total revenue will fall.

It is also clear from the following diagram given in part (a) of this question, where fall in price from $10 to $8 has resulted in increase in total revenue from 1000 to 1120 which is calculated by using following formula;

Total revenue =price × quantity sold

On the other hand, in case of inelastic demand, entrepreneurs can increase total revenue by increasing the price of their products. A large rise in price will bring a smaller decrease in quantity demanded (i.e. less than proportionate). When demand is inelastic, they will never decrease the price of their products because a fall in price will lead to decrease in total revenue. As shown with the second figure in part "a" of this question total revenue was initially $ 720 and rise in price from $6 to $10 has resulted in increase in revenue to $1,000.

The price elasticity of for a product changes with the change in time period. A product might be elastic in one period but it can become inelastic in another period. For example, the demand for transport becomes inelastic in peak hours like in the morning when officers have to go to their offices, workers have to go to their workplace and students have to go to school. During this time, entrepreneurs can charge high price for their service, to earn high revenue. But during off peak hours the demand for transport become relatively elastic because people would travel if the fare is low. Therefore, having the knowledge of price elasticity of demand transport owners will charge low fare during these hours to earn more revenue.

Similarly, demand for cake become inelastic during charismas due to religious reasons and bakery owners can charge high price during this time earn more revenue. After the festival is over demand becomes elastic and people would go on to purchase more cakes if their prices are low.

Sometimes, firms can change their price elasticity of demand by advertising their products and creating brand loyalty. This makes the demand for successfully advertised products more inelastic and entrepreneurs can benefit by charging more prices.

Price elasticity of demand can be changed by making the products which are very close substitutes of existing products. For example, producing a product which serves the same purpose, the existing product is doing then its demand would become more elastic. If they want to make demand for their products inelastic then they should produce some unique product which is less likely to resemble in use with the existing product.

The information about changes or variations in price elasticity of demand for the products is very important for the entrepreneurs. Otherwise, they would not be in the position to take pricing decisions accordingly.

However, changes in price elasticity of demand cannot be achieved if the products are basic necessities of life, products causing addiction, products are entirely unique in nature and a very lesser proportion of income is spent on the product. In case of basic necessities like basic food items and drugs have always inelastic demand and their demand cannot be made elastic. Similarly, habit forming goods and the products with unique features have always inelastic demand.

Income and cross elasticity of demand

Question No. 3 June 2017

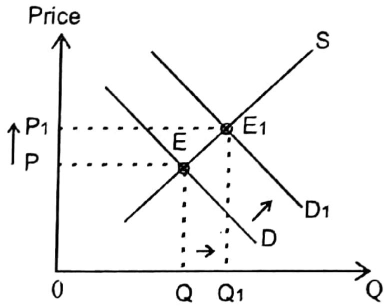
3 (a) Explain how economists use the concept of elasticity to distinguish between substitute goods and complementary goods. [8]

Envisioned Answer

Cross elasticity of demand is a measure of the responsiveness of quantity demand for one product to a change in price of another product. It is calculated as;

$$XED = \frac{\%\text{ change in Qd of A}}{\%\text{ change in price of B}}$$

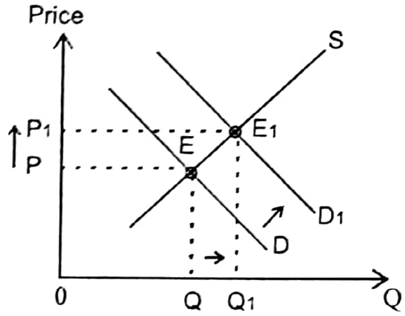
Product A and B can be substitutes or complements of each other. Substitutes are the goods which are alternatives for each other and cross elasticity of demand (XED) for these goods is always positive which helps economists to identify that the goods are substitutes. The popular example of substitutes is Coke and Pepsi. The change in price of Coke will not only affect the quantity demanded for Coke but it will also affect the demand for Pepsi as well. A rise in price of Coke will lead to rise in demand for Pepsi and so demand curve for Pepsi will shift to the right as shown below;



Initially, equilibrium of Pepsi is at "E" where its price is "P" and quantity traded is "Q" rise in demand for Pepsi, establishes new equilibrium at "E_1" where price of Pepsi will rise to "P1" and quantity traded to "Q_1".

Secondly, complements are jointly demanded good e-g car and petrol, mobile phone and sim card etc. Cross elasticity of demand for complements is always negative.

This means that a rise price of one product will lead to fall in the demand for its complements and vice versa is true for a fall in price of a product. For example, if price of car falls, then demand for petrol will rise because now people will buy more cars and ultimately demand for petrol will also rise and demand curve for petrol will shifts to the right as shown below;



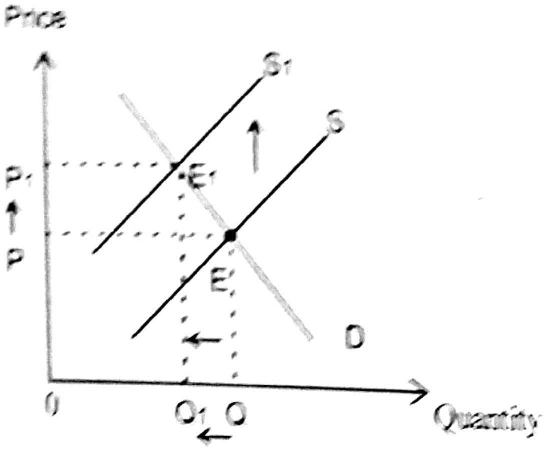
A rise in demand for petrol shifts the equilibrium from "E" to "E_1" while price and quantities both will also rise. Economists differentiate between substitutes and complements from the coefficient of cross-elasticity of demand. If the coefficient is positive they can identify that two products are substitutes but if the coefficient is negative they come to know that the products are complements.

(b) Discuss which measure of the different types of elasticity of demand is most useful for a business when setting the price for its product. [12]

Question No. 3 June 2004

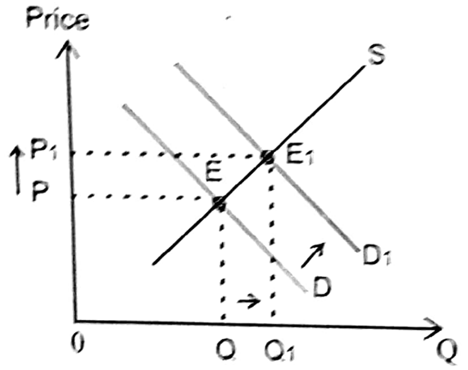
3(a) Increasing raw material costs cause the price of a good to rise. Explain the effect of this price rise for the good on the markets for its substitute and complementary goods. [12]

High cost of production feeds to high prices. Raw material is the part of cost of production. Rise in cost of raw material decreases the supply in the economy, leading the supply curve to shift to the left and in this way price rises and quantity traded falls. It is shown as the following figure.



Fall in supply shifts the equilibrium form "E" to "E_1" and so price rises from "P" to "P_1" and quantity traded falls from "Q" to Q_1". A rise in price of a product affects the demand for its substitutes positively and demand for complements negatively. While substitutes are the goods which can be used instead of each other.

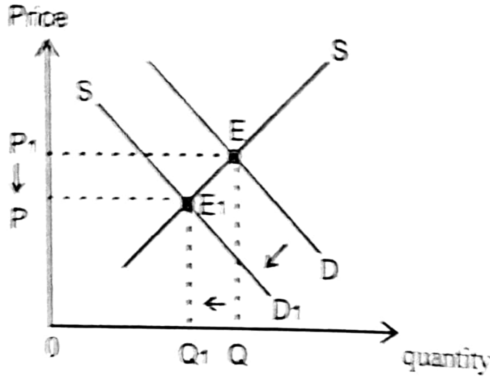
These are alternatives for each other, e.g. Coke and Pepsi. Rise in raw material cost of Coke will lead the price of Coke to rise and so demand for Pepsi will rise and its demand curve will shift to the right.



The phenomenon of rise in price of Coke which leads to rise in demand for Pepsi to right is known as cross elasticity of demand. While cross elasticity of demand for substitutes is always positive. Complements are the goods which are jointly demanded e.g. car and petrol. Cross elasticity of demand for complements is negative. A rise in cost of raw material of car will lead to rise in its price.

Therefore, less people will go on to purchase cars and there will be decreased demand for petrol leading the demand curve for petrol to shift to the left.

It means a rise in price of a product decreases the quality demanded for the product itself as well as it affects the demand for its substitutes and complements.



(b) Discuss the usefulness to businesses of a knowledge of price elasticity of demand and income elasticity of demand. [12]

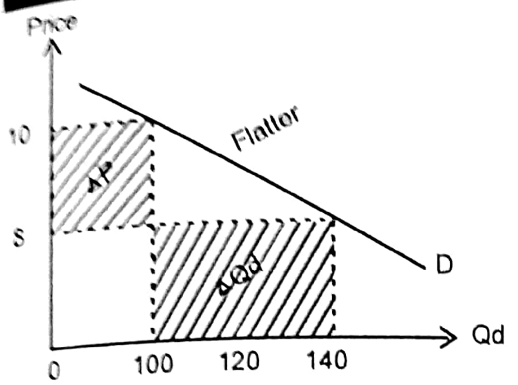
Price elasticity of demand refers to the responsiveness of change in quantity demanded due to change in price. It is calculated through the following formula;

$$PED = \frac{\%\text{ change in Qd}}{\%\text{ change in price}}$$

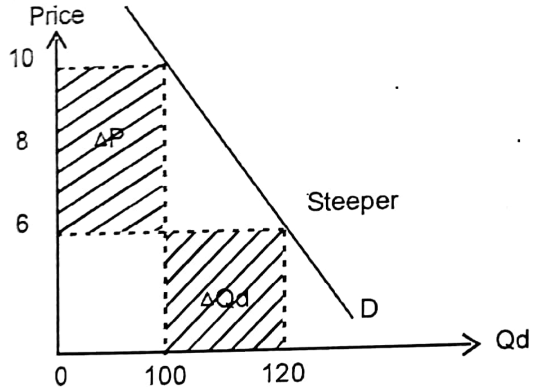
The knowledge of price elasticity of demand is much important for businesses because it helps to set pricing policies to earn more revenue and profits. If the businessman knows the nature of price elasticity of demand, he will charge the prices accordingly.

Elastic demand is when a small change in price results in a larger change in Qd. For example, if the demand for the product is elastic then business person can increase his revenue by decreasing the price, because a small decrease in price will lead to a larger increase in quantity demanded. Consequently, his total revenue will tend to rise. In this situation, he will never increase his price because it will result in a dramatic fall in quantity demanded and finally total revenue will fall.

It is also clear from the following diagram where fall in price from $10 to $8 has resulted in increase in total revenue from 1000 to 1120. Demand curve in this situation will be flatter. Total revenue =price × quantity.



On the other hand, in case of inelastic demand, a firm can increase his total revenue by increasing the price. A large rise in price will bring a smaller decrease in quantity demanded (i.e. less than proportionate). When demand is inelastic, businessman will never decrease his price because a fall in price will lead to decrease in total revenue. In case of unitary elastic demand fluctuation in price will not affect the total revenue. Any rise or fall in price will lead the total revenue unchanged. Demand curve will be steeper in case of inelastic demand as shown below;



If the demand for a product is perfectly inelastic, a firm can earn more revenue by increasing the price, because rise in price will leave quantity demanded unchanged. It means the knowledge of price elasticity of demand is much significant for the businesses.

On the other hand, **income elasticity of demand** is the responsiveness of change in quantity demanded to a change in income. It is calculated by using following formula;

$$YED = \frac{\%\text{ change in Qd}}{\%\text{ change in Income}}$$

The knowledge of income elasticity of demand is also very important for businessman. Every businessman takes the decisions to produce goods by taking into account the income elasticity of demand. In case of boom in the economy, businesses and individuals would be earning high profits. They have more purchasing power and they will prefer to buy luxurious goods. So, Producers should produce more luxurious goods in this situation. While luxurious and normal goods are positively related to the level of income.

If income increases, demand for such goods will also increase. However, if income falls, demand for these will also fall. Therefore, businesses need to know the income elasticity of demand for better decision making to avoid losses and ensure profits.

On the other hand, in the period of economic slump, recession and depression, people have lesser purchasing power and they will tend to buy more inferior goods. Therefore, businesses should focus on the production of such goods during this period. Inferior goods are the goods which are negatively related to the income. Income consumption curve (ICC) in this situation is negatively sloped showing negative relationship between income and demand for inferior goods.

It shows that the knowledge of income elasticity of demand is much important for the businesses. But it is very difficult to calculate price elasticity and income elasticity of demand accurately, because the response of quantity demanded is not only dependent upon price and income. It also keeps on changing with the passage of time depending upon many factors other than price and income like competition policies, government actions regarding taxes and subsidies, advertisement and other marketing techniques.

Question No. 3 June 2006

2(a) Explain, with examples, the significance of the value of a good's cross-elasticity of demand in relation to its substitutes and complements. [8]

See Q3a June 2017

You have to write exactly what is given in answer of above mentioned question and just add following two paragraphs at the end.

The businessman must have the knowledge of XED due to which he will be able to take appropriate decisions at the right time. If he is producing the substitutes, then he should keep an eye on the decisions of its competitors regarding pricing policy.

If the competitors reduce their prices, then he should also reduce his price, otherwise he may have to face losses as his demand will fall and his customers will switch to the rival firms. Similarly, if he is producing a product which is complement to another product, then he should also take decision regarding production and keeping stock accordingly e.g. if the price of car is decreasing, then the seller of petrol should supply more petrol to meet extra demand since more people will buy cars and demand for petrol will rise. So, the concept of XED is very important for the businessmen.

Question No. 3 November 2007

2(b) Discuss whether a firm's revenue would increase, in response to price and income changes, if the price elasticity and income elasticity of demand for its product became highly elastic. [12]

Price elasticity of demand refers to the responsiveness of quantity demanded of a good or service to a change in its price. It is calculated through following formula;

$$PED = \frac{\%\ \text{change in Qd}}{\%\ \text{change in price}}$$

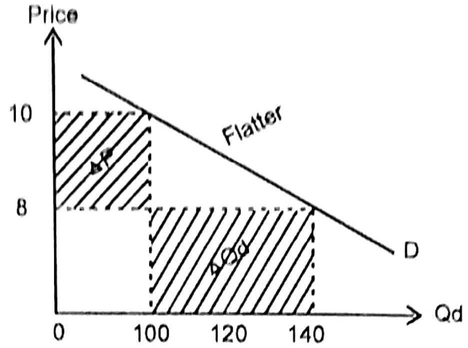
The knowledge of price elasticity of demand is of much importance for businesses because it helps to set pricing policies to earn more revenue and profits. If the businessman knows the nature of price elasticity of demand, then he would charge the prices accordingly.

For example, if the demand for the product is highly elastic as stated in the question then, the businessman can increase his revenue by decreasing the price, because a small decrease in price will lead to a larger increase in quantity demanded. Consequently, his total revenue will tend to rise. In this situation, he should not increase his price because it will result in a dramatic fall in quantity demanded and finally total revenue will fall.

Let suppose price decreases from \$10 to \$8 and resultantly quantity demand increases from 100 to 140 units. Therefore, total revenue will increase from \$1000 to \$1120. Total revenue is calculated using following formula;

TR = Price × Quantity demanded

Demand curve in this situation will be flatter as shown below;



Conversely, if price increase from \$8 to \$10 then quantity demand will fall from 140 to 100 units and total revenue of the firm will decrease from \$1120 to \$1000.

It means the knowledge of price elasticity of demand is of much importance for the businessmen.

On the other hand, income elasticity of demand is the responsiveness quantity demanded to a change in income. It is calculated by using following formula;

$$YED = \frac{\%\ \text{change in Qd}}{\%\ \text{change in Income}}$$

The knowledge of income elasticity of demand is also very important for businessman. Every businessman takes the decisions to produce goods by taking into account the income elasticity of demand.

In case of boom in the economy, businessmen and individuals earn high profits. They have more purchasing power and they will prefer to buy luxurious goods or normal goods. So, Producers should produce more luxurious and normal goods in this situation. While in the period of economic slump and depression, people have lesser purchasing power and they tend to buy more inferior goods.

So, businessmen should focus on the production of such goods during this period.

From above discussion we concluded that the knowledge of price and income elasticity of demand is very important for businesses to undertake appropriate decisions. But it is very difficult to calculate price elasticity and income elasticity of demand accurately, because the response of quantity demand is not only dependent upon price and income. It also keeps on changing with the passage of time, depending upon many factors other than price and income.

Question No. 3 June 2009/22

2(a) Explain, with examples and diagrams, the effects of a decrease in incomes on the markets for normal and inferior goods. [8]

The concepts of normal and inferior good with income effect come under the scope of income elasticity of demand and income elasticity of demand is the responsiveness of quantity demanded to a change in income. It is calculated by using following formula;

$$YED = \frac{\%\ \text{change in Qd}}{\%\ \text{change in Income}}$$

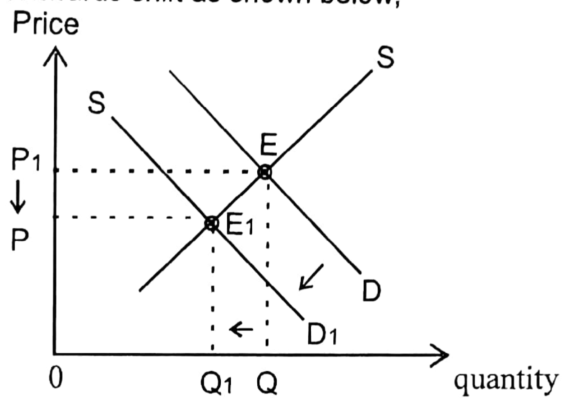
The knowledge of income elasticity of demand is very important for businessperson. Every businessperson takes the decisions to produce goods by taking into account the income elasticity of demand.

In case of boom in the economy, businesses and individuals earn high profits. They have more purchasing power and they would prefer to buy luxurious and normal goods. So, Producers should produce more luxurious and normal goods.

But in the period of economic slump and depression income of individuals is low. People have lesser purchasing power and they would tend to buy more inferior goods. So, businesses should focus on the production of such goods during recession.

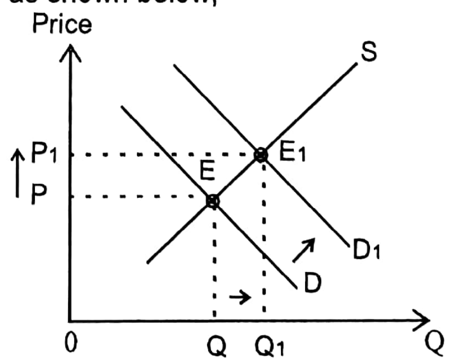
It shows that the knowledge of income elasticity of demand is of much importance for the businesses. Calculating income elasticity of demand is tricky and defining normal and inferior goods is trickier.

Normal goods are the goods, which are positively related to the level of income. When income rises, demand for such goods will rise and vice versa. As according to the question income is decreasing therefore demand for normal goods will decrease leading to leftwards shift as shown below;



The above figure depicts that initially equilibrium was at point E but due to decrease in income demand for normal goods decreased and demand curve shifted to the left at E. In this way, price of normal goods and quantity traded both have decreased. It is so because fall in income decreases the purchasing power or the people and they would not be able to purchase more normal goods and to satisfy their needs they would shift their demand towards inferior goods.

Inferior goods are the goods which are negatively related to the level of income. A rise in income decreases the demand for inferior goods and a fall in income increases the demand for inferior goods. Therefore, according the statement of question income is decreasing so demand for inferior goods will rise leading t rightwards shift in demand curve as shown below;



The above figure shows that initially equilibrium was at point E where price was P and quantity traded was Q. Rise in demand has shifted its demand curve to D1 leading to shift in equilibrium to E1. In this way price and quantity traded for inferior goods has increased.

The concept of normal and inferior goods is little complicated task because the same product can be normal good for one person but it can be an inferior good for someone else. For example, a motorbike can be an inferior good for a wealthy person but it would be normal good for a poor person having low income.

Question No. 3 Nov 2010/21

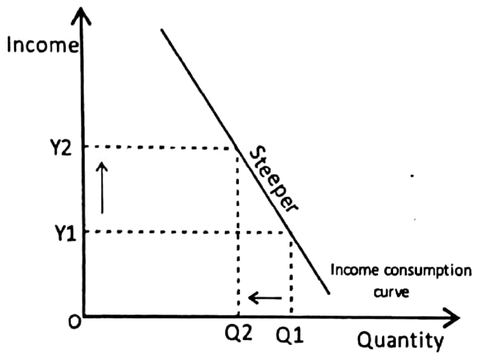
3(a) With reference to the relevant type of elasticity of demand, explain the terms:

(i) inferior good, and

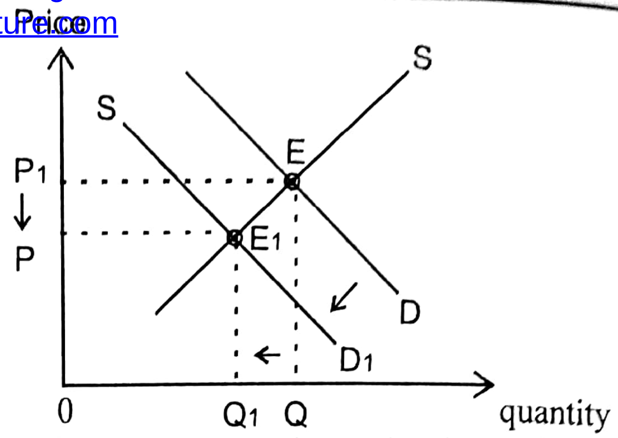
(ii) complementary good. [8]

Elasticity of demand refers to responsiveness of demand to a change in another variable i.e. income or price. An inferior good is one that is bought in smaller quantities as income increases because when income rises inferior goods are replaced with superior goods. E.g. bicycles are replaced by motor cycle and motor cycles are replaced by cars.

Income elasticity of demand is slightly negative for inferior goods. When incomes rises, demand for inferior goods falls and when income falls, demand for such goods increases. Income consumption curve (ICC) in this situation will be negatively slopped steeper graph as shown below;



A rise in income from Y1 to Y2 has resulted in decrease in quantity demanded for an inferior product. However, the impact on the market for an inferior good can be explained with demand and supply curves as under;



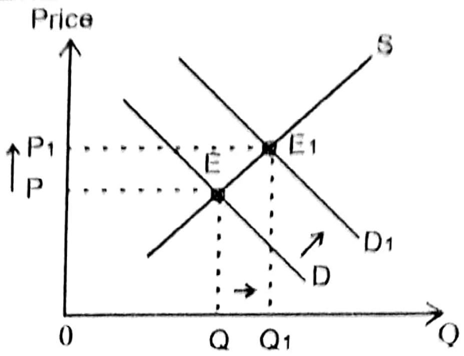
A rise in income reduces the demand for an inferior good therefore, its demand curve will shift to the left leading to shift the equilibrium from E to E1, price to fall from P1 to P and quantity traded o fall from Q to Q1. The result would be exact opposite if there is fall in income.

On the other hand, **Complementary goods** are jointly demanded goods e.g. car and petrol, ink and pen, fan and electricity etc. The concept of complementary goods is cover in cross elasticity of demand. Cross elasticity of demand (CED) is the responsiveness of quantity demanded of one product due to a change in price of another product. It is expressed as;

$$XED=\frac{\text{\% change in Qd of A}}{\text{\% change in price of B}}$$

CED for complementary goods is always negative because if price of one product increases the demand for its complement will fall. Similarly, if the price of one product falls, the demand for its complement will rise. This negative relationship shows that cross elasticity of demand for complement will always be negative. Consider the example of car and petrol. If the price of car increases demand for petrol will fall because now lesser cars would be purchased and so there will be lesser need to buy petrol.

On the other hand, if there is fall in price of car the demand for petrol will rise and the impact of this change on petrol market as a complementary good can be explained with the graph below;



The above figure depicts that initially equilibrium for petrol is at point E where the market price is P and quantity traded is Q. Due to increase in demand for petrol caused by lower car prices, its demand curve will shift towards right from D to D_1 and new equilibrium will take place at E_1, its price will rise to P_1 and quantity traded will rise to Q_1.

Question No. 3 June 2014

3 (a) Distinguish between income elasticity of demand and cross elasticity of demand and explain how each is used to identify different types of product.

Income elasticity of demand is the responsiveness of change in Qd of some specific product due to change in income of the people. In simple words it shows variations in the demand for goods and services due to rise or fall in income. It is calculated through following formula;

$$YED = \frac{\%\text{ change in Qd}}{\%\text{ change in Income}}$$

Income elasticity of demand is explained in case normal and inferior goods. **Normal goods** are positively related to the level of income and income elasticity of demand is positive for such goods due to positive relationship between income and demand for these goods.

Inferior goods are negatively related to the level of income and income elasticity of demand for these goods is negative.

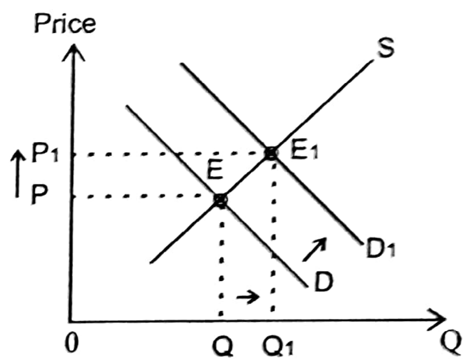
However, it is very difficult to find the exact example of these goods because the same product for one person can be a normal good but it might be considered a luxurious good for another person. For example, a simple phenomenon SUZUKI Mehran car can be luxurious product for a poor person, normal goods for an average person and an inferior good for a rich person.

On the other hand, it is the responsiveness of change in Qd of good A due to change in price of product B. it is calculated as;

$$CED = \frac{\%\text{age } \triangle \text{ Qd of A}}{\%\text{ age } \triangle \text{ price of B}}$$

Product A and B can be substitutes or complements. Substitutes are goods which are alternatives of each other e.g. Coke and PEPSI, tea and coffee, Nokia and Samsung mobiles etc. Cross elasticity of demand for substitutes is always positive because if price of one product increases the demand for its **substitute** good will rise and if price of one product decreases the demand for its substitute will also decrease. This positive relationship shows that cross elasticity of demand for substitutes is always positive.

For example, if price of Coke increases then people will move their demand to its substitute which is let say PEPSI because when Coke is comparatively expensive than PEPSI. Therefore, the impact on the market for PEPSI will be as under;



According to the figure initial equilibrium for PEPSI is at point E where the market price of PESPI is P and quantity is Q. Due to increase in demand caused by higher prices of Coke, demand curve for PEPSI will shift towards right from D to D_1 and new equilibrium will take place at E_1, its price will rise to P_1 and Quantity traded will rise to Q_1.

On the other hand, complements are the goods which are jointly demanded for example, car and petrol.

Cross elasticity of demand for complements is always negative because if there is fall in price of care, demand for petrol will rise.

From the above discussion we come to know that normal and inferior goods are taken into account in income elasticity of demand while substitutes and complements are discussed in cross elasticity of demand.

Consumer and producer surplus

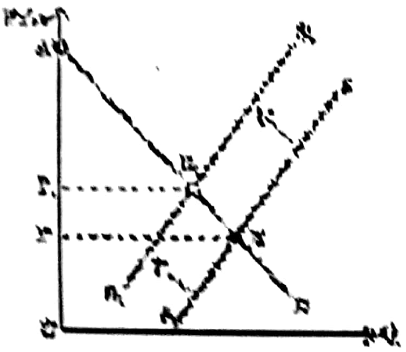
Questions No.3 June 2018

(b) 'Indirect taxes reduce consumer surplus and should therefore never be imposed in a mixed economy.' Discuss this view. [12]

Envisioned Answer

An indirect tax is the one which is imposed and included in price of products like value added tax, general sales tax, import tariffs etc. and consumer surplus is the difference between market price and the price consumer is willing to pay.

Generally, consumers expect to pay higher price but actually they get the product at a price lower than their expectations. So, the amount they save is consumer surplus. In a mixed economy where private individuals and companies as well as the government play their part, an imposition of indirect tax reduces consumer surplus because consumers have to pay more than what they were paying before its imposition. The impact of indirect tax on consumer surplus is graphically explained as under;



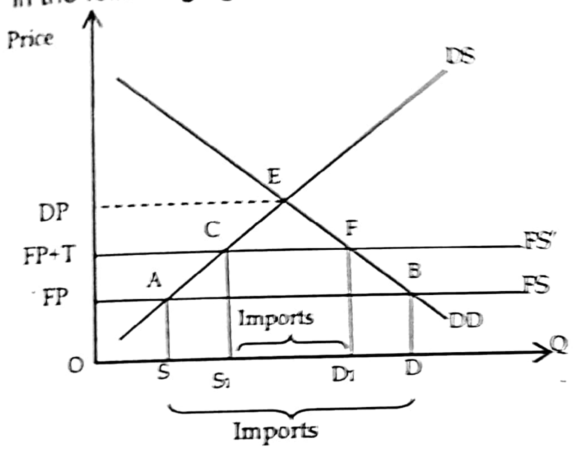
The above figure shows initial equilibrium at point "E" where market price is "P" while consumer is willing to pay price "A". So, the triangle APE is the consumer surplus. Imposition of an indirect tax decreases supply and results in decrease in consumer surplus. The new consumer surplus after indirect tax is "AP1E1". So, the consumer surplus has decreased by the amount equal to area of trapezium "PP1E1E". So, the imposition of indirect tax has resulted in fall in consumer surplus which apparently is not good for the society because it may reduce social welfare. Therefore, it should not be imposed if it is causing the fall in consumer surplus especially for goods which are really important for the people like healthcare and basic necessities. Indirect tax being regressive in nature harms the poor class drastically and also causes cost push inflation which again reduces their purchasing power and can harm their standard of living. Similarly, if indirect tax is imposed on imported raw material or finished goods like machinery and technology, then it would again be harmful for the local society. It will against economic growth of the country.

However, on the other hand, the importance of imposition indirect can't be ignored because it is a good source of government revenue. Government can raise greater revenue and can use it to provide greater quantity and better quality of public and merit goods and services like network of roads, public parks, education and health care etc.

The provision of such goods is definitely for the benefit of entire society. So, they should be imposed to increase welfare.

Similarly, if it is imposed on demerit goods, then it again serves a good cause because it will reduce production and consumption of demerit goods and services which are really harmful for the health of individual consumers as well as the third party and the whole society.

Similarly, indirect tax in the form of import tariff, imposed on imports can control the volume of imports and help to correct balance of trade which is a good indicator. It is shown in the following figure;



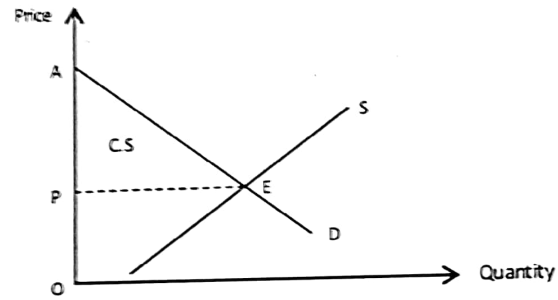
This figure shows price of domestically produced goods is DP where domestic demand DD and domestic supply curve DS intersect each other which is higher than price of imported goods "FP". Price of imported goods being lower than that of domestic goods will be source of attraction for consumers to purchase more imported goods equal to the gap between S and D and may cause balance of trade problem. Imposition of import tariff will make imports expensive and new price of imports would be FP+T and now the volume of imports will fall and will be equal to the gap between S1 and D1. So, indirect tax in the form of import tariffs can help to control balance of payment problem. It will also lead the people to buy locally produced goods which can help local industry to flourish and as a result it may increase output of the country and a source of job creation in the country.

So, from above discussion we concluded that indirect tax reduces consumer surplus but it is necessary to be imposed to control production and consumption of demerit goods and to reduce volume of imports to correct balance of payment problems. So, it should be imposed accordingly for the best national interest.

Questions No.3 June 2009/21

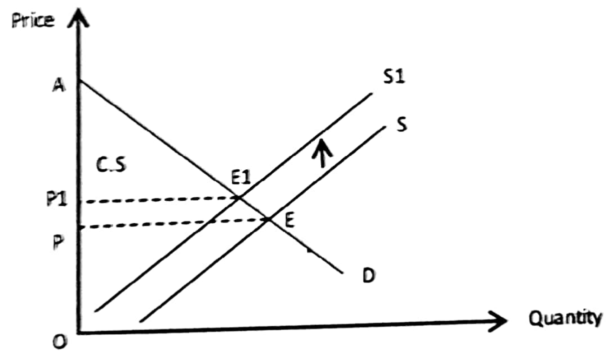
3(a) Explain, with the aid of a diagram, how consumer surplus will be affected by the introduction of an indirect tax. [8]

Consumer surplus is the excess; the consumer is willing to pay over the amount actually paid for a good. It is the area below demand curve but above equilibrium price line. In simple words, it is the difference between market price and the price consumer was willing to pay for a good or service. For example, consumer was willing to pay $10 for a product but in the market actual price was $8. So, extra $2 he was willing to pay but he actually does not pay is consumer surplus. It is graphically shown below;



Consumer was willing to pay price "OA" but he actually pays the market price "OP" so, the difference between the two prices is consumer surplus which is equal to "PAE", the area below demand curve and above equilibrium price.

While indirect tax is a tax which is imposed on the spending like VAT, customs and excise duties etc. Introduction of indirect tax decreases the supply and shifts it to the left due to which market price will rise and consumer surplus will fall. It is shown in the following figure;



According to the diagram initially consumer surplus is "PAE". After imposition of tax, new equilibrium takes place at "E_1" and new market price is "P_1" and new consumer surplus equals to "P_1E_1A".

In this way, consumer surplus has decreased equal to the area "PP_1E_1E". It is sure that consumer surplus will fall but the extent of fall in surplus depends upon the price elasticity of demand and supply.

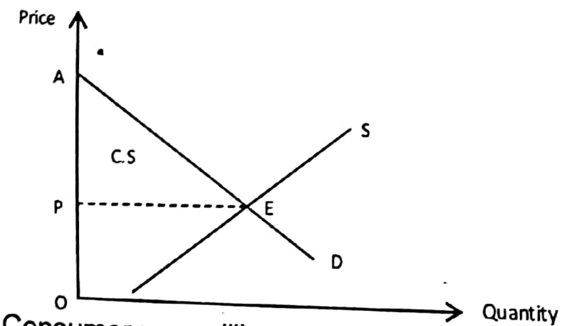
If price elasticity of demand and supply is elastic, then introductions of indirect tax reduce the consumer surplus with smaller ratio. On the other hand, if price elasticity of demand and supply is relatively inelastic then a fall in supply will result in reduction in consumer surplus dramatically.

Questions No.3 June 2010/22

4(a) Using a normal demand curve, explain how consumer surplus occurs. [8]

Normal demand curve is a curve which shows negative relationship between price and quantity demanded. Consumer surplus is the excess; the consumer is willing to pay over the amount actually paid for a good. It is shown with the area below the demand curve but above price line.

In simple words, it is the difference between market price and price consumer was willing to pay for a good or service. For example, consumer was willing to pay $10 for a product but in the market actual price was $8. So, extra $2 he was willing to pay but he actually does not pay is consumer surplus. It is graphically shown below;

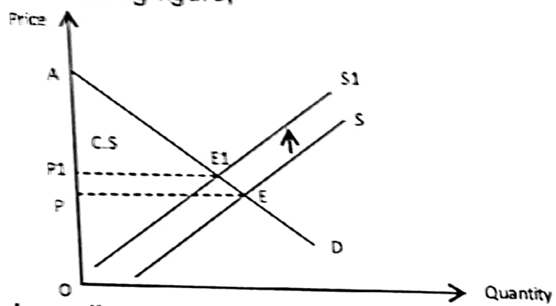


Consumer was willing to pay price "OA" but he actually pays the market price "OP".

So, the difference between the two prices is consumer surplus which is equal to "PAE"., the area below demand curve and above equilibrium price.

Consumer surplus keeps on changing due to change in demand and supply. For example, if supply falls due to imposition of indirect tax, consumer surplus will also fall and vice versa is true for rise in supply. Consumer surplus may change due to government actions regarding indirect taxes and subsidies.

Indirect tax is a tax which is imposed on the spending of people like VAT, customs and excise duties etc. Introduction of indirect tax decreases the supply and supply curve shifts to the left due to which market price will rise and consumer surplus will fall. It is shown in the following figure;



According to the diagram initially consumer surplus is "PAE" after imposition of tax, new equilibrium takes place at "E_1" and new market price is "P_1" and new consumer surplus is AP1E. In this way, consumer surplus has decreased equal to the area "PP_1E_1E". It is sure that consumer surplus will fall but the extent of fall in surplus depends upon the price elasticity of demand and supply.

If price elasticity of demand and supply is elastic, then introductions of indirect tax reduce the consumer surplus with smaller ratio. On the other hand, if price elasticity of demand and supply is relatively inelastic then a fall in supply will result in reduction in consumer surplus dramatically.

Similarly, consumer surplus changes whenever, there is increase in supply. A rise in supply shifts supply curve to the right and decreases market price leading to increase in consumer surplus.

Chapter # 3

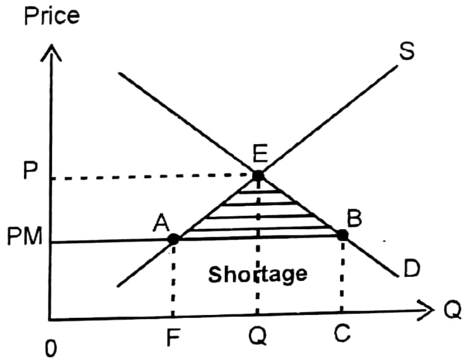
Government Intervention at micro level

Minimum and Maximum Price

Question No. 2-June 2003

(b) Discuss whether the introduction of maximum prices by a government would solve the problem of scarcity? [10]

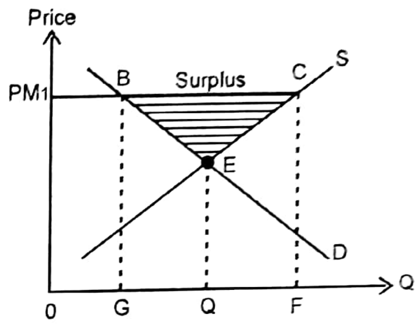
The term scarcity refers to limited resources and unlimited wants. While maximum price is the price set by government below equilibrium and it results in excess demand (shortage) in the market as shown below;



This price is set by government to support consumers but it results in shortage. A few people would be able to get products unless government takes some other measures like provision of goods from buffer stock.

The above figure shows that equilibrium price is P and PM is maximum price set by the government below equilibrium. At price PM, quantity demand is greater than quantity supplied which has caused shortage equal to area A to B or F to C. This gap between demand and supply may be filled in by the government, releasing buffer stock.

Most of the people will not be able to get products due to shortage in the market. Rather, it may lead to black marketing. Maximum price set above equilibrium will be ineffective.



Maximum price PM1 is ineffective and it will not result in shortage or surplus, rather price will remain at equilibrium.

Problem of scarcity is ever-lasting and it cannot be completely solved. However, it can be minimized through conservation of resources for future use. Maximum price set by the government cannot solve this problem. This problem can only be solved, if all prices are set to be zero which is again never possible. So, maximum price cannot solve the problem of scarcity.

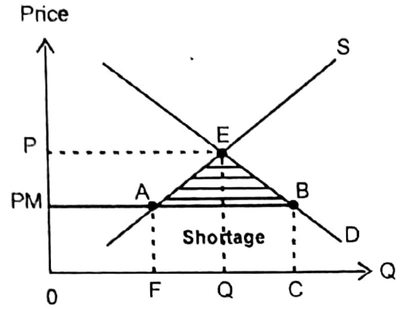
Question No.2 June 2013

2 (b) Discuss whether preventing the price mechanism from working freely by using government price controls can ever be effective. [12]

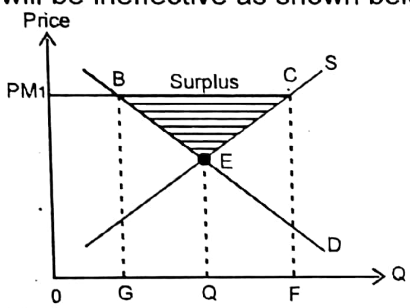
Price mechanism is another name of free market economy where prices and output are determined through the free forces of demand and supply. On the other hand, government control is an alternative to price mechanism where government performs its role and sets price above equilibrium or below equilibrium.

However, these prices are not always effective. For example, maximum price is set by the government below equilibrium and it is effective which will cause shortage in the market i.e. demand will be greater than supply. But if maximum price is set above equilibrium, it will be ineffective and free forces of demand and supply will determine prices at equilibrium level.

There will be no shortage in the market rather market equilibrium price will be charged and equilibrium quantity will be traded. It is shown as;

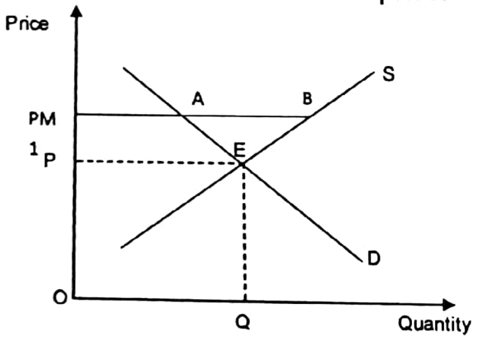


The above diagram shows a maximum price set by the government below equilibrium which is an effective. However, it has resulted in shortage from point "A" to "B". Maximum price is the maximum limit and sellers cannot charge more than that price. However, they can charge below that price. On the other hand, maximum price set above equilibrium will be ineffective as shown below;



It is an ineffective maximum price. As it was mentioned above that it is the maximum limit set by the government, therefore, it is the on the will of producers and sellers to charge below this price. So, producers will obviously charge at equilibrium because at price PM demand for the products is low and supply is high. To remove this excess, they would prefer to charge at equilibrium price Po.

Similarly, minimum price is set by the government above equilibrium. To be an effective minimum price it must be set above equilibrium. Although it will create surplus yet it will be an effective minimum price.



The above figure shows government intervention in the form of minimum price. The area "A" to "B" shows excess supply yet it would be an effective minimum price. If government sets price below equilibrium, then it would be ineffective.

From above discussion we concluded that government price controls are not always effective. However, Minimum price above equilibrium and maximum price below equilibrium will be effective.

November 2013

2 In November 2011 the Kenyan government reintroduced price controls to ensure that basic commodities were sold to the citizens at reasonable prices.

(a) With the help of diagram(s), contrast the impact of maximum price fixed below equilibrium market price with the one that is fixed above it. [8]

(See June 2013)

(b) In view of the problems of allocation that might arise with effective maximum price legislation.

Discuss how these problems might be overcome. [12]

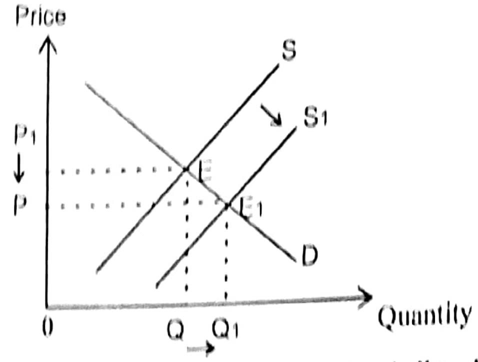
Maximum price legislation causes shortage of goods in the market. Maximum price is imposed by the government when it thinks that consumers are being exploited normally when market price for basic necessities like food and drugs is very high government thinks it better to use price controls.

If we consider the example of drugs then the demand would be high by the retired people who are very old, earning no money but have to spend a lot on medical care to survive. Government thinks it better to provide medicines to these old people at very lower price through maximum price legislation. But this legislation may cause many problems for these old people as well like shortage will force them to stand them in long queues to get drugs.

Imagine how scary it is when a retired person standing in a queue spends many hours every week or month. The problem of black marketing also arises in such situations where sellers sell secretly at high prices.

These problems can be overcome through effective government role and producer's role. As we know that demand and supply is the basic building block of economics so let it work properly. Government should not impose maximum price because it takes one political cycle to change the situation. On the other hand, invisible hands (forces of demand and supply) continuously keep on changing the situation as there is any change in demand and supply equilibrium will change. To bring price below the existing market price government should motivate the producers to produce more and may provide them with subsidy.

When subsidy is given by the government supply will rise and price will come down. This will not force the producers to create shortage and at the same time consumers will be able to satisfy their needs in time. It is shown below in the diagram;



Suppose price of drugs is initially at P1 and government thinks that people are able to purchase at this price. Therefore, government should try to produce by itself to make it available at lower price. If it cannot do so then government should provide subsidy t the producers to increase the supply from S to S1 and equilibrium to change from E to E1 and price to fall to P.

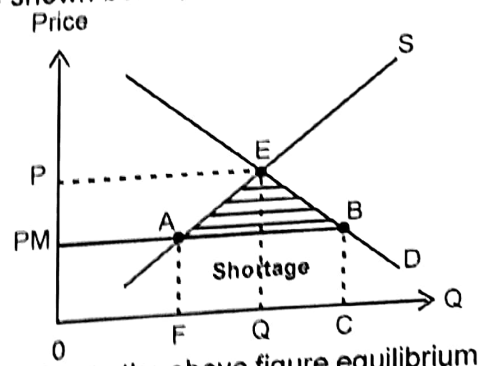
Furthermore, government may invite foreign investors to bring their investment in the country so that more goods must be available into the market at low prices. Government may give them tax relaxation. Government may overcome the problem of black marketing and shortage in the market through a strict action. It may involve the POLICE to go force the sellers to release their stocks. Government may charge very heavy fines to those who are not following the instruction.

Staff of marketing board must visit the market and purchase goods against a proper receipt so that it can check the prices and quality of goods whether it is according to the prescribed standard or not. It will help government to overcome the problems cause by the maximum price legislation.

June 2014

2(b) Discuss the view that attempts to help poorer consumers through the imposition of a maximum price for food items will always fail. [12]

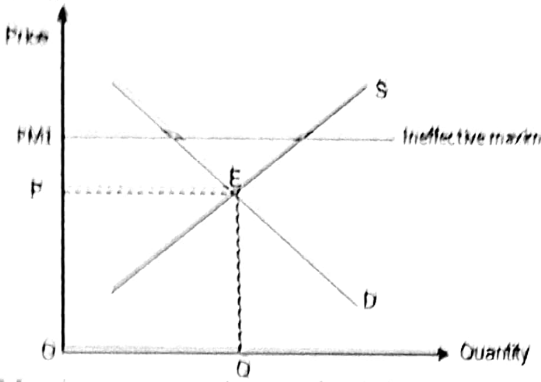
Maximum price is the price set by government below equilibrium and it results in shortage or excess demand which also results in black marketing. This price is to support consumers. It is shown below;



According to the above figure equilibrium price is P and quantity is Q. PM is maximum price set by the government below equilibrium and it has resulted in shortage equal to AB or FC. To reach the equilibrium in case of maximum price, price should increase from PM to P and in this way movement in the graph will be from A to E along the same supply curve which shows that quantity supplied is extending.

It is also called extension in supply. But on the other hand, quantity demand will decrease, as to reach equilibrium at E movement will be from B to E along the same demand curve which is also known as contraction in demand.

However, if government sets maximum price above equilibrium at PM1 as shown in the following figure then it will be **ineffective** and there will be no shortage or surplus rather price and quantity will remain at equilibrium where price will be P and quantity traded will be Q.



Maximum price legislation causes shortage of goods in the market. Maximum price is imposed by the government when it thinks that consumers are being exploited normally when market price for basic necessities like food items and drugs is very high, government thinks it better to use price controls.

If we consider the example of food items, then the demand would be high by the poor people who are earning less money but have to spend a lot on food items and even on medical care to survive. Government thinks it better to provide food items at very lower price through maximum price legislation. But this legislation may cause many problems for these people as well like shortage will force them to stand in long queues. Imagine how scary it is when a many poor retired person standing in a queue spends many hours every week or month. The problem of black marketing also arises in such situations where sellers sell secretly at high prices.

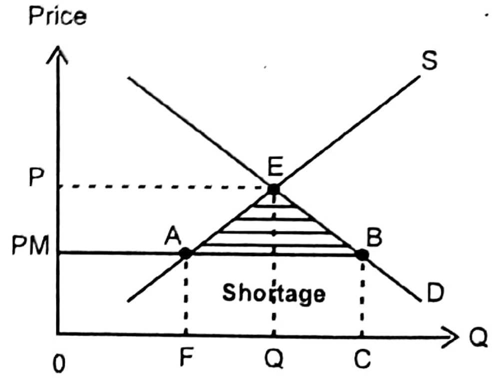
These problems can be overcome through effective government role and producer's role. As we know that demand and supply is the basic building block of economics so let it work properly. Government should not impose maximum price because it takes one political cycle to change the situation. On the other hand, invisible hands (forces of demand and supply) continuously keep on changing the situation as there is any change in demand and supply equilibrium will change. To bring price below the existing market price government should motivate the producers to produce more and may provide them subsidy.

June 2010/22

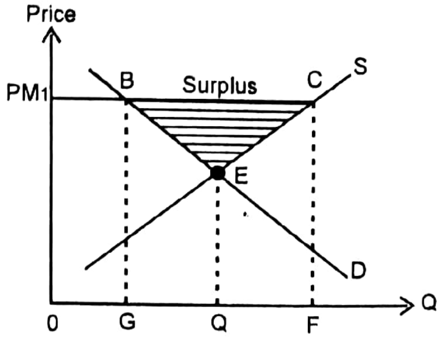
(b) With the help of diagrams, discuss whether consumers will benefit from the introduction on a product of (i) an indirect tax, and (ii) an effective maximum price. [12]

Scarcity refers to the limited resources and unlimited wants. While maximum price is the price set by the government below equilibrium and it results in excess demand (shortage) in the market.

This price is normally set by the government to support the consumers but it results in shortage. A few people will be able to get the products unless government takes some other measures like providing goods from the buffer stock.



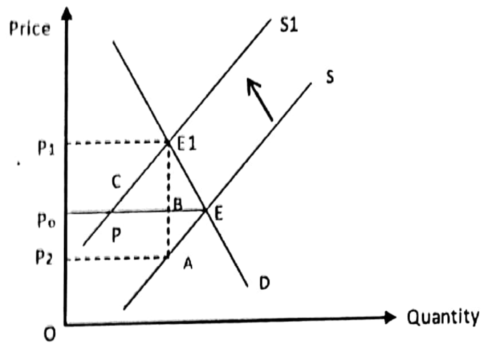
Most of the people will not be able to get the products in the market. Rather it may lead to black marketing. Maximum price set above equilibrium will be ineffective.



Maximum price PM is ineffective and it will not result in shortage or surplus, rather price will remain at "P0" at equilibrium. Problem of scarcity is ever-lasting and it cannot be completely solved. However, it can be minimized through conservation of resources for future use.

Maximum price at by the govt. cannot solve this problem. This problem can only be solved, if prices are set to be zero which is never possible. Finally, we cannot solve the problem of scarcity through maximum price.

Indirect tax is a tax which is imposed or levied on spending of the people e.g. value added tax (VAT), customs and excise duties etc. Imposition of indirect tax results in fall in supply, leading the supply curve to shift to the left. In this way, price of cigarettes will rise and quantity demanded will fall but with smaller proportion because it is a habit forming good and its demand is inelastic, and main proportion of tax will lie on the consumers. Government tax revenue will rise from this action.



Initially, equilibrium is at "E" and price is "P0". Imposition of tax shifts the supply curve to the left from "S" to "S_1" and new equilibrium will take place at "E_1" price for consumers will rise to "P_1" but producers will get price "P_2" in this way, total tax burden is "P_1E_1 A P_2" out of which "P_1 E_1 B Po" will be paid by the consumers which is more than the producer's burden "PoBAP$_2$".

However, it has resulted a very little fall in quantity. It means, indirect tax is not the best way to discourage smoking, government should opt. some other tools like educating the people to create awareness among them about the dangers of smoking written, oral, and visual media should also play its role in this regard.

Doctors should write down articles on the harmful effects of smoking like lungs cancer etc. Teachers should also persuade the students not to involve in such activities. They themselves must remain away from it because they are role models.

Government should ban not only on advertisements of cigarettes but also try to ban its production in the country. However, the effects on the consumers and produces depend upon the price elasticity of demand and supply. When the price elasticity of demand and supply is unitary then it will shift an equal burden on consumers and producers.

Taxes, subsidy and direct provision

Questions No.3a June 2018

With the use of diagrams, explain how the price elasticity of demand for a product influences the incidence of an indirect tax on that product. [8]

Envisioned Answer

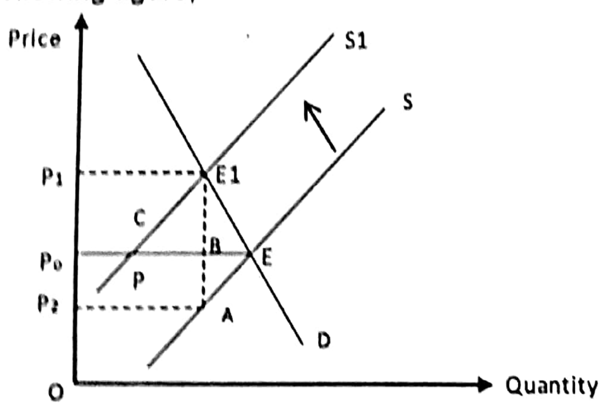
Indirect tax is the one which is imposed or levied on goods and services and not on income and profit. For example, general sales tax, value added tax (VAT), customs and excise duties etc. Imposition of indirect tax results in fall in supply, leading supply curve to shift to the left.

While price elasticity of demand refers to the responsiveness of quantity demand to a change in price. It is worked out using following formula;

$$PED = \frac{\% \triangle Qd}{\% \triangle P}$$

It can be elastic or inelastic. Elastic demand refers to the situation when a change in price brings more than proportionate change in quantity demanded. Luxurious products, products with greater number of close substitutes and the goods on which large proportion of income is spent, have elastic demand. Contrarily, inelastic demand is; when a change in price brings less than proportionate change in quantity demanded.

Price elasticity of demand determines the incidence of indirect tax on consumers as well as producers. Whenever, demand is relatively inelastic, tax burden mainly falls on consumers because they could not reduce quantity demand dramatically since it can be their basic necessity or habit forming good. The incidence of tax is further explained with following figure;



As per above figure, initially, equilibrium is at "E" and price is "P0". Imposition of indirect tax shifts supply curve to the left from "S" to "S_1" and new equilibrium will take place at "E_1", price for consumers will rise to "P_1" but producers will get price "P_2" in this way, total tax burden is "P_1E_1 A P_2" out of which "P_1 E_1 B Po" will be paid by the consumers which is more than the producer's burden "PoBAP$_2$". Contrarily, if demand is relatively elastic, then greater tax burden will fall on producers because in case of elastic demand a smaller increase in price leads to a dramatic fall in quantity demanded therefore, producers would feel it better to bear the tax burden instead of dramatic fall in their products' demand.

Question No.2 June-2017

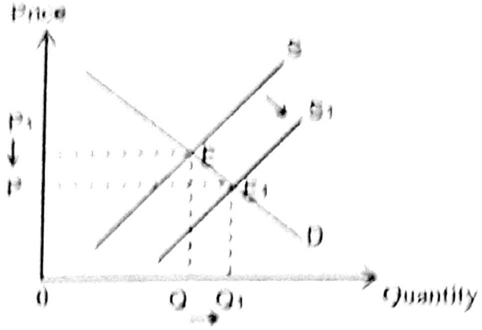
(b) **Discuss two methods of increasing the provision of merit goods in a mixed economy. Consider which is more likely to be effective. [12]**

Envisioned Answer

Mixed economy is an economy in which part of resources are owned, allocated and controlled by private individuals and companies and part of the resources are under government. There can be number of methods to increase the provision of merit goods; the goods which create positive externalities and have positive impact on non-consumers. However, the two methods of increasing the provision of merit goods in mixed economy are;

1. Provision of subsidy and
2. The direct provision of merit goods by the government.

Government can use these two methods to attain the above-mentioned aim. Both of the methods have their costs and benefits. The provision of subsidy will increase the supply of merit of goods leading to decrease their prices as shown below;



According to the above figure initial equilibrium for merit goods is at E where market price is P1 and quantity traded is Q. Owing to increase in supply which may have been caused by the provision of subsidy or any other factor, supply curve shifted towards right from S to S_1 and new equilibrium for merit goods took place at E_1. The price has fallen to P and quantity traded has risen to Q_1.

This method of increasing the provision of merit goods is useful because it increases the availability for the consumers at lower price. It also extends the demand for merit goods from point E to E1. This extension in demand depends upon the elasticity of demand. The elasticity of demand can also be increased by the government by promoting the use of these goods.

However, this method of increasing the provision of merit goods is time taking and it is difficult to ensure transparency regarding provision of subsidy to the producers. It also involves complicated documentation and procedures. It also causes high cost to the government in two ways; number one, the huge amount of subsidy paid to the private producers and number two, it is also costly to employ paid supervisors to ensure that the subsidy is utilized for the said purpose. So, implementation of this policy is not so easy.

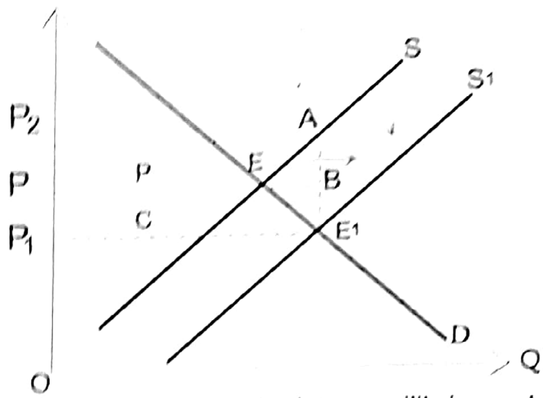
The second method for increasing the provision of merit goods is direct provision by the government. **Direct provision** of merit goods and services to everyone by the government reduces inequality because everyone has the reach to these goods like state education and health care. It is a good and effective method to provide merit goods because everyone will have the same product without prejudice. It also increases job opportunities since new projects will be started for the provision of merit goods. However, it is difficult and uphill task for the government because it is not easy to start new projects of education and health care. It also increases the workload of the government.

From the above discussion, it can be concluded, provision of subsidy by the government is more effective as compared to direct provision of merit goods by the government because provision of subsidy is bit easier, less costly and requires less time for implementation.

Question NO. 3 Nov 2003

3(a) Explain the effect of the removal of an indirect tax upon the market for a product. [8]

Indirect tax is a tax which is levied on spending of the people e.g. value added tax (VAT), customs and excise duties. Tax relaxation or removal can also be called subsidy. The removal of tax increases the supply so supply curve shifts to the right. It is shown in the following figure;



The above figure depicts equilibrium at "E" initially, where price is "P". Removal of tax will shift the supply curve to the right and new equilibrium will take place at "E1" and new price consumers will pay is "P1" so consumer's subsidy is "PBE₁ P1", while the producers will get price "P2" and they will get subsidy "PBAP2". However, the amount of relief for producers and consumers depends upon the price elasticity of demand and supply.

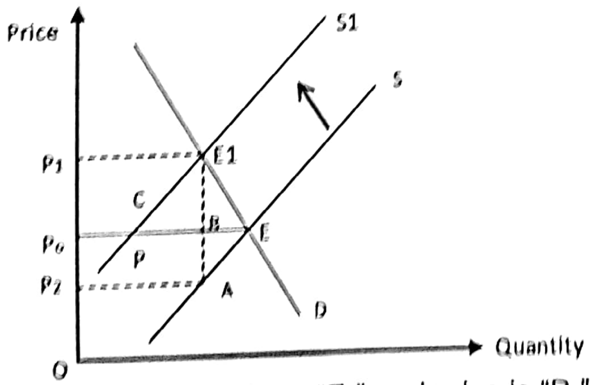
If price elasticity of demand is low and elasticity of supply is high, consumers will get more benefit as compared to the producers. On the other hand, when elasticity of demand is high and elasticity of supply is low, producers will get more benefit from removal of tax as compared to the consumer.

The impact on market for the product is also clear from the above graph. Supply will rise and shift to the right due to non-price factor i.e. indirect tax. But market price will decrease to P1 and quantity demand will extend from E to E1 due to fall in price. Seller of this product will get higher revenue due to fall in price if its demand is elastic. However, revenue will fall demand in inelastic or perfectly inelastic. On the other hand, revenue will remain the same if price elasticity of demand is unitary.

Question NO. 3 Nov 2007

(b) Discuss, with the aid of a demand and supply diagram, the effects on consumers and producers when the government introduces an indirect tax on a good. [12]

Indirect tax is a tax which is imposed or levied on spending of the people e.g. value added tax (VAT), customs and excise duties etc. Imposition of indirect tax results in fall in supply, leading the supply curve to shift to the left. In this way, price of cigarettes will rise and quantity demanded will fall but with smaller proportion because it is a habit forming good and its demand is inelastic, and main proportion of tax will lie on the consumers. Government tax revenue will rise from this action.



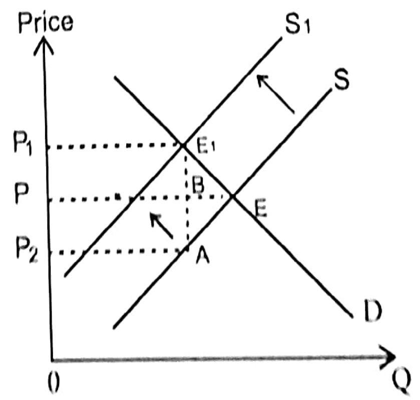
Initially, equilibrium is at "E_0" and price is "P_0" while quantity is "Q_0". Imposition of tax shifts the supply curve to the left from "S" to "S_1" and new equilibrium will take place at "E_1" price for consumers will rise to "P_1" but producers will get price "P_2".

In this way, total tax burden is "$P_1 E_1 A P_2$" out of which "$P_1 E_1 B P_o$" will be paid by the consumers, which is more than the producer's burden "P_oBAP_2". However, it has resulted a very little fall in quantity from "Q_0" to "Q_1".

It means, indirect tax is not the best way to discourage smoking, government should opt. some other tools like educating the people to create awareness among them about the dangers of smoking written, oral, and visual media should play its role in this regard.

Doctors should write down articles on the harmful effects of smoking like lungs cancer etc. Teachers should also persuade the students not to involve in such activities. They themselves must remain away from it because they are role models.

Government should ban not only on advertisements of cigarettes but also try to ban its production in the country. However, the effects on the consumers and produces depend upon the price elasticity of demand and supply. When the price elasticity of demand and supply is unitary then it will shift an equal burden on consumers and producers. It is shown in the following figure.



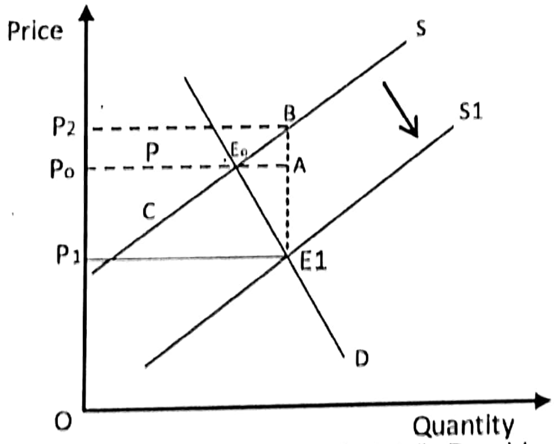
Initially, equilibrium is at point "E" where market price is "P". Imposition of indirect tax shifts the supply curve to the left and new equilibrium will take place at "E_1" per unit tax is "E_1A" while the total tax will be $P_1E_1AP_2$ out of which P_1E_1BP is Tax burden on the consumer while $PBAP_2$ is the burden on the producer. But when demand is elastic and supply is inelastic then more tax burden will lie on the producer and less on the consumer.

Question NO. 3 Nov 2009

3(b) With the help of a diagram, discuss how desirable it is for a government to pay subsidies to producers. [12]

Subsidy is the grant provided by the government to the producers to produce more. Tax relaxation may also be treated as subsidy. Providence of subsidy reduces the cost of production for the producers. So, they are encouraged to produce more and supply will also rise due to which supply curve will shift to the right.

Now, consumers will have to pay less price and the producers will get higher prices. In this way both will benefit from the act of subsidy. However, the total impact of price will depend upon the price elasticity of demand and supply in case of unitary elastic demand and supply both the parties i-e consumers and producers will get equal benefit. When demand is inelastic or supply is elastic then consumers will receive more subsidy than producers. It is shown in the following figure;



Initially, equilibrium price is "Po". Providence of subsidy will shift the supply curve to "S_1" and new equilibrium will take place at "E_1" where consumers will pay price "P_1". But the producers will receive price "P_2". In this way, consumer will benefit as they will have to pay less price and producers will receive more from the act of subsidy.

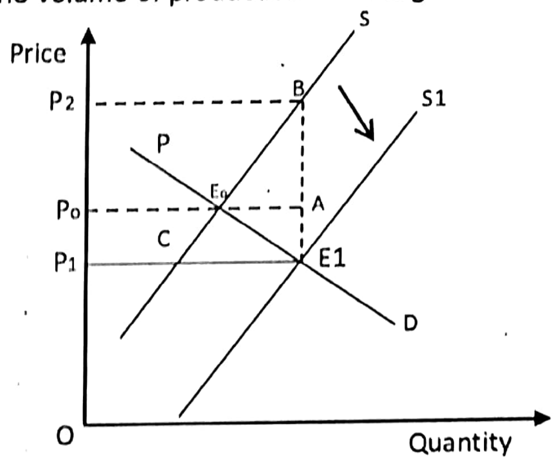
According to the above diagram total subsidy is "$P_1E_1BP_2$", out of which consumers will get subsidy "PoP_1E_1A" and producer's subsidy is "P_2BAPo".

So, producers benefit is less than the consumers benefit.

On the other hand, when supply is inelastic or demand is elastic then producers benefit will be more than the consumers.

It is shown in the following figure where total subsidy is equal to the area "$P_1P_2BE_1$" out of which consumers will receive "P_0 P_1 E_1 A" which is less than the producers' subsidy which is equal "P_2 BA P_0". Government also provides subsidy to the producers of merit goods which create external benefits or positive externalities in the society.

It improves the welfare of the society and reduces the welfare loss or deadweight loss. Merit goods are normally under-produced so, government subsidies such goods to increase the volume of production of such goods.



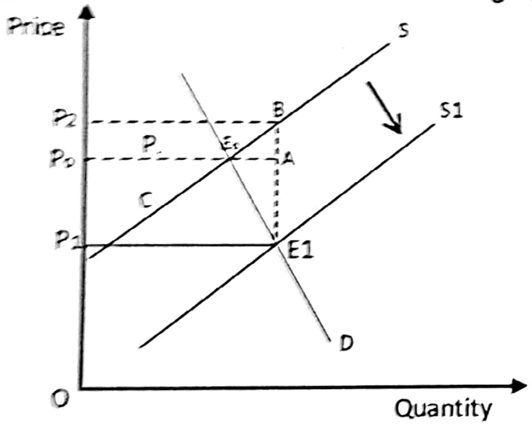
Subsidy also improves the price competitiveness (lower price) of qualitative locally produced goods and may help to the firms to compete in the international market to make the balance of payment surplus. Production of qualitative goods also improves the standard of living.

However, the providence of subsidy will result in increase in government expenditures and involve an opportunity cost, because government will have to withdraw funds from other projects. It may also affect the efficiency of market system as private producer may rely on subsidy instead of improving their production techniques, and allocation of resources in best possible way.

Question NO. 2 November 2009/22

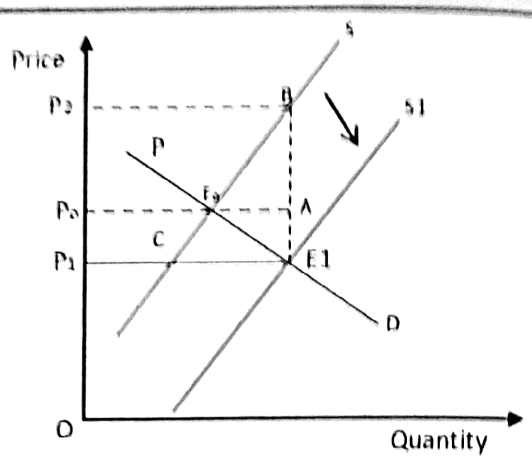
2(a) With the aid of a diagram, explain how a government subsidy to producers of fuel will affect the producers and government expenditure. [8]

Subsidy is the grant provided by the government to the producers to produce more. Tax relaxation may also be treated as subsidy. Providence of subsidy reduces the cost of production for the producers. So, they are encouraged to produce more and supply will also rise due to which supply curve will shift to the right. Now, consumers will have to pay less price and the producers will get higher prices. In this way, both will benefit from the act of subsidy. However, the total impact of price will depend upon the price elasticity of demand and supply in case of unitary elastic demand and supply both the parties i-e consumers and producers will get equal benefit. When demand is inelastic or supply is elastic, consumers will receive more subsidy than producers. It is shown in the following figure;



Initially, equilibrium price is "Po". Providence of subsidy will shift the supply curve to "S_1" and new equilibrium will take place at "E_1" where consumers will pay price "P_1" but the producers will receive price "P_2". In this way, consumer will benefit as they will have to pay lesser price and producers will receive higher price from the act of subsidy.

According to the above diagram total subsidy is "P_1 E_1 B P_2", out of which consumers' subsidy is "PoAE_1 P_1" and producers' subsidy is "P_2BAPo". So, producers benefit is less than the consumers benefit. On the other hand, when supply is inelastic or demand is elastic than producers benefit will be more than that of consumers. It is shown in the following figure;



Government also provides subsidy to the producers of merit goods which create external benefits or positive externalities. It improves the welfare of the society and reduces the welfare loss or deadweight loss. Merit goods are normally under-produced.

Therefore, government subsidies these goods to increase their output. Subsidy also improves the price competitiveness of qualitative locally produced goods and may help to the firms to compete in the international market to make the balance of payment surplus.

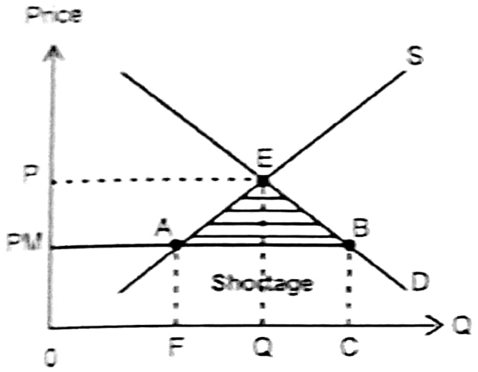
Production of qualitative goods also improves the standard of living. However, the providence of subsidy will result in increase in government expenditures and involve an opportunity cost, because government will have to withdraw funds from other projects. It may also affect the efficiency of market system as private producer may rely on subsidy instead of improving their production techniques, and allocation f resources in best possible way.

Question NO. 3 June 2010/22

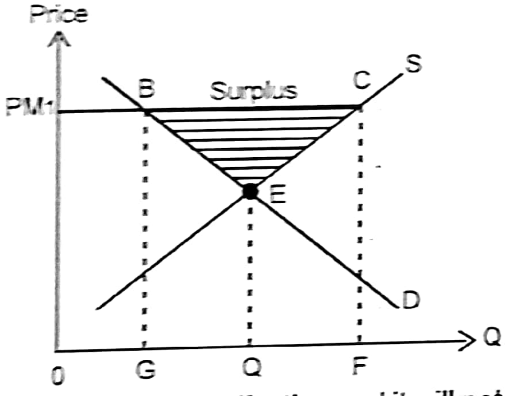
(b) With the help of diagrams, discuss whether consumers will benefit from the introduction on a product of (i) an indirect tax, and (ii) an effective maximum price. [12]

Scarcity refers to the limited resources and unlimited wants..While maximum price is the price set by the government below equilibrium and it results in excess demand (shortage) in the market.

This price is normally set by the government to support the consumers but it results in shortage. A few people will be able to get the products unless government takes some other measures like providing goods from the buffer stock.



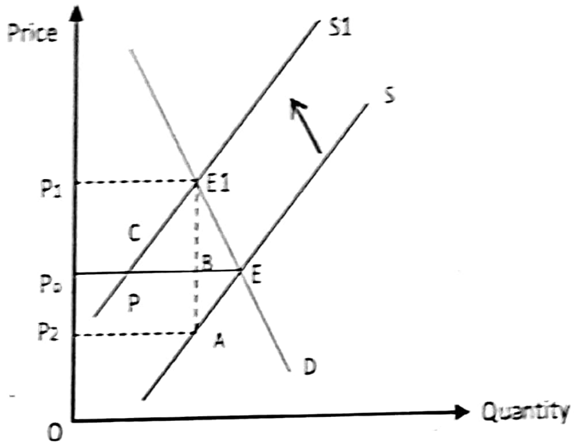
Most of the people will not be able to get the products in the market. Rather it may lead to black marketing. Maximum price set above equilibrium will be ineffective.



Maximum price PM is ineffective and it will not result in shortage or surplus, rather price will remain at "P0" at equilibrium. Problem of scarcity is ever-lasting and it cannot be completely solved. However, it can be minimized through conservation of resources for future use.

Maximum price at by the govt. cannot solve this problem. This problem can only be solved, if prices are set to be zero which is never possible. Finally, we cannot solve the problem of scarcity through maximum price.

Indirect tax is a tax which is imposed or levied on spending of the people e.g. value added tax (VAT), customs and excise duties etc. Imposition of indirect tax results in fall in supply, leading the supply curve to shift to the left. In this way, price of cigarettes will rise and quantity demanded will fall but with smaller proportion because it is a habit forming good and its demand is inelastic, and main proportion of tax will lie on the consumers. Government tax revenue will rise from this action.



Initially, equilibrium is at "E" and price is "P0". Imposition of tax shifts the supply curve to the left from "S" to "S_1" and new equilibrium will take place at "E_1" price for consumers will rise to "P_1" but producers will get price "P_2" in this way, total tax burden is "P_1E_1 A P_2" out of which "P_1 E_1 B Po" will be paid by the consumers which is more than the producer's burden "PoBAP$_2$".

However, it has resulted a very little fall in quantity. It means, indirect tax is not the best way to discourage smoking, government should opt. some other tools like educating the people to create awareness among them about the dangers of smoking written, oral, and visual media should also play its role in this regard.

Doctors should write down articles on the harmful effects of smoking like lungs cancer etc. Teachers should also persuade the students not to involve in such activities. They themselves must remain away from it because they are role models.

Government should ban not only on advertisements of cigarettes but also try to ban its production in the country.

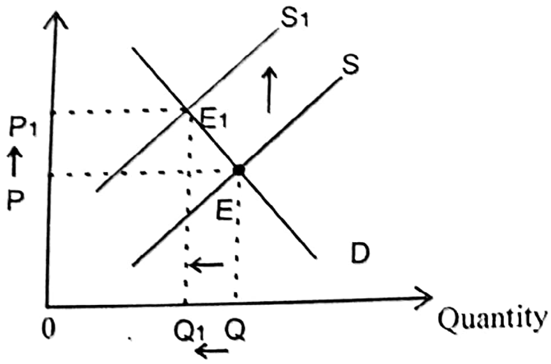
However, the effects on the consumers and produces depend upon the price elasticity of demand and supply. When the price elasticity of demand and supply is unitary then it will shift an equal burden on consumers and producers. It is shown in the following figure.

Question NO. 3 November 2012/21

2(a) Explain, with the use of diagrams, the different effects on the price and quantity of a product of the removal of a subsidy and the removal of an indirect tax on that product. [8]

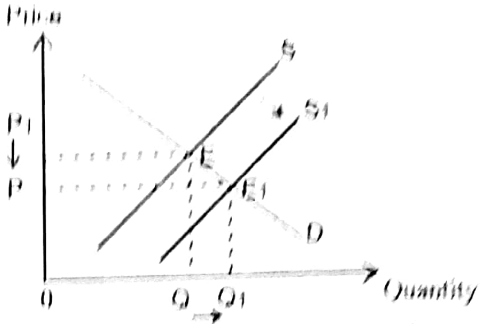
Subsidy is the financial help given by the government to the producers which indirectly gives benefit to the consumers as well in the form of low prices. Indirect tax is a tax which is levied on consumption of goods. Examples of indirect tax include general sales tax (GST), value added tax (VAT), customs and excise duties etc.

Removal of subsidy has the same effect as imposition of indirect tax. Therefore, removal of subsidy will shift the supply curve towards left leading to rise in price and fall in quantity bought and sold (traded). On the other hand, removal of indirect taxes the same effect as providing subsidy. Therefore, removal of indirect tax will shift the supply curve towards right leading to fall in market price and rise in quantity traded. This entire phenomenon is shown below in the diagrams;



The above diagram shows the effect of removal of an indirect tax. Removal of indirect tax increases the potential of producers to produce more.

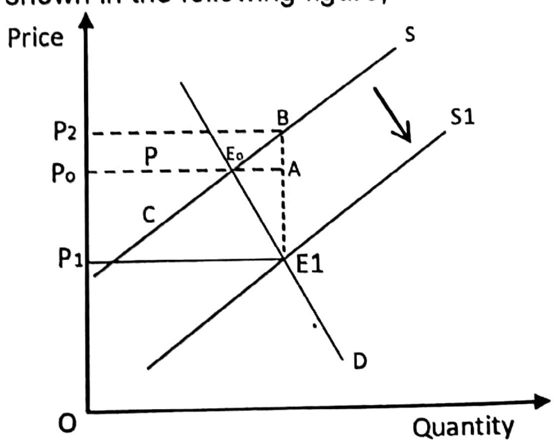
Therefore, supply curve will shift to the right to S1, equilibrium will shift to E1, price will fall to P but quantity traded will rise to Q1.



The above diagram shows the effect of removal of subsidy. Initially equilibrium is at E where price is P and quantity traded is Q. Removal of subsidy has shifted supply curve to the left to S1 because it will lead to higher cost of production for the producers. Therefore, new equilibrium will take place at E1 where price will rise to P1 but quantity traded will fall to Q1.

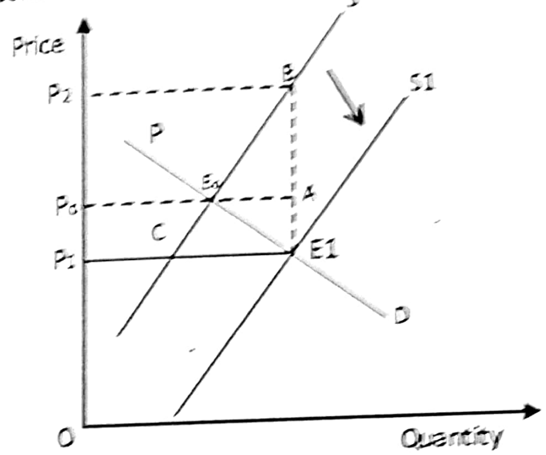
(b) Discuss the possible benefits and drawbacks of government subsidies to agriculture. [12]

Subsidy is the grant provided by the government to the producers to produce more. Tax relaxation may also be treated as subsidy. Providence of subsidy reduces the cost of production for the agricultural producers. So, they are encouraged to produce more and supply of agricultural goods will also rise due to which supply curve will shift to the right. Now, consumers will have to pay less price and the producers will get higher prices. In this way, both will benefit from the act of subsidy. However, the total impact of price will depend upon the price elasticity of demand and supply in case of unitary elastic demand and supply both the parties i-e consumers and producers will get equal benefit. When demand is inelastic or supply is elastic then consumers will receive more subsidy than producers. It is shown in the following figure;



Initially, equilibrium price is "P_0" providence of subsidy will shift the supply curve to "S_1" and new equilibrium will take place at "E_1" where consumers will pay price "P_1".
Price P1 but the producers will receive price "P_2". In this way consumer will benefit as they will have to pay less and producers will receive more from the act of subsidy.

According to the above diagram total subsidy is "$P_1E_1BP_2$", out of which, consumers' subsidy will be "$P_0P_1E_1A$" and producers' subsidy is "P_2BAP_0". So, producers benefit is less than the consumers benefit. On the other hand, when supply is inelastic or demand is elastic then producers benefit will be more than the consumers. It is shown in the following figure;



Total subsidy is equal to the area "$P_1P_2B\ E_1$" out of which consumers will receive "$P_1\ P_0\ E_0$ A" which is less than the producer's subsidy which is equal "P_2 BA P_1". Government also provides subsidy to the producers of merit goods which create external benefits or positive externalities in the society. It improves the welfare of the society and reduces the welfare loss or dead weight loss.
Merit goods are normally under-produced so, government subsidies such goods to increase the volume of production of such goods. Subsidy also improves the price competitiveness of qualitative locally produced goods and may help to the firms to compete in the international market to make the balance of payment surplus. Production of qualitative goods also improves the standard of living.
However, the providence of subsidy to the agriculture will result in increase in government expenditures and involve an opportunity cost, because government will have to withdraw funds from other projects. It may also affect the efficiency of market system as private producer may rely on subsidy instead of improving their production techniques, and allocation of resources in best possible way.

Chapter # 4

Types of inflation, consequences of inflation

Question No. 4 June 2003

4(a) Explain why a country may experience a persistent rise in its general price level. [8]

A persistent rise in general price level is called inflation and it is a monetary phenomenon and according to Milton Friedman, it reduces purchasing power of money.

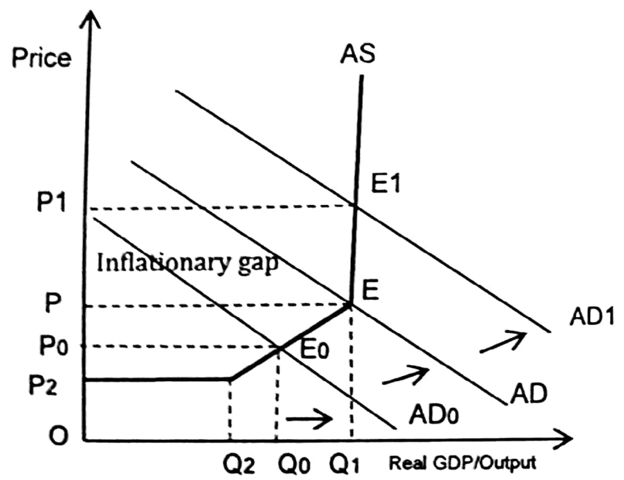
A country may experience a persistent rise in its general price level due to increase in aggregate demand (AD), decrease in aggregate supply (AS), or increase in money supply.

Demand pull inflation: It occurs when aggregate demand increases.

Aggregate demand may rise due to rise its components including government spending, consumer consumers, firms' investments or higher net exports. Aggregate demand is expressed as;

AD = C + I + G + (X – M)

This phenomenon is shown in the following figure;



The above diagram advocates the idea of ***Keynesian*** School of thought. Initially, aggregate supply curve is horizontal and shows no change in price till output Q2.

Equilibrium at full employment is at point "E" where price level is "P" and output is Q1.

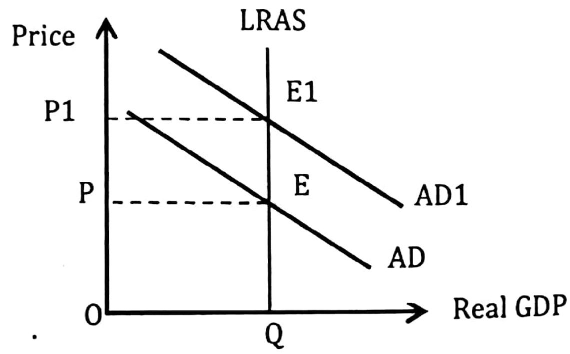
A rise in aggregate demand shifts aggregate demand to "AD_1" and new equilibrium takes place at "E_1" leading the price to rise to "P_1" while keeping GDP or output at Q1. The gap between "P" and "P_1" is inflationary gap.

It is good inflation because it increases level of economic activity in the country, increases GDP, leading to economic growth as well as increase in employment.

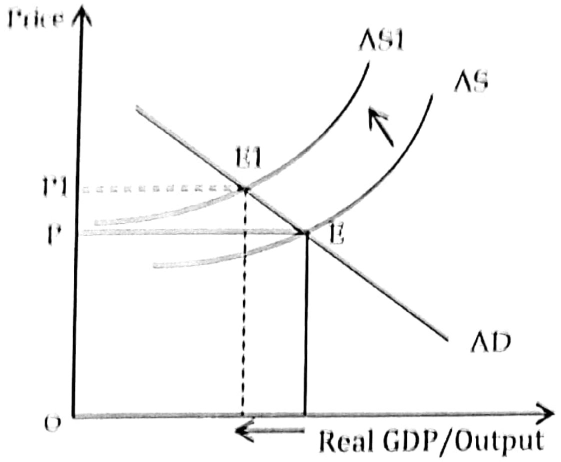
Monetarist have the view that demand pull inflation is mainly caused by greater money supply. Increase in money supply increases aggregate demand and drives the prices up, if aggregate supply does not tend to rise. According to monetarists "Double the quantity of money, double will be the price level but value of money will be half.

Contrarily, New Classical School of thought has the idea that in long run, economy remains at full employment without government intervention and any rise in aggregate demand automatically causes demand pull inflation as shown below where initial equilibrium is at point "E", price is "P" and GDP is "Q".

A rise in aggregate demand to "AD1" has caused price level to rise to P1 without any rise in GDP.



Cost Push Inflation: It is caused by rise is cost of production. Higher cost of production feeding to higher prices is called cost push inflation. It is known as bad inflation because it reduces level of economic activity in the country, reduces GDP and increases unemployment. It is further explained graphically as under;



It is also known as stagflation because in this situation inflation and unemployment both tend to rise. The cost may rise due to increase in rent of the building, higher wage rate, higher prices of domestic and imported raw material due to depreciation of currency and a high rate of interest.

For example, when there is continuous rise in price level, workers will keep on demanding more wages time to time which will cause wage-price spiral. It will lead to higher cost of production and resultantly price level will further rise.

According to the above figure, initially, equilibrium is at point "E" and price level is "P". The rise in cost of production shifts aggregate supply to AS_1, and new equilibrium will take place at "E_1" and price level will rise to "P_1". The gap between P and P_1 is inflationary gap.

So, finally we concluded that inflation is experienced because of higher AD (which may be due to the act of consumers, producers and the government), fall in AS (which is the act of producers, normally monopoly firms) or rise in money supply in the economy (which is the act of central bank of the country i.e. government).

(b) Discuss why reducing inflation is often the most important task for a government? [12]

The aim of government policy is to keep inflation rate low apart from lower rate of unemployment, sustained economic growth and favorable balance of payment, because it has very harmful effects. However, on the other hand, it may aim to keep prices of certain goods very high like demerit goods, to reduce their consumption. The true consequences of inflation however, depend upon the rate of inflation, time of its existence, whether it is *anticipated or unanticipated*, whether it is under control or not, similarly, inflation rate in other countries as well. It has following internal and external harmful effects.

Firstly, high rate of inflation has harmful effects for consumers, producers and somehow for the traders. If we divide the consumers into high and low-income groups, the effects would be different. The poor would be affected a lot since high proportion of their income is spent on basic necessities of life which cannot be avoided because of inelastic demand. So, they will have to face high cost of living.

But the rich people would not be affected badly, since they are spending less proportion of their income on basic necessities and high proportion on luxurious items which have elastic demand, and a rise in inflation and prices will lead to fall in total expenditures by such people on luxurious goods which are avoidable. Inflation increases disparities by widening the income gap, in real terms, between the rich and the poor.

Fixed income group like pension bearer and those earning interest on securities etc. are worsen because of high inflation. High price level reduces their purchasing power. So, their cost of living will rise and standard of living will fall.

Producers will face high burden because a rise in prices of raw materials will reduce their potential to produce and consequently, supply will fall and producers may have to face loss but traders will not be affected too much as they purchase the ready-made goods and sell these goods directly to the consumers.

So, they can shift the burden to ultimate consumers easily. It increases the pressure of high prices on the consumers and they will be worse off, particularly, when they have inelastic demand for the goods.

Secondly, high rate of inflation affects different brands and restaurants. Owing to rise in prices, they will have to print new menu cards, price list, catalogues, bar codes and price tags. It is not only expensive in terms of monetary expense, rather it is also expensive in terms of waste of time and sometime they have to lose some loyal customers due to a sudden change in their prices. **Thirdly,** savers have to face shoe-leather cost due to inflation. Savers keep their money in saving account in banks with a view to earn interest.

If the rate of interest is not index linked and remain fixed at agreed rate even at the time of inflation, it will reduce the real rate of return for them. Therefore, they will try to shift their funds from one bank to the other which offers high interest rate. It is again a time taking and expensive task for them. They will have to go through complicated documentation and procedures as well as will have to pay bank charges and the leather of their shoes will also erode and depreciate by moving from one place to another, in the absence of online banking procedures. So, savers would be worsened due to high inflation.

Fourthly, workers face fiscal drag due to inflation. Owing to rise in inflation, workers get raise in their salaries automatically if their salaries are index linked.

But this raise in salary drags them into higher tax bracket due to which they have to pay income tax with high rate and they get worse off instead of getting benefit of high income. Most of the nations have progressive system of income tax where tax rate increases with increase in income. So, high income means high tax rate for the salary earners. Fiscal drag is also referred to as bracket creep because people come into higher tax bracket.

Fifthly, inflationary noise is another cost of inflation. Sometimes, producers increase their output thinking that the prices of only their products are increasing because of higher demand for their products. But actually, the situation is different. The price of their product may be rising because of overall inflation in the market and not due to demand of their products. So, it creates money illusion and results in wrong decisions of the producers, misallocation of resources and definitely causing wastage of resources which actually belong to the nation.

Sixthly, unanticipated inflation may create uncertainty for the producers to produce and they may lack incentive to invest. It will cause unemployment of workers and other economic resources leading to slow down the rate of economic growth of the country. In some cases, due to lower investment and lower output, consumers may have to import from other countries which may deteriorate balance of payment of the country. It can convert into external effect of inflation.

Seventhly, anticipated inflation may cause wage and consumption spiral. If workers are expecting inflation in future, they will start demanding wage rise now which will increase the cost of production for producers and they would be in the position to produce less which will further increase the rate of inflation. Similarly, if consumers are expecting price rise in future, they will try to purchase greater quantities today and will try to stock them, to avoid paying high prices in future. This will also lead to higher demand and ultimately high prices for the consumers. Therefore, in this case actually, inflation is further causing inflation.

Similarly, inflation also leads to unplanned distribution of income. Owing to high inflation lenders will be the losers if interest rate stays the same and does not rise with the rise in inflation. However, borrowers will gain because in real terms they would be paying less.

Lastly, inflation reduces net exports which is the difference between receipts from exports and payments for imports. Owing to inflation, our exports will fall because our trading partner would be reluctant to purchase from us.

On the other hand, our imports may rise because people will feel comfortable to imports from other countries instead of buying locally produced products. Therefore, balance of payment current account may also move towards deficit.

It also results in disparities by widening the income gap between the rich and the poor. It may result in depreciation of the value of a currency.

However, low and stable inflation may not always be harmful because it can benefit workers, producers, consumers and the government in following different ways.

First of all, workers will get wage rise automatically if their wages are index linked. However, if their salaries are not index linked, they will demand wage rise which may be even higher than the rate of inflation. It makes them better off in real terms. **Secondly**, extension of business due to creeping inflation becomes possible which is benefit to the producers. The creeping inflation is an incentive to the producers to produce more goods and services to earn maximum profit.

If there is no rise in price, producers will feel that their efforts are not rewarded appropriately. So, creeping inflation will motivate them to produce more output which is not only beneficial for them but also helps in creation of **job opportunities**. So, in one way or the other, it reduces unemployment in the economy as well. Indirectly it will bring many other benefits like employed people having better financial position will be able **to educate their children**. Their standard of living will also improve. It is also beneficial for the government in the form of more **tax revenue**. It also makes it easy to payback national debts. Earlier we have studied that inflation is bad for **creditor** (lenders) but it is beneficial for **the debtors** (borrowers).

Conclusively, the country being a debtor will benefit when paying back national debt. Inflation is not much harmful than deflation and unemployment because in case of unemployment people having very **low purchasing power** cannot even satisfy their basic needs. Similarly, deflation reduces incentive to produce because producers feel that they are not getting good reward. So, inflation is not always bad for the economy.

Question No. 2 November 2004

(b) Discuss the view that inflation is always a major problem. [12]

See Q. 4b June 2003

Question No. 3 June 2005

3(b) Discuss whether stability in the domestic value of money is essential for a country's economic well-being. [12]

See Q. 4b June-2003

Question No. 4 Nov 2006

4(a) Explain the difference between cost-push inflation and demand-pull inflation. [8]

See details of demand pull and cost push inflation in **Question No. 4a June 2003**

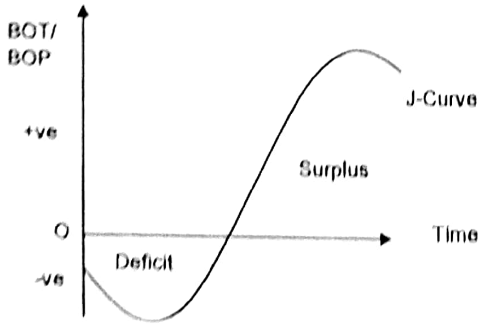
(b) Discuss whether a country experiencing inflation will always have a balance of payments problem. [12]

Inflation is the persistent rise in general price level over a period of time. It can be creeping when price level is increasing with slower rate (i.e. 1-5%). It can be walking/mild in which price level increases from 5-10%. It can be Strato/galloping when price level is increasing from 10-20% while hyper-inflation is when price level rises by 100% or more than that. Inflation creates uncertainty in the economy. However, its affects depend upon the rate of inflation. It reduces the lending competitiveness of the country as compared to the foreign firms.

On the other hand, balance of payment is the summary of all the economic transactions of a country with rest of the world. Inflation increases export price due to which foreign buyers of exports will be reluctant to buy our products and inflation reduces import prices due to which more people will be attracted to buy foreign produced goods. It may lead to deteriorate the balance of payment of the country. But the true impact of this change will be more obvious when price elasticity of demand for exports and imports is given.

In the short-run period of time, price elasticity of demand for imports and exports is inelastic.

So, rise in price of imports will lead to rise in import payments and fall in price of exports will lead to lower export earning so, balance of trade will deteriorate but in the long-run elasticity becomes high. So, rise in price of imports will result in fall in import payments and a fall in price of export will results in higher export earnings. In this way, balance of trade will become surplus. This phenomenon is shown below with the help of J-Curve.



The above figure shows further deterioration initially, and it will improve the balance of payment in the long-run. Increase in deficit of balance of payment will lead to higher demand for imports and demand pull inflation may rise. It may devaluate the currency as well. From the above discussion we can conclude that country experiences inflation may have balance of payment problem in one case but in another case balance of payment is not obvious and in the third condition we can see that there is no impact on balance of payment. When demand for imports and exports is elastic rise in inflation have BOP problem but if PED for imports and exports in inelastic then balance of payment will improve while in case of unitary elasticity of demand for exports and imports inflation will have effect on balance of payment problem.

Question No. 3 June 2007

3(a) Explain how the rate of inflation is measured. [8]

Inflation refers to a sustained rise in general price level over a period of time. Measuring inflation is a tricky job. Controlling it is trickier. No government can come up with inflation data that is believable for all. And inflation cannot be checked effectively if the mechanism used for measuring it suffers from structural flaws.

But efforts must be made to record changes in the actual cost of living of various groups of people. In UK it is calculated by "National Audit Office" and "Pakistan Bureau of Statistics" is responsible to calculate the rate of inflation. It is measured by mainly by three indices, Wholesale Price Index (WPI), an Index of Consumer (retail) Prices (CPI) and Sensitive Price Index (SPI). WPI shows the impact of price change on businesses and industries. SPI shows the changes in prices of some daily use essential items like fuel and food. It shows the impact on the poor. Consumer Price Index shows the changes in numbers based on some specific number. It is calculated by using the data of base year and current year. It is considered as more reliable and believable because shows the impact on all of us.

Through this method, information is collected about prices from the consumers and supermarkets. Long list of around six hundred items is divided into eleven broad categories which is not an easy job. We take a certain year as a base year which can be an immediate previous year or a year very far from today.

Weights are assigned to different goods according to the expenditure pattern of the people. Weights show how much important an item is. For example, if a person earns $10 and he spends $2 on product A, $3 on B and $5 on C shows that product is C is much important for that certain person while A has least significance. Then weights are multiplied by the current price index to get weighted index. In the example below index of product A is 110 which shows a 10% rise in its price.

Product B has index 120 which shows 20% increase in its price while there is no change in price of product C because its index is 100 which is always equal to the base year. Then sum of weighted index is divided by the sum of weights to get retail price index in the current period and finally, base year index which is always 100 is deducted from current price index to find out the figure of rate of inflation. It is explained with following numerical example.

Commodities	Weights (w)	Index (I)	W × I
A	2	110	220
B	3	120	360
C	5	100	500
	ΣW = 10		ΣWI = 1080

Retail price index $= \frac{\Sigma WI}{\Sigma W} = \frac{1080}{10} = 108$

Rate of inflation =RPI – BPI= 108 – 100 =8%

BPI=Base Price index

(b) Discuss how a rapid rate of inflation might affect different groups within an economy. [12]

Inflation is the persistent rise in general price level over a period of time. It can be creeping when price level is increasing with slower rate (i.e. 1-5%). It can be walking/mild in which price level increases from 5-10%. It can be Strato/galloping when price level is increasing from 10-20% while hyper-inflation is when price level rises by 100% or more than that.

Inflation creates uncertainly in the economy. However, its affects depend upon the rate of inflation. It reduces the lending competitiveness of the country as compared to the foreign firms. It also results in disparities by widening the income gap between the rich and the poor. It may result in depreciation of the value of a currency.

Commodity terms of trade will deteriorate by making imports expensive and exports cheaper. Finally, balance of trade and balance of payment will also deteriorate. Anticipated inflation is not much harmful as compared to the unanticipated inflation. It results in high cost of living because people will have to pay more now as compared to the past. Saving level will also tend to fall as people will have lesser amounts for this purpose and most of their income will be spent out on goods and services. The people having fixed income will be affected by it badly, but the people with flexible earning will not be affected too much.

Producers will face losses but trader will not be much affected by it as they are not producers they just buy the ready made goods and sell them to earn profits.

A rapid rise in price level decreases the purchasing power of the income of people. So, poor class will be suffering more than the rich.

The people who are earning fixed interest on securities will be the loser. Debtor will be better off but creditors will be worse off. The debtors got money when it was having more value and they are paying back when it has lesser purchasing power.

Consumer's burden will rise but businessmen will not be affected by it as they are shifting the burden of inflation to the consumers.

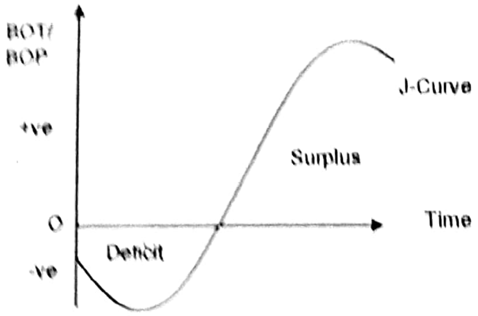
Exporters will be losing as they will be getting lesser amounts and importers will benefit from inflation because people will import more to have qualitative goods.

It also gives rise to unemployment as high prices will lead the producers to produce less and so, they need lesser amount of workers.

Inflation also causes minor, menu and shoe-leather costs. Firms will have to spend much on printing of new price lists etc. Staff has to spend a great deal of time in preparing new menus and customers also feel uncomfortable after having a look on new price lists showing higher figure than before. Inflation is harmful if it is increasing at rapid rate but it gives rise to growth of the business if it is of creeping nature. Businesspersons are motivated to produce more to earn more. It also leads to increase in investment, employment may rise, and quality of goods and services may rise. Government will also get more tax revenue.

Terms of trade is worsened when prices of imports are more than prices of exports. It results in depreciation of a currency. Depreciation makes imports expensive and exports cheaper and depreciation occurs if there is inflation in one country because other countries would be reluctant to import from that country. In this way demand for its exports falls and its currency depreciates. According to Marshall Lerner condition in the short-run period of time balance of trade will further deteriorate but in the long-run period of time balance of trade will become favourable.

In the short-run period of time, price elasticity of demand for imports and exports is inelastic. So, rise in price of imports will lead to rise in import payments and fall in price of exports will lead to lower export earning so, balance of trade will deteriorate but in the long-run elasticity becomes high.



So, rise in price of imports will result in fall in import payments and a fall in price of export will results in higher export earnings. In this way, balance of trade will become surplus. This phenomenon is shown with the help of J-Curve. The figure shows further deterioration initially, and improvement in balance of trade in the long run.

Question No. 3 June 2008

3(b) Discuss whether a widespread shortage of labour might be a major cause of inflation. [12]

See Q. 4a June 2003

With conclusion that inflation is experienced because of higher AD (which may be due to the act of consumers, producers and the government), fall in AS (which is the act of producers, normally monopoly firms) or rise in money supply in the economy (which is the act of central bank of the country i.e. government).

Question No. 2 November 2008

(b) Discuss whether a country should welcome a period of deflation (negative inflation). [12]

Deflation refers to the persistent fall in general price level in the country over time. It may occur when economic activity is depressed or when the economy is in a slump/recession.

During that period aggregate demand in the economy will be low causing the price level to fall. The benefits of deflation go to creditors and fixed income earners who gain in real terms. Creditors are the people who are liable to receive from someone because they have lent or sold goods on credit. When they have advanced loans the value of money was low, but after deflation when the value of money is high they are getting their money back.

Similarly, the fixed earner group who is receiving the same amount but price level has decreased, they will become better-off. Now they can enjoy more goods and services with the same income. Their standard of living may also rise.

It also achieves price competitiveness in the international market leading the exports to rise and balance of trade to become surplus.

However, deflation may affect the producers in a bad way as they are getting low prices, they may lose the confidence on investment and their profits may fall which gives rise to pessimistic approach. So, producers may reduce investments leading to fall in output and GDP per capita in the country.

A rise in unemployment, and fall in government tax revenue. It may deteriorate the budget of the government. Producers may also start compromising on quality and consumers may be enforced to use that poor quality due to which standard of living of the people may fall.

In this situation expansionary monetary policy also becomes ineffective. Normally, when government decreases the rate of interest, more people are attracted to take loans and to invest into the business. But during deflation investors do not take interest on investing more. So, this policy becomes ineffective. There are so many observations of this state of affair in the world as Japan's experience has shown a number of such drawbacks.

Instead of deflation, creeping or walking inflation is thought to be good as it gives incentives to the investors to invest more; it helps in achieving growth, full employment and better balance of trade position.

Question No. 4 June 2009/21

(b) Discuss whether it is possible to construct a consumer price index that is an accurate measure of changes in the cost of living for all households. [12]

Inflation refers to a sustained rise in general price level over a period of time. It is measured by an index of consumer (retail) prices. Retail price index shows the changes in numbers on the basis of some specific number.

It is calculated using the data of base year and current year. Information is collected about prices from the consumers and super markets.

Long list of items is divided into eleven broad categories. But all this is not an easy job. Index is based on the spending habit of an "average family" but it is difficult to define what this means.
Allocating weights to different goods is again a very difficult job. The quality of goods cannot be indicated through index, because quality and performance of goods tend to change with the change in time.
New goods and services are continuously arriving in the market and some goods and services are no longer demanded. This is very difficult to take this into account. Similarly, collection of information from super markets is again a very difficult job.
It is also difficult to compare index between the countries. Mortgage repayments and the cost of credit (interest) are not included in the index but these are very important items of expenditure. The data collected from different sources is not reliable due to which it is very difficult to calculate inflation correctly.
It does not reflect the true picture as it depends upon the composition of the basket of goods, the weightage given to each product, how frequently the values are taken and the range of outlets used.
Some people have the spending pattern which differs from the average because of income and wealth levels and attitudes. Spending pattern of the rich is totally different from that of a poor family.
Some people may not be much wealthy and rich but they may have developed spending attitudes. Therefore, retail price index just shows an average change in the cost of living and does not reflect the true picture of people living in different circumstances.

Question No. 4 Nov 2010/21

4(a) Explain why it is important to have an accurate measure of inflation. [8]

Inflation is a sustained rise in the general price level. Inflation is a central economic target of the Government, because is effects the overall planning of the country. Inflation statistics acts as a basis of government policy, effects firms and individuals planning and are used to set index linked wages, welfare benefits and interest rates.
If the price level is increasing with a slower rate (i-e creeping inflation), It provides incentives for the producers to produce more as they are getting better prices than before, but if inflation is of hyper nature then it affects the producers in a bad way. So, they can take decisions to invest according to the nature of inflation, So, accurate measure of inflation is necessary to take right decisions at the right time.
Inflation also affects the decision making of consumer as well. Rational consumer keeps general prices and relative prices in his mind before taking decision to purchase. Something, the price of a product is showing increasing trend but at the same time, the quality and fairness of the product are also improved. So in this situation rise in price is not bad for the consumers.
Government in its policy making also keeps in mind the rate of inflation. In annual budget government has to give rise in salaries and wages which is given according to rate of inflation. So that the government employees and pension earns should not be effected badly. Interest rate is also determined accordingly because rising inflation decreases the real interest rate. The inflation figure is also of use to the investors, trade unions, citizens and official bodies.
If the statistics of inflation are inaccurate then it would be very difficult to determine to direction of and level of action. It will lead to inappropriate decision making and worsening position of the economy. It results in lack of effectiveness of policy to achieve other economic aims as well like, unemployment, economic growth and balance of payment favourable. It may lead to errors in planning and real values may not be maintained. So, in short, we concluded that it is very important to have an accurate measure of inflation.

Q.4(b) Discuss the methods and problems involved in constructing an accurate measure of the rate of inflation. [12]

See Question No. 3 June 2007

4(a) Explain why the successful operation of the division of labour depends upon the use of money. [8]

Division of labour refers to the situation in which labour is divided in such a way that every labourer can perform some specific task. As in the recent world, production of goods takes place at a very large scale.

Therefore, every person cannot concentrate on every task. So, division of labour became necessary. After division of labour, every person performs his own task and becomes more efficient in it. In the past, our primitive ancestors were involved in barter system in which they exchange good with other goods. But it was a very difficult job. There must be coincidence of wants, whereby two people must possess the goods or services, which each other want.

For example, if a person needs or wants a bicycle and he has a cow for exchange then he will have to find out the person who has a bicycle and he also needs a cow. It will make a successful transaction otherwise; exchange will not take place. So, everyone in the past was trying to produce everything he needs or wants. But after the invention of money division of labour and specialization became possible.

Everyone who is efficient in specific task keeps on doing that and gets the reward in the form of money. So, he needs not to produce everything he needs rather he purchases those things with money.

Money as we know is something, which is generally acceptable as a medium of exchange and is used to store the value. Money performs the functions four, a medium, a value, a standard, a store. People can use money as a medium of exchange which is acceptable for the seller and buyers are also willing to pay to purchase something. It is possible because money is generally acceptable and can be divided into smaller units as per requirement of a transaction.

People can also take loans from the financial institutions, can buy on credit and make repayment in future as a deferred payment, which is again possible through use of money. So, banking system can also operate successfully through the use of money. Money also performs its function to store the value. Goods lose their value with the passage of time. So, the people produce and sell their goods or services and get money to store the value or wealth.

As we know goods lose their value with the passage of time, on the other hand money has stability in its value which helps in storing the value. In short, we can say that money is of much importance, for the successful operation f the division of labour.

(b) Discuss whether it is the behavior of producers, consumers or governments that is most likely to cause inflation. [12]

See Q.4b June 2003

With a conclusion that inflation is experienced because of higher AD (which may be due to the act of consumers, producers and the government), fall in AS (which is the act of producers, normally monopoly firms) or rise in money supply in the economy (which is the act of central bank of the country i.e. government).

Question No. 3 November 2012/21

3(a) Explain, with the use of an aggregate demand (AD) and aggregate supply (AS) diagram, the different effect of cost-push and demand-pull inflation on real output. [8]

Real output falls due to inflation because rise in price results in fall in purchasing power of money income. Real output is the nominal output after the removal of distorting effect of inflation.

For explanation of demand and cost push inflation see June 2011/22/4b

Question No. 3 June 2013/22

3 (a) Define the components of aggregate demand and, with the help of a diagram, explain how an increase in spending in an economy might result in inflation. [8]

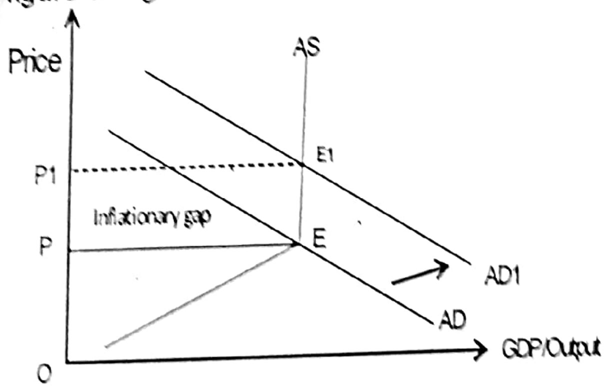
Components of aggregate demand refers to the elements on which aggregate demand is dependent. These include consumption, investment, government expenditure and net exports. It is shown in the following formula;

$$AD = C + I + G + (X - M)$$

Consumption is that part of consumer income which is spent on routine matters. Investment refers to the purchase of those fixed assets which result in increase in productive capacity of an economy. Government expenditure means the cost borne by the government and can be of current or capital nature. For example, payment of salaries of government staff, repair and maintenance of public goods and construction of road, building, bridges, hospitals, seaports and airports and subsidy paid to the producers to support them.

Exports refer to the selling of goods and services to the rest of the world. Selling goods to the other countries is known as visible trade and selling services is known as invisible trade. The last component of aggregate demand is imports which refer to the buying of goods and services from other countries. If we deduct imports from exports, then the result is would be known as net exports.

Increase in sending in economy means increase in consumption by the consumers on consumable item, producers spending on capital goods or government spending on repair and maintenance of public and merit goods. Rise in AD due to any or all of the above mentioned factors will lead to rightwards shift in AD curve. It will cause demand pull inflation in the economy. We know that inflation is persistent rise in general price level and demand pull inflation is inflation caused by increase in aggregate demand in the economy. It can be shown in the following figure using AD and AS curves;



In the above diagram, initially economy is supposed to be at 'E' where price is P. A rise in aggregate demand due to increased spending will shift the AD curve to the right to AD1 and new equilibrium will take place at 'E1' and price level will rise to 'P1' which refers to inflation. The gap between P1 and P is known as inflationary gap caused by higher aggregate demand.

(b) If an economy is experiencing inflation, discuss the view that its government should be more concerned about the external effects than its effects within the domestic economy. [12]

Controlling inflation is one of the objectives of government policy because it not only deteriorates the economic conditions of the country within its national boundaries rather it has its harmful effects on the international market as well. Government should be concerned about the internal as well as external effects of inflation. However, government may prioritize to overcome this issue.

Question No. 4b June 2003 add following conclusion

From the above discussion we may conclude that government must be concerned about internal as well as external effects of inflation. However, if the country is more relying on international trade then external effects will be more harmful and government should give priority to remove it. On the other hand, if the country is relying on domestic trade then internal effects will be more harmful.

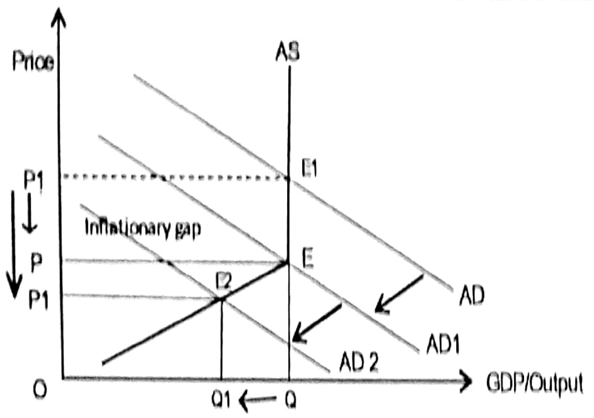
Question No. 4 November 2013

4 (a) Explain with the help of a diagram, how a policy of expenditure dampening in an economy would affect aggregate demand, prices and output in that economy? [8]

Expenditure dampening policies include the tools of fiscal and monetary policies to dampen (decrease) expenditure in an economy which are interest rate, taxes, subsidies and deflation.

Expenditure reducing or dampening policy is designed by the government to reduce the total spending in the economy. It includes deflationary fiscal and monetary policy. In deflationary fiscal policy government increases income taxes and decreases government expenditures.

A rise in income tax reduces the disposable income of individuals due to which their purchasing power falls. Lower purchasing power means lower purchases within the economy as well, which brings deflationary effects on the aggregate demand (AD). A country may experience a persistent rise in its general price level due to higher aggregate demand (AD) which is known as demand pull inflation. Dampening policies will have the effect on AD as;



The above diagram indicates that initially equilibrium is at point "E1" which is above full employment level, where price is "P1" and output is "Q". A fall in aggregate demand will shift AD curve to the left to AD1 where economy is at full employment and output is the same as before. But a further fall in aggregate demand will set equilibrium below full employment level at E2 where price will fall and output will also decrease.

It may also lead to higher unemployment in the economy as well. Similarly, in deflationary monetary policy, interest rate is increased and money supply is decreased. High interest rate attracts the foreigners to demand more currency in the foreign exchange market but on the other hand, fall in money supply will deflate the other economy.

(b) Discuss whether the policy of expenditure switching is more appropriate than the policy of expenditure dampening in an economy with the large balance of payment current account deficit and a high rate of inflation? [12]

See June 07, 4a

Question No. 4 June 2014

4 (a) Using diagrams, explain the difference between demand-pull and cost-push causes of inflation. [8]

(See demand and cost push inflation in **Question No. 4a June 2003**

(b) Distinguish between the domestic and external consequences of inflation and discuss which is most damaging to an economy. [12]
See Question No. 4b June 2003

Question No. 4 November 2014

4 (a) Explain how a rise in the rate of interest might cause a shift in an economy's aggregate demand curve. [8]

(b) Discuss whether inflation is more likely to be caused by a shift in an economy's aggregate demand or a shift in its aggregate supply. [12]

Attempt it at your own to test your knowledge

Question No. 4 Nov 2017

4 (a) Explain what is used as money in a modern economy. Consider how an increase in the money supply can cause inflation. [8]

Attempt it at your own to test your knowledge

(b) Discuss the consequences of high inflation. Consider whether the internal consequences can ever be more serious than the external consequences in an economy that has extensive foreign trade. [12]

Attempt it at your own to test your knowledge

Question No. 2 November 2016

2 (a) Explain what is used as money in a modern economy and how an increase in the quantity of money can cause prices to rise. [8]

Attempt it at your own to test your knowledge

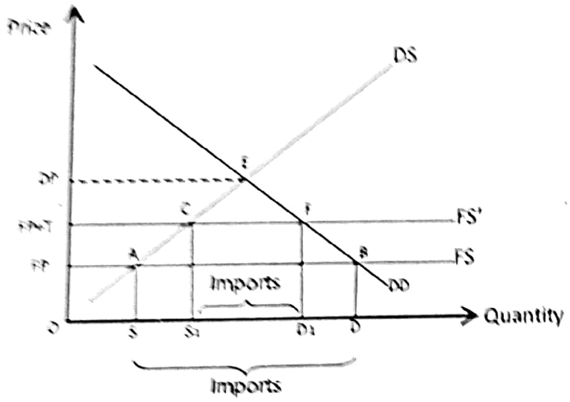
International Trade and protectionism

Question No. 3 June 2003

3(a) Explain the methods that a government might use to protect its domestic industries from foreign competition. [8]

Protection of domestic industries from foreign competition is of much importance. So, in this regard, government can use different methods. First of all, government can impose high tariff on the imported goods to reduce the volume of imports coming into the country. Secondly, quota, embargo, subsidy and exchange control policies can be practiced to protect local industry.

The imposition of tariff makes imports expensive as compared to the locally produced qualitative goods. This phenomenon is shown in the following figure;



According to the above figure DD is domestic demand curve and DS is domestic supply curve where the equilibrium price in the local market is DP. While FS is the foreign supply curve so, the price of imported goods is FP and at this price domestic suppliers will supply "S" quantity but the local people will demand quantity "D". So, the gap between "S" and "D" shows imports.

After imposition of tariff, foreign supply will be FS' and so the price will rise to FP+T. Now, people will only import the quantity between "S_1" and "D_1".

In this way, the volume of imports will fall and finally people will use the domestically produced goods and local industry will flourish.

Government can also protect the local industry by imposing **quota** which is physical limit imposed on the quantity of goods to be imported into the country in a specified period of time. It is typically set below the free trade level of imports. If the quota is set below the free trade level of imports it is known as ***binding quota*** but it would be ***non-binding*** if set above free trade level of imports.

Embargo is another tool of protectionism which is zero quota or sanction on some specific product or a country. It is 100 % ban on the imports of some specific product or a country so that imports should come under control and deficit can be removed. It is considered as a very cruel decision of a country against legal products. However, if it is set for illegal products, it is considered as a good decision like alcoholic product and imports from enemy are not allowed in different countries.

Subsidy to the exporters is the grant provided by government to local producers so that they can produce import substitutes within the country as well as exports may be promoted. It also helps in removing deficit in the BOP and protecting local industry from international competition.

Exchange control is policy of government to reduce the access of people to the foreign currency. When they have no or little access to the foreign currency, their spending on imports will come under control. Importing goods will be expensive as well as time taking process. Therefore, consumers will avoid to import and they will obviously use the locally produced goods. In this way, local industry will flourish and employment opportunities will rise.

Government can also check the volume of imports through product standard regulation, restrictions, complex documentation, license policy and special deposit scheme etc. These barriers will enforce the people to import less and use more locally produced goods.

(b) Discuss whether trade protection can ever be justified? [12]

Trade protection refers to the barriers created by a country to check the volume of imports coming into the country. It includes mainly tariff, quota and embargo which have already been explained in part (a) of this question. It can be justified on some grounds but it may not be always the case. These barriers help to protect infant local industry from international competition. This argument is also justified and validated even by the World Trade Organization. However, to improve efficiency of local industry, these barriers should be removed gradually and should not be kept forever.

It also helps in creating job opportunities, as local industry will flourish. However, it may only be valid in the short-run as efficiencies cannot be maintained for the long-run period of time. It means free trade may result in greater job opportunities due to higher volume of exports of qualitative goods and services.

Trade protection also helps to avoid dumping through which normally foreign firms try to penetrate in the international market by charging very low price. High tariff makes these goods expensive which help to avoid dumping practices.

However, if local industry is using imported raw material then it would lead to imported inflation. Producers' potential to produce may fall and it may affect the level of employment because employers would require lesser number of workers to produce lower output quantities. So, it causes a decline in economic health of a nation. Fall in imports reduces competition in the local market and it may experience a price hike. Some feedback effects may arise in a way, if one country imposes trade barriers on one country then that other may also impose such barriers on it as a retaliation and revenge.

Trade barriers help to correct the deficit in balance of payment and improvement in country's terms of trade but at the same time, wide variety of goods and services will not be available to the people leading their standard of living to fall. For example, if people of Pakistan continue importing luxurious cars from Japan, it may deteriorate the economic condition and balance of payment position of Pakistan.

Therefore, it is necessary to use protectionist measures to reduce the volume of imported cars. However, government should relax such barriers for imports of hybrid cars which are fuel effective as well as comfortable. Therefore, the issues caused by lack of fuel availability in Pakistan can be reduced to a certain level.

Consumer surplus in exporting country may rise because supply of goods within the country may due less volume of exports. But at the same time producers of exporting country will have to face loss of producer surplus due to lower price in their local market. On the other hand, free trade improves the standard of living of the people in a country as wide variety of goods will be available to them. Sometimes, local industry needs the raw material which is to be imported from abroad and trade barriers create hurdles in this regard. The element of freedom of choice for the consumers is also affected due to protectionism. Countries cannot get benefit of specialization and international trade. Political ill will may be created as the trading partners will not be happy with such policies.

However, a number of industries may be protected to ensure a diversified industrial structure to avoid the risk of over-specialization. Finally, we concluded from the above discussion that trade protection cannot always be justified.

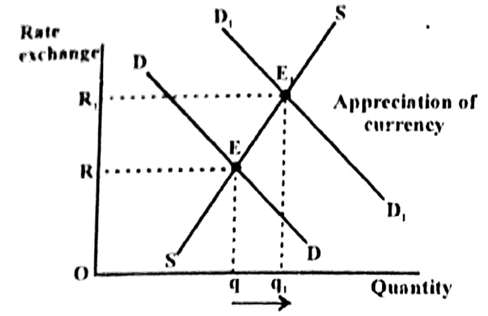
Question No. 3 Nov 2003

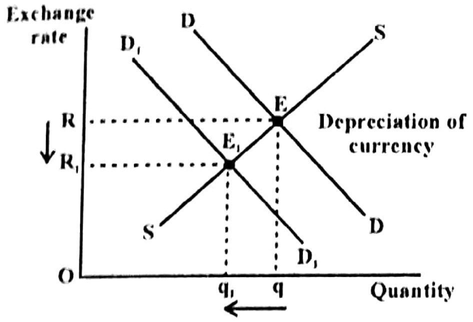
4(a) Explain what may cause a country's terms of trade to change. [8]

Terms of trade refers to the ratio between price index of exports and price index of imports. It is calculated as;

$$TOT = \frac{\text{export price index}}{\text{import price index}} \times 100$$

Higher terms of trade can fetch more quantity of imports with the same quantity of exports. A favourable term of trade makes imports cheaper and exports expensive. A term of trade becomes favourable if exchange value of domestic currency rises as compared to the foreign currency. A rise in the demand for exports increases the exchange value of currency because it will lead to rise in demand for its currency as demand for a currency is derived demand and a fall in demand for exports will lead to fall in the exchange value because demand for currency will also fall. It is shown in the following figures;





Appreciation improves TOT and depreciation deteriorates it. Similarly, rise in demand for imports results in depreciation of currency and fall in demand for imports appreciates the exchange value of a currency. Interest rate also has the positive effect on the value of currency and it is the case with terms of trade. However, the improvement in terms of trade results in surplus in the balance of trade in the short-run period because of inelastic demand for imports and exports. However, in the long run it will have adverse effect on the balance of trade because of elastic demand for imports and exports. It is called Marshall Lerner Condition.

Improvement in terms of trade also helps in achieving higher standard of living in a country as well. It may have some feedback effects as well because the favorable terms of trade of one country may worsen the terms of trade of another country. So, those countries may impose high tariffs which will lead to fall in exports of domestic country.

Similarly, if the domestic country imposes trade barriers on imports then it will make imports expensive and terms of trade will worsen because imposition of barriers will result in fall in supply of imported goods and their prices will rise. It will finally worsen the terms of trade due to higher import prices.

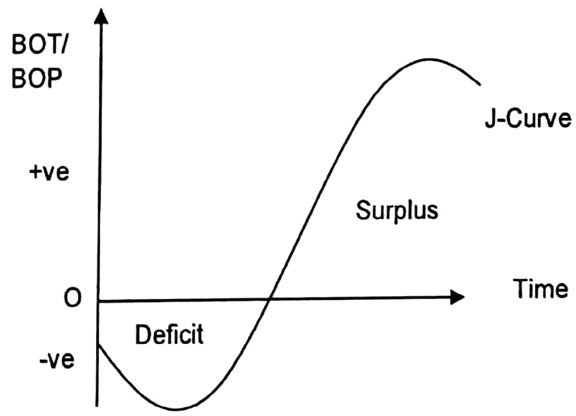
(b) Discuss whether a worsening in a country's terms of trade will cause a worsening of its balance of trade. [12]

Balance of trade is the summary of all the visible items traded by a country with rest of the world. When receipts from other countries are more than the payments, balance of trade is said to be surplus and when payments are more than the receipts from the other countries, balance of trade is known as deficit, worsen or deteriorated.

Terms of trade is worsened when prices of imports are more than prices of exports.

It may be the result of depreciation of currency due to lower demand for exports and greater demand for imports. However, there can be some other reason for unfavorable terms of trade. But its impact on balance of trade depends upon the price elasticity of demand for imports and exports.

According to Marshall Lerner condition in the short-run period of time balance of trade will further deteriorate but in the long-run it will become favourable. It is shown below with the help of J-Curve;



In the short-run period, price elasticity of demand for imports and exports is inelastic. Therefore, rise in price of imports will lead to rise in import payments because when imports are inelastic a greater rise in price will lead to less than proportionate fall in volume of imports and resultantly import payments rise and fall in price of exports will lead to lower export earnings because a fall in price will result in less than proportionate rise in quantity demand for exports.

However, in the long run period of time price elasticity of demand for imports and exports becomes elastic due to which a small rise in price of imports will lead to a greater fall in volume of imports and resultantly import payments will fall. On the other hand, a smaller fall in price will lead a more than proportionate rise in volume of imports and resultantly export earnings will rise. In this way, balance of trade will go into surplus.

So, from the above discussion we concluded that worsening terms of trade does not always cause worsening the balance of trade.

Question No. 4 November 2005

4(b) Discuss whether free international trade in goods should be encouraged. [12]

International trade in goods refers to buying and selling of goods between more than one country. Free international trade in goods is buying and selling of goods where there is no trade barrier like tariff, quota or embargo. Free trade brings a wide range of benefits but some disadvantages as well. Free trade can be justified on following grounds.

When the people of a country can import quantitative goods from other countries at cheaper rates then it helps in improving the standard of living of the people as they can enjoy better quality and wide variety. Now people can import whatever, they want as consumer sovereignty will increase. Countries may specialize to set comparative advantage over others. Exports of a country may rise leading to surplus in balance of payment.

More job opportunities will be created due to promotion of trade so; unemployment rate will tend to fall. Factors of production will become mobile like labour and capital can be shifted from one country to the other. It may also help in maintaining the good relations with the people of other countries as well as with political parties.

But in real life it may have many harmful effects as well. Specially in case of developing economies unequal bargaining strength may prevent a fair sharing of the benefits. It may lead to unfair trading practices as well like dumping.

Dumping is actually price-discrimination at international level, as china does. It sells its goods having poor quality at very cheaper rates in developing economies which leads to poor standard of living in those countries. If any country gets monopoly position in the world, then it may charge very high prices for its products. Infant industry will not be able grow with a substantial rate.

Unemployment in the country may rise because of fall in domestic demand. It may cause the social evils in the society. In general, it may create distance problem, language problems problem of different weights and measures, different rules and regulations etc.

So, we can conclude that free trade does not bring only benefits it may have harmful effects as well. However, its harmful \effects can be reduced through a slow transition to the free trade. So, that people of both the countries can make necessary adjustments in this regard.

Question No. 3 Nov 2006

3(a) Explain the difference between absolute and comparative advantage. [10]

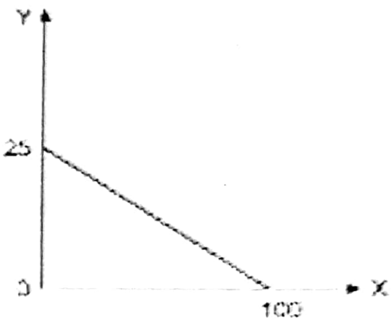
Comparative advantage suggests that a country should produce and specialize in that product which it can produce comparatively more than the other country with fewer resources. This concept is based on the idea of opportunity cost. One country may produce more of both the goods but it will specialize in the production of that good which causes lower opportunity cost.

On the other hand, absolute advantage exists when a country can produce more quantity of a good with fewer resources than other country.

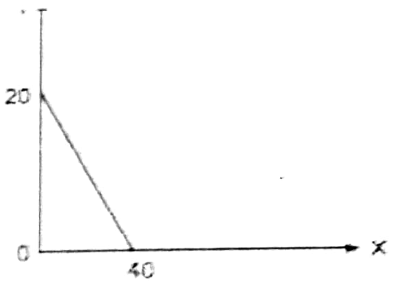
It is evaluated on the basis of absolute (clear cut) figures. It is further explained with the help of following schedule and diagram. These theories are based on the assumption that there are only two countries, only two products are produces and each country allocates 50% resources on each product.

Countries	Good X	Good Y
Country A	100	25
Country B	40	20
Total world output	140	45

According to the above table country A has an absolute advantage in the production of both the goods while country B has comparative advantage in the production of Y-Goods, because of lower opportunity cost i.e. 1Y cost 2X but country A has opportunity cost 1Y : 4X.



Country (A)



Country (B)

So, finally, both the countries will specialize accordingly to get comparative advantage and the benefit of international trade.

(b) Discuss whether the principle of comparative advantage is a satisfactory explanation of the trade pattern of an economy with which you are familiar. [10]

The principle of comparative advantage states that countries specialize in producing and exporting the goods that they can produce at a lower relative cost than other countries. Trade is possible only if cost ratios of commodities are different between countries. Differences in relative production cost determine the pattern of international trade.

According to Ricardo's theory of comparative advantage, trade between two countries A and B is possible even if a country A can produce every commodity cheaper than the country B. In this situation country A will export that commodity in which its advantage is greater and will import the other product. Country B has disadvantage compared to A in production of both the goods but it will specialize in only one good in which its disadvantage is relatively less.

"It benefits a country to specialize in the production of that commodity in which it has the greater comparative advantage or the least comparative disadvantage."

Comparative advantage may also depend upon the available resources, like Pakistan has more productive labour to produce primary/agricultural products as most of its population lives in rural areas and they are linked with agriculture sector.

However, the assumptions of this theory are totally unrealistic. Its assumptions include that there is no transportation cost between the countries. There are only two countries in the world, only two products are being produces which are mutually demanded by each country. All these assumptions are unrealistic. So, this theory is not applicable in real world.

There can be many obstacles to trade between countries; trade agreements between the countries can be unequal. Sometimes, a country may have resources but it cannot exploit these resources to produce goods. Over-specialization may lead to rise in unemployment in other industries. Countries should diversify to reduce the risk of loss and to use all the resources of the country efficiently.

Question No. 4 Nov 2008

4(a) How might opportunity cost help to explain the pattern of international trade? [8]

Opportunity cost refers to the cost of next best alternative forgone to choose another item. This concept helps to explain the pattern of international trade. Comparative and absolute advantage theories are used to explain it.

The principle of comparative advantage states that countries specialize in producing and exporting the goods that they can produce at a lower relative cost than other countries. Trade is possible only if cost ratios of commodities are different between countries. Differences in relative production cost determine the pattern of international trade.

According to Ricardo's theory of comparative advantage, trade between two countries A and B is possible even if a country A can produce every commodity cheaper than the country B. In this situation country A will export that commodity in which its advantage is greater and will import the other product. Country B has disadvantage compared to A in production of both the goods but it will specialize in only one good in which its disadvantage is relatively less.

"It benefits a country to specialize in the production of that commodity in which it has the greater comparative advantage or the least comparative disadvantage."

Comparative advantage may also depend upon the available resources, like Pakistan has more productive labour to produce primary/agricultural products as most of its population lives in rural areas and they are linked with agriculture sector.

However, the assumptions of this theory are totally unrealistic. Its assumptions include that there is no transport cost between the countries. There are only two countries in the world, only two products are being produces which are mutually demanded by each country. All these assumptions are unrealistic. So, this theory is not applicable in real world.

There can be many obstacles to trade between countries; trade agreements between the countries can be unequal. Sometimes, a country may have resources but it cannot exploit these resources to produce goods. Over-specialization may lead to rise in unemployment in other industries, which is again opportunity cost. So, specialization leads to opportunity cost. However, it differs between countries after specialization.

(b) Discuss whether the formation of regional trading groups, such as ASEAN and NAFTA, is desirable. [12]

The regional trading groups or blocs may be free trade areas; they encourage free trade between member countries and can be bilateral or multilateral. It may also be called economic integration. Since the Second World War there have been examples of groups of countries joining together for the purpose of stimulating trade between themselves and to get other benefits of economic cooperation. North American Free Trade Area (NAFTA) which includes USA, Canada and Mexico, Association of South East Asian Nations (ASEAN) are the examples of such unions.

It brings many benefits for the people of these trading blocs. It increases the trade to the wider extent. People can enjoy a wide variety and better quality of products. They can enjoy a better standard of living as their cost of living falls.

Removal of tariffs and quota enables the people to buy more at lower cost. Increased trade helps to specialize. Higher output, more employment opportunities for the people and high economic growth can be achieved through this phenomenon.

Countries can get comparative advantage from specialization and free international trade. People of these countries can also do jobs in member countries as they can do in their own country. It helps in improving efficiency and better use of resource at minimum possible cost.

However, the small scale agreements may have limited impact. It may prevent more benefits as countries have to follow the group commitments. So, these countries may be enforced to do what is written in the agreement. They cannot trade with the non-members to enjoy a wider range of goods as compared to the union. Their standard of living may depress if they want to get something from non-members but they cannot do so because of agreements. Some more powerful countries can get unfair advantage over the weaker countries. These countries will have to follow complicated rules and regulations. In short, we can say that these agreements may be better than facing trade barriers in the international market; however, these agreements may be inferior to wider global agreements.

Question No. 4 Nov 2009

4(a) Explain the 'infant industry' and anti-dumping arguments for the introduction of tariffs. [8]

Tariff is a form of tax which is imposed on the imported goods with a view to reduce the volume of imports. It is the part of expenditure switching policies in which people switch their expenditures from imports to the locally produced goods. Tariff acts as a strong barrier in international trade. While an infant industry is one which has a potential comparative advantage, but currently, it is too small or young to gain great economies of scale and has less trading experience.

Imposition of tariffs will reduce the volume of imports coming into the country and it will allow time to grow and become efficient. It will improve its quality and quantity to compete at international level. It also helps in improving the balance of payment position and achieving high standards of living of the local population. However, there tariffs will be removed when the industry is too mature to deal at international level.

Dumping refers to the selling of goods in international market below the cost of production. The main aim of such action is to capture the customers at higher level. It can also be achieved through the support of government as well. Imposition of tariffs will make these goods expensive to avoid dumping. Dumping is harmful as it may help the country or a firm to get monopoly position in the market. So, then they may exploit the customers as well. So, tariffs act as an anti-dumping policy.

Dumping may deem to create unfair competition between the small local firms and the large international organizations. So, it threatens the survival of small firms and is against the norms of free trade.

(b) Discuss whether trade arrangements, such as the European Union or the South Asian Free Trade Area, encourage or discourage the benefits of free trade. [12]

European Union and the (SAFTA) has formed trading bloc and are emerged in economic integration. SAFTA is the trading bloc for free trade among Pakistan, India, Afghanistan, Maldives, Bhutan, Bangladesh and Sri-Lanka.

It helps the members to trade with each other free of barriers, but they have separate policies on trading with the non-members. Free trade between the countries encourages competition among them to get competitive advantage over others, each of them may use improved techniques of production and they can get great economies of scale and better efficiency in production of goods and services in no time.

Specialization may help in producing more at lower prices. So, member countries get goods comparatively at lower prices. These countries can enjoy a wider range of goods for their improved standard of living.

Trade arrangements may vary from relatively loose free trade areas to very structured economic unions. In free trade area countries may trade with each other freely and they have separate policies with the rest of the world. While in European Union countries increase trade and cooperate with each other and have common external barriers (Tariffs) for non-members.

They have harmony in rules and regulations fiscal and monetary policy etc. Free trade among countries will help in achieving price stability, full employment and economic growth. The countries may create trade to get comparative advantage. Level of economic activity will rise and countries may move towards economic boom.

But if it causes trade diversion then the final result of welfare will be uncertain.

Trade diversion refers to a situation where trade shifts from lower cost producers outside the trading area to high cost producers within the bloc. So, countries will not be able to get benefit of comparative cost advantage. The number of trading arrangements has been increasing so extending the benefits.

For non-members there is reduced opportunity to have free trade to get its benefits. Countries may have to follow the group commitments even though they feel it disadvantageous for them.

Benefits of arrangements the members and participants as strong members can get advantage over others, due to which unemployment and other economic issues may rise.

Question No. 3 November 2009/21

3(a) Explain why it is usually more difficult to trade internationally than domestically. [8]

Domestic trade refers to the buying and selling of goods and services in the local market within the national boundaries of a country. While international trade is buying and selling of goods and services out of the national boundaries of a country. Both the trade can be similar in purpose, need and nature as both have the purpose of profit motive both need aids to trade (i.e. transport, communication, warehousing, advertisements, banking and insurance etc).

They are different from each other as they have different national boundaries. So, it becomes comparatively difficult to trade, at international level. In domestic trade same currency is being used throughout the country, while in international trade different currencies are being used. For example, if traders from Pakistan have to trade with USA, they would be dealing with Pak rupees and US dollar. Similarly, if they are trading with Japan, Venezuela, China, UK then they would be dealing in Yen, Bolivares, Yuan and Pound Sterling. Again it may create difficulty for exchanging their domestic currency against these currencies and their exchange rate continuously tends to change. There can be some trade barriers as well including tariffs, quota and embargo. It is an obstacle for trade at international level.

In domestic market everyone knows the rules and regulations in the local market while at international level people have to learn about the rules and regulations of different countries which create problems for the traders. For example, traders from Pakistan may be well aware about the rules to be followed within Pakistan but they don't know the norms to be followed in UK. So they have to spend a great deal of money and time to learn those rules for proper trading.

Sometimes, traders expect something in certain way but later on they may have to pay fines if they were not following the actual rule.

Different languages in international trade are again a problem for the businessmen as they have to communicate properly with the trading partners. Selection of free trade area and economic integration may reduce fair competition among the countries. Traders need to know different cultures, traditions and taste of the people living in different countries which is again a difficult job. So, they have to spend much on research of the market to know about all the above elements.

(b) Discuss, with examples, how far the global distribution of factors of production determines what a country imports and exports. [12]

Factors of production refer to the resources used to produce goods and services. Factors of production are land, labour, capital and enterprise and these factors are available irregularly around the world. Oil and mineral reserves are the examples of land which are natural resources technology, machinery and lose tools etc are the examples of capital. Skilled labour and human resource is the part of labour. While enterprise is the risk taking ability to combine land, labour and capital to produce goods and services. Every country produces according to the available resources to get comparative advantage. It is explained as;

The principle of comparative advantage states that countries specialize in producing and exporting the goods that they can produce at a lower relative cost than other countries. Trade is possible only if cost ratios of commodities are different between countries. Differences in relative production cost determine the pattern of international trade. According to Ricardo's theory of comparative advantage, trade between two countries A and B is possible even if a country A can produce every commodity cheaper than the country B. In this situation country A will export that commodity in which its advantage is greater and will import the other product. Country B has disadvantage compared to country A, in production of both the goods but it will specialize in only one good in which its disadvantage is relatively less.

"It benefits a country to specialize in the production of that commodity in which it has the greater comparative advantage or the least comparative disadvantage."
Comparative advantage may also depend upon the available resources, like Pakistan has more productive labour to produce primary/agricultural products as most of its population lives in rural areas and they are linked with agriculture sector.
However, the assumptions of this theory are totally unrealistic. Its assumptions include that there is not transport cost between the countries. There are only two countries in the world, only two products are being produces which are mutually demanded by each country. All these assumptions are unrealistic. So, this theory is not applicable in real world.
There can be many obstacles to trade between countries; trade agreements between the countries can be unequal. Political issues between countries are also there. Unequal bargaining power among countries also affects the trade pattern. Unrealistic assumptions of comparative cost theory may mean that trade does not reflect the factor distribution. Sometimes, a country may have resources but it cannot exploit these resources to produce goods.

Question No. 4 November 2009/22

4(a) Compare the aims and features of a free trade area with those of an economic union. [8]

Free trade area aims to achieve trade free of barriers between its members. But all the countries have independent and separate policies with the non-members it improves the trade volume of member countries as there is no tariff, quota or embargo between them. It forms a trading block and is referred to the economic integration.
South Asian Free Trade Area (SAFTA) I an example of free trade area which is formed among Pakistan, Sri-Lanka, India, Afghanistan, Nepal, Maldives, Bhutan and Bangladesh. These countries have removed trade restrictions among themselves but they have separate policies with the non-members.
An economic union aims at major integration, where member countries can trade with each other freely but they have common external tariff policy for the non-member.
The European Union (EU) is an example of economic union. The people of these countries can move in the member countries as they can do in their own countries. Similarly, they can do jobs over there as well. It enhances the volume of trade between the countries. An economic Union also has the harmonization of rules and regulations in the member countries. They have the same policies regarding taxation and agriculture etc. They have a common currency as a medium of exchange.
Countries can specialize and trade with each other freely to get comparative advantage according to the availability of resources. They can achieve great economies of scale and price competitiveness. However, they have to follow the group commitments which may not be in favour of some country.

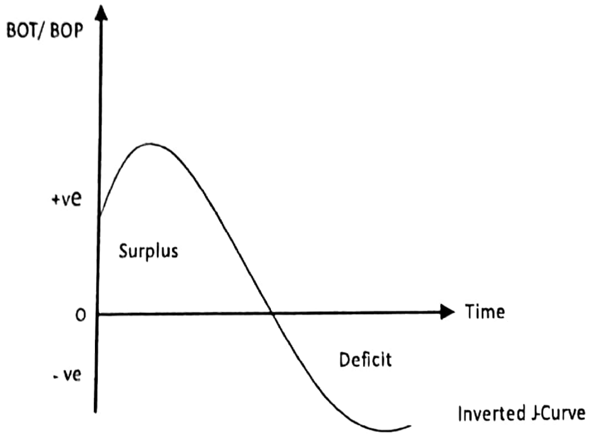
(b) Discuss whether an improvement in a country's terms of trade always works to its benefit. [12]

The terms of trade (TOT) measures the average price of a country's exports against the average price of its imports. It is calculated as;

$$TOT = \frac{\text{export price index}}{\text{import price index}} \times 100$$

An improvement in terms of trade means that the value of a currency has appreciated and it will make imports cheaper and exports expensive. This gives the ability to imports more with the given quantity of exports. It will help in improving the standard of living of the people is a country. Appreciation of currency refers to the rise in value of a currency in terms of another currency, in freely floating exchange rate system. Appreciation makes imports cheaper and exports costly and according to Marshall Learner condition in the short-run period of time balance of trade and balance of payment surplus will further increase because of inelastic demand for imports and exports.
In spite of a rise in prices of exports, volume of exports will not decrease with substantial amount so export earnings will rise and quantity of goods imported will increase with a

smaller ratio in spite of fall in their prices due to which imports payments will tend to fall and finally balance of trade surplus will further increase. But in the long run demand for imports and exports will become elastic due to which import payments will rise and export earnings will fall and balance of trade will move to the deficit, as shown with the help of inverted J-curve.



It reduces the pressure of finished imported goods prices due to which inflationary pressure in the economy also falls. The low price of imported raw material will also keep costs of production low. Standard of living in the country will also improve as people will be able to use more quantity of better quality imported goods. Foreign investments will also be encouraged. However, it will have some feedback effects as well. Surplus of one country Leads to the deficit of another country and that country may impose some barriers on our exports. But mainly it will bring benefits for the country.

Question No. 2 June 2010/22

2(b) Discuss how well comparative advantage explains the pattern of international trade. [12]

The principle of comparative advantage states that countries specialize in producing and exporting the goods that they can produce at a lower relative cost than other countries. Trade is possible only if cost ratios of commodities are different between countries. Differences in relative production cost determine the pattern of international trade.

According to David Ricardo's theory of comparative advantage, trade between two countries A and B is possible even if country A can produce every commodity cheaper than the country B. In this situation, country A will export that commodity in which its advantage is greater and will import the other product. Country B has disadvantage compared to A, in production of both the goods but it will specialize in only one good in which its disadvantage is relatively less.

"It benefits a country to specialize in the production of that commodity in which it has the greater comparative advantage or the least comparative disadvantage."

Comparative advantage may also depend upon the available resources, like Pakistan has more productive labour to produce primary/agricultural products as most of its population lives in rural areas and they are linked with agriculture sector.

However, the assumptions of this theory are totally unrealistic. Its assumptions include that there is not transport cost between the countries. There are only two countries in the world, only two products are being produces which are mutually demanded by each country; no trade barriers, perfect factor mobility and perfect information. All these assumptions are unrealistic. So, this theory is not applicable in real world.

There can be many obstacles to trade between countries; trade agreements between the countries can be unequal. Sometimes, a country may have resources but it cannot exploit these resources to produce goods due group commitment. Over-specialization may lead to rise in unemployment in other industries.

Trade would not be beneficial if opportunity costs for both the countries are equal. Countries should diversify to reduce the risk of loss and to use all the resources of the country efficiently. Although comparative advantage theory is unrealistic yet it is a good explanation of pattern of international trade.

Question No. 4 November 2011/22

4 (a) Explain what might cause an improvement in a country's terms of trade. [8]

Terms of trade refers to the ratio between price index of exports and price index of imports it is calculated as:

$$TOT = \frac{\text{export price index}}{\text{import price index}} \times 100$$

Higher terms of trade can fetch more quantity of imports with the same quantity of exports. A favorable term of trade makes imports cheaper and exports expensive. A term of trade becomes favorable if exchange value of domestic currency rises as compared to the foreign currency.

A rise in the demand for exports increases the exchange value of currency and a fall in demand for exports will lead to fall in the exchange value. Similarly, rise in demand for imports results in depreciation of currency and fall in demand for imports appreciates the exchange value of currency.

Interest rate also has the positive affect on the value of currency and same is the case with terms of trade. However, the improvement in terms of trade results in surplus in the balance of trade in the short-run period of time because of inelastic demand for imports and exports. But in the long-run it will have adverse effect on the balance of trade because of elastic demand for imports and exports. It is called Marshall Lerner Condition. Improvement in terms of trade also helps in achieving higher standard of living in a country as well.

It may have some feedback effects as well because the favorable terms of trade of one country may worsen the terms of trade of another country. So, those countries may impose high tariffs which will lead to fall in exports of domestic country. Similarly, if the domestic country imposes trade barriers on imports then it will make imports expensive and terms of trade will worsen.

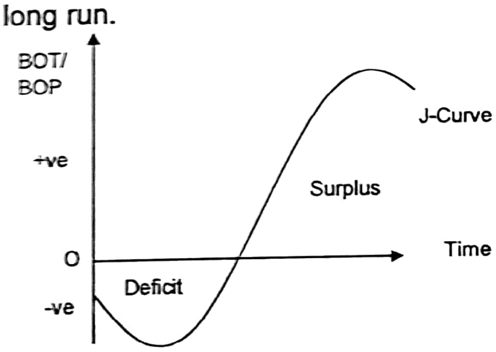
(b) Discuss whether a country should be more concerned by a fall in its terms of trade or a fall in its domestic price level. [12]

Terms of trade is worsened (falls) when prices of imports are more than prices of exports. It results in devaluation of a currency.

It may affect balance of trade of the country. Balance of trade is the summary of all the visible items traded with rest of the world. When receipts from other countries are more than the payments then balance of trade is said to be surplus and when payments are more than the receipts from the other countries then balance of trade is known as deficit or worsen/deteriorated balance of trade. Devaluation makes imports expensive and exports cheaper. According to Marshall Lerner condition in the short-run period of time balance of trade will further deteriorate but in the long-run period of time balance of trade will become favorable.

In the short-run period of time, price elasticity of demand for imports and exports is inelastic. So, rise in price of imports will lead to rise in import payments and fall in price of exports will lead to lower export earnings.

So, balance of trade will deteriorate. But in the long-run elasticity becomes high. Due to which rise in price of imports will result in fall in import payments and a fall in price of export will result in higher export earnings. In this way, balance of trade will become surplus. This phenomenon is shown below with the help of J-Curve. The figure shows further deterioration (deficit) initially in the short run, and it will improve (will become surplus) in the long run.



In the long run employment opportunities will rise in the country and hot money coming into the country will help to achieve better standards of living in the economy.

However, there may be more imports and domestic demand for goods and services may fall due to which deflation may occur in the economy which is very harmful for the economic conditions of the economy.

It may harm business confidence among investors. Consequently, unemployment may rise in the economy.

But it will increase international competitiveness of the country. In short we concluded that fall in terms of trade have both the effects positive as well as negative on the economy.

Question No. 4 November 2012/21

4(a) Explain the different types of international economic integration. [8]

Different types of international economic integration are discussed below;

European Union and the (SAFTA) has formed trading bloc and are emerged in economic integration. SAFTA is the trading bloc for free trade among Pakistan, India, Afghanistan, Maldives, Bhutan, Bangladesh and Sri-Lanka. It helps the members to trade with each other free of barriers, but they have separate policies on trading with the non-members free trade between the countries encourages competition among them to get competitive advantage over others, each of them may use improved techniques of production and they can get great economies of scale and better efficiency in production of goods and services in no time.

Specialization may help in producing more at lower prices. So, member countries get goods comparatively at lower prices. These countries can enjoy a wider range of goods for their improved standard of living. Trade arrangements may vary from relatively loose free trade areas to very structured economic unions. In free trade area countries may trade with each other freely and they have separate policies with the rest of the world.

While in European Union countries increase trade and cooperate with each other and have common external barriers (Tariffs) for non-members. They have harmony in rules and regulations fiscal and monetary policy etc.

Free trade among countries will help in achieving price stability, full employment and economic growth. The countries may create trade to get comparative advantage. Level of economic activity will rise and countries may move towards economic boom. But if it causes trade diversion then the final result of welfare will be uncertain.

Trade diversion refers to a situation where trade shifts from lower cost producers outside the trading area to high cost producers within the bloc.

So, countries will not be able to get benefit of comparative cost advantage. The number of trading arrangements has been increasing so extending the benefits. For non-members there is reduced opportunity to have free trade to get its benefits.

Countries may have to follow the group commitments even though they feel it disadvantageous for them. Benefits of arrangements the members and participants as strong members can get advantage over others, due to which unemployment and other economic issues may rise.

(b) Discuss the possible economic effects of a global ban on all forms of trade protection. [12]

Protection of domestic industries from foreign competition is of much importance. So, in this regard, government can use following methods. First of all, government can impose high tariff on the imported goods to reduce the volume of imports coming into the country. Imposition of tariff makes imports expensive as compared to the locally produced qualitative goods. Government can also protect the local industry by imposing quota which is a physical limitation on the quantity of goods to be imported. Reduce quota will help to improve trade position and protect local young industry.

So, people cannot import more than the quantity allowed in quota. Finally, imports will fall and local industry will be protected from international competition. Government can also set embargo which is 100% ban on import of some specific product or country. In this way, people will rely on the local goods and services.

Government can also check the volume of imports through product standard regulation, restrictions, complex documentation, license policy and special deposit scheme etc. These barriers will enforce the people to import less and use more locally produced goods. Ban on protectionism means free trade.

The global ban on all forms of trade protection means there will be no barrier, rather trade will be free from barriers. Free international trade in goods is buying and selling of goods where there is no trade barrier like tariff, quota or embargo.

Free trade brings a wide range of benefits but some disadvantages as well. Free trade can be justified on following grounds.

When the people of a country can import quantitative goods from other countries at cheaper rates then it helps in improving the standard of living of the people as they can enjoy better quality and wide variety. Now people can import whatever, they want as consumer sovereignty will increase. Countries may specialize to set comparative advantage over others.

Exports of a country may rise leading to surplus in balance of payment. More job opportunities will be created due to promotion of trade so; unemployment rate will tend to fall. Factors of production will become mobile like labour and capital can be shifted from one country to the other.

It may also help in maintaining the good relations with the people of other countries as well as with political parties. But in real life it may have many harmful effects as well. Specially in case of developing economies unequal bargaining strength may prevent a fair sharing of the benefits.It may lead to unfair trading practices, as well like dumping. Dumping is actually price-discrimination at international level, as china does. It sells its goods having poor quality at very cheaper rates in developing economies which leads to poor standard of living in those countries. If any country gets monopoly position in the world then it may charge very high prices for its products. Infant industry will not be able grow with a substantial rate.

Unemployment in the country may rise because of fall in domestic demand. It may cause the social evils in the society. In general, it may create distance problem, language problems problem of different weights and measures, different rules and regulations etc. So, we can conclude that free trade does not bring only benefits it may have harmful effects as well. However, its harmful \effects can be reduced through a slow transition to the free trade. So, that people of both the countries can make necessary adjustments in this regard.

Question No. 4 June 2013/22

4 (a) **Explain the meaning of the term 'protection' in the context of international trade and describe two methods of protection used by governments. [8]**

(See the answer of this question in June/02/3a)

(b) **Discuss, with examples, how international trade protection may affect consumers and producers in an economy and whether on balance protection can be justified. [12]**

(See the answer of this question in June/02/3b)

Balance of payment, Exchange Rate

Question No 4 June 2004

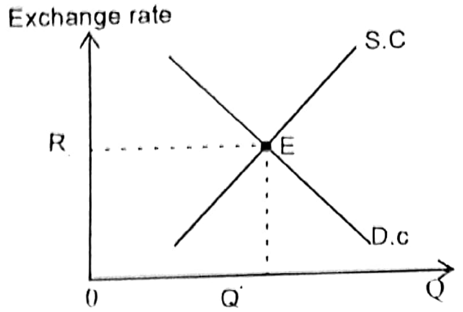
4(a) Explain how the determination of a floating exchange rate differs from that of a fixed exchange rate. [8]

Exchange rate is the price of a currency in terms of another currency.

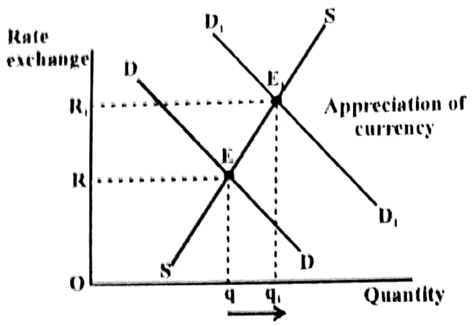
e.g. $ 1 = Rs. 100

or $\text{Re.}1 = \$\frac{1}{100}$

Floating exchange rate is a system in which value of a currency is determined through the forces of demand and supply of a currency. It is shown in the following figure;



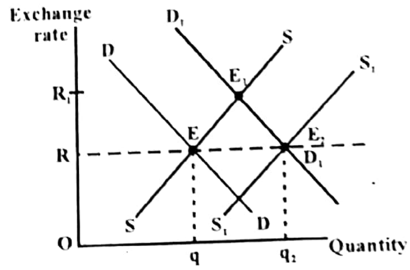
In freely floating exchange rate system value of the currency will be determined at point "E" where exchange value is "R". A rise in demand for currency will result in appreciation and fall in demand for currency will depreciate its value. Similarly, rise in supply of currency depreciates its value and fall in its supply leads to appreciation. These are shown in the following figures;



Demand and supply of currency and value of currency is also influenced by the balance of payment positions and speculative flows of funds. Surplus balance of payment increases the inflows; similarly, rise in interest rate on a currency also increases the inflows of currency.

Fixed exchange rate is a system in which the value of currency against other currencies is fixed by the central bank of a country by using foreign currency reserves.

When there is a rise in demand of a currency, central bank will also increase the supply of currency. Conversely, in case of a fall in demand for currency, central bank will also decrease the supply of currency to keep the value at fixed level. It is shown in the following figure;



Initially, equilibrium is at "E" where exchange rate of the currency is "R". Rise in demand of currency shifts the demand curve to the right to "D_1". If there is no government intervention then equilibrium will take place at "E_1" and exchange rate will rise but to keep it at fixed level central bank will also increase the supply, so it will shift to "S_1" and new equilibrium will take place at "E_2" and exchange rate will remain the same at "R".

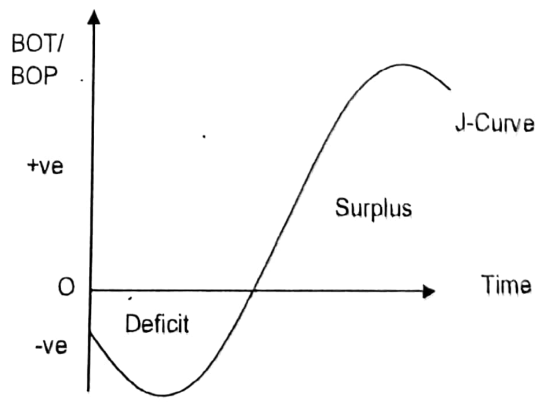
But in this case foreign currency reserves will tend to fall. If demand for currency falls, central bank will also decrease its supply and exchange rate will again remain the same, while foreign currency reserves available with the central bank will tend to rise. When there is rise in demand for currency, foreign currency reserves will fall.

(b) Discuss the circumstances in which reducing the exchange rate and introducing quotas are effective policies to tackle a trade deficit. [12]

Reducing exchange rate or devaluation of currency refers to the fall in value of currency deliberately by the central bank of a country. While quota is the physical limit set by the government to import goods from other countries. Devaluation affects the terms of trade of country negatively as due to devaluation, price of imports rises and price of exports falls.

According to Marshall Lerner Condition in short-run period of time balance of trade further deteriorates due to devaluation because price elasticity of demand for imports and exports is inelastic. A rise in price of imports results in increase in import payments. On the other hand, fall in price of export decreases the export earnings. So, balance of trade deficit will further rise in the short-run.

However, in the long-run balance of trade becomes surplus because of elastic demand for imports and exports. In the long-run period, a rise in price of imports will lead to fall in import payments and fall in price of export will lead to increase the total revenue from exports. So, balance of trade deficit will be removed. It is as;



The effectiveness of devaluation depends that there must not be supply bottlenecks in an economy that means there should be the capacity in the economy to produce more and export more. Similarly, the trading partners must not devaluate their currencies with greater ratio or retaliate in any other way. Trade deficit can also be removed by using other restrictive tools including tariff, quota or embargo.

Quota is the physical limit set on the volume of imports. It will lead to reduce the volume of imports and people will tend to use locally produce goods.

So, import payments will fall and balance of trade deficit will be corrected. Authorities must decide to set correct limit that can help reduce the volume of imports that is sufficient to correct the deficit. It means that quota should be set below the free trade volume of imports. Quota set at zero level of imports is called ban or embargo which is an extreme situation of quota.

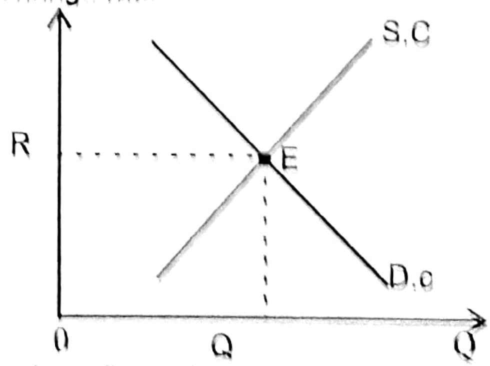
Therefore, devaluation and quota are the helpful in correcting the balance of trade deficit. However, it may lead to rise in inflation in the country, as less variety will be available in the domestic market.

QuestionNo3Nov2002

3(a) Explain how the international value of a currency is determined in a floating exchange rate system. [8]

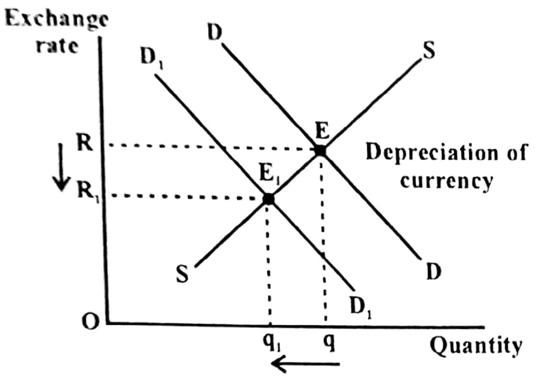
Floating exchange rate is a system in which the value of a currency is determined through the forces of demand and supply of that currency, while the demand for currency is a derived demand which depends upon the demand for its exports (visible and invisible) and capital inflows for investments etc. On the other hand, supply of currency is determined through the demand for imports (visible and invisible), and capital outflows etc.

So, the exchange rate of a currency is determined where demand and supply curve of that currency intersect each other. It is shown in the following figure;



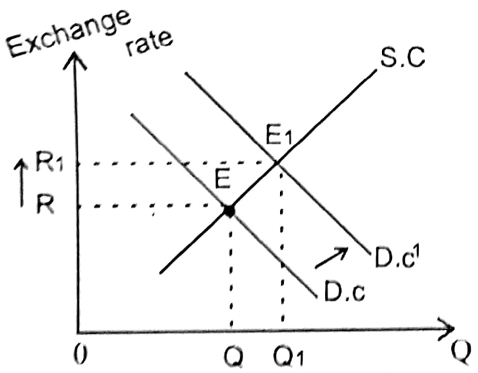
The above figure depicts that exchange rate of a currency let say dollar, is determined at "E" where demand and supply curve intersect each other, and the equilibrium exchange rate is "R".

It keeps on changing depending upon the demand and supply of currency. A fall in demand leads to its depreciation. It is shown in the following figures;



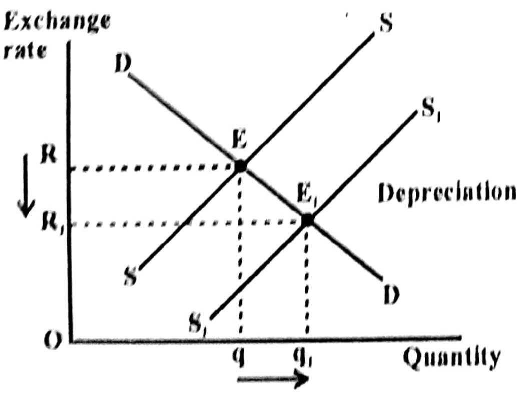
In above graph, initially equilibrium is at "E" and exchange rate is "R". A fall in demand has shifted equilibrium to "E_1" and exchange rate has depreciated to "R_1".

If demand for a currency rises, its exchange value will rise as shown below;

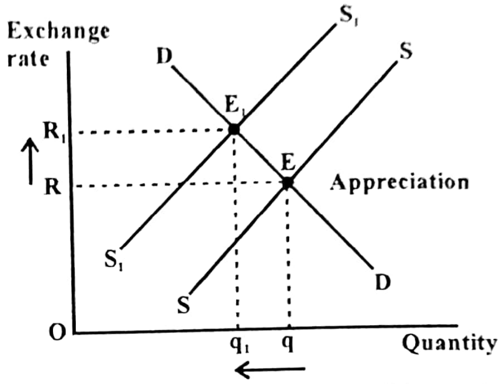


According to the above diagram, initially equilibrium is at point "E" where exchange rate "R". A rise in demand for currency shifts the demand curve from "DC" to "DC_1", new equilibrium is "E_1" and exchange rate has appreciated to "R_1".

Similarly, exchange rate will change due to change in supply of a currency. A rise in supply of a currency results in depreciation as shown as;



A fall in supply of a currency leads to its appreciation shown below;



Fall in supply has shifted equilibrium from E to E1 and rise in exchange rate from R to R1.

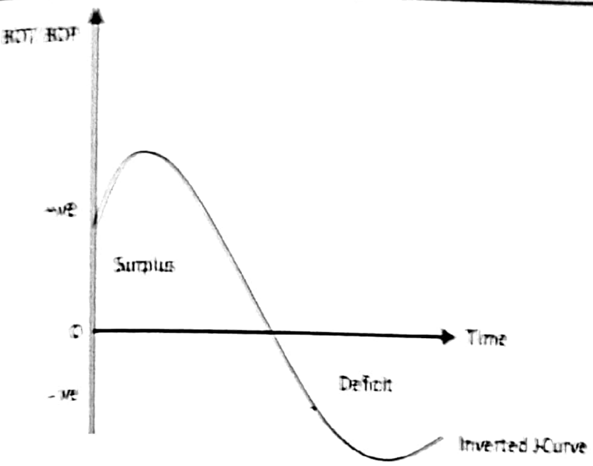
(b) Discuss whether an appreciation in the exchange rate is to the advantage of an economy. [12]

Appreciation of currency refers to the rise in value of a currency in terms of another currency. For example, in 2013 the exchange of dollar against Pak rupees was \$1=Rs110 and in 2014 it was \$1=Rs100. It shows appreciation of rupees against dollar.

In freely floating exchange rate system, appreciation makes imports cheaper and exports costly and according to Marshall Lerner Condition in the short-run period of time balance of trade and balance of payment surplus will further increase because of inelastic demand for imports and exports.

Despite of rise in prices of exports, volume of exports will not decrease with substantial amount, so export earnings will rise and quantity of goods imported will increase with a smaller ratio despite of fall in their prices due to which imports payments will tend to fall and finally balance of trade surplus or balance of payment current account surplus will further increase.

But in the long run demand for imports and exports becomes elastic due to which import payments will rise and export earnings will fall and balance of trade will move to the deficit, as shown with the help of inverted J-curve below;



The above figure clearly depicts that initially current account surplus is increasing in the short run while it is going negative area in the long run showing deficit in current account. In the long run demand for imports and exports is elastic due to which a little rise in price of export will lead to a dramatic fall in quantity exported. Therefore, export earnings will fall. On the other hand, fall in price of imports will lead to a dramatic rise in quantity imported. Therefore, import payments will fall. In this way, a lower export earnings and higher import payments will deteriorate current account position. According to Marshall, if the sum of price elasticity of demand for exports and imports is greater than one then an appreciation of currency would not be beneficial. However, the opposite result of the sum of elasticities of demand for exports and imports will make the situation favorable.
The other very important thing to be considered is economic condition in trading partner country. If the trading partner country is enjoying economic boom with high Gross Domestic Product (GDP) per person and employment at or near full employment, then appreciation of would be beneficial because such trading partner would be able to buy our goods and services even they are expensive. But if trading partner country is facing depression or recession then appreciation of our currency may not be beneficial and our trading partner may switch to some low price countries which can sell its goods at competitive prices, to avoid further loss. Appreciation also helps in improving the country's term of trade, which is the ratio between prices of exports and prices of imports expressed in percentage. Terms of trade is calculated as;

$$TOT = \frac{\text{export price index}}{\text{import price index}} \times 100$$

Appreciation increase export prices and decreases import prices. Therefore, numerator or top value will rise and denominator or bottom value will decrease and the result would be greater than 100. Whenever, the calculation of TOT gives the answer greater than 100, it shows positive movement in terms of trade but if it is less than 100 then it shows deteriorated state of TOT.
Appreciation also reduces the pressure of finished imported goods prices due to which inflationary pressure in the economy will also fall. When imported goods in the market are easily available at lower price, people are less likely to purchase locally produced goods, at high price. Therefore, aggregate demand for local goods will fall and demand pull inflation will experience a persistent fall.
Standard of living in the country will also improve as people will be able to use more quantity of better quality imported goods. Foreign investments will also be encouraged. However, it will have some feedback effects as well. Surplus of one country leads to the deficit of another country. So, that other country may impose some barriers on our exports. But mainly it will bring benefits for the country.

Question No 4 June 2005

4(a) Explain how a country's balance of payments is organized to account for all its international transactions. [8]

Balance of payment is organized to account for all the international transaction under three heads.

- ✓ Current Account
- ✓ Capital Account and
- ✓ Official Account

Current account: It is composed of trade in goods (visible trade), trade in services (invisible trade), income flows and current transfers. For example, if Pakistan imports a car from UK then it will be recorded as payment in the trade in goods part of current account of balance of payment. It is also known as debit item for Pakistan. Keep in mind the word credit shows income and debit shows expenditure.
But in the UK's current account it will be recorded as receipts in the trade in goods.

If visitors are coming into our country and spending on transport, communication and banking etc then it will be recorded as invisible export for our country and invisible import for that country whose visitors are spending in our country. Income flows shows the net inflow of cash in the form of interest, profit, dividends received from foreign companies and money sent by those who are working abroad etc.

Current account also accounts for current transfers. It includes the inflow and outflow of grants and aids overseas. In economics transfer payments are the payments made without taking any good or service. So, it may also include gifts sent by the foreigners to their friend living in our country.

Capital account: It is composed of transactions made to transfer the ownership of fixed assets. For example, if Mr. A who is the resident of Pakistan relocates in UK and shifts his business there by buying a factory there then it will be a credit item for UK capital account and debit item for Pakistan. However, later this factory can be sold to some UK residents or UK government. Similarly, a project of constructing a hospital abroad will also be recorded in capital account.

Official or financial or monetary account is composed of many items of capital account. However, its transactions also have impact on current account as well. It includes direct investments as well as portfolio investment and long term official borrowings. Direct investment coming into the country in form of factories, offices or retail and wholesale outlets then this investment will be recorded in official account but interest or profit sent back to the families in other countries will be recorded in current account.

For example, if there is direct investment of 100,000m pounds from UK to Pakistan then this amount will be recorded as inflow in Pakistan and outflow for UK. But the profit earned by the UK Company sent back to UK will be recorded in current account as inflow for UK and outflow for Pakistan. If profit earned by UK Company in Pakistan is reinvested in Pakistan, then it will again be recorded as direct investment.

Similarly, portfolio investment is also recorded in official. Portfolio investment means the investment on company's shares, debentures or securities etc.

For example, if a resident of Pakistan purchases shares of a UK company worth 10 m pounds then it will be outflow for Pakistan but inflow for UK. However, dividend or profit or interest paid by these companies to Pakistani resident will be inflow for Pakistan and will be recorded on receipts side of current account.

Loans taken by Pakistan from UK will be inflow for Pakistan but the interest paid on these loans will be recorded in current account as an outflow. Similarly, repayment of these loans will be outflow for Pakistan. From the above discussion we come to know that financial account is composed both current and capital account. Investment is an item of capital account while profit or interest received on this investment is recorded in current account.

Balancing items: Whenever there is deficit in the balance of payment due to more outflows and less inflows. There is need to balance it. This deficit can be paid through different sources like government may withdraw some reserves which are kept in the form of gold or foreign currency.

Changes in reserve assets are usually recorded in official account as an outflow to balance the overall figure. Sometimes, reserves are not sufficient to settle the deficit then government will have to get loan from central banks of foreign countries or may take loan from International Monetary Fund (IMF).

As balance of payment is composed by collecting a very huge data and there are many chances of mistakes, errors and omissions. Therefore, we also include net errors and omissions to balance the accounts. It is why we say that balance of payment is always balanced.

However, it does not mean that it will be automatically balanced rather government has to balance it anyway like by using reserves, taking loans from other countries central banks or from IMF and using the figure of net errors and omissions etc. However, if it is automatically balanced then there is no need for government actions.

(b) A country has a deficit on the current account of its balance of payments. Discuss whether this is necessarily harmful to the country. [12]

Current account is composed of trade in goods (visibles), trade in services (invisibles), income from investments and transfers of income. Current account is said to be deficit if outflow of various items exceeds inflows. The cause of the deficit, its size and its duration decides whether it is harmful or not. Current account deficit in visible part may be harmful if it lasts for a longer period of time, and is because of expensive imports. However, if it results in import of qualitative goods and leads to better standard of living in the country and is also covered by inflow of invisibles and transfers of income then it will not be harmful for the country, rather, it benefits for the economy.

If consumer goods imported into the country are causing deficit, then in the short-run it may improve the standard of living but later on it will bring harmful effects on the country's economic position. If current account deficit is caused by import of capital goods, then it will lead to increase in productive capacity of an economy. So, its potential to produce and export will rise and will be beneficial for the economy. In this way, an economy can get comparative advantage over other countries as well.

Sometimes, deficit is caused by invisibles (i-e import of services). This type of deficit is not harmful, as it leads to inflow of skills, experience and potential in the form of labour, capital and technological inflows into the country. However, if this part is in deficit because more visitors from our country are going abroad for entertainment and non-productive activities then it will enweaken the economy.

Similarly, foreign remittances may cause the deficit which may not be necessary harmful. For example, if investment on purchase of shares is made by the foreign residents and we are paying more in the form of dividend or interest then it is not harmful because it helps our domestic firms to grow. It may help in long-term foreign investments which help to improve capital account of balance of payment.

The deficit in the current account can be financed by using foreign currency reserves, excessive international borrowings however, it may deplete the foreign currency reserves and borrowings may increase the burden on the economy. Finally, we can conclude that deficit in current account is not necessarily harmful.

Question No 4 June 2006

4(a) Explain, with the aid of diagrams, how a government would maintain a fixed exchange rate. [8]

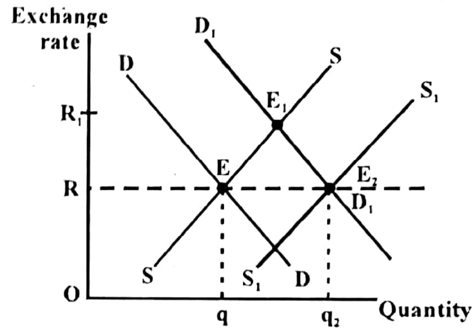
Exchange rate is the price of a currency in terms of another currency.

For example,

$ 1 = Rs. 100 OR Re 1 = $ 1/100

Fixed exchange rate is a system in which the value of currency against other currencies is fixed by the central bank of a country by using foreign currency reserves. When there is a rise in demand of a currency, central bank will also increase the supply of currency.

Conversely, in case of a fall in demand for currency, central bank will also decrease the supply of currency to keep the value at fixed level. It is shown in the following figure;

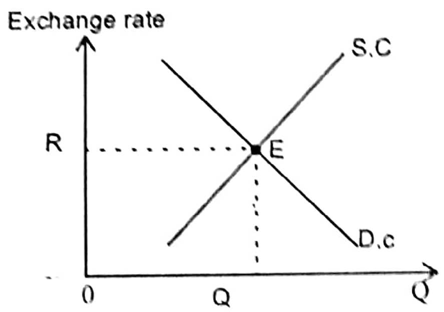


Initially, equilibrium is at "E" where exchange rate of the currency is "R". Rise in demand of currency shifts the demand curve to the right to "D_1". If there is no government intervention then equilibrium will take place at "E_1"and exchange rate will rise but to keep it at fixed level central bank will also increase the supply, so it will shift to "S_1" and new equilibrium will take place at "E_2" and exchange rate will remain the same at "R" but in this case foreign currency reserves will tend to fall.

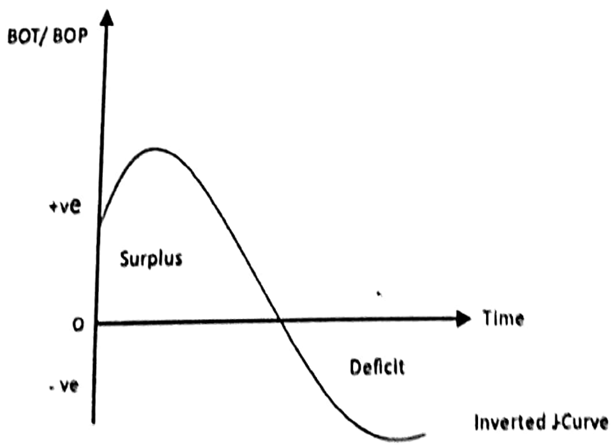
If demand for currency falls, central bank will also decrease its supply and exchange rate will again remain the same, while foreign currency reserves available with the central bank will tend to rise.

(b) Discuss whether it is better for a country with a floating exchange rate to face an appreciation or a depreciation of its currency. [12]

Floating exchange rate system is a system in which the value of currency is determined through the forces of demand and supply of currency. While the demand for currency is a derived demand because the demand of currency depends upon the demand for its exports (visible and invisible) and capital inflows for investments etc. On the other hand, supply of currency is determined through the demand for imports (visible and invisible), and capital outflows etc. So, the exchange rate of a currency is determined where demand and supply curve of a currency intersect each other. It is shown in the following figure;



According to the diagram, exchange rate of a currency is determined at "E" where demand and supply curve intersect each other, and the equilibrium exchange rate is "R". It keeps on changing depending upon the demand and supply. If demand of a currency rises, its exchange value will rise and a fall in demand leads to its depreciation. **Appreciation** of currency refers to the rise in value of a currency against other currencies, in freely floating exchange rate system. It will make imports cheaper and exports costly due to which its commodities terms of trade will improve and according to Marshall Lerner Condition in the short-run period of time balance of trade current account will further go into surplus, but in the long-run period of time it will go into deficit, as shown with the help of following inverted J-curve.

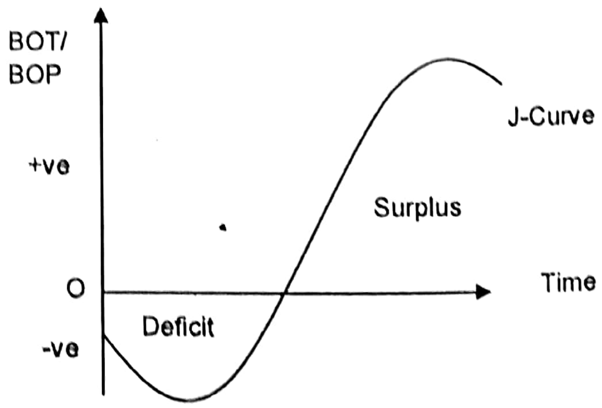


In the short-run period of time because of inelastic demand for imports and exports, export earnings will rise and imports payments will fall and BOT will go into surplus. But in the long run it will go into deficit. Appreciation of currency helps in purchasing imported raw material at low cost due to which cost push inflation will fall. Similarly, it makes the locally produced goods competitive due to which we can get these goods at low price.

Depreciation refers to the fall in value of currency in freely floating exchange rate system. It affects the terms of trade of country negatively as due to depreciation price of imports rises and price of exports falls. According to Marshall Lerner Condition in short-run period of time balance of trade further deteriorates due to devaluation because price elasticity of demand for imports and exports is inelastic.

A rise in price of imports results in increase in import payments on the other hand fall in price of export decreases the export earnings. So, balance of trade deficit will further rise in the short-run.

However, in the long-run period of balance of trade becomes surplus because of elastic demand for imports and exports. In the long-run period of time rise in price of imports will lead to fall in import payments and fall in price of export will lead to increase the total revenue from exports. So, balance of trade deficit will remove.



The effectiveness of depreciation depends that there must not be supply bottle-necks in an economy. Similarly, the trading partners must not devaluate their currencies or retaliate in any other way.

Question No. 4 June 2007

4(a) Explain the difference between expenditure-switching and expenditure-dampening policies as a means of correcting a balance of payments disequilibrium. [8]

Balance of payment refers to summary of all the economic transactions of a country with the rest of the world. It is calculated through following formula;

Balance of Payment =Receipts – payments

When receipts from other countries are equal to the payments to some other country then balance of payment is said to be in equilibrium. But when receipts and payments are not equal, it is called disequilibrium; disequilibrium may cause surplus as well as deficit. BOP is said to be surplus when receipts are more than payments and it would be deficit when payments are more than receipts.

Expenditure switching policies help to switch expenditures of the consumers from foreign goods and services to the locally produced goods. These policies include devaluation of currency, tariff, quota, embargo and subsidy. Devaluation makes imports expensive due to which people will tend to reduce the volume of imports. However, its impact will be different in short-run and long-run period of time depending upon the price elasticity of demand for imports and exports.

This phenomenon is shown with J-Curve through Marshall Lerner condition. Tariff is a form of tax imposed on the imported good to make them expensive and it will also help to reduce the volume of imports and finally, BOP deficit may be removed. Quota is the physical limitation on the quantity of goods to be imported into the country. It also helps in reducing the imports and increasing the demand for domestically produced goods. Embargo is 100% ban on imports of some specific product from any country or any product from some specific country.

However, a rise in demand for domestic goods may result in inflation in an economy; but on the other hand, unemployment in the country will fall according to the Philips phenomenon.

The term expenditure dampening means reducing the expenditures in the country. So, those domestic producers may be forced to export more goods and services.

Government can use deflationary fiscal and monetary policy by increasing direct taxes, reducing government spending and increasing the rate of interest to decrease the purchasing power of the people at local level. However, it may lead to higher unemployment in the country.

The results of these policies depend upon their effectiveness, as there is the time lag between the commencement of the project and its outcome. Like, the policy of devaluation may further increase the disequilibrium in the form of deficit but with the passage of time it moves towards equilibrium, again it will create divergence between receipts and payments in the form surplus and this cyclical movement continues forever.

4(b) Outline the current account position of your country or another economy you have studied. Discuss its ability to improve its performance on the current account. [12]

Current account is an account to record the international transactions of a country with the rest of the world. It is composed of trade in goods, trade in services, income and transfers. Trade in goods is also known as visible trade, which records receipts and payments from imports and exports of goods only.

If a country is exporting goods, then it will be recorded on the receipts side of current account while imports will be recorded on the payments side. Similarly, receipts and payments of invisible items are also recorded in current account. For example, if visitors of our country are going abroad and they make payments for taking services of transport, banking and communication etc then it will be treated as invisible import for our country and invisible export for the host country.

In short, if inflows are more than outflows then current account is said to be surplus. On the other hand, higher outflows and lower inflows result in deficit in the current account.

Current account of Australia against Thailand in 2002 showed a deficit.

Australia was exporting primary products including cotton, dairy products, aluminum and crude oil etc. which was of lesser value but it was importing durable manufactured goods including vehicles petroleum, cooling/heating equipment and computers etc.

The payments for imports were much greater than the receipts from exports. So, it has led to its deficit. Economy of Australia was having lesser potential to improve its performance on the current account. However, it may improve through implementation of effective and successful polices like imposing high tariffs, quotas and embargoes etc.

Government of Australia can develop good relations with trading partners to enable the people to import the better technology, which may help in producing more at lower average cost to achieve great economies of scale. So, exports will become more competitive and exports volume will rise which can help in improving the current account position of Australia.

Question No 4 June 2008

4(a) Explain what is meant by a current account deficit? [8]

The current account is one of the components of balance of payment of a country.

The current account is composed of income and expenditures of following four categories.

- ✓ Trade in goods (visible trade)
- ✓ Trade in services (invisible trade)
- ✓ Income flows and
- ✓ Current transfers

Trade in goods part covers the exports and imports of visible items only. For example, exports of cotton to UK will be recorded as credit item for Pakistan as money is coming into Pakistan and it is a receipt, whereas car imported from UK will be treated as debit item because it is payment for Pakistan. This part of current account will be deficit if payments are more than receipts. Trade in services covers imports and exports of invisible items. For example, tourists coming into Pakistan will be treated as credit item as money will inflow into the country. On the other hand, tourists from Pakistan visiting UK will be treated as invisible imports for Pakistan as visitors are making payments for taking the services of transportation, banking and communication etc and they are making payments for the same income earned by the employees abroad who are the residents of Pakistan is inflow for Pakistan and vice versa is true for the non-residents of Pakistan who are working here and sending money to their origin country. This part also includes the investment income. Investment can be direct investment (i-e overseas companies) and rent on foreign property held by Pakistan residents. It can be portfolio investments as well.

Like interest earned on foreign bonds and dividend earned on shares. Income earned on loans, deposits and official reserves are also included in this segment.

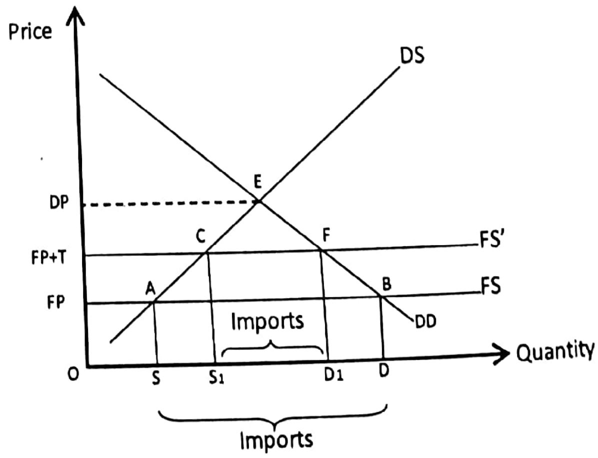
Current transfers include taxes and payment of bilateral aid, social security and military grants. Similarly, insurance premiums and claims, remittances and private gifts etc.

When the payments (outflow) from the above transactions are more than receipts (inflows) then current account is said to be in deficit.

The current account deficit shows that outflows are more than inflows. Deficit in current account can be corrected by imposing tariffs as well as by using other tools including quotas, embargoes, subsidy and fiscal and monetary policies.

(b) Discuss the effectiveness and desirability of imposing tariffs to correct a current account deficit. [12]

The current account deficit shows that outflows are more than inflows. Deficit in current account can be corrected by imposing tariffs as well as by using other tools including; quota, embargo, subsidy, fiscal and monetary policies. These are further called as expenditure switching and expenditure dampening policies and they are explained in detail as follow. Imposition of tariffs makes imports expensive as compared to the locally produced qualitative goods. This phenomenon is shown in the following figure;



According to the above figure DD is domestic demand curve and DS is domestic supply curve where the equilibrium price in the local market is DP. While FS is the foreign supply curve so, the price of imported goods is FP and at this price domestic suppliers will supply "S" quantity but the local people will demand quantity "D". So, the gap between "S" and "D" shows imports.

After imposition of tariff foreign supply will be FS' and the price will rise to FP + T. Now, people will only import the quantity between "S_1" and "D_1". In this way, the volume of imports will fall and finally people will use the domestically produced goods and local industry will flourish. They allow the breathing space for structural adjustments. Local young industry will have a good time to flourish.

Tariffs help the country as it is used to prevent dumping. While dumping refers to the sale of goods in foreign countries at very low rate to capture the international market. Imposition of tariff makes these goods expensive to avoid dumping. However, it may breach international obligations and may provoke retaliation which means that the partner country may react in the same way by imposing high tariffs on our exports. Tariffs might not be effective if the demand for imports is inelastic.

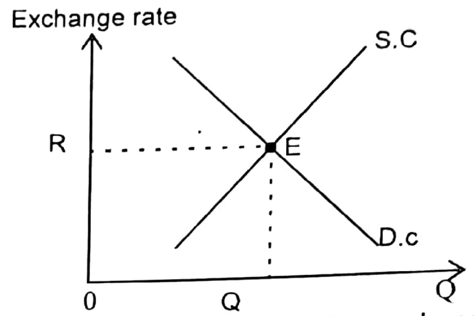
Government can also protect the local industry by imposing quota which is a physical limitation on the quantity of goods to be imported. So, people cannot import more than the quantity allowed in quota. Finally, imports will fall and local industry will be protected from international competition.

Question No 4 November 2009/21

4(a) Explain how a rapid rate of inflation in a country will affect its floating exchange rate. [8]

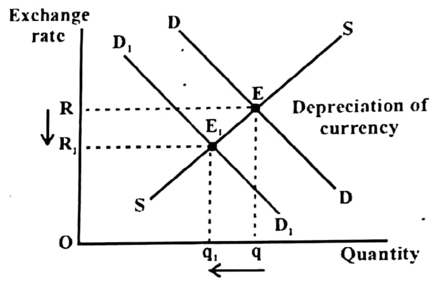
Inflation refers to the persistent rise in general price level over time. A rapid rate of inflation suggests an undesirable exchange rate.

Floating exchange rate is an exchange rate which is determined through the forces of demand and supply of currency. Inflation reduces the price competitiveness of a country due to which exports will become more expensive and imports relatively cheaper. So, demand for currency will fall and supply will rise because of fall in inflows of the investments. This entire phenomenon is shown graphically as below;



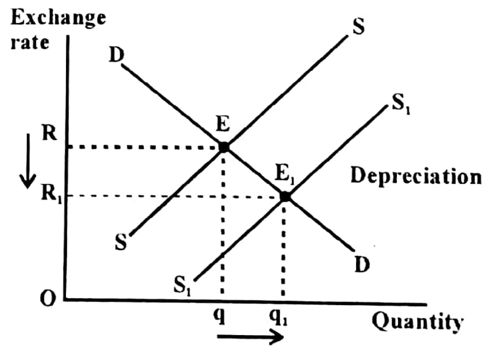
According to the freely floating exchange rate system, equilibrium is determined at "E" where exchange rate of a currency is "R_0" and its quantity traded is "Q_0".

Rapid rate of inflation makes exports expensive due to which demand for domestic currency falls. A fall in demand for currency will shift the demand curve to the left and its exchange value will tend to fall.



A fall in demand for currency shifts the equilibrium from "E" to "E_1" leading the exchange rate to fall from "R" to "R_1". So, currency has depreciated.

Similarly, increase in demand for imports will lead to increase in supply of domestic currency. This rise in supply of currency will also lead to depreciation of currency in floating exchange rate system as shown below;



Increase in supply of currency has shifted the equilibrium from "E" to "E1" and resultantly, the exchange value of currency has fallen from "R" to "R_1".

It also refers to the depreciation of a currency because it is occurring in floating exchange rate system.

(b) Discuss whether a government should operate a fixed exchange rate system. [12]

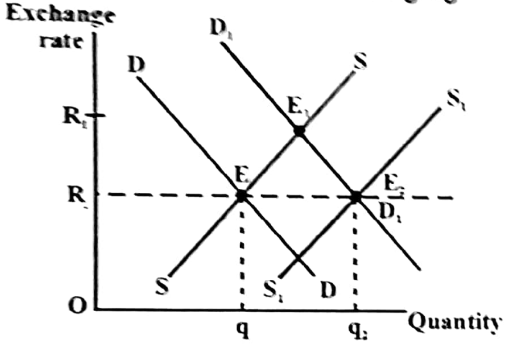
Exchange rate is the price of a currency in terms of another currency.

For example, \$ 1 = Rs. 100

Re 1 = \$ 1/100

Fixed exchange rate is a system in which the value of currency against other currencies is fixed by the central bank of a country by using foreign currency reserves. When there is a rise in demand of a currency, central bank will also increase the supply of currency.

Conversely, in case of a fall in demand for currency, central bank will also decrease the supply of currency to keep the value at fixed level. It is shown in the following figure:



Initially, equilibrium is at "E" where exchange rate of the currency is "R". Rise in demand of currency shifts the demand curve to the right to "D_1". If there is no government intervention then equilibrium will take place at "E_1"and exchange rate will rise but to keep it at fixed level central bank will also increase the supply, so it will shift to "S_1" and new equilibrium will take place at "E_2" and exchange rate will remain the same at "R" but in this case foreign currency reserves will tend to fall.

If demand for currency falls, central bank will also decrease its supply and exchange rate will again remain the same, while foreign currency reserves available with the central bank will tend to rise.

Government should operate the fixed exchange rate system as it has many advantages.

It provides the element of certainty for the businessman as it keeps the external value more stable. It also helps to invite foreign investments as it is a source of attraction for foreign investors.

It also brings discipline to the government policies particularly inflationary pressure and forces the firms to keep their costs of production lower to maintain the element of competitiveness. It also discourages destabilizing speculation which brings fluctuations in the economy and its functioning will become smooth.

However, it is very difficult to operate such a system as government has to keep too much foreign currency reserves to keep its value at fixed level. Government has to take deliberate actions for this purpose. There is need to introduce deflationary policies which may harm other economic objectives, like employment, growth and balance of payment.

Fixed exchange rate has become less common because of the lack of an automatic adjustment and the move to a more robust market system. So, governments are more likely to encourage freely floating exchange rate system.

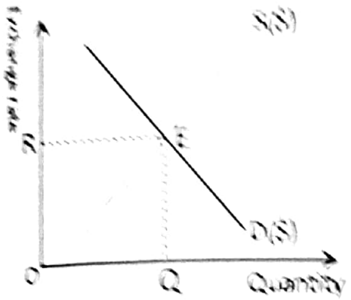
Question No 4 June 2010/21

4 (a) with the aid of a diagram, explain why an economy's floating exchange rate may depreciate. [8]

Floating exchange rate system is a system in which the value of currency is determined through the forces of demand and supply of currency. It depreciates against another currency when it can purchase lesser amount of another currency. For example, in 2013 the exchange rate of US dollar against Pak Rupees was let say \$ 1= Rs 109 and in 2014 \$1= Rs100. It shows in 2014 one dollar can purchase lesser rupees as compared to 2013. So, we can say that dollar has depreciated against Pak Rupees.

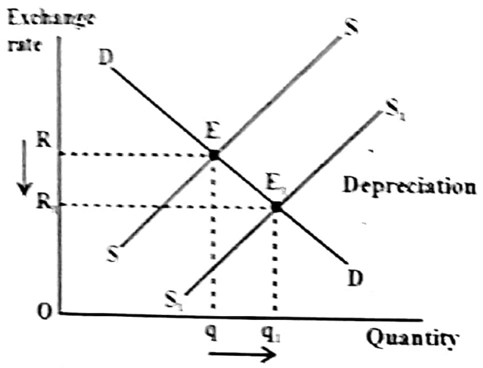
While the demand for currency is a derived demand because the demand of currency depends upon the demand for its exports (visible and invisible) and capital inflows for investments etc. On the other hand, supply of currency is determined through the demand for imports (visible and invisible), and capital outflows etc.

So, the exchange rate of a currency is determined where demand and supply curve of a currency intersect each other. It is shown in the following figure:

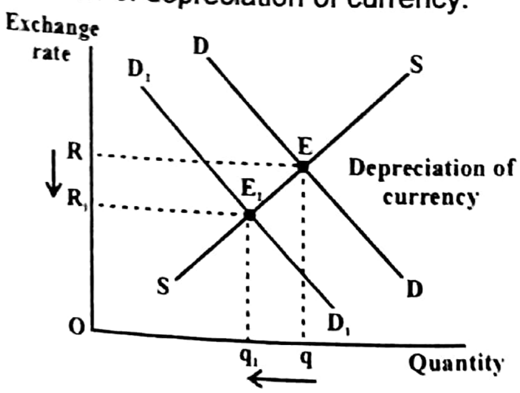


According to the above diagram, exchange rate of a currency is determined at "E" where demand and supply curves intersect each other, and the equilibrium exchange rate is 'R'.

It keeps on changing depending upon the demand and supply of currency. A fall in demand leads to its depreciation. It is shown in the following figures:



According to the above diagram, initially equilibrium is at point "E" where exchange rate is "R" and a rise in supply will shift the supply curve to "S_1" and new equilibrium will take place at "E_1" and exchange rate will fall to "R_1" and quantity traded will rise to "Q_1". So fall in demand or rise in supply of currency are two main causes of depreciation of currency.



Initially equilibrium is at "E" and exchange rate is "R" fall in demand has shifted equilibrium to "E_1" and exchange rate has depreciated to "R_1". Similarly, a rise in supply results in depreciation as has been shown in the previous figure.

(b) Discuss whether a current account deficit is always a serious economic problem for a country. [12]

Current account is composed of trade in goods (visible), trade in services (invisible), income from investments and current transfers. Current account is said to be deficit (CAD) if outflows of various items exceed inflows. The cause of the deficit, its size and its duration decides whether it is harmful or not.

Current account deficit (CAD) in visible part may be harmful if it lasts for a longer period of time, and is because of expensive imports. However, if it results in import of qualitative goods and leads to better standard of living in the country and is also covered by inflow of invisibles and transfers of income then it would not be harmful for the country, rather, it benefits the economy. If consumer goods imported into the country are causing deficit, then in the short-run it may improve the standard of living but later on it may bring harmful effects on the country's economic position.

But if CAD is caused by import of capital goods, it will lead to increase in productive capacity of an economy. Therefore, its potential to produce and export will rise and will be beneficial for the economy. In this way, an economy can get comparative advantage over other countries as well by producing qualitative goods using recent machines and technology. For example, if we try to reduce the current account deficit by imposing restrictions on such goods then it may slowdown the economic activities. Sometimes, government tries to reduce the volume of imports by using handy tools of quota, embargo or tariff which is harmful and risky politically for the government and it may lose popularity among masses. Therefore, governments try to avoid such instruments for the improvement of current account position.

Sometimes, deficit is caused by invisibles (i-e import of services). This type of deficit is not harmful, as it leads to inflow of skills, experience and potential in the form of capital and technological inflows into the country. However, if this part is in deficit because more visitors from our country are going abroad for entertainment and non-productive activities then it will weaken the economy.

Similarly, foreign remittances may cause the deficit which may not be necessary harmful. For example, if investment on purchase of shares is made by the foreign residents and we are paying more in the form of dividend or interest then it is not harmful because it helps our domestic firms to grow. It may help in long-term foreign investments which help to improve capital account of balance of payment.

The deficit in the current account can be financed by using foreign currency reserves, excessive international borrowings. However, it may deplete the foreign currency reserves and borrowings may increase the burden on the economy. Downward cascade of CAD of a country can be a big problem if it continues for longer period of time because it reduces its credit rating and it may come under pressure. Similarly, foreign investors who have invested money in the country causing deficit, would be reluctant to continue their business. They may switch their investment to some other country and it may result in lesser variety of goods and services as well as it will put a higher burden of unemployment on the shoulders of government.

Finally, we can conclude that deficit in current account is but it is not always the case.

Question No 4 June 2012/22

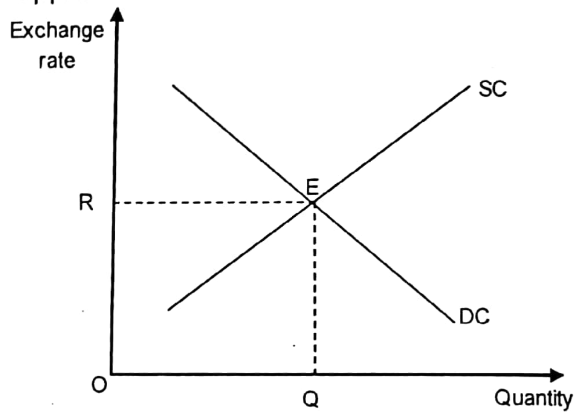
4 (a) Explain, with the help of a diagram, how a government can maintain a stable foreign exchange rate. [8]

Exchange rate is the price of a currency in terms of another currency.

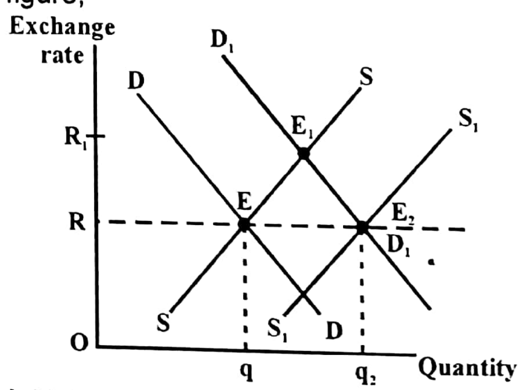
For example: $ 1 = Rs. 100 OR Re.1 = $$\frac{1}{100}$

Exchange rate is determined through the forces of demand and supply of currency and it is given the name of freely floating exchange rate system. Floating exchange rate is a system in which value of a currency is determined through the forces of demand and supply of a currency. It is shown in the following figure;

In freely floating exchange rate system value of the currency will be determined at point "E" where exchange value is "R". A rise in demand for currency will result in appreciation and fall in demand for currency will depreciate its value. Similarly, rise in supply of currency depreciates its value and fall in its supply leads to appreciation.



Fixed exchange rate is a system in which the value of currency against other currencies is fixed by the central bank (government) of a country by using foreign currency reserves. When there is a rise in demand of a currency, central bank will also increase the supply of that currency. Conversely, in case of a fall in demand for currency, central bank will also decrease the supply of currency to keep the value at fixed level. It is shown in the following figure;



Initially, equilibrium is at "E" where exchange rate of the currency is "R". Rise in demand of currency shifts the demand curve to the right to "D_1". If there is no government intervention, then equilibrium will take place at "E_1"and exchange rate will rise to R1 but to keep it at fixed level central bank will also increase the supply.

So it will shift to "S_1" and new equilibrium will take place at "E_2" where exchange rate will remain the same at "R". But in this case foreign currency reserves will tend to fall.
If demand for currency falls, central bank will also decrease its supply and exchange rate will again remain the same, while foreign currency reserves available with the central bank will tend to rise.

(b) Discuss whether a government should be more concerned by an unstable foreign exchange rate or by an unstable domestic price level. [12]

See June 2013 /22/ 3b

Question No 4 November 2012/21

3(b) Discuss whether the effect of the rate of inflation on the exchange rate is more or less important than the effect of the exchange rate on the rate of inflation. [12]

Inflation refers to the persistent rise in general price level. It can be creeping, walking, running or hyper. If the rate of inflation is of relatively hyper nurture, then it will make a country less competitive in international market. Therefore, exports may fall and balance of payment may deteriorate. Higher inflation will lead to fall in export earning if the price elasticity of demand for exports is greater than one or elastic. However, it may benefit if the demand for exports is inelastic and our trading partners are bound to buy from us.
On the other hand, due to rise in prices of goods within the country will make the people to buy (import) from other countries. If demand for imports is elastic, then it will lead to higher import payments. In this way the export earnings will fall and import payments will rise and consequently balance of payment current account will go into deficit. Furthermore, relatively high inflation rate decreases the value of currency against other currencies and foreign investors will lose their confidence on that currency. Therefore, investment inflow will tend to fall and it will also have an adverse effect on balance of payment current account. Demand for currency will fall and its supply will rise leading to its depreciation as shown in the following figure;

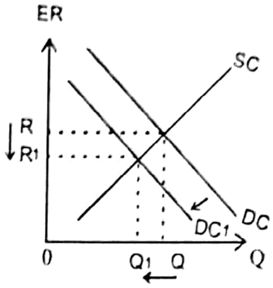


Fig.1

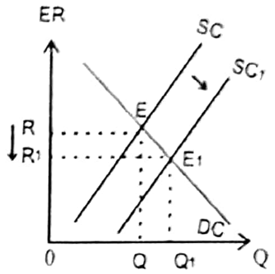


Fig.2

Fig.1 shows a fall in demand for currency due to lower capital inflow into the country due to inflation which has resulted in depreciation of currency. Fig.2 also advocates the idea of depreciation due to rise in supply of currency because foreign investors will sell our currency and buy their own currency and finally the supply of our currency will rise leading to its depreciation.
However, an inflation of creeping nature will not have a greater impact because it will be un-noticeable and bearable for the people of the country as well as foreign buyers of our exports.
The second part of this question requires the impact of exchange rate on inflation. It is a fact that changes in exchange rate also affects the inflation rate within the country.
Consider, if there is depreciation of currency and we are producing goods using imported raw material then it will lead to higher cost of production. In this way, cost push inflation may rise which is harmful for the economy because it has two dangerous affects the one is price level will rise due to which purchasing power of the people will fall leading to their low standard of living. Secondly, cost push inflation increases the rate of unemployment in the economy that's why economists call it stagflation.
A rise in unemployment is again a big issue for the country because government may have to pay huge amounts to the unemployed people. It also increases the burden of employed people who will be charged high taxes because government will need more funds to support unemployed people to avoid unbalance in the economy and to avoid undesirable consequences of terrorist activity, theft and robbery etc.

Similarly, depreciation of currency makes exports cheaper and there may be increase in export earning which may cause demand pull inflation as well. However, an appreciation of currency will reduce inflationary pressure on the economy because appreciation makes imports cheaper and exports expensive. From the above discussion we can conclude that the impact of inflation on exchange rate and impact of exchange rate on inflation is uncertain. However, if we assume that our economy has a huge trade with other countries then exchange rate may have greater effect on inflation. But is if inflation in the country is caused by mainly domestic factors then the situation will be opposite.

Question No 4 June 2015

4 (a) Explain how a declining exchange rate and a high rate of inflation in an economy might affect that economy's terms of trade. [8]

(b) Discuss the advantages and disadvantages to an economy of a fall in that economy's terms of trade and consider whether the overall effects are likely to be beneficial. [12]

Chapter # 5

Government Intervention at macro level

Fiscal and monetary policies

Questions No.4 June 2016

4 (a) Using examples, explain the instruments of monetary policy and supply-side policy. [8]

(b) Discuss the advantages and disadvantages of supply-side policy and consider its effectiveness in an economy that is facing a labour shortage. [12]

Envisioned Answer 4(a)

Monetary policy is the policy of central bank to control supply of money, rate of interest and exchange rate in an economy. It is a demand-side policy which is manipulated to change aggregate demand in the economy with a view to achieve macroeconomic aims.

Monetary policy can be expansionary or contractionary. Expansionary monetary policy aims at increasing the aggregate demand to improve employment level and achieve economic growth in the economy. In this policy, interest rate and exchange rates are reduced. On the other hand, central bank may adopt contractionary monetary policy which is also termed as deflationary monetary policy, to reduce the aggregate demand to control inflation in the economy. During this policy interest rate and exchange rates are increased and money supply is decreased.

The instruments of monetary policy are interest rate, money supply, exchange rate which are explained as under;

The first instrument of monetary policy is change in interest rate which is also known as bank rate or rediscount rate. It is the rate at which central bank of the country gives loans to commercial banks. It is manipulated to achieve a certain macro-economic aim. To control inflation, central bank increases the rate of interest so that aggregate demand may come under control.

The commercial banks will also increase the rate of interest which is to be charged to their customers/accountholders. Accordingly, loans will decrease investment will also fall aggregate demand comes under control and inflation is finally controlled.

The second instrument of monetary policy is changes in exchange rate. Exchange rate determines the value of a currency against another currency. To control inflation exchange rate of the country is increased so that its purchasing power could be increased at international level. It will make final imported goods as well as raw material cheaper which is used to supplement the local production. Therefore, cost push inflation will be controlled.

The third instrument is money supply. Central bank reduces the money supply to control aggregate demand and the rate of inflation in an economy. Lower money supply leads to lower amounts of money in the hands of individuals and companies. It also helps to control the rate of inflation in the country.

While Supply-Side Policies are designed to affect aggregate supply in the economy. These policies help to achieve high employment and higher productivity at domestic as well as international level. The instruments of supply-side policy are explained as under;

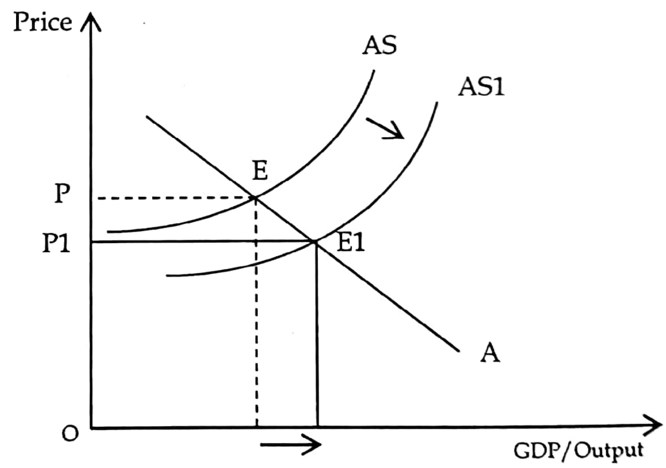
Government may reduce indirect taxes and increase subsidy to give incentives to the producers to produce more to increase aggregate supply. It would enhance investment in the economy.

Government may conduct training workshops to enhance the skills of workers to get employment easily. Similarly, government may set minimum wages to create motivation among workers to get employment.

Government may remove the old unnecessary rules and regulations on businesses to

increase business activity in the economy like removal of restriction for working on Sunday, opening and closing hours like in Pakistan markets are closed at 8pm due to load shedding etc. Removal of such policy will help to increase employment and productivity.
Government may also privatize some public (government) firms to transfer ownership of the government to the private sector to improve efficiency and employment opportunities.
Government may also remove trade barriers on international trade to produce goods and services in very large quantities by using comparative advantage rule to get more benefits in the form of higher productivity and more employment in the economy.

(b)
Supply side as has been explained in part "a" of this question is used to increase aggregate supply in the economy with a view to achieve macro-economic aims. This policy has some advantages and some disadvantages. Its advantages are explained below followed by the disadvantages.
First of all, education is training of the workers is given much importance in this policy. Government allocates huge amount of funds to educate and train the workers so that their skills could be enhanced and they could get permanent jobs which ensure their regular income. In this way, these educated and well-trained people with regular income would be in the position to educate their children well. It will further improve the literacy rate in the country.
Secondly, trade union reforms are made where its power is reduced to some extent. There are certain people who are the part of trade union because they need to be otherwise they could not get job due to closed shop attitude of the employers. Many of the workers who want to work independent from trade union will get the chance to do jobs according to their will. It will make them more productive and they would definitely help to increase the aggregate supply in the economy. In 1970s British unions were very powerful and cause many days lost due to strikes and later on reforms were made and their powers were reduced to some extent which benefited the Britain.
Thirdly, reduction in direct taxes may help to give the stick in the hands of poor for their welfare and for the poor it would be like a carrot to make them further better off due to tax cut.
Fourthly, privatization is the tool of supply-side policy. Skin is closed to the clothes is the statement which best suites the term privatization. Privatization shifts the ownership of institutions from government to the private people. Private people take care of their own business like their skin and they would never harm it. They become efficient and productive leading to greater supply in the economy.
Fifthly, supply-side policy is quite fruitful to achieve economic growth without inflation. In all most all the developing countries including Pakistan a negative relationship has been detected between inflation and economic growth, by many economists in their research. However, this phenomenon is less likely to be observed in developed countries. So, it one of the advantage especially for developing countries that they can achieve economic growth which is rise in real GDP per capita, without inflation. It is shown in the following figure where initial equilibrium is at E, price is P. A rise in aggregate supply due to supply-side policy will shift the equilibrium to E1 where price has decreased and GDP has increased. So, this is how supply side policy helps to increase GDP which is growth without inflation.



However, this policy has some disadvantages as well. First of all, the allocation of government funds for education and training of workers will create an opportunity cost in the form of other projects sacrificed. Increasing these expenses without using demand-side policies, to create more demand, would make this policy worthless.

Secondly, reducing trade union power will make the weak class weaker and the well-off class stronger. An individual worker is always weaker and union gives him a bit of strength. So, trade union reforms may make it easy for the employers to over exploit these workers.

Thirdly, reduction in taxes may further increase the inequality between the rich and the poor because tax cut would be more beneficial for the industrialist and unfortunate will get worse off. Furthermore, the research has proved that low taxes makes many people lazy and they reduce their working hours and increase leisure time as they think that their disposable income has increased due to low taxes.

Lastly, privatization may deteriorate the situation if monopoly is created. In this case monopoly firm will try to maximize its profits by creating artificial shortages. So, consumers will suffer as they may have to purchase products at higher price.

From the above discussion, it is concluded that supply-side policy may be effective, for an economy facing shortage of labour, in the long run. However, it might not be very mush effective in the short run. Similarly, reducing direct taxes is not always beneficial as those who are contented will reduce their working hours and will not help to increase aggregate supply. Furthermore, giving education and training is not sufficient if its quality is not ensured. Reducing corporate taxes or giving subsidy to the producers would not be effective if its impact is not pass on to the ultimate consumers. Privatization may cause monopoly and deteriorate the situation further.

The problem of time lag may also make it ineffective. A greater time gap between the detection of issue and measures taken to solve it makes the policy ineffective. There should be mutual adjustment and reinforcement between supply-side policies and demand-side policies. Just focusing on increasing the supply without creating further demand through fiscal and monetary policies, would make the supply-side policy ineffective.

Questions No.4 November 2016

4(b) Discuss the policy options available to a government faced with inflation, and consider which is most likely to be effective. [12]

Questions No.2b June 2018

(b) Discuss the effectiveness of supply-side policies in increasing the supply of enterprise to the economy. [12]

Questions No.4 June 2017

4 (a) Explain the difference between fiscal policy and monetary policy. Show how each can be used to increase aggregate demand. [8]

(b) Discuss whether supply side policy is more likely to be successful than fiscal policy when an economy is faced with inflation. [12]

Yearly Data Responses

Questions No.1 June 2018

1 **Thai Economy's Prospects Improve Table 1.1: Total expenditure in Thailand, by category, 2014**

Category of spending	US Dollar (billions)	% National Expenditure
Household consumption	243	55.6
Capital goods	98	22.4
Government consumption	69	15.8
Exports	280	64.1
Imports	253	57.9

Extract 1: Thailand's economy shows improved health

The latest figures show that Thailand's economy grew by 3.5% in the second quarter, putting it on track for 3–3.5% growth for the whole of 2016. Thailand has managed to boost its growth after several quarters of disappointing performance by increasing public sector investment in several large infrastructure projects, including roads, railways and airports. These projects will run over the next 3 to 5 years and are worth several hundred billion baht, Thailand's currency. It is hoped that this public sector investment will encourage the private sector to increase their investment spending. In addition to increased investment, the Thai economy's growth is being boosted by recovering private consumption due to increases in farm prices, which are crucial to household purchasing power, as well as a strong tourism sector. Regarding the export sector, which remains the biggest engine of growth, the outlook is still uncertain but the negative impact from China's economic slowdown appears to have stabilised with a Chinese growth rate of around 6.6% per annum.

Source: The Nation, 18 August 2016

Extract 2: Thailand's tourism industry continues to grow

The Thai tourism industry is projected to record international visitor arrivals of 16.67 million between January and June 2016, which will be up by 13% over the same period of 2015. Projected earnings are estimated at 824 billion baht, up 17%. The top three markets in terms of tourism receipts are projected to be China (146 billion baht, +32%), Malaysia (22.5 billion baht, +15%) and Australia (17.8 billion baht, +4%). China is now by far the largest source of visitors, but there has been a resumption of growth from Russia and Thailand's neighbouring countries of Cambodia, Laos and Myanmar.

Source: Thailand Business News, June 2016

(a) (i) Calculate the level of aggregate demand in Thailand in 2014. [1]

(ii) In which category of expenditure would the various infrastructure projects be placed? [1]

(b) Explain how a fall in the rate of interest would be likely to affect expenditure on

(i) consumption [3]

(ii) exports. [3]

(c) Explain how changes in any three demand factors might account for the greater rate of growth in numbers of visitors into Thailand from China than from other countries. [6]

(d) Discuss whether Thailand's government should be concerned that export and import spending represents the highest proportion of total spending in Thailand. [6]

Envisioned Answers

(a) (i) AD = C + I + G + (X – M) = 243 + 98 + 69 + (280 – 253) = US$ 437b

(ii) Expenditure on infrastructure projects are placed in the category of capital goods.

(b) (i) A fall in interest rate reduces savings in bank account and increases borrowings because of lower cost of loans. Therefore, people will get more loans and save less leading to increase in consumption on purchase of household items.

(ii) A fall in interest rate reduces exchange rate of a currency because lower interest rate decreases demand for that particular currency but it increases its supply. So, value of that currency falls making exports cheaper. However, exports earnings/expenditure may rise if price elasticity of demand for exports is elastic but on the other hand it may fall if price elasticity of demand for exports is inelastic because when it is inelastic, a greater fall in price will lead to a smaller rise in quantity demand for exports and resultantly export earnings will fall.

(c) The general factors that can change demand include; change in income, weather, population, taste and fashion, prices of substitutes and complements etc. There can be greater rate of growth in number of visitors into Thailand from China as compared to other countries if there is greater rise in income of Chinese people than that of other countries. Similarly, weather conditions are improved in Thailand as compared to China, then Chinese visitors will again rise. If prices of food, transport and accommodation are lower in Thailand for Chinese and they are according to their taste and fashion then its demand will again rise.

(d) Thailand being an open economy enjoys a greater revenue from invisible export i.e. the provision of tourism. A lot of tourists visit there every year and which is the source of greater income for Thailand. It is good for all of economic agents of the country. It increases its economic growth, creates lot of job opportunities and demand for many other related industries like hotel accommodation, transport, banking, healthcare and many other industries directly or indirectly connected to it. It also helps to improve standard of living of its nation. So, it enjoys a comparative advantage in tourism since it is providing at comparatively low cost. It is good for Thailand because it is also a good source of creating better relations with different countries and creating cohesion between countries. Tourists from different countries also interact with each other which don't only benefit Thailand but also to the whole world.

On the other hand, it can be a serious source of concern for Thailand because more reliance on external trade can harm the economy if due to any reason trade could not take place and tourism don't visit there. It can be due to bad relations between countries or due to bad weather condition. Sometimes, natural disasters and safety and security issues create gap between countries. People cannot move between countries due to damage in infrastructure, depletion of natural resources or due to lack of price competitiveness. Similarly, tourism in Thailand also depends upon economic conditions of other countries. Poor economic conditions in other countries reduces purchasing power of the people living there and they may stop visiting places like Thailand which is again harmful for it.

From above discussion we concluded that reliance on more exports and imports can bring a lot of benefits but it can be a serious source of concern on certain grounds. Therefore, Thailand should also develop its other industries to fulfill the requirements of its residents at the time of need.

March 2017 Variant 2

1.
Concern in Vietnam over trade with China Table 1: The Value of Vietnam's Trade in Goods with Selected Trading Partners: January–July 2014

	United States	China	Japan	South Korea	Germany
Exports of Goods (US$ billion)	15.9	8.6	8.5	3.7	2.9
Imports of Goods (US$ billion)	3.7	23.7	6.9	12.2	1.4

Source: Vietnam Customs

Tycoon to the rescue as cheap Chinese goods overwhelm Vietnam's economy

Vietnam is enjoying rapid growth but its small businesses are being overwhelmed by a huge influx of cheap, mass-produced goods from China. These goods are undercutting the prices of domestically produced items. A Vietnamese entrepreneur has a rescue plan designed to support new business start-ups. He has spent US$27 million developing his V+ shopping mall. He is now offering new businesses rent-free 50-year leases in the mall, which is located in Hanoi – as long as they sell only Vietnamese-made products. He is also urging the Vietnamese government to introduce this idea nationwide to prevent the closure of tens of thousands of businesses each year and encourage customers to buy Vietnamese products.

"China exports to the world at very, very low prices and that's put huge pressure on the Vietnamese economy," he explained. "I'm a businessman, I understand why firms can't develop. Without this kind of support, Vietnamese businesses will perish." China's recent devaluation of its currency, the yuan, triggered fears of China overwhelming Vietnam with even cheaper goods. As a result, Vietnam's central bank devalued the Vietnamese currency, the dong.

Despite the Vietnamese dislike of Chinese products, their prices make them unavoidable when Vietnamese businesses lack funds and household budgets are modest. There have been calls for boycotts of Chinese goods but they have all failed miserably.

An economist at the Asian Development Bank, however, said the V+ concept showed good intentions but the government should only support firms with the potential to compete. "There needs to be a change in the government's policy," he said. "It needs to move away from subsidies for all goods towards targeted subsidies for industries with the potential to compete."

Source: Martin Petty, The Times, 18 April 2015

(a) (i) State the country shown in Table 1 that has the greatest deficit on its balance of trade in goods with Vietnam. **[1]**

The United States of America has the greatest deficit on its balance of trade in goods with Vietnam.

(ii) Identify the three other components of the balance of payments that would allow you to calculate the current account balance of Vietnam with that country. **[3]**

The three other components of the balance of payment needed are;

- trade in services
- profit on investment and
- current transfers

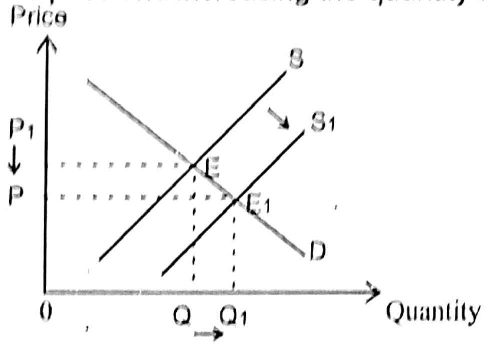
(b) Explain any two factors that would determine the impact of China's decision to devalue the yuan upon Vietnam's trade with China. **[4]**

The impact of China's decision to devalue the Yuan depends upon following two factors;

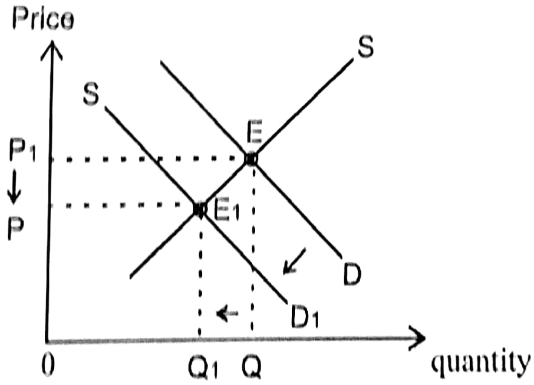
First of all, its impact depends upon price elasticity of demand for China's exports and imports. In case of elastic demand for imports and exports; devaluation will improve its trade position because devaluation leads to lower the prices of exports and they being elastic will lead to greater increase in volume of exports and increase in exports earning. Similarly, devaluation of currency will lead to increase in price of imports for Chinese customers and imports being elastic will lead to a greater fall in volume of imports and therefore, import payments will fall. In this way, rise in export earnings and fall in import payments will lead to move China's current account into surplus. However, the impact would be exact opposite if demand for China's exports and imports is inelastic as per Marshal Lerner Condition. Secondly, the impact of devaluation of Yuan also depends upon the relative change in value of Dong. If Vietnam devalues its currency (Dong) more than that of Yuan, then it may lead to deterioration of China's current account balance.

(c) Explain how subsidies for all Vietnamese goods and a boycott of Chinese goods are expected to help Vietnamese goods to compete with Chinese goods. Use supply and demand diagrams to support your answer. [6]

The provision of subsidy for all Vietnamese goods will lead to increase in its supply shifting supply curve to the right, decreasing its price and increasing the quantity traded as shown below;



The above figure indicates initial equilibrium at point E where market price for Vietnamese goods is P1 and quantity is Q. The provision of subsidy will lead to increase in supply and supply curve will shift towards right from S to S_1 and new equilibrium will take place at E_1, price will fall to P and quantity traded will rise to Q_1. Similarly, a boycott of Chinese goods will lead to fall in demand as show below;



The above figure shows initial equilibrium for Chinese goods at point E where market price is P1 and quantity is Q. Due to a boycott of Chinese goods will lead to decrease in demand and demand curve will shift to the left and new equilibrium will take place at E_1, where new equilibrium price will be P and quantity traded Q1.

(d) Discuss whether the principle of comparative advantage would justify the support of Vietnam's government for the development of all industries in Vietnam or just those that have the potential to compete. [6]

The principle of comparative advantage states that countries should produce and specialize in the production of those goods which they can produce at lowest opportunity cost. This theory assumes

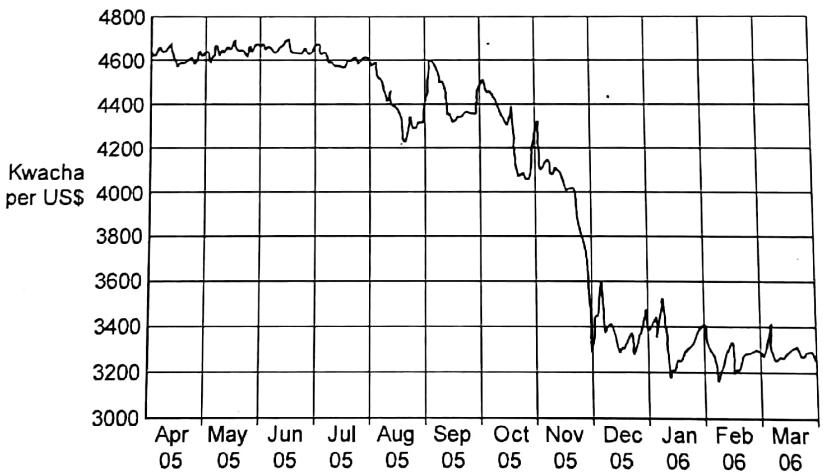
two countries and two products like in this case there are two countries China and Vietnam. According to this principle, one country can produce greater quantity of both the goods and second country can produce lesser quantity of both the products. It means one country has absolute advantage in production of both the goods and another country has absolute disadvantage in production of both the goods.
Therefore, one country will specialize in the production of the good for which it has relatively greater advantage and another country will specialize in the product for which it has least disadvantage to benefit from specialization and international trade.
Those products which have potential to complete can be infant industries and they may be produced at lowest opportunity cost as per requirement of the principle of comparative advantage. Economic theory suggests and supports to develop such industries. Therefore, Vietnam's government should develop the products which have potential to complete instead of developing all industries because it may not be fruitful to trade internationally and to earn foreign exchange.

June 2008

1. The appreciation of the Zambian Kwacha

Zambia's currency, the Kwacha, experienced a significant appreciation in the year up to March 2006. This is shown in Fig.1. Factors that influenced the exchange rate at this time were an improvement in Zambia's export performance, a reduction in the foreign debt owed by Zambia, an increase in foreign aid received by Zambia and an inflow of foreign investment. The exchange rate is vitally important for Zambia because its exports of copper, tobacco, maize and cotton are priced in US$ but its costs are paid in Zambian Kwacha.

Fig.1 Zambian exchange rate (Kwacha per US$), April 2005 to March 2006



(a)(i) Identify from Fig.1 the greatest monthly appreciation of the Kwacha. [1]

The greatest monthly appreciation of the Kwacha took place in November.

(ii) By how much did it appreciate? [1]

It has appreciated by 20 – 25% which is 900 – 1100 Kwacha i-e 4300 – 3300 = 1000 approximately.

(b) Explain what Fig.1 suggests about the type of exchange rate system used by Zambia. [3]

The fig.1 suggests that exchange rate of Zambia is freely floating which means that exchange rate of Zambia is determined through the free forces of demand and supply of currency. Exchange rate is set where demand and supply of currency curves intersect each other. It keep on changing depending upon the changes in demand and supply of currency.

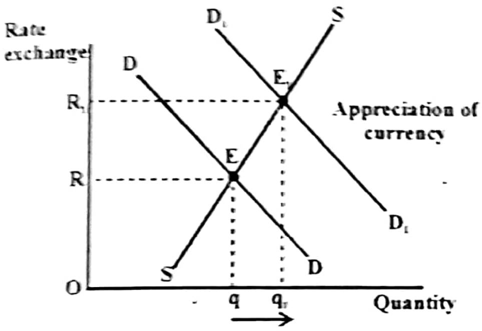
Any rise in demand or fall in supply of currency will lead to appreciation while fall in demand or increase in supply of currency will lead to its depreciation.

(c) Explain how the change in the value of the Kwacha between September 2005 and January 2006 might have been influenced by

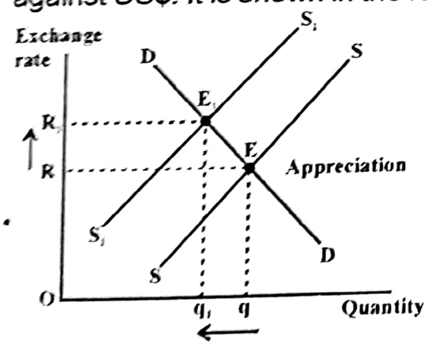
(i) the improved export performance and

(ii) the reduction in foreign debt. [6]

In this period Kwacha is appreciating. Value of Kwacha may rise because of improved export performance because buyers use foreign currency to pay for exports. So, more demand for Kwacha pushes up its price. It is shown in the following diagram;



Exchange value of Kwacha has increased from R_1 to R_2 in US$ because of increase in its demand from D to D_1. Less need for Zambia to repay debt or interest in foreign currency reduces the supply of Kwacha. So, fall in supply of Kwacha also pushes up its value against US$. It is shown in the following figure;



Fall in supply shifts the supply curve from "S" to "S_1" and new equilibrium will take place at "E_1" and exchange value of Kwacha against US$ will rise from "R" to "R_1".

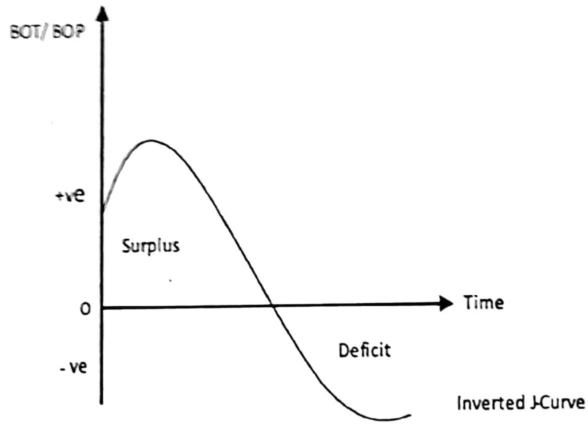
(d) How would the appreciation of the Kwacha affect Zambia's terms of trade? [3]

Appreciation of currency makes imports cheaper and exports expensive. So, terms of trade will improve as it is calculated through following formula;

$$TOT = \frac{\text{export price index}}{\text{import price index}} \times 100$$

Rise in the numerator and a fall in denominator will result in higher value of TOT.

(c) Discuss whether an appreciation of its exchange rate always benefits a country. [6]



Appreciation of the exchange rate reduces the rate of inflation and a rise in purchasing power of the people. It improves the standard of living of the people in the country.

It leads to more financial inflows. According to Marshall Lerner condition, in the short-run period of time balance of payments and balance of trade will go into further surplus because of inelastic demand for imports and exports. But in the long-run, it will deteriorate as elasticity of demand for imports and exports becomes elastic. It is shown in the following diagram. Appreciation also reduces the burden of external debt. But in the long-run unemployment may rise and may depress the domestic standard of living.

November 2008

1. Tyre problems for the mining industry

In 2005, large-scale economic growth in China had increased the demand for minerals to record levels. As a result, 2005 was a boom year for mining worldwide, and output expanded rapidly. The huge earth-moving trucks used in mining need massive off-the-road (OTR) tyres. These tyres cost $20 000 each and take a day to manufacture. By 2006, a major tyre producer, Bridgestone, estimated that mining companies required 50% more OTR tyres than in the previous year, but the tyre producers struggled to meet this demand from the mining companies. Tyre producers' stocks of tyres were very low, while fixed production capacity meant that output had remained steady since 1999. It was not technically possible to switch from car tyre production to making OTR tyres.

Total planned production for all of 2006 had already been sold and no new factories were due to start producing before the end of 2007. Another tyre producer, Michelin, intended to spend $85m on its factory in the US, and Bridgestone intended to raise its factory capacity in Japan in 2008.

Rio Tinto, one of the world's largest mining companies, usually spent $100m on 5000 tyres each year, but instead faced the prospect of having to stop trucks working while they had expensive tyre checks and tyre repairs. The company predicted that this would limit future exploration for new sources of minerals and cause a rise in mineral prices.

(a) Why can the demand for OTR tyres be described as a derived demand? [2]

Demand is derived when a product is wanted for its input to another product. Demand for OTR tyres can be needed to equip trucks or contribute to mined output.

(b) Explain why the supply of OTR tyres was highly inelastic in 2006. [4]

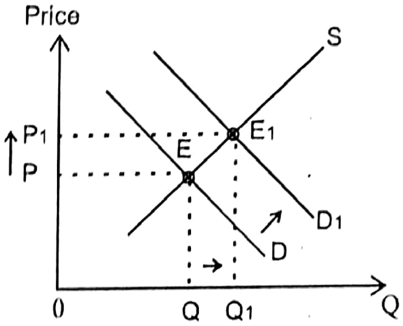
Highly inelastic supply means supply is relatively unresponsive to price change. Price elasticity in this situation has the value less than one. The reasons for highly inelastic supply include;

Non-availability of stocks, when stocks of OTR tyres are not available then supply cannot be increased with the increase in price. Similarly, when the plant of producing OTR tyres is operating at full-capacity then again its supply will be highly inelastic. When the cost of entering new firms into the market for investment is very high then new entry facing strong barriers leads to inelasticity of supply. Use of specialized technology and machinery also reduces the ability to switch production lines to produce OTR tyres.

(c) Analyse, with a demand and supply diagram, the change in the market for OTR tyres during 2006. [6]

In the following diagram, initially equilibrium of OTR tyres is at point "E" where equilibrium price is "P_1" and quantity is "Q_1". Rise in demand has shifted the demand curve to "D_1" and new equilibrium will take place at "E_1".

Price will rise with greater ratio to "P_2" but quantity will rise with a smaller ratio comparatively, from "Q_1" to "Q_2" because of highly inelastic supply.



(d) How might a shortage of OTR tyres affect the productivity of mining companies? [3]

Productivity refers to the output per input. When output per input is low then productivity is said to be lower. Reduced productively of mining companies is caused by vehicle break-down or high vehicle repair and maintenance cost due to non-availability of OTR tyres. When weak and less suitable tyres are used in trucks. They cause damage to the trucks. It has also caused the mineral production to be low.

(e) Discuss whether the shortage of OTR tyres required government intervention. [6]

The shortage of OTR tyres require government intervention in those countries which mainly rely on mining because it will help to achieve price stability which is always the main aim of every government. It wants to achieve prices without inflation in the economy, because inflation reduces the purchasing power of the people and they cannot enjoy a good standard of living.

It may help in achieving economic growth due to which employment opportunities will rise, imports substitutes will be produced in the country and in this way volume of imports will fall and balance of trade will become favourable.

However, the problem of shortage of OTR tyres is short-term as in the long-run extra production is planned to remove shortages. In many countries intervention might be inefficient with unwelcome side effects. Similarly, government might not have expertise to manage the market which causes government failure. So, government intervention is not always desirable.

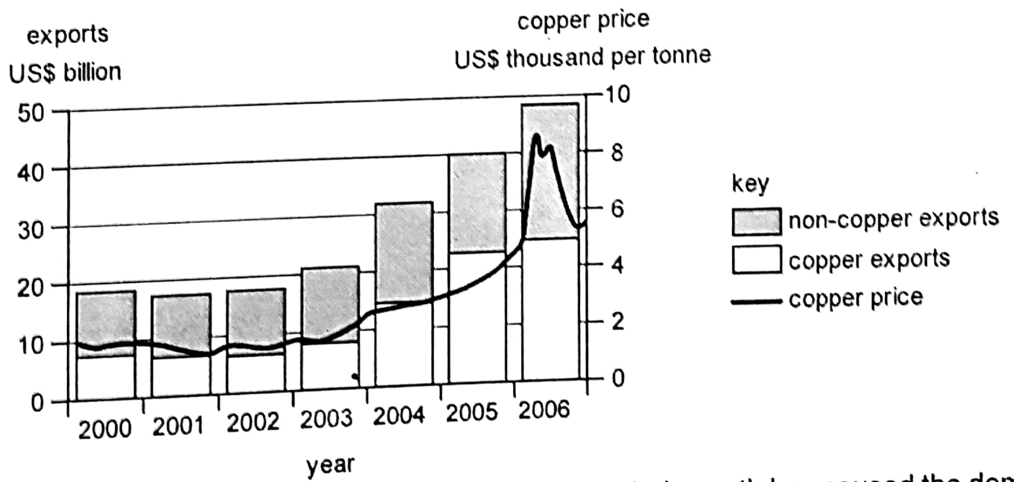
June 2009/21 & 22

1. The importance of copper production in Chile

Chile is a major producer and exporter of copper. For Chile, copper is a vital export and makes a major contribution to its trade. The Central Bank of Chile forecast a visible trade surplus of US$17 billion for 2006, two thirds higher than in 2005. Changes in world copper prices in 2006, a year of global growth, were an important influence on Chile's trade performance. However, one problem that Chile faced in 2006 was a strike for higher wages and better conditions at Escondida, the world's largest copper mine, where 8 % of world copper was mined.

Figure 1 shows the contribution of copper to Chile's export revenue and changes in world copper prices.

Fig. 1: Chile's export revenue and world copper prices, 2000-2006



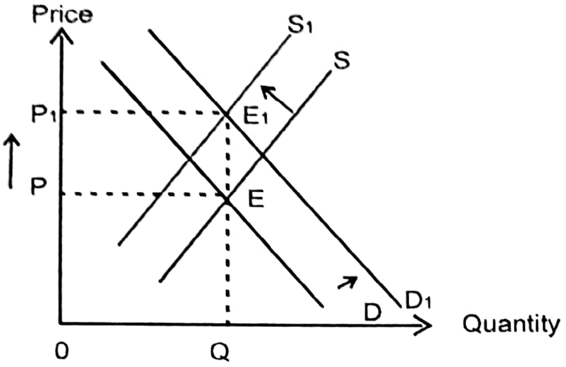
(a)(i) Compare the price of copper in the middle of 2003 and the middle of 2006. [2]

During the middle of 2003 to the middle of 2006 the price of copper increased to 300% i.e. from $2000 to $6000 per ton.

(ii) Explain one change in demand and one change in supply that might have caused this movement in the price of copper. [4]

In 2006 global growth has caused the demand for copper to rise because of its new uses and expensive substitutes. On the other hand, supply has fallen because of strike actions, resource exhaustion and rise in production costs. This has resulted in a rise in price of copper to a higher extent. It is shown in the following figure;

Initially, equilibrium is at E and price is P. Rise in demand and fall in supply shifted the equilibrium to "E_1" where price has increased to "P_1".



b(i) Calculate Chile's approximate visible trade balance in 2005. [2]

Let surplus in 2005 = x

Surplus in 2006 = \$ 17 billion. According to the given statement;

$$x+\frac{2}{3}x=17$$

$$\frac{x}{1}+\frac{2}{3}x=17$$

$$\frac{5}{3}x=17$$

$$x=\frac{17\times3}{5}=\frac{51}{5}=10.2$$

approximtely

(ii) What information in addition to that in Fig. 1 would be required to calculate Chile's current account balance in 2006? [4]

Current Account is composed of imports and exports of visible, invisible items, income and current transfers. So, the information more than the given information required to calculate over all current account include;

- ✓ Visible imports
- ✓ Invisible exports
- ✓ Income and
- ✓ Current transfers.

(c)(i) How did the importance of copper as part of Chile's exports change between 2002 and 2005? [2]

The importance of copper as part of Chile's export increased between 2002 and 2005 in 2005 total export value of \$40 billion out of which around \$22 billion was copper export.

But in 2002 total exports were around \$18 billion out of which just \$7 billion was from export of copper. It shows 40% to 60% of total exports. So, its importance has increased.

(ii) Discuss whether it is desirable for a country to specialize in the production and export of a single good. [6]

Specialization refers to the production technique in which an individual, firm or a country concentrates on the production of specific product or activity. It is desirable as it brings many benefits like a country can get comparative advantage over other countries by producing and specialization in that product for which it has sufficient productive resources. It results in higher output for the economy. Gross domestic product (GDP) per capita will rise and people can enjoy better standard of living as they have qualitative goods in large quantity.

Specialization also reduces time and cost to produce the product. It helps in achieving great economies of scale. So, price competitiveness also rises. It helps in achieving improved balance of trade. But sometimes specialization may bring some disadvantages as well. For example, there will be availability of only restricted jobs as country is specialized. There will not be a balanced growth as other industries are sacrificed. It will also cause high dependency on other countries. Infant industry may face losses. Countries will have to follow the group commitments. Some countries may become vulnerable (weaker) and they may have to sell their products at low prices. It may cause balance of payment problems and depletion of resources because of over-exploitation.

November 2009/21

1. **Elasticity of demand for air travel**

The Department of Finance of Canada examined 21 studies of elasticity of demand for air travel. These were mainly based on behaviour in the USA. It produced a summary of what it thought were the most accurate estimates of elasticity for different segments of the market. Some of these findings are given in Fig.1 and Fig. 2.

Fig.1 Income elasticity of demand (YED) for air travel

	YED Value
Total market	+1.1

Fig. 2 Price elasticity of demand (PED) for air travel

market segment	PED value
Long-distance international business flights	-0.3
Long-distance international leisure flights	-1.0
Short-distance business flights	-0.7
Short-distance leisure flights	-1.5

a(i) State the formula used to calculate income elasticity of demand. [2]

$$YED = \frac{\%\ \text{change in Qd}}{\%\ \text{change in Income}}$$

(ii) What can be concluded about air travel from Fig. 1? [2]

It is normal good as it has positive relationship between change in income and quatity demand.

It has elastic demand because a change in income is causing more than proportionate change in quantity demanded.

The value of + 1.1 confirms this status.

(b)(i) Using Fig. 2, explain a likely reason for the different price elasticity values for business flights compared with leisure flights. [3]

Business flights are more inelastic than leisure flights because business class has to move even prices are high or low. In the same way, availability of no substitutes or lesser number of close substitutes makes its demand inelastic. While inelastic demand means a change in price will lead to a less than proportionate change in quantity demanded. (Qd).

(ii) Long-Distance Flights Compared with Short-Distance Flights. [3]

Long-distance flights are less elastic than short-distance flights having same purpose. The reasons for this trend may be less availability of substitutes because when substitutes available are a few then people have to demand that product irrespective of price changes.
Short-distance flights are comparatively elastic as its substitutes are easily available. Long-distance flights involve longer-time to find out their substitutes, so it is less elastic.

(c) Explain the significance of the price elasticity values in Fig. 2 for an airline considering a policy of fare cutting. [4]

The value of price elasticity of demand is of much importance as every businessman has to set prices accordingly. When the demand is elastic then price cutting will help in increasing total revenue for the firms because a smaller fall in price will lead to more than proportionate rise in quantity demanded, as is the case of short-distance leisure flights.

On the other hand, price cutting will result in fall in total revenue for the firm when its demand is inelastic because a fall in price will result in less than proportionate rise in quantity demanded. So, total revenue in this situation will tend to fall as is the case of long-distance leisure flights. Revenue or profit maximization is the aim of every business organization so, it is conscious to set prices by keeping in mind the value of price elasticity of demand.

(d) Discuss the costs and benefits of an increased demand for air travel.[6]

Increased demand for air travel can bring a number of benefits like, it will lead to the business expansion, firms can produce more and can earn high profits. It helps in finding new markets for the goods and services. It will create employment opportunities, increasing the purchasing power of the people to enjoy a wide variety of goods and services with higher standard of living.

It may help in achieving economies of scale and economic growth. More goods for exports can be produced which help in improving the balance of payment position. However, it may create negative externalities like air pollution, noise pollution and visual intrusion. More use of resources may deplete the resources more quickly.

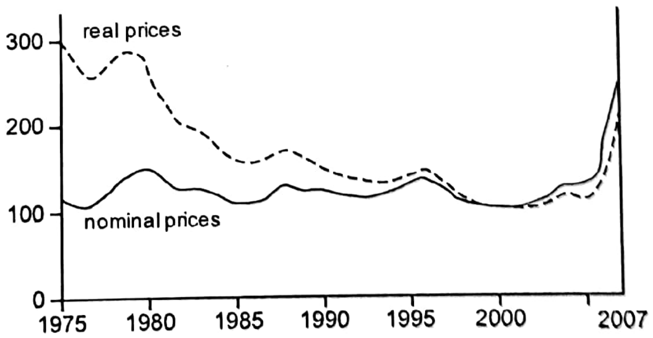
So, it may cause high unemployment in the country in long-run period of time and deteriorated balance of payment position. Increased demand for air travel brings costs and benefits both, however, the expected benefits are more than the costs.

November 2009/22

1. World Food Prices

Between 1975 and 2007 the trend in world food prices changed significantly. Fig.1 shows indices of nominal and real food prices as measured by the International Monetary Fund (IMF).

Fig. 1 IMF World Food Prices Indices 1975-2007 (2000=100)



The importance of food within consumer spending patterns varies between countries. This is reflected in the weight given to food within a country's consumer prices index (CPI). Table 1 shows the CPI food weight for selected countries.

Table 1: Weight given to food (%) in CPI for selected countries

Country	Weight given to food in CPI (%)
UK	10
Australia	15
China	34
Kenya	50
Bangladesh	65

The International Food Policy Research Institute (IFPRI) calculated that a 10% rise in world food prices results in a 1% to 2% increase in world food supply. The effects of higher world food prices can benefit some countries and individuals but harm others.

a(i) **What is meant by nominal prices and real prices? [2]**

Nominal prices are the prices expressed in monetary term like market or selling price of a product. While real prices are the pries after the adjustment of rate of inflation.

(ii) **Compare what happened to nominal food prices and real food prices before and after the year 2000. [3]**

Before 2000 real price index declined and came closer to the nominal price and nominal price index remained more or less stable. For a small period of time they both moved together but after 2000 real and nominal prices moved closely together and they were having increasing trend.

b(i) **How might the differences in food weights shown in Table 1 be explained? [3]**

Food is a basic necessity of life and low income countries spend higher proportion of their income on food. So, they assign more weight to it like Bangladesh and Kenya. While higher income countries spend a lesser proportion of income of food. So, they have lower weights for food and they can afford non-food, more luxurious items like UK. It has a very smaller weight for food. It will also result in different food prices in different countries.

(ii) **Contrast the effect on the rate of inflation in Kenya and in the UK if there were a 20% rise in food prices in each country. [2]**

Rise in price of food will have a greater impact on Kenya as compared to the UK i-e 5 times larger than UK. In Kenya effect on average price will be 10% (i-e $\frac{20\% \times 50\%}{100}$ = 10%) while in UK it will be as low as 2% (i-e $\frac{20\% \times 10\%}{100}$ = 2%).

(c) **Explain one possible reason for the responsiveness of world food supply to changes in price reported by the IFPRI. [4]**

Price elasticity of supply is the responsiveness of change in quantity supplied due to change in price. It can be calculated as;

$$PES = \frac{\%\text{ change in Qs}}{\%\text{ change in price}}$$

According to the data a 10% increase in food price leads to 1% or 2% increase in supply. So, put the value in the formula;

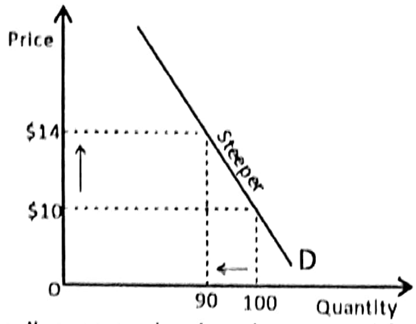
$PES = \frac{1\%}{10\%} = 0.1$ OR $PES = \frac{2\%}{10\%} = 0.1$

PES is less than 1. So, it is inelastic which may be caused by storage problem, more growing period may be required or less resources may be available for production.

(d) **Discuss the benefits and drawbacks of rising world food prices. [6]**

Food is a primary product and a basic necessity of life. So, its demand and supply both will be inelastic. While inelastic demand refers to the phenomenon where quantity demand changes with lesser proportion due to a larger change in price.

So, a rise in price will help the farmers to earn more. Their profitability will rise. It will bring improvement in the financial position of rural areas. It will also stimulate food production and will bring hot profits for the food exporting countries. This can be explained with the help of following diagram;



According to the diagram price has increased from $10 to $14 but quantity demand has fallen with a smaller proportion from 100 units to 90 units. So total revenue of the producers will rise. Initially they were earning 10 x 100 = $ 1000 but after the rise in price total revenue is 14 × 90 = $ 1260, which is greater than the previous. But it will have a negative effect on consumers, food importers and low income earners.

Rise in price will lead to rise in expenditure of the consumers, importers and low income people. So, their burden will rise. It will increase the inflationary pressure as well.

However, it will not affect the developed countries as the people over there are having higher income and they do not depend on primary products. They can afford other non-food luxurious things.

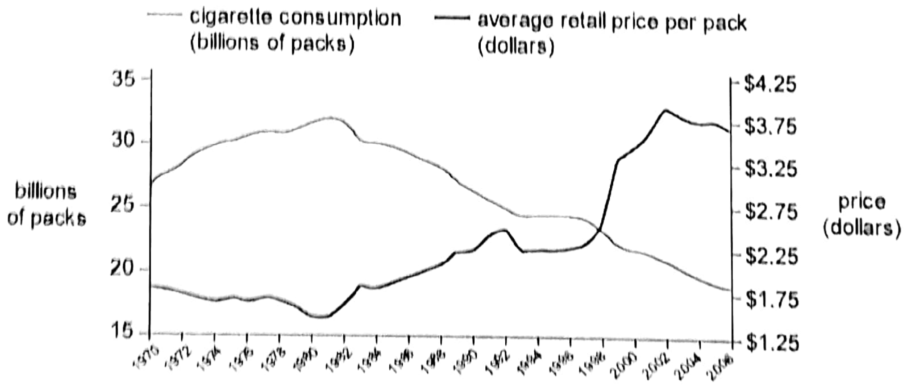
June 2010/21

1. Economic Aspects of Cigarette Smoking

Smoking cigarettes is a controversial matter that illustrates a number of economic issues. As with most products, the key influence on the level of consumption is the product's price.

United States

Fig. 1 US cigarette consumption and cigarette prices 1970–2006



Malaysia

A study of cigarette smoking in Malaysia estimated the short-run and long-run price elasticity of demand (PED) and the income elasticity of demand (YED) for cigarettes between 1990 and 2004. The results are shown in Table 1.

Table 1: Demand elasticities for cigarettes in Malaysia

Short-run PED	Long-run PED	YED
–0.08	–0.57	+1.46

In Europe, taxation of cigarettes is particularly heavy. In 2006 it was 76.4% of the final selling price in Germany, 77.1% in the UK and 80.4% in France. European countries are increasingly banning smoking in enclosed public areas and workplaces. Some anti-smoking campaigners are calling for the smoking of cigarettes anywhere to be made illegal.

(a) How far does the data in Fig. 1 confirm that the normal demand curve relationship exists between the price and the quantity demanded of cigarettes? [3]

Normal demand curve shows the negative relationship between price and quantity demanded. When price rises, quantity demand falls and when price falls quantity will rise.
This phenomenon is observed in the graph except 1992, 1993 and 2003 where the relationship between price and quantity demanded becomes positive. Price and quantities both are moving in the same direction.

(b)(i) What do the three elasticity values in Table 1 tell us about the elasticity of demand for cigarettes? [3]

Price elasticity of demand is the responsiveness of change in quantity demanded to change in price. It is calculated as;

$$\text{PED} = \frac{\text{\% change in Qd}}{\text{\% change in price}}$$

In the short-run period of time PED for cigarettes is very inelastic or strongly inelastic (i-e PED = -0.08) but in the long-run PED is inelastic or slightly inelastic (i-e PED = -0.57). While inelastic demand refers to the situation where a change in price brings less than proportionate change in quantity demanded.
There is negative relationship between price and Qd. Income elasticity of demand shows the responsiveness of change in quantity demanded to change in income.

$$\text{YED} = \frac{\text{\% change in Qd}}{\text{\% change in Income}}$$

The figure shown in table 1 clearly describes that YED is elastic and is positive (+ 1.46) which means that a small change in income will bring a larger change in quantity demanded. Rise in income will lead to rise in demand and vice versa is true for fall in income.

(ii) What might explain these different elasticity values? [4]

Price elasticity of demand depends upon different factors which result in different elasticity values. When the product has a large number of close substitutes in the market PED will be elastic otherwise it will be inelastic as people have lesser choices available. Habit forming goods are also price inelastic as people are addicted to use these things so they keep on using them even prices are high.
In the short-run period of time goods are inelastic as people are unable to find out its substitutes immediately and they cannot switch to other products but in the long-run period of time people can find out its alternatives and can switch over to them which makes demand price elastic. Price elasticity of demand in normal situation is always negative showing the negative relationship between price and quantity demanded. Similarly, income elasticity of demand depends upon different factors, as in case of Malaysia it is a high status luxury good due to which it has strongly positive YED. In case of normal goods, it is slightly positive while in inferior goods case it will be slightly negative.

(c) Explain two possible economic reasons why cigarettes are heavily taxed? [4]

Cigarettes are demerit goods and create negative externalities in the society and such goods are normally over produced in the society. Government imposes heavy taxes on such goods to reduce their consumption so that the element of negative externality can be reduced up to the maximum limit. It will help in having healthier society. Demand for cigarettes is price inelastic which means a rise in its price will lead to a smaller/no fall in quantity demanded which helps the government to raise more tax revenue, or to cover the costs of externalities according to the "polluter pays" principle. Government also discourages the production of demerit goods as they are over produced and leave harmful effects on the society.

Imposition of heavy taxes may lead to change the directions of investment from demerit to the merit goods.

(d) Discuss the possible economic consequences of making cigarette smoking illegal. [6]

The possible economic conservancies of making cigarette smoking illegal can be;
It reduces the health problems like lungs cancer etc and helps to have a healthy labour force in the country which is more productive to produce quality goods and services in large quantities. It also controls the death rate in the country and less congestion in the hospitals for treatment. Healthy labour will also be regular in the job and less sickness absence will be reported. It also improves the production possibilities and efficiency of workers. It will also reduce the cost of hiring and firing consistency in business will make it going concern and will bring good repute in the market. It will also help in making environment better and free of pollution. Government can also use the funds for development project to create more employment by reducing the expenditures on health problems. However, making smoking illegal may result in lesser, tax revenue for the government. Government expenditure may rise as it may have to employ more staff for check and balance to force the law. It may harm the society in the form of low output, lesser use of available resources and creating more unemployment as the people working in tobacco companies will have to lose their job immediately. It may give rise to illegal activities, unreported production and consumption. Similarly, government will have to pay more pensions as people will live longer due to fall in death rate.

June 2010/22

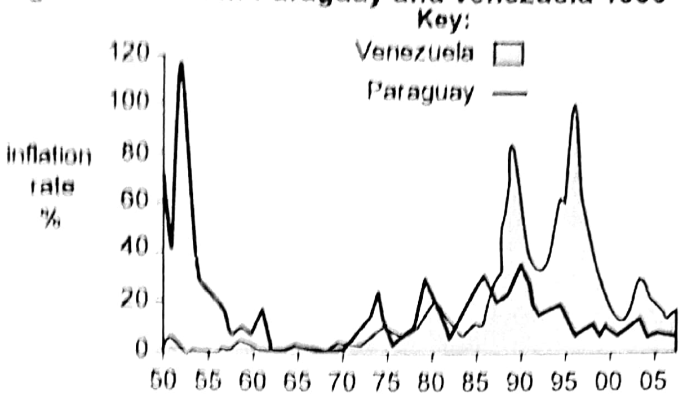
1. Inflation in Paraguay

Paraguay is a small South American country with few of the advantages that bigger, better known economies such as Venezuela and Brazil enjoy. In January 2008 Paraguay updated its Consumer Price Index (CPI) with new weights based on the latest household budget survey. Table 1 shows the changes in the weights. **Table 1 Weights in the Paraguayan CPI, 1992 and 2008**

	1992	2008
Food	35.1	32.1
Clothing	8.6	4.9
Alcohol and tobacco	2.1	1.2
Furniture	8.0	7.7
Transport	7.4	14.8
Communication	0.7	3.4
Housing	10.4	8.9
Health	4.8	4.1
Entertainment	5.1	6.1
Education	2.7	4.0
Restaurants and hotels	4.8	5.5
Miscellaneous goods and services	10.3	7.3

Paraguay's performance and that of Venezuela in controlling inflation are shown in Fig 1.

Fig. 1 Inflation in Paraguay and Venezuela 1950–2005



(a)(i) Why are weights used in constructing a CPI? [2]

Weights show the expenditure pattern of the people in an economy. It reflects the significance of products to consumers. It is also important as it helps in measuring inflation accurately.

(ii) Explain possible reasons why the weights for alcohol and tobacco and transport changed between 1992 and 2008. [4]

Weight allocated to alcohol and tobacco in 1992 was 2.1 and in 2008 it has fallen to 1.2. It shows that people are spending less proportion of their income on them. It may be caused by rise in prices of alcohol and tobacco. There may be more health issues which have enforced the people to consume less of these goods.

On the other hand weights allocated to transport have increased from 7.4 to 14.8. It may be caused by reduced costs of transport or rise in income of the people which have increased their propensity to spend and have allowed them to more relative expenditures.

(b)(i) What is meant by inflation? [2]

Inflation refers to the persistent rise in general price level over time. It results in fall in value or purchasing power of money. According to Milton Friedman it is purely a monetary phenomenon.

(ii) Using Fig. 1 compare Paraguay's inflation between 1950 and 2005 with that of Venezuela. [2]

Figure 1 shows that inflation in Paraguay was higher than that of Venezuela's till approximately 1986/1987. But afterwards Venezuela's inflation rate remained higher than that Paraguay from 1987 till end. In 1955 inflation rate was around zero in both the countries.

(iii) To what extent did Paraguay achieve a low and stable rate of inflation between 1950 and 2005? [4]

Inflation rate in Paraguay generally remained unstable over the whole period. It was particularly very high and unstable at the start of the period to 1960.

From 1962 to 1970 Paraguay was most successful in controlling inflation. However, it was not completely stable. It remained relatively very high for most of the period.

(c) Discuss whether all countries should set annual inflation targets of around 3%. [6]

To set annual inflation targets of around 3% can be justified on following grounds;

All the countries of the world want to have a very low rate of inflation and it should be stabilized. It gives incentives to the producers to produce more by increasing the level of investment which also helps in reducing the level of unemployment. So, investors participate actively. It also helps in keeping and maintaining the price competitiveness of the products produced in a country. It also ensures more income equalities and helps in avoidance of unwanted redistribution of income.

However, it cannot be justified as it is very unrealistic and we cannot find out such a rate in real life. In the recent times, in most of the country's current inflation rate is very high. In some countries, it is unnecessary to achieve this tare if they are enjoying an inflation rate less than 3%.

In most of the countries, ineffective control and lack of institutional framework may not be helpful in achieving this aim. Some of the countries may priorities other aims like reducing unemployment, achieving economic growth and correcting the balance of payment disequilibrium instead of inflation. So, there are different circumstances in different countries regarding inflation and other economic aims. So, it cannot be completely justified that all the countries should set annual inflation targets of around 3%.

June 2011/22

1. **Australia and its Northern Territory**

The Northern Territory of Australia is a large, sparsely populated area. It relies heavily on tourism, mining, agriculture and fishing. The extraction of oil and gas and the mining of iron ore and bauxite have grown significantly in recent years. Its manufacturing is principally based on the processing of its natural resources.

The Northern Territory government publishes forecasts, which compare the economic prospects of the Northern Territory with those of Australia as a whole. The table below gives extracts from the forecasts in January 2009.

Table 1: Selected economic forecasts for Northern Territory and Australia

	Northern Territory		Australia	
	2008–9	2012–13	2008–9	2012–13
International exports, constant price (A$*m)	4172	6004	176010	236824
International imports, constant price (A$m)	2718	2811	217675	224521
Consumer price index, 1989–90 = 100	164.6	180.0	167.7	186.4
Average weekly nominal earnings, A$	954	1078	916	1050
Unemployment rate (%)	3.7	5.7	4.2	6.5
Population aged 15–64 (thousands)	170	186	17456	18627

*A$ = Australian Dollars

a (i) Calculate and compare the change in the trade balance between 2008-9 and 2012-13 of the Northern Territory with that of Australia. **[4]**

<u>Northern Territory 2008-9</u>

Trade Balance= Exports – Imports
= 4172 – 2718
= A$ 1454

<u>Northern Territory 2012-13</u>

Trade Balance= 6004 – 2811
= A$ 3193

<u>Australia 2008-9</u>

Trade Balance= 176010 – 217675
= A$ - 41665

Australia 2012-13

Trade Balance= 236824 – 224521 = A$ 12303

The above figures show that Northern Territory is enjoying trade surplus in both the periods and surplus has increased in 2012-13 as compared to 2008-9.

Trade balance of Australia was deficit in 2008-9 but in 2012-13 its trade shows a very good performance and is converted into surplus with a substantial amount.

(ii) **Explain why exports and imports are often measured at constant prices?** **[2]**

Exports and imports are often measured at constant prices because nominal prices may give misleading impression of a country's performance. So to get a truer picture of the final results, economists convert nominal price into the constant price and remove the distorting effect of inflation.

(b) **Explain two additional pieces of information that would be useful in judging Australia's international financial position.** **[4]**

The two additional pieces of information that would be useful in judging Australia's international financial position include;

✓ Exchange rate and

✓ Balance of payment.

Exchange rate is the price of a currency in terms of another currency. A strong exchange rate of Australia will show its better international financial position. It will also improve its terms of trade as its import prices will fall and export prices will rise. Balance of payment figure is also necessary to judge its financial position. While balance of payment is the summary of all the economic transactions of a country with the rest of the world. It includes the figures of not only exports and imports rather it takes into account all the items like trade in goods, services, current transfers, borrowings and lending, foreign investments and financial account.

So, these two elements will be useful in judging Australia's international financial position.

(c) **Analyse the change in average weekly earnings in Australia in real terms between 2008-9 and 2012-13.** **[4]**

Real average weekly earnings mean the purchasing power of the nominal earning after the adjustment of rate of inflation. Real average weekly earnings in Australia rose in 2012-13 as compared to the previous period of 2008-9.

$$\text{Real average earnings in 2008-9} = \frac{\text{weekly nominal earning}}{\text{consumer price index}} \times 100$$

$$= \frac{916}{167.7} \times 100 = \text{A\$ } 546.21$$

In 2012-13 Real weekly earning is

$$= \frac{1050}{186.4} \times 100 = 563.30$$

So, the real income is more than the previous period as nominal income has increased approximately by 14.65% but price level has increased by approximately 11.2%.

(d) **With the help of the text and the table, discuss the economic outlook for the Northern Territory.** **[6]**

According to the table 1 balance of trade of Northern Territory is in surplus. However, we are not aware of the figures of income transfers, long term investments and official borrowings etc to finally conclude its economic outlook.

Price index in increasing with a greater ratio from year 2008-9 to 2012-13. It shows that there may be a higher aggregate demand causing demand pull inflation or lower aggregate supply due to high taxes, high interest rate as well as higher cost of production. It may be caused by increased money supply by central bank of Northern Territory.

It may show a poor economic outlook/performance of Northern Territory.

Nominal average weekly earnings have increased from A$ 954 to A$ 1078 during 2008-9 to 2012-13 i-e approximately 13%. The real weekly earnings have increased which shows that the purchasing power of the people in Northern Territory has risen.

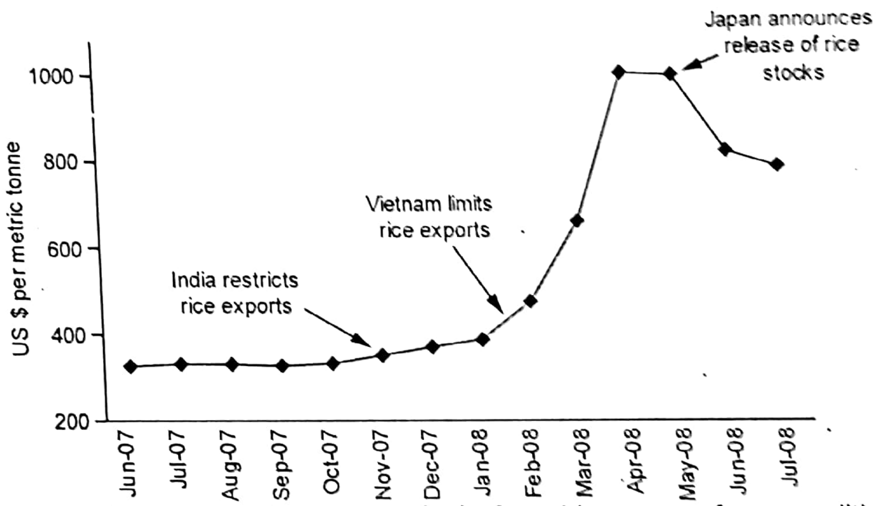
Unemployment rate has increased from 3.7% to 5.7%, which again shows the poor economic performance. Working population has increased from 170 thousand to 186 thousand but their employment rate has fallen. Northern Territory is populated area relied on tourism, mining, agriculture and fishing. So, we can say that it is an agricultural based developing area of Australia.

November 2011/22

The price of rice in international trade

1 Between January 2002 and July 2008 the world price of rice, a staple food for Many people in developing countries, rose by slightly over 300%. As shown in Fig. 1 the price of rice changed very significantly in the six months to July 2008 and was influenced by the actions of different governments.

Fig. 1: Actions of different governments and the world price of rice



The rise in the price of rice was typical of a wide range of commodities. This price rises caused food and fuel riots in developing countries. As a result, some governments turned to protectionist trade measures. Vietnam limited rice exports while Cambodia and Egypt banned all rice exports. The Indian Government replaced the minimum export price that it enforced for non-basmati rice with a complete ban on rice exports. At the same time, it placed restrictions on wheat imports for the purpose of disease control.

(a) Calculate the approximate world price of rice in January 2002. [2]

Let Price in 2008 = $800

Price in 2002 = x

Increase in price =

$$300\%x = \frac{300}{100}x = 3x$$

Price in 2002 + Increase in price = Price of 2008

$$x + 3x = \$800$$

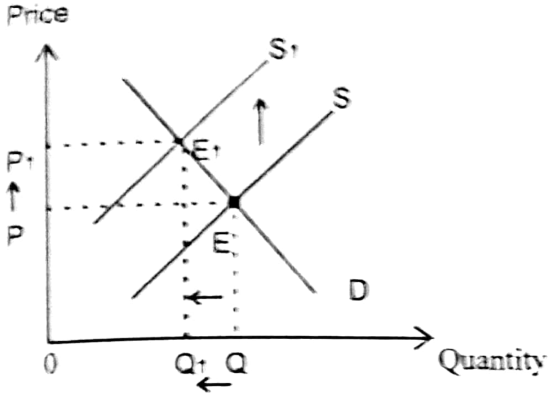
So,

$$4x = 800$$

$$x = \frac{800}{4} = \$200 approximately$$

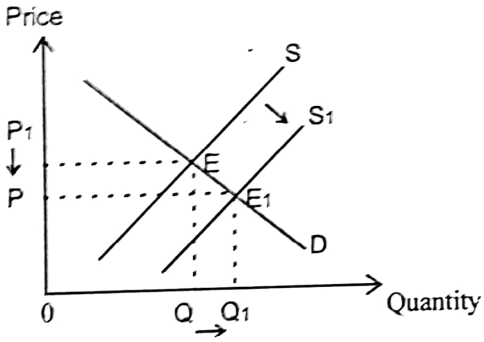
(b) With reference to Fig. 1, analyse the different causes of the price movements of rice from November 2007 to April 2008, and then after May 2008. [4]

Restrictions on exports by India and Vietnam has resulted in decrease in supply of rice due to which initially price level is rising. It can be explained with the help of following diagram.



According to the above diagram, initially equilibrium is at point E where price of rice is P. Restriction on export of rice has resulted in decrease in supply due to which supply curve has shifted to the left to S1 and new equilibrium price is P1.

It means price of rice has increased due to fall in supply of rice in the market. Subsequently, price of rice started to decrease due to rise in supply of rice as Japan has released the stocks. It is shown in the following diagram;



Rise in supply has shifted equilibrium from E to E1 and price of rice has decreased from P to P1.

(c) Explain two possible economic reasons for India's introduction of export restrictions. [4]

There can be a number of economic reasons for India to introduce export restrictions. For example, government might want to transfer the supply of these goods to the domestic market so that these goods should be available to the public.

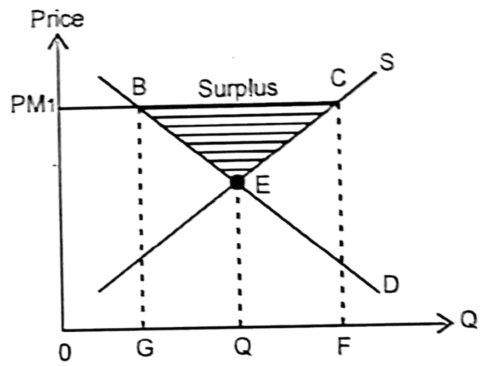
It would be helpful in improving standard of living of the nation, as they would be enjoying a wide variety of goods in large quantities.

It would also be a helpful for poor families in India, as the restriction on rice will ensure to availability of substantial amount of rice in the home market. All the people living in India demand rice it being necessity of life. Availability of large quantities of rice will make rice cheaper as it is shown in the second graph of part (b) of this question. Therefore, price level will fall and inflationary pressure will reduce because rice being necessity has large weight in consumer price index.

(d) (i) How might an effective minimum price for exports have helped India's position? [2]

Minimum price is set by the government above equilibrium and results in excess supply.

So, excess supply of rice will lead to reduction in price level in domestic market. It might be helpful in increasing the revenue of farmers. Graphically it can be;



According to above figure equilibrium is at E where quantity is Q. PM1 is minimum price set by the government which has resulted in surplus equal to BC and FG. However, minimum price set below equilibrium will be ineffective and there will be no shortage or surplus rather price and quantity will remain at equilibrium.

As minimum price is higher than equilibrium price therefore volume of exports may fall and more rice might be available to the people of India in the home market. Price of rice in local market will also fall. Local producers may also benefit from increased demand in the form of higher revenue and more profits.

(ii) Why might India have changed from the use of a minimum export price to an export ban? [2]

India might have changed its policy from minimum price to an export ban due to a number of reasons. For example, if the demand for exports is inelastic then a minimum price set above equilibrium will not result in decrease in export rather there will be greater quantity and exporters will still continue to export.

So, minimum price will not be much effective to control exports. Similarly, if the demand is elastic then minimum price will lead to fall in export revenue due to which India have to ban its exports rather to impose minimum price above equilibrium.

(e) Discuss the potentially harmful effects of India's protectionist trade policy for both its own economy and that of the rest of the world. [6]

Trade protection policies refer to the barriers created by the country to check the volume of imports coming into the country. It can bring some positive consequences due to which can be justified on some grounds. But on the other hand it may bring some bad consequences as well due to which these policies cannot be justified. Its harmful effects for India and that of the rest of the world are discussed as under;

Sometimes, local industry needs the raw material which is to be imported from abroad and trade barriers create hurdles in this regard. The element of freedom of choice for the consumers is also affected due to protectionism.

Countries cannot get benefit of specialization and international trade. It has some feedback effects as well or retaliation. Other countries in may also impose such trade restrictions on that country as well. Political ill will may be created as the trading partners will not be happy with this policy because due to lesser available goods price of imports will rise there.

Therefore, trade diversions may take place. India's export revenue may also fall due to reduced inflow of foreign currency. Rest of the world will also have to face the problems of higher prices of imports. Residents of the other countries will have lesser variety of goods available. Welfare of the people will deteriorate. Producer's efficiency to produce will also decrease.

June 2012/22

1 Current Account Balances 2006–2010

The International Monetary Fund (IMF) supplies data on the balance of payments, particularly the current account balances, of its member countries. Table 1 was produced in October 2009 and shows balances for 2006 to 2008 and a forecast for the balances for 2009 and 2010 of several member countries.

Table 1: Current account balances in billions of US dollars (US$) 2006-2010

	2006	2007	2008	2009	2010
Brazil	13.6	1.6	–28.2	–18.8	–33.3
China	253.3	371.8	426.1	361.5	451.2
India	–9.3	–11.3	–26.6	–27.5	–33.6
Japan	170.4	211.0	157.1	96.9	105.6
Mexico	–4.4	–8.3	–15.7	–10.8	–12.6
Russia	94.3	77.0	102.4	45.4	62.0
United States	–803.5	–726.6	–706.1	–369.8	–324.7

The start of a worldwide recession in 2009 had a major impact upon the level of international trade and affected different countries in different ways.

A country's current account balance is a key macroeconomic indicator. In some countries a current account surplus is an important economic objective. Other countries, however, need to decrease a current account deficit. One of the possible actions by a government facing such a deficit is to introduce an expenditure-reducing policy.

1 (a) Compare the changes shown in the current account balance of Russia and the United States between 2006 and 2010. [2]

The current account balance of Russia was surplus in 2006 amounting to 94.3 billion dollars. In 2007 its current account is surplus but surplus has decreased as compared to 2006. It rose in 2008 then fell in 2009 and again rose in 2010 as compared to 2009. Current account of United States was in deficit in 2006 and deficit tends to decrease throughout the given period till 2010.

(b) Explain two possible economic reasons why China's international trade performance was stronger than that of India. [4]

The surplus in China's current account throughout the period shows that its economic performance is stronger than that of India because India's current account is in deficit and deficit is increasing continuously. This stronger position of China's international trade can be due to revaluation/appreciation of its currency.

Appreciation of currency makes imports cheaper and exports expensive accompanied inelastic demand may have resulted in increase in its surplus. Secondly, it might have achieved economies of scale due to which it has captured international market and can earn higher foreign exchange from its exports. It might have imposed trade barriers to check imports coming into the country.

(c) Explain two likely economic effects of the 2009 recession on international trade. [4]

Recession on international trade may affect the Gross National Product (GNP) of the country because it reduces the level of output in the economy. It will also lead to increase in unemployment rate as producers will need lesser workers as their output and demand has decreased. High unemployment will lead to decrease in government tax revenue and increase its expenditure on unemployment benefits and subsidy to the loss making producers for their survival.

(d) Why might a current account surplus be an important economic objective for some countries? [4]

Surplus in current account means inflow of cash coming into the country is higher than the cash outflow of the country. Surplus in current account is an important objective for some countries because it brings many benefits to the economy. Higher exports earning will lead to more investments in the country. Higher output will be produced. Resources of the country will be used in a better way. More employment opportunities will be available to the residents of the country. People having jobs and earning taxable income will also pay taxes to the government. Therefore, government budget will also go into surplus. Hot money coming into the country will also help to improve standard of living of the country due to higher purchasing power of the people.

(e) Discuss the desirability of using an expenditure-reducing policy to decrease a current account deficit. [6]

Expenditure reducing or dampening policy is designed by the government to reduce the total spending in the economy. It includes deflationary fiscal and monetary policy. In deflationary fiscal policy government increases income taxes and decrease government expenditures. Rise in income tax reduces the disposable income of people due to which their purchasing power falls. In this way they will decrease the volume of imports which desirable to get favourable position of current account of balance of payment but on the other hand it will have undesirable impact on domestic consumption. Lower purchasing power means lower purchases within the economy as well which brings deflationary effects on the aggregate demand (AD).

It may also lead to higher unemployment in the economy as well. Similarly, in deflationary monetary policy, interest rate is increased and money supply is decreased. High interest rate attracts the foreigners to demand more currency in the foreign exchange market but on the other hand, fall in money supply will deflate the other economy. Therefore, some of the economists suggest using the alternative measure of devaluation of currency, tariff, quota and embargo to decrease deficit in current account.

November 2012/21

People in Education

1 Most governments see increasing the number of their population in education as a way to raise national productivity and prosperity in the long term.

The Organisation for Economic Co-operation and Development (OECD) has produced statistics of those in different age groups who participate in education. Table 1 shows the percentages of two age groups who are in education in a selection of countries. This covers both full-time and part-time students and both public and private providers.

Table 1: educational participation rates in 1995 and 2007, selected countries

Country	Percentage of those aged 15-19 participating in education		Percentage of those aged 20-29 participating in education	
	1995	2007	1995	2007
Belgium	94	94	24	28
France	89	86	19	20
South Korea	75	87	15	28
United kingdom	72	71	18	17
United States	72	80	19	23
New Zealand	68	75	17	30

Economists classify products into different groups such as private goods or public goods and merit goods or demerit goods. Education is usually considered to be an example of a merit good.

(a) Between 1995 and 2007, which country was **[2]**

(i) **the least successful in increasing its overall educational participation rate**
France and UK.

(ii) **the most successful in increasing its overall educational participation rate?**
South Korea

(b) Explain two possible economic reasons why the educational participation rate of 15–19 year-olds is higher than that of 20–29 year-olds for all countries as shown in Table 1. **[4]**

The educational participation rate of 15-19 year-olds is higher than that of 20-29 year-olds because there are lesser legal requirements and simple documentation in early education as compared to the higher education. Therefore, is difficult, time consuming and expensive process to get higher education in most of the developing countries where people try to give birth to a large number of children so that they can earn money and support their parents. Similarly, in developed countries 20-29 age group people try to do work and get experience to boost their earning level that's why the educational participation rate in this age group is lesser.

Secondly, educational participation rate in 20-29 groups is lesser because they think they would earn more if they focus on work instead of studies.

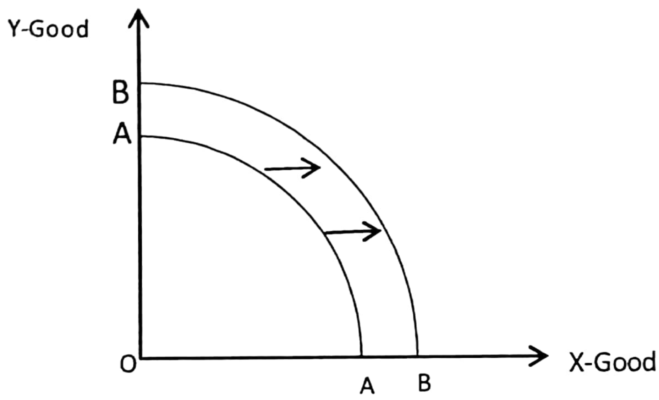
They feel that opportunity cost of getting higher education is greater. They also give up education due to family responsibilities.

(c) (i) What is the difference between production and productivity? **[2]**

Production is the process of converting raw material into final of semi final goods. In other words it is process of producing goods and services while productivity is the output per input. So, production is the total number of goods and services produced and productivity is the output per worker if we take labour as an input.

(ii) Explain how education may affect labour productivity and the production possibility curve. [4]

Education makes the labour more skilled and productive. Therefore, productivity will rise and productive labour will be able to produce more goods and services in less time. On the other hand, production possibility curve is a curve which shows different combinations of goods that can be produced with given resources. Increase in productivity due to education will lead to rightwards shift in PPC showing increase in production possibilities. It can be a complete rightwards shift, if productivity of labour rises for both the goods. However, there can be a pivotal shift if productivity rises only for one product due to improved education for that specific product. It is shown below;



(d) Why is education considered to be an example of a merit good? [4]

Merit good is a good that creates positive externalities which is benefit not only to the producers and consumer but to the third party as well. Education is considered as merit good because it gives benefit to the educated person himself in the form of better career and at the same time it benefits the third person who is treated by educated one with good manners and courteous behavior.

(e) Discuss the extent to which the provision of education is different from the provision of national defence. [6]

National defence is a public good which is always provided by the government. It may be financed out of taxation or any other source of government income. It has the features of non-excludability and non-rivalry. It means everyone can benefit from a public good without paying any direct cost for the good or service like defence. Government itself provides such services because if they are left to the private sector then they will be under-produced causing loss of positive externalities (external benefit). Government aims to produce at a point where MSC and MSB are equal.

On the other hand, private sector or free market economy produces at its profit maximizing level where MPB are greater than MSB. It results in deadweight loss in the form of loss of positive externalities. Education can be a public or private good. Education provided by government schools will be public good while private schools education will be included in private good. Therefore, we can say that education is a public good but to a little extent while National Defence is purely a public good.

Education provided by the government ensures that everyone can get it without paying any direct cost. But in some developing countries government education is not of good quality. Therefore, private sector's role in this regard is remarkable. Private sector schools, colleges and universities although they are little costly yet they are providing better education to the affording people.

June 2013/22

Palm Oil Production

1 Palm oil is used in the production of many goods, including cooking oil, margarine, ice cream, soap, shampoo and more recently fuel for vehicles. It competes with other vegetable oils made from soyabeans, rapeseed, sunflowers and groundnuts. While palm oil production takes up 6% of the land used for vegetable oil plants across the world, it produces 38% of the total output of vegetable oil globally and accounts for 60% of world exports of vegetable oil.

Palm oil is produced from the flesh of the palm fruit and, at the same time, palm kernel oil is produced from the kernel or seed. After the extraction of the oils the waste is turned into palm kernel cake that is then sold for animal feed.

In Malaysia the palm oil industry employs 570 000 people of which 405 000 are engaged in cultivation. Malaysia and Indonesia are the world's two most important palm oil producers and details of their production are given in Table 1.

Table 1: Palm oil production in Malaysia and Indonesia, 1995 and 2008

	Malaysia	Indonesia
1995 Production ('000 tonnes)	7811	4480
1995 Area cultivated ('000 hectares)	2540	2025
2008 Production ('000 tonnes)	17734	18090
2008 Area cultivated ('000 hectares)	4488	7008

The increase in the cultivation of palm oil has been criticised on environmental grounds. There have been accusations of deforestation, reduction of biodiversity, harm to wildlife and increasing emissions of greenhouse gases. One response has been an organisation of growers, processors, and food companies to encourage the production of sustainable palm oil that limits the harm to the environment.

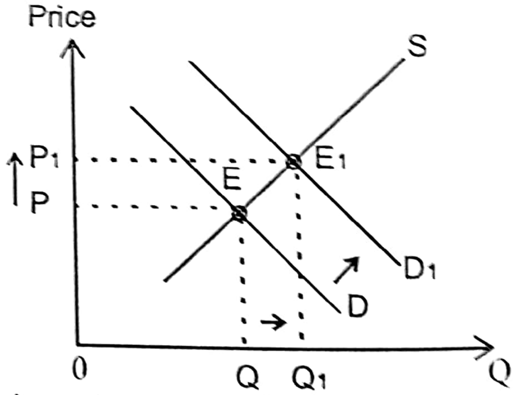
(a) Give two reasons why palm oil is an important product for the economy of Malaysia. [2]

✓ Palm oil is the main source of foreign exchange earnings as well as to meet domestic demand.

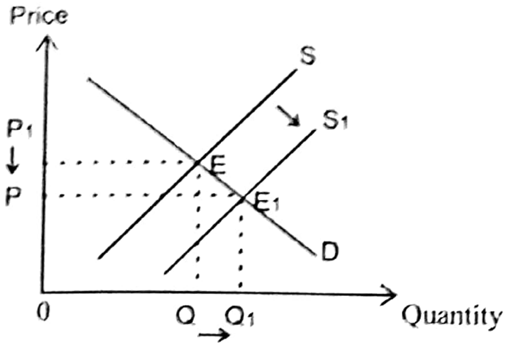
✓ It is the main source of employment in the country.

(b) Analyse, with the aid of diagrams, the impact of an increase in demand for palm oil on the markets for palm oil and palm kernel cake. [5]

Palm oil and kernel cake are in joint supply. Therefore, increase in demand for palm oil will lead to increase its price and quantity traded and at the same time more palm kernel cake will be produced due to which its supply will rise, its price will fall and quantity traded will rise. This impact is shown in the following figure;



According to the above diagram initial equilibrium for Palm Oil is at 'E' where its price is P and quantity traded is Q. Rise in its demand will shift the equilibrium to E1 and price will rise to P1 and its quantity traded will rise to Q1. The impact on market for Palm kernel cake is shown below;



Rise in price of Palm oil will lead to increase in price Palm oil due to which its quantity supplied will also rise. Therefore, more kernel cake will be automatically produced it being in joint supply or by product. Equilibrium in the market for kernel cake will shift from E to E1 and its price will fall from P1 to P while its quantity traded will rise.

(c) (i) How can Table 1 be used to provide one measure of productivity in palm oil production? [2]

In table 1 area cultivated is and input (land) and the production is output. The figures given can be used to measure the productivity because productivity is output per input. If we divide production by the area cultivated then we can find productivity. It will give output per hectare.

(ii) Use Table 1 to compare the productivity of palm oil production in Indonesia in 1995 and 2008. [2]

In Indonesia in 1995 Productivity = $\frac{4480}{2025} = 2.21235$

In 2008 Productivity = $\frac{18090}{7008} = 2.58134$

It shows that productivity has increased in 2008 as compared to 1995.

(d) What additional information would give a better understanding of changes in productivity in palm oil production in Indonesia? 3]

The additional information needed to better understand changes in productivity include number of workers working to produce Palm oil and their working hours.

Similarly we need the information about the capital (machinery) used to produce it.

As we know that productivity is output per input therefore, we need to know all the figures of land, labour and capital to finally conclude about the productivity. Labour training, technology, use of fertilizers will help to increase productivity. On the other hand, deficiency in technology, movement of labour from rural areas to urban areas will reduce productivity in palm oil production.

(e) Discuss any two policies that governments might use to prevent harm to the environment from palm oil production. [6]

It is the aim of government to achieve optimum level of output in the economy. If goods are over produced, government tries to reduce its production through its different policies. Similarly, in this situation in hands government needs to intervene in the market to overcome the harmful effects of palm oil industry on the environment. The two policies government can use in this situation include;

- Imposition of taxes
- Issuing pollution permits

Government may impose high taxes on the production of palm oil so that producers of palm oil have less ability to produce it. In this way, its harmful effects on the economy will fall. It will reduce the harmful effect on wildlife, deforestation will also come under control and emission will reduce.

Secondly, government may issue pollution permits to limit the extent of pollution in the environment. It will force the producers for the production of sustainable palm oil that limits the harm to the environment. Producers will use recent techniques to avoid shutting down their industry. However, these policies are also questionable to be operated properly.

Government will have to employ extra staff to have a check and balance on the activities of producers. It will also increase the cost of government in the form of extra wages and salaries.

In developing economies such actions are difficult to be taken due to the element of nepotism and corruption. However, it is necessary to take some steps in this regard.

November 2013

Zimbabwe and Inflation

1. When hyperinflation takes control members become enormous. This was Zimbabwe's experience in 2007 and 2008. Professor Steve H. Hanke of Cato Institute calculated that in November 2008 Zimbabwe's annual inflation rate reached over 89 sextillion percent. It means 89 followed by 21 zeros. There are many stories about the Zimbabwe's dollar (Z$) in this period.

In July 2008 an egg cost Z$ 50 billion, a bottle of beer rose in price from Z$ 100 billion to Z$ 150 billion in an hour and shopkeeper would only accept cheques (checks) if they were written to a value twice the amount owed by the customer. Prices of goods rose to trillions and quadrillions of Zimbabwe dollars. In six months the prices of a loaf of bread rose to Z$200,000 to Z$1.6 trillion and the government introduced Z$ 100 trillion banknote.

One way to make figures more meaningful is to quote a daily rate of inflation or the time it take price to double. Table 1 gives this for three famous hyperinflations.

Table 1 Three famous hyperinflations

Hyperinflation	Daily inflation rate (%)	Time for prices to double
Hungary (July 1946)	195	15.6 hours
Zimbabwe (November 2008)	98	24.7 hours
Yugoslavia (January 1994)	64.6	33.6 hours

The international value of Zimbabwe dollar also changed dramatically. The exchange rate against US $ went from;

US $ 1 = Z$ 10 in 1997 to US $1 = Z$ 13, 000 000 000 000 000 in November 2008.

Zimbabwe's trade performance changed between 2007 and 2008 as shown in table 2.

Table 2 Zimbabwe's trade statistics (US$ millions)

	2007	2008
Export of goods	1804	1651
Import of goods	2113	2360
Current account balance	-383	-906

Sources: EU statistics

(a)(i) What is meant by hyper-inflation? **[2]**

When rise in general price level is extremely rapid and out of control, it is called hyperinflation. It is noticeable and unbearable for the people. In this situation prices may rise up to 100 and 1000 times. In this situation people prefer barter trade over money transactions.

(ii) Describe what happened each day to the real value of money in Zimbabwe in November 2008 **[2]**

In November 2008 the real value of money in Zimbabwe was falling rapidly every day. The daily inflation rate of 98% shows that price got double in 24.7 hours. This will lead to around half the real value of money each day. As explained by Fisher if we double the price level value of money will remain half.

(b) Explain how a government may cause hyperinflation? **[4]**

Inflation may be cause by producers, consumers as well as the government. Government may cause hyperinflation through uncontrolled money supply. If government doubles the supply of money, price level will be doubled and value of money will be half. It was explained through an equation;

MV=PT and P=MV/T. See it explanation on page number 226.

As in the above context we can see that government has introduced a banknote of Z$ 100 trillion it shows that government itself is causing hyperinflation.

(c)(i) Account for the shopkeepers' treatment of cheque (check) payment.
[2]

"Shopkeepers would only accept cheques (checks) if they were written to a value twice the amount owed by the customer". This statement clearly shows points the one is that are not accepting notes because it will cause the problem of storing them in a big room. They might not have the sufficient place to do so.

Secondly, they demand double amount on the cheque to be written because they know that value of currency is falling so rapidly and till the time they get the cheques cashed value of money would be very low. Shopkeepers don't have confidence on money as good medium of exchange, as it is missing the element of portability and storability.

(ii) Explain how workers and foreign investors may react to hyperinflation?
[4]

Worker may react by demanding high wages because they have to meet their expenditure. If there is no rise in their income then this rise in hyperinflation will reduce their purchasing power rapidly and even they might not be able to fulfill their basic needs for survival. However, those keep on buying will have to face rapid rise in their expenditure because demand for basic needs is inelastic and a rise in price level will lead to higher expenditure.

Similarly, foreign investors will also be reluctant to invest in Zimbabwe because it will be very difficult for them to buy raw material and hire labour to undertake production. Furthermore, their demand will also fall dramatically due to high prices and they may have to face huge losses. Foreign investors may also demand high subsidy from the government of Zimbabwe otherwise they may switch their investment to some other country.

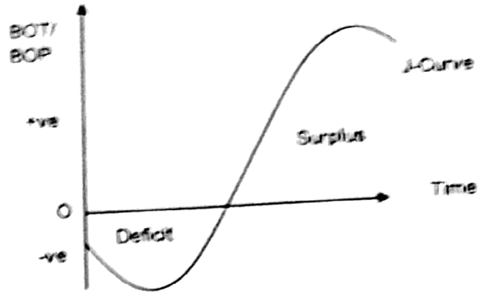
(d) Discuss whether the change in Zimbabwe's current account is what would be expected when a country has the highest rate of inflation in the world?
[6]

Zimbabwe's current account deficit increased in 2008 to 906 US billion dollars. Deficit in 2007 was relatively low at 383 billion US dollars. This deficit is caused by higher prices of exports leading to fall in volume of exports. Exports volume is decreasing due to high inflation in Zimbabwe. It lost price competitiveness. Fall in volume exports led to lower export earnings which might be caused by elastic demand for exports.

Similarly, high inflation in the country has led to increased volume of imports and higher import payments. Therefore, greater import payments and lesser export earning has led to increase the current account deficit of Zimbabwe's balance of payment.

This trend is not always expected whenever; there is high rate of inflation because it depends upon the rate of inflation in other countries as well. Similarly, it depends upon the exchange rate system of relevant country. If it has fixed exchange rate system then high inflation reduces price competitiveness and resultantly volume of exports falls and current account may go into deficit.

But if it has freely floating exchange rate system then a fall in exports will lead to depreciation of its currency and then the situation in the short and long run will be totally different. In the short run period of time due to inelastic demand for imports and exports current account deficit will further deteriorate but in the long run it will improve and will move to surplus. It is explained with Marshal Lerner Condition and J-curve phenomenon. Therefore, we concluded that what happened in Zimbabwe is not always expected due to highest rate of inflation.



In short run period of time due to low price elasticity of demand a fall in price of exports will result is fall in export earnings because a greater fall in price would lead to a less than proportionate rise in quantity demanded for exports. On the other hand import payment will rise because a rise in price will lead to less than proportionate fall in demand for imports. However, in the long run situation would be quite opposite.

June 2016

1 Turkey's economic policies

Extract 1: Turkey's medium-term programme

In a press statement in 2014, Turkey's minister in charge of the economy, Ali Babacan, introduced Turkey's medium-term programme (MTP) for the period 2015–2017. He stated that the first priority of the MTP is solving the problem of inflation, second is the current account deficit and third is structural reforms.

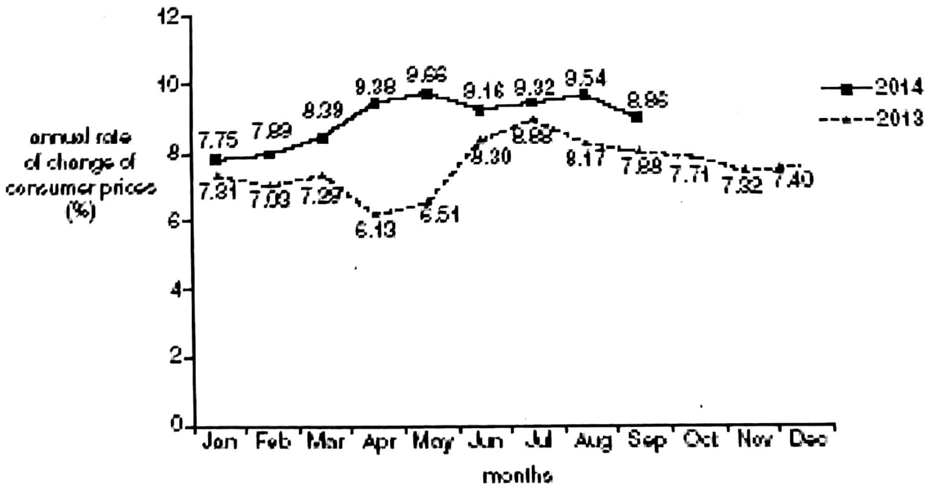
Tight fiscal policy will be pursued in order to reach Turkey's goals of lower inflation and a reduced current account deficit. Structural reforms are important to increase Turkey's potential growth, the minister said.

He announced that the inflation rate is expected to fall from 9.4% in 2014 to 6.3% in 2015 and 5.0% by 2017. The minister also stated that the unemployment rate is expected to drop from 9.6% in 2014 to 9.1% by 2017.

As the United States (US) economy recovers, the US central bank is expected to increase interest rates, causing the US dollar to continue to rise. The outcome of these policies might be harmful for Turkey's economy.

The minister claimed that Turkey's macroeconomic policies were already increasing saving in the economy and reducing consumer credit. By 2017 domestic savings are expected to rise to 15% of national income.

Fig. 1: Turkey's consumer price inflation rate, January 2013–September 2014



Source: Daily Sabah, 9 October 2014

Table 1: Turkey's balance of payments current account, 2012–2013 (US$ million)

	2012	2013
Exports of goods	163221	163371
Imports of goods	-228552	-243394
Services	22562	23131
Income	-7161	-9355
Current transfers	1433	1181

(a) What happened to the balance on Turkey's current account between 2012 and 2013? [2]

(b) Use a production possibility curve diagram to show the intended outcome of the structural reforms in Turkey. [2]

(c) With the help of a demand and supply diagram, show how the expected change in US interest rates was likely to cause the US dollar 'to continue to rise'. [2]

(d) Consider whether the outcome of the interest rate changes in the US was likely to be 'harmful for Turkey's economy'. [4]

(e) Explain **two** factors that determine how the increase in consumer prices between 2013 and 2014 shown in Fig. 1 might affect the total value of Turkey's exports. [4]

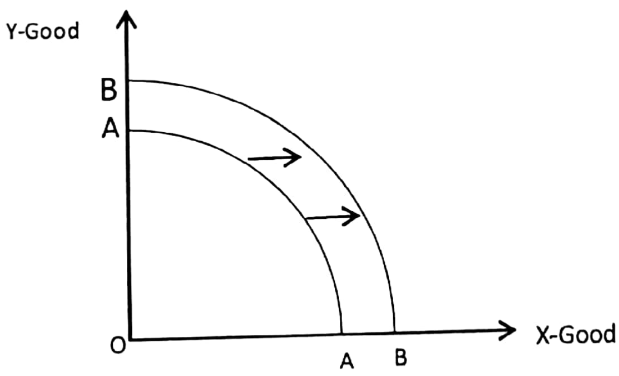
(f) Discuss how 'tight fiscal policy' could be expected to help Turkey achieve the first priority of the MTP, and consider how effective this is likely to be. [6]

Envisioned Answers

1 (a)

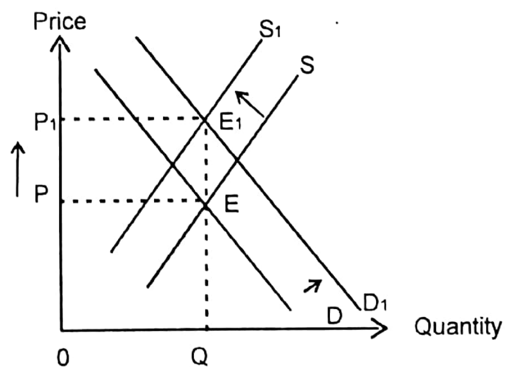
The balance on Turkey's current account was deficit in both the years and deficit further increased between 2012 and 2013 because outflow due to imports of goods and income increased faster than the inflow from services, current transfers and exports of goods which is clearly depicted in the given figures.

(b)



(c)

The higher interest rate on US dollars will increase the business confidence due to which many foreign savers will save in dollars and demand for dollars will tend to rise. On the other hand, those who have dollars will not be willing to sell it rather they would prefer to hold in their own saving accounts and in this way, supply of dollars will fall. Both of these effects will lead to appreciation of dollar. It is shown in the following figure;



According to the above figure quantity on x-axis means quantity of dollars traded in foreign exchange market and price on y-axis means its exchange rate or its price against other currencies. The initial equilibrium of dollars in the foreign exchange market is at E where exchange rate of dollar is P. Increase in demand for dollars will shift its demand curve towards right from and D to D_1 and due to decrease in supply, supply curve will shift towards left from S to S_1 and new equilibrium will take place at E_1, where price of dollar will rise to P_1 which shows an appreciation of dollar.

(d)

The rise in US dollar's exchange rate due to increase in interest rate will harm the Turkey's economy due to certain reasons.

First of all, Turkish people may be attracted from the high interest rate on dollars and they may shift their funds there, to earn greater returns on dollars. This may cause the balance of payment problem for the Turkish economy because its financial account will deteriorate due to this inclination of people.

Secondly, Turkish currency will depreciate against US dollars making exports cheaper and imports expensive and again it would be harmful because it may deteriorate its balance of payment if the price elasticity of demand for exports and imports is inelastic. According to Marsha Lerner condition, in the short run due to inelastic demand for imports and exports harms the current account of balance of payment and creates a J-Curve phenomenon.

On the other hand, a rise in interest rate on UD dollars might be beneficial for the Turkey's economy if the price elasticity of demand for exports and imports is greater than one or in other words it is elastic. Depreciation of Turkey's currency against US dollars will make exports its cheaper for the UD consumers and it will lead to greater exports. While the imports from UD for the Turkish people will become expensive and resultantly its imports will fall and current account may become favorable. It may also increase employment there and the standard of living its general public may improve.

So, from the above discussion we concluded that the rise in interest rate on UD dollars may be harmful for Turkey's economy in certain circumstances but it is not always the case because in certain economic conditions it might be beneficial as well.

(e)

The total value of exports is calculated by multiplying the price and quantity of goods and services exported. It is as;

Value of exports = Price × Quantity exported

For example, if the unit price of a product which is exported, is $ 100 and we export 1000 units of that certain product then the value of export would be 100 × 1000 = $100,000.

Note: the above information of part (e) is given just to know about the value of exports because it is blurry concept and students generally misperceive it. The answer to this question is given below.

The two factors that might affect the value of Turkey's exports can be price elasticity of demand for its exports and the rate of inflation prevailing in other trading partner countries or competitors. The price elasticity of demand for exports is an important factor that affect the value of exports due to increase in consumer price or inflation. If the demand for Turkey's exports is elastic, a rise in its price will lead to fall in the value of its exports. It is because a smaller rise in price will lead to a greater or more than proportionate fall in volume of exports. Resultantly, exports earnings or value of exports will fall.

On the other hand, if demand for its exports is inelastic, the value of exports will rise because a rise in price will bring less than proportionate fall in quantity of exports. Therefore, export earnings will rise.

The second factor is the inflation rate prevailing in other countries. In the given data we just know the consumer prices of Turkey only and we don't know the rate of inflation in other countries. So, if the rate of inflation in other competitor countries is greater than that of Turkey, it may lead to increase in export value of Turkey and vice versa would be true if the inflation in competitor countries is lower than that of Turkey which makes Turkey's exports relatively expensive or uncompetitive.

(f)

Fiscal policy is the policy of government to raise revenue through taxes and spend its income on government expenditure with a view to alter aggregate demand in the economy to achieve macroeconomic aims of inflation, unemployment, growth and balance of payment.

The term tight fiscal policy which is also termed as contractionary fiscal policy refers to the policy which reduces aggregate demand or the level of economic activity in the country by increasing taxes and decreasing government spending. Tight fiscal policy results in increase in budget surplus or reduction in budget deficit because it increases government revenue and decreases its expenditure.

Turkey's minister in charge of the economy, Ali Babacan, stated that the first priority of the MTP is solving the problem of inflation. The tight fiscal policy will help to achieve this aim. Increase in direct taxes like income tax, corporate tax and inheritance tax will lead to lower purchasing power of the individuals and companies and as a result they will decrease their demand and aggregate demand will decrease and general price level or inflation will come under control. Similarly, decrease in government spending on its current expenditure like subsidies, unemployment allowances, payment of the salaries of government staff, repair and maintenance of public and merit goods etc. and the capital expenditure like construction of roads, buildings societies, bridges, airport, and seaports etc. will lead to lower the income of people and will decrease the aggregate demand. So, inflation will be controlled.

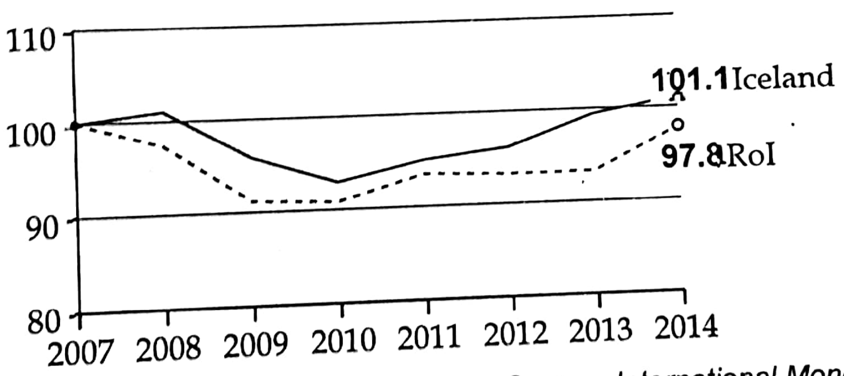
However, sometimes tight fiscal policy cannot solve the issue in hand. There can be certain factors for its being ineffective. Tight fiscal policy is helpful to control only demand pull inflation. If the inflation in Turkey is cost push then this policy will not work to achieve this aim. Similarly, its effectiveness depends upon the performance of the government regarding its implementation. If it is not properly and in time implemented, it will not be fruitful.

June 2017

1

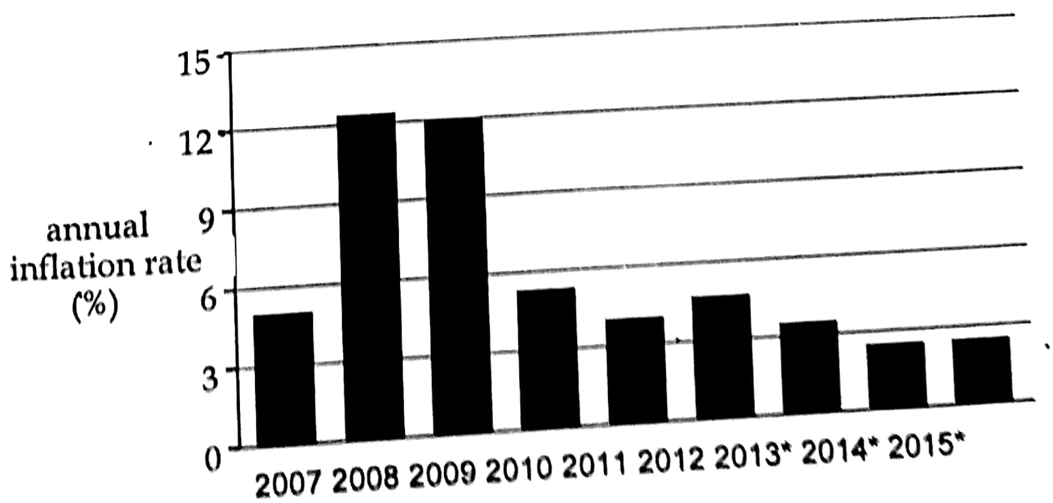
The miraculous story of Iceland

Fig. 1: Indices of the national output of Iceland and the Republic of Ireland (RoI) 2007–2014 (2007 = 100)



Source: International Monetary Fund (IMF)

Fig. 2: Inflation in Iceland 2007–2015



As a result of the financial crisis of 2007–2008 both Iceland and the Republic of Ireland (RoI) had to seek help from the International Monetary Fund (IMF). In total, Iceland borrowed US$4.6 billion, with US$2.1 billion of that coming from the IMF and the other US$2.5 billion from neighbouring Scandinavian countries. In exchange for help, Iceland was forced to sharply reduce government spending – introducing more austerity than the RoI did. Not only that, but Iceland also increased interest rates to 18% in the immediate aftermath of the crisis to reduce inflation. It gradually cut interest rates afterward, but it was not until 2011 that they fell to 4.25%.

The biggest difference between the two economies is that Iceland has its own currency, the krona. Iceland manages its foreign exchange rate through intervention in the foreign exchange market and through interest rate changes. Insufficient foreign exchange reserves meant that the value of the krona fell by nearly 60% between the end of 2007 and the end of 2008. The RoI, on the other hand, did not have its own currency that it could devalue. It is part of the eurozone, where each country uses the euro, and the RoI authorities have no control over its value.

Iceland's recovery has been better than the RoI's despite the fact that Iceland's recession was much more serious than the RoI's. The Icelandic economy has recovered surprisingly strongly since 2010. The large devaluation of the krona against both the US dollar and the euro helped. There has been a big boost from tourism. Unemployment, which peaked at 9% of the workforce at the worst of the crisis, is now back down to 5%. In the RoI, unemployment is falling but is still 9.8% of the workforce. Iceland's economy has now recovered roughly to its pre-crisis peak. The IMF predicts that Iceland's output will grow by 3.5% this year. The current account deficit, which was 25% of national income in 2009, has been eliminated and there is now a current account surplus. The government also ran a budget surplus last year for the first time since the crisis.

Source: Matt O'Brien, The Washington Post, 17 June 2015

(a) Use production possibility curves to compare the changes in the output of the RoI and Iceland shown in Fig. 1. [3]

(b) (i) Use Fig. 2 to compare the general price level in Iceland in 2007 and 2015. [1]

(ii) Explain **two** ways in which the fall in the value of the krona between the end of 2007 and the end of 2008 might have caused the rise in the rate of inflation shown in Fig. 2. [6]

(c) Explain the factors that determine whether the devaluation of a currency such as the Icelandic krona would turn a current account deficit into a surplus. [4]

(d) Consider whether the costs to an economy of managing its exchange rate outweigh the benefits of such a system. [6]