Name: Hafeez Khan ID:16432 Semester: 2<sup>nd</sup> Section B

# Q1. (a) Explain the law of demand. Why does a demand drive slope downward? How is a market demand curve derived from individual demand curves?

## Law of Demand

The law of demand describes "the claim that, other thing equal, the quantity demand of a good falls when the price of the good rises".

#### Effect of Demand on slope

The slope of a line is the ratio of the vertical distance covered to the horizontal distance covered as we move along the line. This definition is usually written out in mathematical symbols as follows:



slope =  $\Delta y / \Delta x$ 

when demand increases slope decreases.

#### Market demand curve and individual curves relation

Market demand is the sum of all individual demands for a particular good or service.

Fig shows the demand schedules for ice cream of two individuals— Catherine and Nicholas. At any price, Catherine's demand schedule tells us how much ice cream she buys, and Nicholas's demand schedule tells us how much ice cream he buys. The market demand is the sum of the two individual demands. Because market demand is derived from individual demands, it depends on all those factors that determine the demand of individual buyers. Thus, market demand depends on buyers' incomes, tastes, expectations, and the prices of related goods. It also depends on the number of buyers. (If Peter, another consumer of ice cream, were to join Catherine and Nicholas, the quantity demanded in the market would be higher at every price.) The demand schedules in Table show what happens to quantity demanded as the price varies while all the other variables that determine quantity demanded are held constant. Figure shows the demand curves that correspond to these demand schedules. Notice that we sum the individual demand curves horizontally to obtain the



PRICE OF ICE-CREAM CONE	CATHERINE		NICHOLAS		MARKET
\$0.00	12	+	7	-	19
0.50	10		6		16
1.00	8		5		13
1.50	6		4		10
2.00	4		3		7
2.50	2		2		4
3.00	0		1		1



(b) What are the determinants of demand? What happens to the demand curves when any of these determinants changes? Distinguish between a change in demand and a change in quantity demanded, noting the causes of each.

## **Determinants of demand**

### Price

If the price of ice cream rose to \$20 per scoop, you would buy less ice cream. You might buy frozen yogurt instead. If the price of ice cream fell to \$0.20 per scoop, you would buy more. Because the quantity demanded falls as the price rises and rises as the price falls, we say that the quantity demanded is negatively related to the price. This relationship between price and quantity demanded is true for most goods in the economy and, in fact, is so pervasive that economists call it the law of demand: Other things equal, when the price of a good rises, the quantity demanded of the good falls.

#### Income

What would happen to your demand for ice cream if you lost your job one summer? Most likely, it would fall. Alower income means that you have less to spend in total, so you would have to spend less on some—and probably most— goods. If the demand for a good falls when income falls, the good is called a normal good. Not all goods are normal goods. If the demand for a good rises when income falls, the good is called an inferior good.An example of an inferior good might be bus rides. As your income falls, you are less likely to buy a car or take a cab, and more likely to ride the bus.

## **Prices of Related Goods**

Suppose that the price of frozen yogurt falls. The law of demand says that you will buy more frozen yogurt. At the same time, you will probably buy less ice cream. Because ice cream and frozen yogurt are both cold, sweet, creamy desserts, they satisfy similar desires. When a fall in the price of one good reduces the demand for another good, the two goods are called substitutes. Substitutes are often pairs of goods that are used in place of each other, such as hot dogs and hamburgers, sweaters and sweatshirts, and movie tickets and video rentals. Now suppose that the price of hot fudge falls. According to the law of demand, you will buy more hot fudge. Yet, in this case, you will buy more ice cream as well, because ice cream and hot fudge are often used together. When a fall in the price of one good raises the demand for another good, the two goods are called complements. Complements are often pairs of goods that are used together, such as gasoline and automobiles, computers and software, and skis and ski lift tickets.

### Tastes

The most obvious determinant of your demand is your tastes. If you like ice cream, you buy more of it. Economists normally do not try to explain people's tastes because tastes are based on historical and psychological forces that are beyond the realm of economics. Economists do, however, examine what happens when tastes change.

### Expectations

Your expectations about the future may affect your demand for a good or service today. For example, if you expect to earn a higher income next month, you may be more willing to spend some of your current savings buying ice cream. As another example, if you expect the price of ice cream to fall tomorrow, you may be less willing to buy an ice-cream cone at today's price.

### Change in demand vs quantity demanded

### Quantity demanded

The amount of a good that buyer are wiiling and able to purchase

### Change in demand

A change in demand is when the market changes a determinate of demand and shifts the entire demand curve either downward or upward. In other words, this is the market changing its

preferences for a good or service and either increasing or decreasing the total demand for that product or service.

Q2. Suppose that when everyone wakes up tomorrow, they discover that the government has given them and additional amount of money equal to the amount they already had. Explain what effect this doubling of the money supply will likely have on the following:

a. The total amount spent on goods and services

According to the case the mount spent on goods value will be decrease. It means that money value will be no more stable as it was previous. Suppose if you have a cricket ball of 100 rupees and you have 100 rupees in pocket. And you money money increase to 200 so that 100 rupees ball have less value in your mind.

- **b.** The quantity of goods and services purchased if prices are sticky Yes, quantity of goods will remain same if it is purchased already. But you should have increase your stock because you quantity will be reduced due to low money value.
- **c.** The prices of goods and services if prices can adjust. Yes, prices can increase if adjustable. If money increase, selling will also increase so stock can be low. Due to low stock one will increase the price.

## Q3. Explain any of the five principles of economics in your own words?

## **PRINCIPLE #1: PEOPLE FACE TRADEOFFS**

People face tradeoffs is making decisions requires comparing the costs and benefits of alternative courses of action. Tradeoff society faces is between efficiency and equity. Efficiency means that society is getting the most it can from its scarce resources. Equity means that the benefits of those resources are distributed fairly among society's members. In other words, efficiency refers to the size of the economic pie, and equity refers to how the pie is divided.

For example parents deciding how to spend their family income. They can buy food, clothing, or a family vacation. Or they can save some of the family income for retirement or the children's college education. When they choose to spend an extra dollar on one of these goods, they have one less dollar to spend on some other good. People face tradeoffs does not by itself tell us what decisions they will or should make. Nonetheless, acknowledging life's tradeoffs is important because people are likely to make good decisions only if they understand the options that they have available.

### PRINCIPLE #2: THE COST OF SOMETHING IS WHAT YOU GIVE UP TO GET IT

Cost is an important factor in all decision which is somehow related to goods and services. But in some areas cost is never a priority.

For example, the decision whether to go to college. The benefit is intellectual enrichment and a lifetime of better job opportunities. But what is the cost? To answer this question, you might be tempted to add up the money you spend on tuition, books, room, and board. Yet this total does not truly represent what you give up to spend a year in college.

The first problem with this answer is that it includes some things that are not really costs of going to college. Even if you quit school, you would need a place to sleep and food to eat. Room and board are costs of going to college only to the extent that they are more expensive at college than elsewhere. Indeed, the cost of room and board at your school might be less than the rent and food expenses that you would pay living on your own. In this case, the savings on room and board are a benefit of going to college. The second problem with this calculation of costs is that it ignores the largest cost of going to college—your time. When you spend a year listening to lectures, reading textbooks, and writing papers, you cannot spend that time working at a job. For most students, the wages given up to attend school are the largest single cost of their education.

## PRINCIPLE #3: RATIONAL PEOPLE THINK AT THE MARGIN

Decisions in life are rarely black and white but usually involve shades of gray. When it's time for dinner, the decision you face is not between fasting or eating like a pig, but whether to take that extra spoonful of mashed potatoes. When exams roll around, your decision is not between blowing them off or studying 24 hours a day, but whether to spend an extra hour reviewing your notes instead of watching TV. Economists use the term marginal changes to describe small incremental adjustments to an existing plan of action. Keep in mind that "margin" means "edge," so marginal changes are adjustments around the edges of what you are doing. In many situations, people make the best decisions by thinking at the margin. Suppose, for instance, that you asked a friend for advice about how many years to stay in school. If he were to compare for you the lifestyle of a person with a Ph.D. to that of a grade school dropout, you might complain that this comparison is not helpful for your decision. You have some education already and most likely are deciding whether to spend an extra year or two in school. To make this decision, you need to know the additional benefits that an extra year in school would offer (higher wages throughout life and the sheer joy of learning) and the additional costs that you would incur (tuition and the forgone wages while you're in school). By comparing these marginal benefits and marginal costs, you can evaluate whether the extra year is worthwhile.

# **PRINCIPLE #4: PEOPLE RESPOND TO INCENTIVES**

People make decisions by comparing costs and benefits, their behavior may change when the costs or benefits change. That is, people respond to incentives. When the price of an apple rises, for instance, people decide to eat more pears and fewer apples, because the cost of buying an apple is higher. At the same time, apple orchards decide to hire more workers and harvest more apples, because the benefit of selling an apple is also higher. As we will see, the effect of price on the behavior of buyers and sellers in a market—in this case, the market for apples—is crucial for understanding how the economy works. Public policymakers should never forget about incentives, for many policies change the costs or benefits that people face and, therefore, alter behavior. Atax on gasoline, for instance, encourages people to drive smaller, more fuel-efficient cars. It also encourages people to take public transportation rather than drive and to live closer to where they work. If the tax were large enough, people would start driving electric cars.

#### PRINCIPLE #5: TRADE CAN MAKE EVERYONE BETTER OFF

You have probably heard on the news that the Japanese are our competitors in the world economy. In some ways, this is true, for American and Japanese firms do produce many of the same goods. Ford and Toyota compete for the same customers in the market for automobiles. Compaq and Toshiba compete for the same customers in the market for personal computers. Yet it is easy to be misled when thinking about competition among countries. Trade between the United States and Japan is not like a sports contest, where one side wins and the other side loses. In fact, the opposite is true: Trade between two countries can make each country better off. To see why, consider how trade affects your family. When a member of your family looks for a job, he or she competes against members of other families who are looking for jobs. Families also compete against one another when they go shopping, because each family wants to buy the best goods at the lowest prices. So, in a sense, each family in the economy is competing with all other families. Despite this competition, your family would not be better off isolating itself from all other families. If it did, your family would need to grow its own food, make its own clothes, and build its own home. Clearly, your family gains much from its ability to trade with others. Trade allows each person to specialize in the activities he or she does best, whether it is farming, sewing, or home building. By trading with others, people can buy a greater variety of goods and services at lower cost. Countries as well as families benefit from the ability to trade with one another. Trade allows countries to specialize in what they do best and to enjoy a greater variety of goods and services. The Japanese, as well as the French and the Egyptians and the Brazilians, are as much our partners in the world economy as they are our competitors.