

Unit 1

What is Economics?

There are many definitions of economics, each trying to encapsulate the fundamentals of the subject. No completely satisfactory definition has yet been derived, but most definitions that have been suggested emphasise the point that economics is about allocation of scarce resources which have alternative uses. While most economists would accept this statement, if you are starting economics for the first time you are unlikely to find it helpful as a definition. Let us begin by examining the statement in a little more detail.

The Economic Problem

To the non-economist it might seem confusing to refer to «the economic problem» as though there were only one such problem. In fact, there are many economic problems. Increases in the rate of inflation or unemployment frequently make headline news, as does the state of the balance of payments. Poverty and income distribution might also be thought of as important economic problems, and in recent years increasing attention has focused on the importance of the environment. They are all economic problems, so why do economists refer to «the economic problem?»

In fact, all of these economic problems arise because of the existence of scarcity, and they are the result of different choices made by society. The terms «scarcity» and «choice» therefore epitomise the economic problem, and it is to a discussion of these that we now turn.

Scarcity

All societies (with the possible exception of primitive cultures) face the same fundamental problem: unlimited desires but limited ability to satisfy them. Human beings seem to desire ever higher levels of consumption: as soon as one particular level of consumption is achieved, a new and higher level is desired. There are many possible reasons for this, but the fact is that while there is no limit on the desire for increased consumption, there are clear limits on the means of satisfying these desires at any moment in time. Over time an economy can produce greater and greater levels of output, but this does not alleviate the problem of scarcity since desires will also have increased.

All societies possess limited means of production. Economists refer to the means of production as resources and these consist of *land, labour, capital and enterprise or the entrepreneur*. The nature of these resources is discussed more fully. Here the important point to stress is that all output is created from these resources. Let us look briefly at each in turn.

Land is defined to include all the **free gifts of nature**. It therefore consists of the ores and minerals in the ground, trees and forests and so on,

Labour is defined as **human effort** - both physical and mental.

Capital is defined as any **man-made aid to production**. It therefore includes factory buildings, machinery, processed raw materials and so on.

Enterprise consists of risk taking and decision making. The individual (or individuals) who take decisions about what output to produce, and risk funds by undertaking production, are considered to perform a unique economic role and are therefore considered a separate factor of production. This factor of production is usually referred to as the entrepreneur.

At any moment in time there are clear limits on the availability of resources. For example, the supply of labour is fixed by the size of the population who are within the working age groups, the length of the working day, the working week and so on. It is a fact that, at any moment in time, these resources are limited, and this limits the quantity of output that can be produced, and compels society to make choices.

Before we move on to consider the nature of the choices which all societies must make, there is an important point which we must emphasise. Because society's resources are limited, the **incomes** received by the owners of these resources will also be limited. It therefore follows that the economic problem cannot be solved by government increasing the amount of money in circulation; this would not affect the total stock of resources: instead, it would simply lead to higher price.

Choice

Because society cannot have all the output which it desires choices have to be made. In fact there are three fundamental choices sometimes referred to as **what, how and for whom**.

What to produce: This is sometimes referred to as the problem of *product mix*. Since society cannot have all the output it desires it must choose **what output is going to be produced** from its scarce resources. At first glance the answer might seem obvious: we need food, clothing, shelter, and so on. However, the answer is in fact not obvious at all because **more** of one thing means **less** of something else. We have only a limited amount of resources and if more and more of these are devoted to the production of food, less and less are available for the production of other things. Of course we need a certain amount of different foods to survive but in the EC (as well as in other parts of the world) there are food surpluses which in some cases are destroyed. More generally, we must choose whether resources should be used to produce more motor cars or more buses, more hospitals or more schools, and so on. This is an important issue and relates to what economists refer to as the **allocation of resources**.

How to produce: This is sometimes referred to as the problem of «factor combination» Whatever goods and services society chooses can usually be produced in a variety of ways. A basic distinction is between **capital-intensive** production and **labour-intensive** production. The former uses large amounts of capital **relative** to labour, while the latter uses large amounts of labour **relative** to capital. Motor cars, for example, can be produced by people or by robots. Should power be generated by using oil, coal or nuclear powered generators or should we

rely on wind and wave power? Should more of our goods be transported to market using road links or rail links? These decisions clearly affect the efficiency with which we use our resources and the greater the efficiency, the greater the output that can be produced from **any given quantity** of inputs.

For whom to produce: This is sometimes referred to as the problem of distribution. How is output to be distributed to ultimate consumers? In other worlds, who shall consume the goods and services we produce? Since society cannot have all the output it desires, there must be some mechanism for distributing the limited amount of goods and services that is produced among consumers who, in general, desire more. How much petrol should each motorist receive, and how many holidays should each person be permitted?

Again, there are different mechanisms available. It is possible to organise a system of physical rationing where all consumers receive the same amount of goods and services for every member of the family. This is not just a feature of East European economies where rationing is still common but was the basic method of allocating output in wartime Britain. A different method of distribution is to allocate output **through the market** - that is, allow consumers to buy whatever they can afford. This raises another aspect of the problem of distribution, that of **income distribution**. When consumers are free to buy whatever they can afford, those with higher incomes will obtain a greater share of total output than those with lower incomes. Complete physical rationing or distribution through the market are the extremes; in between there are different combinations, and society may choose one particular combination in preference to another.

These basic choices - what, how and for whom - are clearly interdependent. Any decision about what to produce also implies a decision about the way that output is to be produced. The way society makes these choices and the implications of its decisions are what the study of economics is really about.

Opportunity Cost

We have already emphasised the point that since resources are limited more of one thing means less of something else. This notion is extremely important in economics and is referred to as **opportunity cost**. Strictly defined, opportunity cost is *the next most desired alternative foregone*: if we use our resources in one way they are not available for use in another. It is important to realise that an opportunity cost does not necessarily imply a money cost: it simply involves an opportunity given up. It is therefore relevant in decisions taken by all economic agents-that is, individuals, firms, other organisations and governments.

All individuals have a limited income and must decide what proportion to spend and what proportion to save. Having decided how much they wish to spend, they must decide how to allocate this between different goods and services which they might wish to buy. How often have you been faced with decisions such as whether to buy one compact disc in preference to another, or one video in preference to another? More generally, how often have you made decisions such

as whether to buy a pair of jeans or a pair of shoes? In such cases, what you give up is the opportunity cost of what you buy.

The concept of opportunity cost is equally important for firms: when the economic life of an existing machine is over, the firm must consider whether to replace it and if so whether to change the method of production by adopting a completely different technology. Governments must also consider the opportunity cost of any decision they take. For example, in 1990 the government announced plans to create a new national forest in the Midlands. What is the opportunity cost of this? Obviously resources will be devoted to growing and planting saplings. Forestry workers will be employed in tending and caring for them.

Active Vocabulary

availability – наличие

choice – выбор

circulation – обращение (денег)

coal – уголь

confusing –

distinction – различие; отличие

efficiency – эффективность

enterprise – предприятие

entrepreneur – предприниматель

fundamentals – основы

gift – дар

implication –

obvious – очевидный

opportunity – возможность

ore – куда

poverty – бедность

primitive – первобытный

rationing – нормирование

rely on – рассчитывать на; полагаться

sapling –

scarce – скудный; ограниченный

scarcity – скудность; дефицит

shelter – кров; убежище

surplus – излишек

to afford – позволить себе

to alleviate – облегчать; ослаблять

to compel – призывать

to desire – желать

to encapsulate – включать в себя; охватывать

to epitomize –

to forego –

to give up – отказываться (от чего-либо)
to imply – подразумевать
to plant – сажать
to process – обрабатывать
to realize – осознавать
to stress – подчеркивать; syn. to emphasize
to survive – выживать
to tend – ухаживать
to undertake – предпринимать
ultimate – максимальный; конечный

Exercise 1. Give the Russian Equivalents to the Following Word Combinations:

Scarce resources; alternative uses; rate of inflation; balance of payments; income distribution; primitive cultures; unlimited desires level of consumption; means of production; free gifts of nature; human effort; risk taking; decision making; to undertake production; availability of resources; the supply of labor; money in circulation; stock of resources; product mix; allocation of resources; in a variety of ways; capital-intensive production; labor-intensive production; wind power; wave power; road links; rail links; ultimate consumers; physical rationing; opportunity cost; to give up an opportunity; completely different technology.

Exercise 2. Give the English Equivalents to the Following Word Combinations:

Стоимость упущенной возможности (альтернативы); совершенно иная технология; скудные ресурсы; отказаться от возможности; альтернативные использования; конечные потребители; деньги в обращении; уровень инфляции; распределение ресурсов; энергия ветра; физическое нормирование; энергия волн; цена упущенной возможности; платежный баланс; первобытные культуры; распределение доходов; неограниченные желания; разнообразными способами; принятие решения; уровень потребления; бесплатные дары природы; средства производства; риск; человеческое усилие; начать производство; наличие ресурсов; предложение рабочей силы; запасы ресурсов; смешанная продукция; железные дороги; автомобильные дороги.

Exercise 3. Answer the following questions:

1. What does economics deal with?
2. Why is it confusing to refer to the “economic problem”?
3. What economic problem do you know?
4. Why do all of the economic problems arise?
5. What terms epitomize “the economic problem”?
6. What fundamental problem do all societies face?
7. What do economists call the means of production?
8. What do the means of production consist of?

9. How is Land defined?
10. What does Land consist of?
11. What does labor include?
12. How can we define Capital?
13. What does Enterprise consist of?
14. Can the economic problem be solved by government increasing the amount of money in circulation?
15. What would increasing the amount of money in circulation lead to?
16. Why do choices have to be made?
17. What fundamental choices do you know?
18. What is meant by allocation of resources?
19. What is the basic distinction between capital-intensive production and labor-intensive production?
20. What is the correlation between the efficiency with which we use our resources and the output that can be produced from any given quantity of inputs?
21. How can we describe a system of physical rationing?
22. What aspect of the problem of distribution does allocating output through the market raise?
23. What is the study of economics really about?
24. How can we define opportunity cost?
25. What must all individuals decide due to having a limited income?

Exercise 4. Translate the following sentences into English:

1. Существует много определений экономики.
2. Экономика занимается распределением денежных ресурсов, которые имеют альтернативное использование.
3. К экономическим проблемам можно отнести повышение уровня инфляции или безработицы, платежный баланс, бедность и распределение доходов.
4. Все экономические проблемы возникают из-за существования дефицита.
5. Все общества, за исключением примитивных (первобытных), сталкиваются с одной и той же проблемой: неограниченные желания, но ограниченная возможность удовлетворить их.
6. Все общества владеют ограниченными средствами производства.
7. Экономисты называют средства производства ресурсами.
8. Труд определяется как усилие человека – как физическое. Так и умственное.
9. Цена упущенной альтернативы – это следующая по очередности наиболее желаемая упущенная альтернатива.
10. Любое решение о том, что производить, также предполагает решение о том, как производить.

Unit 2

The Underlying Conditions of Demand

Any factors other than price which might influence demand for a good or service are grouped together as the *underlying conditions of demand*.

When a demand curve is drawn, a relationship is plotted between price and the quantity demanded, *other things being equal*. These ‘other things’ are the underlying conditions of demand, and if there is a change in any of these conditions of demand then the ‘other things being equal’ condition is violated and the whole demand curve **shifts** to a new position.

Let us now examine conditions of demand in more detail.

Income is an important factor in many decisions to buy. Other things being equal, an increase in income will increase the number of goods we can afford. Therefore an increase in income will, in general, shift a demand curve to the right, while a decrease in income will cause a shift to the left. This happens for most goods, and we use the term *normal good* to describe those goods which conform to this relationship. There is a small range of goods, known as *inferior goods*, which people tend to switch away from as incomes rise.

The price of related goods can often affect demand for a particular good. For example, the demand for one brand of coffee is partly related to the price of other brands because they are, to some extent, *substitutes*. In general, a fall in the price of one product can be expected to reduce the demand for its substitute.

Other goods might be *complements* – that is they are *jointly consumed*. Fish and chips are a good example; in this case a fall in the price of one good will lead to an increase in the quantity of that good demanded and will cause an increase in demand for the complement. The opposite is also true, and a rise in the price for one good will cause a reduction in demand for its complement.

Taste is a broad concept which can be used to encompass many influences on demand. Taste is a very personal matter, but sometimes it is possible to identify a fashion or a trend which indicates changes in taste among large numbers of people. For instance, clothes in particular are subject to frequent changes in design. However, changes in taste sometimes occur over longer periods. For example, views on health matters and environmental considerations became much more important during the 1980s and have had a profound effect on the range of ‘environmentally friendly’ products now produced. When tastes change in favour of a particular product demand for that product will rise, and when they change against a particular product demand for that product will fall.

Advertising can sometimes have a marked impact on sales, and indeed can influence tastes in favour of certain products.

Population change – that is, the size and composition of the population – can exert a long-term influence on demand. For instance, a general increase in the size of a country’s population can be expected to increase the demand for most goods and services. Similarly a change in the structure of nation’s population will significantly affect demand for different goods and services. For example, an

increase in the number of female births relative to male births would, over time, have a profound effect on demand for certain goods and services.

Supply

Supply is the willingness and ability of producers to make a specific quantity of output available to consumers at a particular price over a given period of time. This willingness together with the ability is sometimes described as **effective supply**.

As with demand, price is probably the main determinant of the amount supplied and economists have formulated a law of supply which states that over a given time period and other things being equal, the quantity supplied of a commodity is directly related to its price. In other words, as the price of a commodity rises, the quantity supplied increases.

The Underlying Conditions of Supply

The law of supply operates on the assumption that other things remain equal. These 'other things' refer to the factors other than price which can affect supply and are known as the underlying conditions of supply. Changes in any of these underlying conditions will mean that at each and every price producers will be able to produce either more or less than before.

The main underlying conditions of supply are as follows.

Money costs of production – that is, the cost of factor inputs (land, labour, capital and enterprise) – has a major influence on supply. In order to purchase these factors of production, money will have to be spent. If at any given level of output there is an increase in costs of production, this will reduce the ability of producers to purchase factors of production at any given price for their product.

Inter-related supply can be an important factor in some cases. Some goods are in joint supply, so that variations in the amount of one good produced almost automatically affect the supply of by-products. Other goods are in competitive supply, especially when they have an important raw material in common. Thus liquid milk can be turned into either cheese or butter, and an increase in the amount of cheese may reduce the supply of butter.

Taxes and subsidies can have an important effect on supply. A tax on the production or sale of a good or service can be regarded as an increase in costs. A subsidy on the production or sale of a good or service can be regarded as a reduction in costs.

The Effect of Changes in the Underlying Conditions of Demand and Supply

Once price settles at an equilibrium level we can expect it to remain there until something happens to **disturb the equilibrium**. This can only be a change in one or more of the underlying conditions of demand and/or supply which cause demand and/or supply to shift. For example, if we consider the market for lettuces.

How would this market be affected by a sudden spell of late frost which destroyed many young plants? Clearly such an occurrence would shift the supply curve to the left, and this would result in a higher price with a lower equilibrium quantity. Suppose, instead, **that** there was a long spell of warm weather, so that people demanded more lettuces to put in their summer salads. In this case the demand curve would shift to the right resulting in a rise both in equilibrium price and in quantity.

Active Vocabulary

assumption – предложение
by-product – побочный продукт
commodity – товар
complement – дополнение
demand – спрос
distinction – отличие; различие
impact – влечение
income – доход
increase – увеличение
inferior – низкий; худший; меньший (по количеству)
inter-related – взаимосвязанный
jointly – совместно
lettuce – салат (растение)
major – крупный; основной
marked – заметный
range – диапазон; ассортимент
related – связанный; родственный
spell – период времени; время; срок; приступ
substitute – замена; заменитель
supply – предложение
to conform to – соответствовать
to increase – увеличиваться; возрастать
to violate – нарушать
underlying – лежащие в основе
willingness – желание

Exercise 1. Give the Russian Equivalents to the Following Word Combinations:

Underlying conditions of demand; underlying conditions of supply; normal goods; interior goods; related goods; to some extent; to consume jointly; very personal matter; frequent changes; over longer periods; health matters; profound effect; “environmentally friendly”; in favor of certain products; the size and composition of the population to exert a long-term influence; female births; male births; available to consumers; effective supply to formulate a law of supply; money costs

of production; inter-related supply; competitive supply; by-products; raw material; to disturb the equilibrium; a sudden spell of late frost.

Exercise 2. Give the English Equivalents to the Following Word Combinations:

До некоторой степени; родственные товары; очень личное дело; условия, лежащие в основе спроса; нормальные товары; частные изменения; соображения по охране окружающей среды; на протяжении более долгого времени; вопросы здоровья; условия, лежащие в основе предложения; не вредные для окружающей среды; заметное влияние; величина и состав населения; в пользу определенных продуктов; глубокое влияние; доступный для потребителя; рождение девочек; рождение мальчиков; сформулировать закон предложения; эффективное предложение; взаимосвязанные предложения; побочные продукты; потреблять совместно; конкурентные предложения; сырье; внезапный приход поздних заморозков; нарушение равновесия.

Exercise 3. Answer the following questions:

1. What is the function of a market?
2. What is usually described as effective demand?
3. What is important to include into demand?
4. What does the law of demand mean?
5. What do you know about the underlying conditions of demand?
6. How does income influence demand?
7. What can you say about inferior and related goods?
8. What impact does advertising have on sales?
9. What is effective supply?
10. What is the main determinant of the amount supplied?

Exercise 4. Translate the following sentences into English:

1. При прочих равных условиях, с увеличением дохода увеличивается количество вещей, которые мы сможем позволить себе купить.
2. Цена на родственные товары может повлиять на цену такого-то конкретного товара.
3. Спрос на один сорт сыра частично связан с ценой на другие сорта.
4. Повышение цены на один товар вызовет снижение спроса на его дополнение.
5. Вкус – это очень личное дело.
6. Реклама может оказывать значительное влияние на продажи.
7. Цена, вероятно, является главной детерминантой предложения.
8. Предложение – это желание и возможности производителей сделать доступным для потребителей определенное количество товаров по конкретной цене за данный период времени.

Unit 3 PRODUCTION

A firm uses a *technology* or *production process* to transform *inputs* or *factors of production* into *outputs*. Firms use many types of inputs. Most of these inputs can be grouped into three broad categories:

- **Capital (K):** Long-lived inputs such as land, buildings (factories, stores), and equipment (machines, trucks),
- **Labor (L):** Human services such as those provided by managers, skilled workers (architects, economists, engineers, plumbers), and less-skilled workers (custodians, construction laborers, assembly-line workers),
- **Materials (M):** Raw goods (oil, water, wheat) and processed products (aluminum, plastic, paper, steel).

The output can be a *service*, such as an automobile tune-up by a mechanic, or a *physical product*, such as a computer chip or a potato chip.

Production Functions

Firms can transform inputs into outputs in many different ways. Candy-manufacturing companies differ in the skills of their workforce and the amount of equipment they use. While all employ a chef, a manager, and relatively unskilled workers, some candy firms also use skilled technicians and modern equipment. In small candy companies, the relatively unskilled workers shape the candy, decorate it, package it, and box it by hand. In slightly larger firms, the relatively unskilled workers use conveyor belts and other equipment that was invented decades ago. In modern, large-scale plants, the relatively unskilled laborers work with robots and other state-of-the-art machines, which are maintained by skilled technicians. Before deciding which production process to use, a firm needs to consider its various options.

The various ways inputs can be transformed into output are summarized in the **production function**: the relationship between the quantities of inputs used and the *maximum* quantity of output that can be produced, given current knowledge about technology and organization. The production function for a firm that uses only labor and capital is

$$q = f(L, K), \tag{6.1}$$

where q units of output (wrapped candy bars) are produced using L units of labor services (days of work by relatively unskilled assembly-line workers) and K units of capital (the number of conveyor belts).

The production function shows only the *maximum* amount of output that can be produced from given levels of labor and capital, because the production function includes only efficient production processes. A profit-maximizing firm is not interested in production processes that are inefficient and waste inputs: Firms do not want to use two workers to do a job that can be done as efficiently by one worker.

LONG-RUN PRODUCTION: TWO VARIABLE INPUTS

"Eternity is a terrible thought. I mean, where's it going to end?" -Tom Stoppard

We started our analysis of production functions by looking at a short-run production function in which one input, capital, was fixed, and the other, labor, was variable. In the long run, however, both of these inputs are variable. With both factors variable, a firm can usually produce a given level of output by using a great deal of labor and very little capital, a great deal of capital and very little labor, or moderate amounts of both. That is, the firm can substitute one input for another while continuing to produce the same level of output, in much the same way that a consumer can maintain a given level of utility by substituting one good for another.

Typically, a firm can produce in a number of different ways, some of which require more labor than others. For example, a lumberyard can produce 200 planks an hour with 10 workers using hand saws, with 4 workers using handheld power saws, or with 2 workers using bench power saws.

Active Vocabulary

accurate – точный

adept – знаток; эксперт; сведущий

advertising – реклама (акция)

alternatively – или же

amazingly – удивительно

applicable – применимый

brand – сорт, качество, марка

buyer – покупатель

cholesterol – холестерин

competitive – конкурентоспособный; конкурирующий

complement – дополнение

consumer – потребитель

definition – определение

demand – спрос

distinction – различие

explicit – явный

frustrated – расстроенный, несостоявшийся

grocery – бакалея

health care – здравоохранение

incentive – стимул

income – доход

input – вклад, вложение, инвестиция

invisible – невидимый

luxury [kʃ] – роскошь

merely – просто

misinformation – дезинформация; неправильная информация
oatmeal – овсянка; геркулес
prediction – предсказание
price – цена
quantity – количество
related – связанный, родственный; имеющий отклонения
repair kit – набор инструментов для ремонта (машины)
retailer – розничный торговец; лавочник
seller – продавец
shortage – дефицит, недостаток
shorthand – стенография
substitute – заменитель
supply – предложение
to affect – влиять, затрагивать
to cause – заставлять
to incur – подвергаться; навлечь на себя; нести убытки
to inherit – наследовать
to intervene – вмешиваться
to point out – подчеркнуть
to stand – выносить; терпеть
wealth – состояние (богатство)

Exercise 1. Give the Russian Equivalents to the Following Word Combinations:

A shorthand description; supply-and-demand model; price controls; health care; agriculture market; labor market; accurate predictions; related goods; competitive markets; do-it-yourself repair kits; government-imposed limits; genetically engineered tobacco; critical role; to hold constant; costs of production; all else the same; technological advance; Government rules and regulations; health insurance; abstract concept; theoretical possibility; indirect evidence; common goods; ballpoint pens; explicit coordination; unseen market force; invisible hand; in a way that; excess demand; specified price; upward pressure on price; excess supply; storage costs; market clearing price; the price ceiling; the lack of equality; it is worth pointing out; people's wants; gasoline shortage.

Exercise 2. Give the English Equivalents to the Following Word Combinations:

Потребительский спрос; самые мощные модели экономики; рыночная цена; доходы потребителей; сопутствующие товары; международная торговля; стенографическое описание; точные предсказания; превышение спроса; рынок труда; модель предложения и спроса; контроль над ценами; рынок сельскохозяйственной продукции; желания людей; стоимость исходных материалов; при прочих равных условиях; конкурентоспособный рынок; немодная и неудобная одежда; уровень холестерина; тайное рукопожатие;

наследовать крупное состояние; спрос на конкретные товары; накладываемые правительством ограничения; содержание никотина; здравоохранение; затраты на производство; невидимая рука; нехватка бензина; теоретическая возможность; абстрактное понятие; стоит подчеркнуть; отсутствие качества; верхний ценовой предел; нижняя ценовая граница; невидимая рыночная сила; явная координация; страховой полис; решающая роль; удерживать постоянным; косвенное доказательство; шариковая ручка; технологический прогресс.

Exercise 3. Answer the following questions:

1. What does the supply-and-demand model describe?
2. What do you need for using said model?
3. How can you define the term “demand”?
4. How can the term “supply” be defined?
5. What is meant by market equilibrium?
6. What shock the market equilibrium?
7. What can government interventions result in?
8. What kind of markets does the supply-and-demand model apply to?
9. What may influence peoples’ tastes?
10. What factors may affect consumers’ purchase decisions?
11. What can higher levels of nicotine in cigarettes result in?
12. What else do we need to know for determining the market price and quantity?
13. What do costs of production affect?
14. What does a technological advance lead to?
15. What is taxes and government regulations alter?
16. What to indirect evidence that a market is in equilibrium?
17. Does a market equilibrium always occur with explicit coordination between consumers and firms?
18. What happens to either consumers or suppliers at any price other than the equilibrium price?
19. What do these disappointed people do to change the price?
20. What is the equilibrium price called market clearing price?
21. What do the price ceiling and price floor examples show?
22. Why doesn’t the quantity supplied always equal the quantity demanded?
23. What is the relationship between the quantity demanded and the quantity supplied when the government imposes a binding price ceiling on gasoline?
24. Why is the supply-and-demand model useful despite the lack of equality between the quantity supplied and the quantity demanded?
25. In what way do some people insisting that “demand must equals supply” define these two notions?

Exercise 4. Translate the following sentences into English:

1. Модель «спрос и предложение» описывает взаимодействие потребителей и поставщиков.
2. Несмотря на ее ограничения, модель «спрос и предложение» является наиболее широко используемой экономической моделью.
3. Количество товара, требуемого потребителями, зависит не только от цены на этот товар, но и от многих других факторов.
4. Модель «спрос и предложение» применима только в отношении конкурентоспособных рынков.
5. Политика правительства может нарушить равновесие рынка, и тогда спрос на определенный товар будет отличаться от предложения данного товара на рынке.
6. Потенциальные покупатели решают вопрос о количестве приобретаемого ими товара на основании его цены и многих других факторов, в том числе в зависимости от их вкуса, дохода, а также цен на другие товары.
7. Доход играет важнейшую роль при решении вопроса о том, что и в каком количестве покупать.
8. Технологический прогресс, позволяющий фирме производить какой-то товар при более низкой себестоимости, приводит к тому, что фирма поставляет данный товар на рынок в большем количестве.
9. Равновесие рынка – это не просто абстрактное понятие или теоретическая возможность.
10. Когда правительство вводит ценовое ограничение на бензин, спрос начинает превышать предложение.

Unit 4

PREFERENCES

We start our analysis of consumer behavior by examining consumer preferences. Using three basic assumptions, we can predict a great deal about preferences. Once we know about consumers' preferences, we can add information about the constraints consumers face, so we can answer many questions, such as the ones posed at the beginning of the chapter, or derive demand curves, as is done in the next chapter.

As a consumer, you choose among many goods. Should you have ice cream or cake for dessert? Should you spend most of your money on a large apartment or rent a single room and use the savings to pay for trips and concerts? In short, you must allocate your money to buy a *bundle* {*market basket* or combination) of goods.

How do consumers choose the bundle of goods they buy? One possibility is that consumers behave randomly and blindly choose one good or another without any thought. However, consumers appear to make systematic choices. For example, you probably buy more or less the same specific items each time you go to the grocery store.

To explain consumer behavior, economists *assume* that consumers have a set of tastes or preferences that they use to guide them in choosing between goods. These tastes differ substantially among individuals. Three out of four European men prefer colored underwear, while three out of four American men prefer white underwear. Let's start by specifying the underlying assumptions in the economist's model of consumer behavior.

Food Stamps

I've known what it is to be hungry, but I always went right to a restaurant.
– Ring Lardner

We can use the theory of consumer choice to analyze whether poor people are better off receiving food stamps or a comparable amount of cash. Currently, federal, state, and local governments work together to provide a food subsidy for poor Americans. Households that meet income, asset, and employment eligibility requirements receive coupons that can be used to purchase food from retail stores. The Food Stamps Program is one of the nation's largest social welfare programs with expenditures of \$16.9 billion for nearly 19.8 million people per month in 1998.

Since the food stamp programs started in the early 1960s, economists, nutritionists, and policymakers have debated "cashing out" food stamps by providing checks or cash instead of coupons that can be spent only on food. Legally, food stamps may not be sold, though a black market for them exists. Because of technological advances in electronic fund transfers, switching from food stamps to a cash program would lower administrative costs and reduce losses due to fraud and theft.

Would a switch to a comparable cash subsidy increase the well-being of food stamp recipients? Would the recipients spend less on food and more on other goods?

Firms and Production

Hard work never killed anybody, but why take a chance?
– Charlie McCarthy

The Ghirardelli Chocolate Company converts chocolate and other inputs into an output of 144,000 wrapped chocolate bars and 340,000 wrapped chocolate squares a day. The *material inputs* include chocolate, other food products, and various paper goods for wrapping and boxing the candy. The *labor inputs* include chefs, assembly-line workers, and various mechanics and other technicians. The *capital inputs* are the manufacturing plant, the land on which the plant is located, conveyor belts, molds, wrapping machines, and various other types of equipment.

Over time, Ghirardelli has changed how it produces its finished product, increasing the ratio of machines to workers. Several years ago, to minimize employees' risk of repetitive motion injuries, the company spent \$300,000 on

robots, which pack the wrapped chocolate and put it on pallets. The use of robotic arms resulted in greatly reduced downtime, increased production, and improved working conditions.

This chapter looks at the types of decisions that the owners of firms have to make. First, a decision must be made as to how a firm is owned and managed. Ghirardelli, for example, is a corporation—it is not owned by an individual or partners—and is run by professional managers. Second, the firm must decide how to produce. Ghirardelli now uses relatively more machines and robots and fewer workers than in the past. Third, if a firm wants to expand output, it must decide how to do that in both the short run and the long run. In the short run, Ghirardelli can expand output by extending the workweek to six or seven days and using extra materials. To expand output more, Ghirardelli would have to install more equipment (such as extra robotic arms), hire more workers, and eventually build a new plant, all of which take time. Fourth, given its ability to change its output level, a firm must determine how large to grow. Ghirardelli determines its current investments on the basis of its beliefs about demand and costs in the future.

The main lesson of this chapter and the next is that firms are not black boxes that mysteriously transform inputs (such as labor, capital, and material) into outputs. Economic theory explains how firms make decisions about production processes, types of inputs to use, and the volume of output to produce.

The Ownership of Firms

In most countries, for-profit firms have one of three legal forms: sole proprietorships, partnerships, and corporations.

Sole proprietorships are firms owned and run by a single individual.

Partnerships are businesses jointly owned and controlled by two or more people. The owners operate under a partnership agreement. If any partner leaves, the partnership agreement ends. For the firm to continue to operate, a new partnership agreement must be written.

Corporations are owned by *shareholders* in proportion to the numbers of shares of stock they hold. The shareholders elect a board of directors who run the firm. In turn, the board of directors usually hires managers who make short-term decisions and long-term plans.

Corporations differ from the other two forms of ownership in terms of personal liability for the debts of the firm. Sole proprietors and partners are personally responsible for the debts of their firms. All of an owner's personal wealth – not just that invested in the firm—is at risk if the business becomes bankrupt and is unable to pay its bills. Even the assets of partners who are not responsible for the failure can be taken to cover the firm's debts.

In contrast to sole proprietorships or partnerships, owners of corporations have limited liability: The personal assets of the corporation owners cannot be taken to pay a corporation's debts if it goes into bankruptcy. If the corporation fails, the shares become worthless. Because of the limited liability of corporations, the most that shareholders can lose if the firm goes bankrupt is the amount they paid

for their stock. As a result, people are more willing to buy shares than they would be if they faced full liability.

In the United States, 90% of business sales are made by corporations, even though fewer than 20% of all firms are corporations. Nearly 73% of all firms are sole proprietorships. Sole proprietorships tend to be small, however, so they are responsible for only 5% of all sales. Partnerships account for 7% of all firms and make 5% of sales (*Statistical Abstract of the United States*, 1998).

The Management of Firms

In a small firm, the owner usually manages the firm's operations. In larger firms, typically corporations and larger partnerships, a manager or team of managers usually runs the company. In such firms, owners, managers, and lower-level supervisors are all decision makers.

The various decision makers may have conflicting objectives. What is in the best interest of the owners may not be the same as what is in the best interest of managers or other employees. For example, a manager may want a fancy office, a company car, a company jet, and other perks, but the owner would likely oppose these drains on profit.

The owner replaces the manager if the manager pursues personal objectives rather than the firm's objectives. In a corporation, the board of directors is supposed to ensure that managers do not stray. If the manager and the board of directors run the firm badly, the shareholders can fire both or directly change some policies through votes at the corporation's annual meeting for shareholders. We'll ignore the potential conflict between managers and owners and assume that the owner *is* the manager of the firm and makes all the decisions.

What Owners Want

Economists usually assume that a firm's owners try to maximize profit. Presumably, most people invest in a firm to make money - lots of money, they hope. They want the firm to earn a positive profit rather than make a loss (a negative profit). A firm's **profit** is the difference between its revenue, R , which is what it earns from selling the good, and its cost, C , which is what it pays for labor, materials, and other inputs:

$$n = R - C$$

Typically, revenue is p , the price, times q , the firm's quantity: $R = pq$.

In reality, some owners have other objectives, such as having as big a firm as possible or a fancy office or keeping risks low. However, we will show that a competitive firm is likely to be driven out of business if it doesn't maximize profits.

To maximize profits, a firm must produce as efficiently as possible. A firm engages in **efficient production** (achieves **technological efficiency**) if it cannot produce its current level of output with fewer inputs, given existing knowledge about technology and the organization of production. Equivalently, the firm

produces efficiently if, given the quantity of inputs used, no more output could be produced using existing knowledge.

If the firm does not produce efficiently, it cannot be profit maximizing—so efficient production is a *necessary condition* for profit maximization. Even if a firm produces a given level of output efficiently, it is not maximizing profit if that output level is too high or too low or if it is using excessively expensive inputs. Thus efficient production alone is not a *sufficient condition* to ensure that a firm's profit is maximized.

A firm may use engineers and other experts to determine the most efficient ways to produce with a known method or technology. However, this knowledge does not indicate which of the many technologies, each of which uses different combinations of inputs, allows for production at the lowest cost or with the highest possible profit. How to produce at the lowest cost is an economic decision, typically made by the firm's manager.

Active Vocabulary

constraint – принуждение, скованность, стеснение

crack – наркотик

derive – получать, увлекать

elasticity – эластичность, упругость, гибкость, способность быстро применяться к обстановке

fancy – фантазия, воображение, прихоть

legislators – законодатели

long-run - долгосрочный

overcompensation – сверхкомпенсирование

particular – конкретный

premise – предпосылка

recipient – получатель, реципиент

recreational – восстанавливающий силы

revenue – доход, поступления (финанс.)

sensitive – чувствительный, восприимчивый

short-run – краткосрочный

stamp – талон

storage – хранение

subject to – при условии, с соблюдением, допуская, если

substitution – замена

to adjust – приспособляться, отрегулировать

to condone – простить, предать забвению

to hire – нанимать

to undercompensate – недокомпенсировать

well-being – благосостояние

Exercise 1. Give the Russian Equivalents to the Following Word Combinations:

To have a sweet tooth; with the tin ear; short-run elasticities; long-run elasticities; to adjust for a particular good; ease of substitution; storage opportunities; the amount of gasoline purchased; to join a car pool; cocaine consumption; manufacturing firm; around the clock; fixed size; to expand one's output; the quantity response; to an increase in price; sales tax; tax revenues; to make accurate predictions; food stamps; retail stores; individual decision making; a model of individual behavior; well-being; pleasure from consumption; to face constraints; by contrast; limits on wealth; to catch smb's fancy ; "recreational" drugs; the cost of living; equilibrium price.

Exercise 2. Give the English Equivalents to the Following Word Combinations:

Долгосрочная эластичность; приспособиться к какому-то конкретному товару; легкость замены; краткосрочная эластичность; возможности хранения; цены на нефть; количество приобретаемого бензина; быть сластеной; потребление кокаина; быть чувствительным к изменениям цены; производящая фирма; увеличить производство; круглосуточно; налог на продажи; захватить ч.-либо воображение; удовольствие от потребления; быть тугим на ухо; увеличивать выпуск продукции; влияние повышения цены на количество приобретаемой продукции; поступления от налогов; талоны на продукты питания; делать точные прогнозы; стоимость жизни (где-либо); благосостояние; ограниченные средства; магазины розничной торговли; сталкиваться с принуждением; равновесная цена; более высокий доход; принятие решения индивидом; модель поведения индивида; модель поведения потребителя; получать удовольствие; и наоборот; наркотики.

Exercise 3. Answer the following questions:

1. What do the shapes of the demand and supply curves depend on?
2. What does the duration of the short-run depend on?
3. What are the two factors that determine whether short-run demand elasticities are larger or smaller than long-run elasticities?
4. What could consumers do to reduce the amount of gasoline purchased, when oil prices rose rapidly because of actions by OPEC?
5. Why may short-run demand curves be more elastic than long-run curves for goods that can be stored easily?
6. How can a manufacturing firm increase production in the short-run?
7. How can the manufacturing firm increase production in the long-run?
8. What do legislators want to do before voting for a new sales tax?
9. What may happen to the legislators if the tax will produce a very large increase in the price consumers pay?
10. What can we do knowing only the elasticities of demand and supply?

11. What is the supply-and-demand model useful for?
12. What kind of model do we need to answer the questions about individual decision making?
13. What premises is the model of consumer behavior based on?
14. Why must all consumers choose which goods to buy?

Exercise 4. Translate the following sentences into English:

1. Легкость замены и возможности хранения являются двумя факторами, которые определяют больше или меньше кратковременная эластичность спроса долговременной эластичности.
2. Для товаров, которые легко хранить, кривые кратковременного спроса могут быть более эластичными, чем кривые долговременного спроса.
3. Если фирма-производитель хочет увеличить производство в короткий срок, она может нанять рабочих для использования своих станков круглосуточно, но насколько она сможет увеличить количество выпускаемой продукции ограничено фиксированным размером ее производственных площадей и количеством станков.
4. В долгосрочной перспективе эта фирма может построить ещё один завод и купить дополнительное оборудование и тогда долгосрочная эластичность предложения данной фирмы будет больше, чем краткосрочная.
5. Прежде чем голосовать за новый налог на продажи законодатели хотят спрогнозировать влияние этого налога на цены, количество продаваемых/покупаемых товаров и поступление в бюджет.
6. Зная эластичности спроса и предложения, мы можем делать точные прогнозы относительно последствий введения нового налога.
7. Правительство выдает бедным людям талоны на продукты, которые они могут использовать в магазинах розничной торговли, но только для покупки продуктов.
8. Потребители тратят свои деньги на товары, которые доставляют им наибольшее удовольствие.
9. Все потребители вынуждены выбирать, какие товары купить, потому что ограниченные средства не позволяют покупать им все, что захватило их воображение.
10. Подросткам запрещено покупать алкоголь и сигареты.

Unit 5

LONG RUN VERSUS SHORT RUN

The shapes of demand and supply curves depend on the relevant time period. Short-run elasticities may differ substantially from long-run elasticities. The duration of the *short run* depends on how long it takes consumers or firms to adjust for a particular good.

Demand Elasticities over Time

Two factors that determine whether short-run demand elasticities are larger or smaller than long-run elasticities are ease of substitution and storage opportunities. Often one can substitute between products in the long run but not in the short run.

When oil prices rose rapidly in the 1970s and 1980s because of actions by OPEC, consumers in most Western countries did not greatly alter the amount of oil they demanded. Someone who drove 27 miles to and from work every day in a 1969 Chevy could not easily reduce the amount of gasoline purchased. In the long run, however, this person could buy a smaller car, get a job closer to home, join a car pool, or in other ways reduce the amount of gasoline purchased.

Gallini (1983) estimated long-run demand elasticities that are more elastic than the short-run elasticity for gasoline in Canada. She found that the short-run elasticity is -0.35; the 5-year intermediate-run elasticity is nearly twice as elastic, -0.7; and the 10-year, long-run elasticity is approximately -0.8, which is slightly more elastic. Thus a 1% increase in price lowers the quantity demanded by only about a 0.35% in the short run but by more than twice as much, 0.8%, in the long run. Similarly, Grossman and Chaloupka (1998) estimate that a rise in the street price of cocaine has a larger long-run than short-run effect on cocaine consumption by young adults (aged 17-29). The long-run demand elasticity is -1.35, whereas the short-run elasticity is -0.96.

For goods that can be stored easily, short-run demand curves may be more elastic than long-run curves. If frozen orange juice goes on sale this week at your local supermarket, you may buy large quantities and store the extra in your freezer. As a result, you may be more sensitive to price changes for frozen orange juice in the short run than in the long run.

Supply Elasticities over Time

Supply curves too may have different elasticities in the short run than in the long run. If a manufacturing firm wants to increase production in the short run, it can do so by hiring workers to use its machines around the clock, but how much it can expand its output is limited by the fixed size of its manufacturing plant and the number of machines it has. In the long run, however, the firm can build another plant and buy or build more equipment. Thus we would expect this firm's long-run supply elasticity to be greater than its short-run elasticity.

Similarly, Adelaja (1991) found that the short-run elasticity of supply of milk is 0.36, whereas the long-run supply elasticity is 0.51. As a result, the quantity response to a 1% increase in price is about 42% ($= [0.51 - 0.36]/0.36$) more in the long run than in the short run.

EFFECTS OF A SALES TAX

Before voting for a new sales tax, legislators want to predict the effect of the tax on prices, quantities, and tax revenues. If the new tax will produce a very large increase in the price consumers pay, legislators who vote for the tax may lose their jobs in the next election. Voters' ire is likely to be even greater if the tax does not raise significant tax revenues.

How much a tax affects the equilibrium price and quantity and how much of the tax falls on consumers depend on the shape of the demand and supply curves, which is summarized by the elasticities. Knowing only the elasticities of demand and supply, we can make accurate predictions about the effects of a new tax and determine how much of the tax falls on consumers.

Consumer Choice

If this is coffee, please bring me some tea; but if this is tea, please bring me some coffee.

Abraham Lincoln

Alex's employer wants to transfer him to the firm's Paris office. Although Alex likes the idea of living in Paris, he's concerned about the high cost of living there. The firm offers to pay him enough in French francs that he can buy the same combination of goods in Paris that he is buying currently in the United States. In terms of what he can consume, will this higher income undercompensate, fully compensate, or overcompensate Alex for the higher prices in Paris?

The government gives poor people food stamps, which they may use in retail stores only to buy food. Would the benefit to recipients be greater if they were given cash instead of food stamps? Would they buy less food?

As we have already seen, the supply-and-demand model is useful for analyzing economic questions concerning markets. We could use the supply-and-demand model to examine the market price of croissants in Paris and New York. However, the supply-and-demand model cannot be used to answer questions concerning individuals, such as Alex's problem about whether to move to Paris or whether cash or food stamps would be better for a given individual.

To answer questions about individual decision making, we need a model of individual behavior. Our model of consumer behavior is based on the following premises:

- Individual *tastes* or *preferences* determine the amount of pleasure people derive from the goods and services they consume.
- Consumers face *constraints* or limits on their choices.
- Consumers *maximize* their well-being or pleasure from consumption, subject to the constraints they face.

Consumers spend their money on the products that give them the most pleasure. If you like music and don't have much of a sweet tooth, you spend a lot of your money on concerts, tapes, and CDs and relatively little on candy. By contrast, your chocoholic friend with the tin ear may spend a great deal on Hershey's Kisses and very little on music.

All consumers must choose which goods to buy because limits on wealth prevent them from buying everything that catches their fancy. In addition, government rules restrict what they may buy: young consumers cannot buy alcohol or cigarettes legally, and at any age, it is illegal to buy crack and other "recreational" drugs. Therefore, consumers buy the goods that give them the most pleasure, subject to the constraints that they cannot spend more money than they have and that they cannot spend it in ways that the government prevents.

In economic analyses designed to explain behavior rather than judge, economists assume that *the consumer is the boss*. If your brother gets pleasure from smoking, economists don't argue with him that it is bad for him any more than they'd tell your sister, who likes reading Stephen King, that she should read Adam Smith's *Wealth of Nations* instead. Accepting each consumer's tastes is not the same as condoning the resulting behaviors. Economists want to predict behavior. They want to know, for example, whether your brother will smoke more next year if the price of cigarettes decreases 10%. The prediction is unlikely to be correct if economists say, "He shouldn't smoke; therefore, we predict he'll stop smoking next year." A prediction based on your brother's actual tastes is more likely to be correct: "Given that he likes cigarettes, he is likely to smoke more of them next year if the price falls."

Active Vocabulary

assets – имущество, активы

assumption – предположение

blind – слепой

bundle – набор; связка

downtime – простой (по техническим причинам, время простоя)

drain – расход; постоянная утечка

efficient - эффективный

eligibility – право на работу, на занятие должности и т.п.

eligible – имеющий право

excessive – чрезмерный, чрезвычайный

fraud – мошенничество

injury – травма

liability – ответственность

mold – форма, отливка, лекало

nutritionist – диетолог

pallet – плита (конвейера)

perk – привилегия (от **perquisite**)

preference – предпочтение

profit – прибыль

random – хаотичный

share – акция

shareholder – акционер

stock – пакет акций

supervision – руководство
theft – воровство
to allocate – ассигновать, распределять
to assume – предполагать
to box – упаковывать в коробки
to run (a firm and the like) – управлять
to stray – заблудиться; сбиться с пути
to wrap – заворачивать
wealth – состояние

Exercise 1. Give the Russian Equivalents to the Following Word Combinations:

To pose a question; a bundle of goods; underlying assumptions; black market; electronic fund transfers; to switch from ... to; comparable cash subsidy; chocolate bars; chocolate squares; capital inputs; manufacturing plant; conveyor belt; repetitive motion injuries; robotic arms; current investments; for-profit firms; a board of directors; to run a firm; short-term decisions; long-term plans; personal liability; personal wealth; to go bankrupt; to become worthless; personal objectives; to keep risks low; competitive firm; to drive out of business; efficient production; technological efficiency; excessively expensive inputs; sufficient condition.

Exercise 2. Give the English Equivalents to the Following Word Combinations:

Базовые предположения; предпочтения потребителей; поставить вопрос; получить кривую спроса; кривая предложения; короче говоря; набор товаров; выбирать вслепую, не думая; конкретные предметы; различаться существенно; достаточное условие; эффективное производство; обещиваться; монотонное движение; конвейерная линия; текущие инвестиции; личное имущество; конфликтующие цели; личная ответственность; фирмы, созданные для получения прибыли; обанкротиться; преследовать личные цели; управлять фирмой; утечка прибыли; снижать риск; совет директоров; краткосрочные решения; долгосрочные планы; завод-производитель; личное состояние; модный офис.

Exercise 3. Answer the following questions:

1. What can one predict using three basic assumptions?
2. How do consumers choose the bundle of goods they buy?
3. Do consumers blindly choose one good or another without any thought?
4. What do economists assume in order to explain consumer behavior?
5. What kind of program is The Food Stamps Program?

6. What can one do with food stamps?
7. Would a switch to a comparable cash subsidy increase the well-being of food stamps recipients?
8. Would the recipients spend less on food and more on other goods?
9. What do labor inputs include?
10. What do capital inputs include?
11. What did the use of robotic arms result in?
12. Who is a corporation usually run by?
13. In what way can a firm expand output in the short run?
14. In what way can a firm expand output in the long run?
15. What forms do for-profit forms have?
16. How can sole proprietorships be defined?
17. How can partnerships be defined?
18. How can corporations be defined?
19. What are the responsibilities of a board of directors?
20. In what way do corporations differ from the other two forms of ownership?
21. What does limited liability imply?
22. In what case does the owner replace the manager?
23. What can the shareholders do if the managers run the firm badly?
24. What do most people invest in a firm for?
25. What must a firm do to maximize profits?

Exercise 4. Translate the following sentences into English:

1. Как вы обычно выбираете набор товаров, которые нужно приобрести?
2. Я предпочитаю покупать одни и те же товары, когда хожу в магазин.
3. Анализ потребительского поведения обычно начинают с рассмотрения потребительских предпочтений.
4. Большинство европейцев предпочитают цветное нижнее белье, а американцы – белое.
5. Программа талонов на продукты питания была запущена в начале 60-ых годов.
6. По закону талоны на продукты питания продавать нельзя.
7. Существует черный рынок талонов на продукты питания.
8. Благодаря технологическому прогрессу в электронных переводах денег переход от талонов на продукты к программе денежных выплат снизил бы административные расходы и уменьшил бы потери от мошенничества и воровства.
9. Для снижения риска получить травму от монотонного движения компании пытаются заменить людей роботами.
10. Корпорациями владеют акционеры пропорционально количеству акций, которые они имеют.
11. Партнерство – это бизнес, которым совместно владеют два или более человек.

12. Одиночные предприниматели и партнеры несут личную ответственность за долги своей фирмы.
13. В небольшой фирме обычно владелец сам управляет работой всей фирмы.
14. Если менеджер и совет директоров плохо управляют фирмой, акционеры могут их уволить.
15. При банкротстве корпорации ее акции обесцениваются.
16. Владельцы корпораций несут ограниченную ответственность, то есть их собственность не может использоваться для оплаты долгов корпорации при ее банкротстве.

Unit 6

Supply and Demand

Talk is cheap because supply exceeds demand.

When asked, "What is the most important thing you know about economics?" many people reply, "Supply equals demand." This statement is a shorthand description of one of the simplest yet most powerful models of economics. The supply-and-demand model describes how consumers and suppliers interact to determine the *quantity* of a good or service sold in a market and the *price* at which it is sold. To use the model, you need to determine three things: buyers' behavior, sellers' behavior, and how they interact. After reading this chapter, you should be adept enough at using the supply-and-demand model to analyze some of the most important policy questions facing your country today, such as those concerning international trade, minimum wages, and price controls on health care.

After reading that grandiose claim, you may ask, "Is that all there is to economics? Can I become an expert economist that fast?" The answer to both these questions is no (of course). In addition, you need to learn the limits of this model and what other models to use when this one does not apply. (You must also learn the economists' secret handshake.)

Even with its limitations, the supply-and-demand model is the most widely used economic model. It provides a good description of how many markets function and works particularly well in markets in which there are many buyers and many sellers, such as in most agriculture and labor markets. Like all good theories, the supply-and-demand model can be tested—and possibly shown to be false. But in markets where it is applicable, it allows us to make accurate predictions easily.

1. Demand: The quantity of a good or service that consumers demand depends on price and other factors such as consumers' incomes and the price of related goods.

2. Supply: The quantity of a good or service that firms supply depends on price and other factors such as the cost of inputs firms use to produce the good or

service.

3. Market equilibrium: The interaction between consumers' demand and firms' supply determines the market price and quantity of a good or service that is bought and sold.

4. Shocking the equilibrium: Changes in a factor that affect demand (such as consumer's income), supply (such as a rise in the price of inputs), or a new government policy (such as a new tax) alter the market price and quantity of a good.

5. Effects of government interventions: Government policies may alter the equilibrium and cause the quantity supplied to differ from the quantity demanded.

6. When to use the supply-and-demand model: The supply-and-demand model applies only to competitive markets.

DEMAND

Potential consumers decide how much of a good or service to buy on the basis of its price and many other factors, including their own tastes, information, prices of other goods, income, and government actions. Before concentrating on the role of price in determining demand, let's look briefly at some of the other factors.

Consumers' *tastes* determine what they buy. Consumers do not purchase foods they dislike, artwork they hate, or clothes they view as unfashionable or uncomfortable. Advertising may influence peoples' tastes.

Similarly, *information* (or misinformation) about the uses of a good affects consumers' decisions. A few years ago when many consumers were convinced that oatmeal could lower their cholesterol level, they rushed to grocery stores and bought large quantities of oatmeal. (They even ate some of it until they remembered that they couldn't stand how it tastes.)

The *prices of other goods* also affect consumers' purchase decisions. Before deciding to buy Levi's jeans, you might check the prices of other brands. If the price of a close *substitute*—a product that you view as similar or identical to the one you are considering purchasing—is much lower than the price of Levi's jeans, you may buy that brand instead. Similarly, the price of a *complement*—a good that you like to consume at the same time as the product you are considering buying—may affect your decision. If you eat pie only with ice cream, the higher the price of ice cream, the less likely you are to buy pie.

Income plays a major role in determining what and how much to purchase. People who suddenly inherit great wealth may purchase a Rolls-Royce or other luxury items and would probably no longer buy do-it-yourself repair kits.

Government rules and regulations affect purchase decisions. Sales taxes increase the price that a consumer must spend for a good, and government-imposed limits on the use of a good may affect demand. If a city's government bans the use of skateboards on its streets, skateboard sales fall.

Other factors may also affect the demand for specific goods. Consumers are more likely to have telephones if most of their friends have telephones. The

demand for small, dead evergreen trees is substantially higher in December than at other times of the year.

Dr. David A. Kessler, former U.S. Commissioner of Food and Drugs, alleged that Brown & Williamson Tobacco Corporation developed a genetically engineered tobacco with more than double the amount of nicotine that some other cigarettes deliver to the smoker. Higher levels of nicotine may increase smokers' addiction and thus boost the demand for cigarettes.

Although many factors influence demand, economists usually concentrate on how price affects the quantity demanded. The relationship between price and quantity demanded plays a critical role in determining the market price and quantity in a supply-and-demand analysis. To determine how a change in price affects the quantity demanded, economists must hold constant other factors such as income and tastes that affect demand.

SUPPLY

Knowing how much consumers want is not enough, by itself, to tell us what price and quantity are observed in a market. To determine the market price and quantity, we also need to know how much firms want to supply at any given price.

Firms determine how much of a good to supply on the basis of the price of that good and other factors, including the costs of production and government rules and regulations. Usually, we expect firms to supply more at a higher price. Before concentrating on the role of price in determining supply, we'll briefly describe the role of some of the other factors.

Costs of production affect how much firms want to sell of a good. As a firm's cost falls, it is willing to supply more, all else the same. If the firm's cost exceeds what it can earn from selling the good, the firm sells nothing. Thus, factors that affect costs, also affect supply. A technological advance that allows a firm to produce a good at lower cost leads the firm to supply more of that good, all else the same.

Government rules and regulations affect how much firms want to sell or are allowed to sell. Taxes and many government regulations—such as those covering pollution, sanitation, and health insurance—alter the costs of production. Other regulations affect when and how the product can be sold. In Germany, retailers may not sell most goods and services on Sundays or during evening hours. In the United States, the sale of cigarettes and liquor to children is prohibited. New York, San Francisco, and many other cities restrict the number of taxicabs.

Forces That Drive the Market to Equilibrium

A market equilibrium is not just an abstract concept or a theoretical possibility. We can observe markets in equilibrium. Indirect evidence that a market is in equilibrium is that you can buy as much as you want of the good at the market price. You can almost always buy as much as you want of such common goods as milk and ballpoint pens.

Amazingly, a market equilibrium occurs without any explicit coordination between consumers and firms. In a competitive market such as that for agricultural goods, millions of consumers and thousands of firms make their buying and selling decisions independently. Yet each firm can sell as much as it wants; each consumer can buy as much as he or she wants. It is as though an unseen market force, like an *invisible hand*, directs people to coordinate their activities to achieve a market equilibrium.

What really causes the market to move to an equilibrium? If the price is not at the equilibrium level, consumers or firms have an incentive to change their behavior in a way that will drive the price to the equilibrium level, as we now illustrate.

If the price were initially lower than the equilibrium price, consumers would want to buy more than suppliers want to sell. If the price of pork is \$2.65, firms are willing to supply 194 million kg per year but consumers demand 233 million kg. At this price, the market is in *disequilibrium*, meaning that the quantity demanded is not equal to the quantity supplied. There is excess **demand**—the amount by which the quantity demanded exceeds the quantity supplied at a specified price—of 39 (= 233 - 194) million kg per year at a price of \$2.65.

Some consumers are lucky enough to buy the pork at \$2.65. Other consumers cannot find anyone who is willing to sell them pork at that price. What can they do? Some frustrated consumers may offer to pay suppliers more than \$2.65. Alternatively, suppliers, noticing these disappointed consumers, may raise their prices. Such actions by consumers and producers cause the market price to rise. As the price rises, the quantity that firms want to supply increases and the quantity that consumers want to buy decreases. This upward pressure on price continues until it reaches the equilibrium price, \$3.30, where there is no excess demand.

If, instead, price is initially above the equilibrium level, suppliers want to sell more than consumers want to buy. For example, at a price of pork of \$3.95, suppliers want to sell 246 million kg per year but consumers want to buy only 207 million. At \$3.95, the market is in disequilibrium. There is an excess **supply**—the amount by which the quantity supplied is greater than the quantity demanded at a specified price—of 39 (= 246 - 207) at a price of \$3.95. Not all firms can sell as much as they want. Rather than incur storage costs (and possibly have their unsold pork spoil), firms lower the price to attract additional customers. As long as price remains above the equilibrium price, some firms have unsold pork and want to lower the price further. The price falls until it reaches the equilibrium level, \$3.30, where there is no excess supply and hence no more pressure to lower the price further.

In summary, at any price other than the equilibrium price, either consumers or Suppliers are unable to trade as much as they want. These disappointed people act to change the price, driving the price to the equilibrium level. The equilibrium price is called the *market clearing price* because it removes from the market all frustrated buyers and sellers: there is no excess demand or excess supply at the equilibrium price.

Why Supply Need Not Equal Demand

The price ceiling and price floor examples show that the quantity supplied does not necessarily equal the quantity demanded in a supply-and-demand model. The quantity supplied need not equal the quantity demanded because of the way we defined these two concepts. We defined the quantity supplied as the amount firms *want to sell* at a given price, holding other factors that affect supply, such as the price of inputs, constant. The quantity demanded is the quantity that consumers *want to buy* at a given price, if other factors that affect demand are held constant. The quantity that firms want to sell and the quantity that consumers want to buy at a given price need not equal the *actual* quantity that is bought and sold.

When the government imposes a binding price ceiling of p on gasoline, the quantity demanded is greater than the quantity supplied. Despite the lack of equality between the quantity supplied and the quantity demanded, the supply-and-demand model is useful in analyzing this market because it predicts the excess demand that is actually observed.

We could have defined the quantity supplied and the quantity demanded so that they must be equal. If we were to define the quantity supplied as the amount firms *actually* sell at a given price and the quantity demanded as the amount consumers *actually* buy, supply must equal demand in all markets because the quantity demanded and the quantity supplied are *defined* to be the same quantity.

It is worth pointing out this distinction because many people, including politicians and newspaper reporters, are confused on this point. Someone insisting that "demand *must* equal supply" must be defining demand and supply as the *actual* quantities sold.

Because we define the quantities supplied and demanded in terms of people's *wants* and not *actual* quantities bought and sold, the statement that "supply equals demand" is a theory, not merely a definition. This theory says that the equilibrium price and quantity in a market are determined by the intersection of the supply curve and the demand curve if the government does not intervene. Further, we use the model to predict excess demand or excess supply when a government does control price. The observed gasoline shortages during the period when the U.S. government controlled gasoline prices are consistent with this prediction.

Active Vocabulary

assembly-line – сборочный конвейер

candy – конфета

chef – шеф-повар; повар (мужчина)

custodian [Λ] – сторож

eternity – вечность

eventually – в итоге; в конечном счете
fixed – фиксированный; постоянный
lumberyard – лесной склад
option – выбор; право выбора; предмет выбора
plank – доска
plumber – водопроводчик
return – отдача; возврат; возмещение; оборот; доход; прибыль
skills – квалификация
to be exhausted – быть истощенным; быть изможденным, изнуренным
substitute – замена; заменитель; заместитель
to summarize – суммировать; подводить итог
tune-up – настройка; регулировка
utility – полезность; выгодность; полезная вещь
variable – переменный
wheat [i:]– пшеница

Exercise 1. Give the Russian Equivalents to the Following Word Combinations:

Technology process; production process; factors of production; long-lived inputs; human services; skilled workers; unskilled workers; construction laborers; assembly-line workers; raw goods; raw materials; processed products; automobile tune-up; physical product; computer chip; potato chip; candy-manufacturing companies; modern equipment; by hand; conveyor belts; large-scale plants; state-of-the-art machines; various options; production function; current knowledge; wrapped candy bars; efficient production; profit-maximizing firm; a great deal of capital; a great deal of labor; in much the same way; moderate amount; to maintain a given level of utility; varying returns to scale; increasing returns to scale; decreasing returns; equipment-returns to specialization; to be exhausted.

Exercise 2. Give the English Equivalents to the Following Word Combinations:

Физический продукт; человеческие услуги; почти таким же образом; умеренное количество; различные возможности; фирма, добивающаяся максимальной прибыли; современное знание; эффективное производство; технологический процесс; факторы производства; сырьевые материалы; картофельные чипсы; квалифицированные работники; неквалифицированные работники; строительные рабочие; крупные заводы; отладка автомобиля; поддерживать данный уровень выгодности; производственная функция; конвейерная лента; обработанная продукция; рабочие сборочного конвейера; ручную; факторы производства; кондитерские компании; конфеты в обертке;

Exercise 3. Answer the following questions:

1. What does a firm use to transform inputs into outputs?
2. How many categories can inputs be grouped into?
3. What inputs comprise Capital?

4. What human services does Labor cover?
5. What inputs comprise Materials?
6. What can be included into the output?
7. What do candy-manufacturing companies differ in?
8. What do unskilled workers do in small candy companies?
9. What do unskilled workers do in slightly larger forms?
10. What do relatively unskilled workers do in modern, large-scale plants?
11. How is the production function defined?
12. Why does the production function show only the maximum amount of output?
13. In what different ways can a firm produce a given level of output?
14. What does increasing labor and capital result in when a firm is small?
15. What happens to returns to scale as the firm grows?

Exercise 4. Translate the following sentences into English:

1. Любая фирма использует технологический или производственный процесс для превращения факторов производства в выпускаемую продукцию.
2. К вложениям с долгим сроком службы относятся земля, здания (заводы, магазины) и оборудование (станки, грузовики).
3. Человеческие услуги – это услуги, предоставляемые менеджерами, квалифицированными работниками (архитекторами, экономистами, инженерами) и менее квалифицированными работниками (сторожами, строителями).
4. К сырьевым товарам можно отнести нефть, воду, пшеницу; к обработанным продуктам относится алюминий, сталь, бумага, пластмасса.
5. Фирмы могут превращать сходные материалы в выпускаемую продукцию различными способами.
6. На небольших кондитерских предприятиях относительно неквалифицированные рабочие формуют конфеты, украшают их, обертывают и упаковывают в коробки вручную.
7. В более крупных фирмах относительно неквалифицированные рабочие используют конвейерные ленты и другое оборудование.
8. На современных крупных предприятиях относительно неквалифицированные рабочие работают с роботами и другими современными машинами.
9. Производственная функция показывает только максимальное количество выпускаемой продукции, которую можно произвести при данном уровне труда и капитала.
10. Фирма может заменить один выпускаемый продукт на другой, продолжая сохранять один и тот же уровень выпуска продукции.

Unit 7

PRODUCTIVITY AND TECHNICAL CHANGE

Because firms may use different technologies and different methods of organizing production, the amount of output that one firm produces from a given amount of inputs may differ from that produced by another firm. Moreover, after a technical or managerial innovation, a firm can produce more today from a given amount of inputs than it could in the past.

Relative Productivity

Throughout this chapter, we've assumed that firms produce efficiently. A firm must produce efficiently if it is to maximize its profit. Even if each firm in a market produces as efficiently as possible, however, firms may not be equally *productive*, in the sense that one firm can produce more than another from a given amount of inputs.

A firm may be more productive than others if its manager knows a better way to organize production or if it is the only firm with access to a new invention. Union-mandated work rules, government regulations, other institutional restrictions, or racial or gender discrimination that affect only some firms may lower the relative productivity of those firms.

We can measure the *relative productivity* of a firm by expressing the firm's actual output, q , as a percentage of the output that the most productive firm in the industry could have produced, q^* , from the same amount of inputs: $100q/q^*$. The most productive firm in an industry has a relative productivity measure of 100% (= $100q^*/q^*$ percent).

Caves and Barton (1990) report that the average productivity of firms across U.S. manufacturing industries ranges from 63% to 99%. That is, in the manufacturing industry with the most diverse firms, the average firm produces slightly less than two-thirds as much as the most productive firm, whereas in the manufacturing industry with the most homogeneous firms, all firms are nearly equally productive.

Differences in productivity across markets may be due to differences in the degree of competition. In competitive markets, in which many firms can enter and exit the market easily, less productive firms lose money and are driven out of business, so the firms that are actually producing are equally productive (as Chapter 8 shows). In a less competitive oligopoly market, with few firms and no possibility of entry by new firms, a less productive firm may be able to survive, so firms with varying levels of productivity are observed.

MEASURING COSTS

To show how a firm's cost varies with its output, we first have to measure costs. Businesspeople and economists often measure costs differently.

Economic Cost

Economists include all relevant costs. To run a firm profitably, a manager acts like an economist and considers all relevant costs. However, this same manager may direct the firm's accountant or bookkeeper to measure cost in ways that are consistent with tax laws and other laws to make the firm's financial statement look good to stockholders or to minimize the firm's taxes this year.

Economists consider both explicit costs and implicit costs. *Explicit costs* are a firm's direct, out-of-pocket payments for inputs to its production process during a given time period such as a year. These costs include production workers' wages, managers' salaries, and payments for materials. However, firms use inputs that may not have an explicit price. These *implicit costs* include the value of the working time of the firm's owner and the value of other resources used but not purchased in a given period.

The **economic cost** or **opportunity cost** is the value of the best alternative use of a resource. The economic or opportunity cost includes both explicit and implicit costs. If a firm purchases and uses an input immediately, that input's opportunity cost is the amount the firm pays for it. If the firm uses an input from its inventory, **its** opportunity cost is not necessarily the price it paid for the input years ago. Rather, the opportunity cost is what it could buy or sell that input for today.

The classic example of an implicit opportunity cost is captured in the phrase "There's no such thing as a free lunch." Suppose that your parents offer to take you to lunch tomorrow. You know that they'll pay for the meal, but you also know that this lunch is not free for you. Your opportunity cost for the lunch is the best alternative use of your time. Presumably, the best alternative use of your time is studying this textbook, but other possible alternatives include what you could earn at a job or the value you place on watching TV. Often such opportunity costs are a substantial portion of total costs.

If you start your own firm, you should be very concerned about opportunity costs. Suppose that your explicit cost is \$40,000, including the rent for your work space, the cost of materials, and the wage payments to your employees. Because you do not pay yourself a salary—instead, you keep any profit at the end of the year—the explicit cost does not include the value of your time. According to an economist, your firm's full economic cost is the sum of the explicit cost plus the opportunity value of your time. If the highest wage you could have earned working for some other firm is \$25,000, your full economic cost is \$65,000.

In deciding whether to continue running your firm or to work for someone else, you must consider both explicit and opportunity costs. If your annual revenue is \$60,000, after you pay your explicit cost of \$40,000, you keep \$20,000 at the end of the year. The opportunity cost of your time, \$25,000, exceeds \$20,000, so you can earn more working for someone else. (What are you giving up to study opportunity costs?)

Active Vocabulary

productive – производительный
productivity – производительность труда
access – доступ
invention – изобретение
gender – род (жен., муж.)
diverse – разный; разнообразный
homogeneous – однородный
to drive out – вытеснять
to survive – выживать
average – средний
to range – находиться в диапазоне
costs – издержки (производства)
relevant – уместный; относящийся к делу
consistent – совместимый; согласующийся
stockholder – акционер
explicit – ясный; точный; явно выраженный
implicit – подразумеваемый; не выраженный прямо
inventory – опись; ведомость; реестр; инвентаризация
to capture – поймать; схватить; захватить
presumably – возможно; вероятно; предположительно

Exercise 1. Give the Russian Equivalents to the Following Word Combinations:

A technical innovation; Union-mandated work rules; institutional restrictions; managerial innovation; racial discrimination; gender discrimination; relative productivity; average productivity; diverse firms; homogeneous firms; manufacturing industry; government managed economies; relevant costs; to be consistent with tax laws; financial statement; to minimize taxes; explicit price; economic cost or opportunity cost; annual revenue; to run a firm; total cost; alternative use.

Exercise 2. Give the English Equivalents to the Following Word Combinations:

Управлять фирмой; явно выраженная цена; техническое новшество; управленческое новшество; финансовый отчет; полная стоимость; альтернативное использование; подразумеваемые (невыраженные явно) затраты; относительная производительность; управляемые правительством экономики; годовой доход; явно выраженная цена; средняя производительность; фирмы, выпускающие однородную продукцию; фирмы, выпускающие разнообразную продукцию; расовая дискриминация; дискриминация по полу; согласоваться с налоговыми законами; правила работы, установленные профсоюзом; относящиеся к производству расходы;

прямые платежи; явно выраженные затраты; промышленная отрасль; установленные ограничения.

Exercise 3. Answer the following questions:

1. What can a technical or managerial innovation result in?
2. When must a firm produce efficiently?
3. In what cases may a firm be more productive than others?
4. What circumstances may lower the relative productivity of firms?
5. How can we measure the relative productivity of a firm?
6. An what industry across U.S. are all firms nearly equally productive?
7. What may differences in productivity across markets be caused by?
8. In what kind of market may a less productive firm be able to survive?
9. What do explicit costs include?
10. What do implicit costs include?
11. What is the economic cost or opportunity cost?
12. Why should you be very concerned about opportunity costs when you start your own firm?

Exercise 4. Translate the following sentences into English:

1. Так как фирмы могут использовать различные технологии и различные методы организации производства, количество выпускаемой продукции одной фирмой может существенно отличаться от количества продукции, выпускаемой другой фирмой, при одинаковых вложениях в производство.
2. Средняя производительность американских фирм в промышленных отраслях находится в диапазоне от 63% до 99%.
3. Различия в производительности по разным рынкам может быть обусловлено различиями в степени конкуренции на этих рынках.
4. На рынках с высокой степенью конкуренции менее производительные фирмы теряют деньги и вытесняются из бизнеса.
5. На олигопольном рынке, где конкуренция не высока, менее продуктивная фирма может оказаться в состоянии выжить, поэтому здесь наблюдаются фирмы с различными уровнями производительности.
6. Чтобы эффективно управлять фирмой, менеджер должен действовать как экономист и учитывать все затраты, связанные с производством.
7. Экономисты, как правило, учитывают и эксплицитные, и имплицитные затраты.
8. Цена упущенной альтернативы включает как эксплицитные, так и имплицитные затраты.

Unit 8

Why There Always Are Unemployed People

Even when the economy is growing vigorously and many new jobs are being created, some people remain unemployed. Why is unemployment apparently a permanent feature of the economy? Here we discuss frictional unemployment and structural unemployment, two types of unemployment that always exist in the labor market and thus prevent the unemployment rate from ever reaching zero.

Frictional Unemployment. The labor market is characterized by a great deal of searching by both workers and firms. Unemployed workers search for suitable jobs, and firms with vacancies search for suitable workers. If all workers were identical and all jobs were identical, these searches would be short and easy: Unemployed workers would simply have to find firms that had vacancies and they would immediately be hired. The problem, of course, is that neither jobs nor workers are identical. Workers vary in their talents, skills, experience, goals, geographic location (and willingness to move), and amount of time and energy they are willing to commit to their job. Similarly, jobs vary in the skills and experience required, working conditions, location, hours, and pay. Because of these differences, an unemployed worker may search for several weeks or more before finding a suitable job; similarly, a firm may search for a considerable time before it is able to hire a suitable worker.

The unemployment that arises as workers search for suitable jobs and firms search for suitable workers is called **frictional unemployment**. Because the economy is dynamic, with jobs continually being created and destroyed and workers continually entering and exiting the labor force, there is always some frictional unemployment as workers are matched with appropriate jobs.

Structural Unemployment. In addition to those suffering long spells of unemployment, many people are chronically unemployed. Although their unemployment spells may be broken by brief periods of employment or being out of the labor force, workers who are **chronically unemployed** are unemployed a large part of the time. Long spells of unemployment and chronic unemployment can't be attributed primarily to the matching process. People in these situations don't seem to search for work very intensively and don't generally find stable employment. The long-term and chronic unemployment that exists even when the economy is not in a recession is called **structural unemployment**.

Structural unemployment occurs for two primary reasons. First, unskilled or low-skilled workers often are unable to obtain desirable, long-term jobs. The jobs available to them typically offer relatively low wages and little chance for training or advancement. Most directly related to the issue of structural unemployment is the fact that jobs held by low-skilled workers often don't last long. After a few months the job may end, or the worker may quit or be fired, thus entering another spell of unemployment. Some workers with low skill levels eventually get enough training or experience to obtain more secure, long-term jobs. Because of factors such as inadequate education, discrimination, and language barriers, however,

some unskilled workers never make the transition to long-term employment and remain chronically unemployed.

The second source of structural unemployment is the reallocation of labor from industries that are shrinking, or regions that are depressed, to areas that are growing. When industries find that their products are no longer in demand (for example, buggy whip manufacturers) or that they are no longer competitive (for example, U.S. producers of color television sets that lost much of the market to the Japanese), workers in these industries lose their jobs. At the same time, some industries will be growing (for example, health care providers and computer software developers). To prevent unemployment from rising requires that workers who lose jobs in declining industries be matched somehow with jobs in growing industries. This matching may involve a long period of unemployment, especially if workers need to relocate or be trained for a new job.

The Natural Rate of Unemployment. Because of the combination of frictional and structural unemployment, an economy's unemployment rate is never zero, even when the economy is at its full-employment level. The rate of unemployment that prevails when output and employment are at the full-employment level is called the natural rate of unemployment, \bar{u} . The natural rate of unemployment reflects unemployment owing to frictional and structural causes. Although there is no single official measure of the natural rate of unemployment, many economists believe that the natural rate was in the range of 4% to 5% during the 1950s and increased gradually to about 6% in the 1980s. Many economists think that the natural rate fell toward 5.5% or lower during the 1990s.

As output fluctuates around its full-employment level, the unemployment rate fluctuates around the natural rate. The difference between the actual unemployment rate and the natural rate of unemployment is called cyclical unemployment. Specifically, cyclical unemployment = $u - \bar{u}$, where u is the actual unemployment rate and \bar{u} is the natural rate. Cyclical unemployment is positive whenever the economy's output and employment are below full-employment levels; it is negative when output and employment exceed full-employment levels.

Active Vocabulary

- (in)adequate** – (не)адекватный
- advancement** – продвижение (по работе)
- allocation** – распределение; ассигнование
- apparently** – очевидно
- appropriate** – подходящий; уместный
- cause** – причина
- employment** – занятость
- eventually** – в конце концов
- feature** – черта
- frictional** – фрикционный
- gradually** – постепенно
- quit** – уйти (с работы)

reallocation – перераспределение
recession – спад (в экономике)
software – программное обеспечение
spell – срок постоянной безработицы (индивида)
stable – устойчивый; стабильный
suitable – подходящий
to arise (arose, arisen) – возникать
to attribute – приписывать
to commit – предавать; подвергать; брать на себя обязательства
to decline – приходить в упадок; уменьшаться
to fluctuate – колебаться
to hire – нанимать
to last – длиться; продолжаться
to match – подходить под пару; соответствовать
to obtain – получать
to prevail – преобладать; превалировать
to prevent – помешать; предотвратить
to reflect – отражать
to relocate – перерасмещать
to search – искать
to shrink – сжиматься; уменьшаться
to suffer – страдать
to vary – изменяться
training – обучение
transition – переход
unemployment – безработица
vacancy – вакансия
vigorously – сильно; энергично; решительно
willingness – желание

Exercise 1. Give the Russian Equivalents to the Following Word Combinations:

Permanent feature; frictional unemployment; structural unemployment; labor market; unemployment rate; to search for a suitable job; working conditions; appropriate jobs; unemployment spell; to suffer long spells of unemployment; brief periods of employment; to be out of the labor force; to be chronically unemployed; stable employment; unskilled workers; low-skilled workers; long-term jobs; low wages; a little chance of training or advancement; low skill levels; inadequate education; long-term employment; reallocation of labor; depressed regions; buggy whip manufacturers; health care providers; computer software developers; declining industries; natural rate of unemployment; full-employment level; single official measure; cyclical unemployment; to exceed full-employment levels.

Exercise 2. Give the English Equivalents to the Following Word Combinations:

Низкие уровни квалификации; постоянная черта; рынок труда; постоянная занятость; несоответствующее образование; разработчики компьютерного программного обеспечения; депрессивные регионы; структурная безработица; превышать уровень полной занятости; циклическая безработица; условия труда; в поисках подходящей работы; короткие периоды занятости; уровень безработицы; подходящие рабочие места; небольшой шанс переучивания и продвижения по службе; продолжительный период безработицы (для индивида); неквалифицированные рабочие; долгосрочная занятость; низкие зарплаты; перераспределение рабочей силы; переживать длительные периоды безработицы; быть постоянно безработным; умирающие отрасли; естественный уровень безработицы; единая официальная мера; производители хлыстов для кабриолета; провайдеры в области здравоохранения; фрикционная (или временная) безработица.

Exercise 3. Answer the following questions:

1. What is the labor market characterized by?
2. What do unemployed workers search for?
3. Who do firms with vacancies search for?
4. What is called frictional unemployment?
5. Why is there always some frictional unemployment?
6. Can long spells of unemployment and chronic unemployment be attributed primarily to the matching process?
7. What is called structural unemployment?
8. What reasons does structural unemployment occur for?
9. Why are unskilled or low-skilled workers often unable to obtain desirable, long-term jobs?
10. Why do some unskilled workers never make the transition to long-term employment and remain chronically unemployed?

Exercise 4. Translate the following sentences into English:

1. Даже тогда, когда экономика развивается энергично и создается много новых рабочих мест, некоторые люди остаются безработными.
2. Безработные рабочие ищут подходящую работу, а фирмы ищут подходящих рабочих.
3. Безработица, возникающая тогда, когда рабочие ищут подходящую работу, а фирмы – подходящих рабочих, называется фрикционной безработицей.
4. Хроническая безработица, которая существует даже тогда, когда нет спада экономики, называется структурной безработицей.
5. Структурная безработица происходит по двум основным причинам.
6. Из-за таких факторов как неподходящее образование, дискриминация и языковые барьеры, некоторые неквалифицированные рабочие никогда

не получают долгосрочной работы и остаются хронически безработными.

7. Вторым источником структурной безработицы является перераспределение труда из исчезающих отраслей или депрессивных регионов в развивающиеся отрасли.
8. Из-за сочетания фрикционной и структурной безработицы уровень безработицы ни в какой экономике не бывает равным нулю.