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مقام معظم رهبرى

در عصر حاضر یکی از شاخصههای ارزیابی رشد، توسعه و پیشرفت فرهنگی هر کشوری میزان تولید کتاب، مطالعه و کتابخوانی مردم آن مرز و بوم است. ایران اسلامی نیز از دیرباز تاکنون با داشتن تمدنی چندهزارساله و مراکز متعدد علمی، فرهنگی، کتابخانههای معتبر، علما و دانشمندان بزرگ با آثار ارزشمند تاریخی، سرآمد دولتها و ملتهای دیگر بوده و در عرصهی فرهنگ و تمدن جهانی بهسان خورشیدی تابناک همچنان می درخشد و با فرزندان نیکنهاد خویش هنرنمایی می کند. چه کسی است که در دنیا با دانشمندان فرزانه و نامآور ایرانی همچون ابوعلی سینا، ابوریحان بیرونی، فارابی، خوارزمی و ... همچنین شاعران برجستهای نظیر فردوسی، سعدی، مولوی، حافظ و ... آشنا نباشد و در مقابل عظمت آنها سر تعظیم فرود نیاورد. تمامی مولوی، حافظ و ... آشنا نباشد و در مقابل عظمت آنها سر تعظیم فرود نیاورد. تمامی این افتخارات ارزشمند، برگرفته از میزان عشق و علاقه فراوان ملت ما به فراگیری علم و دانش از طریق خواندن و مطالعه منابع و کتابهای گوناگون است. به شکرانهی الهی، تاریخ و گذشته ما، همیشه درخشان و پربار است. ولی اکنون در این زمینه در چه جایگاهی قرار داریم؟ آمار و ارقام ارائهشده از سوی مجامع و سازمانهای فرهنگی در مورد سرانهی مطالعهی هر ایرانی، برایمان چندان امیدوارکننده نمیباشد و رهبر معظم مورد سرانهی مطالعهی هر ایرانی، برایمان چندان امیدوارکننده نمیباشد و رهبر معظم انقلاب اسلامی نیز از این وضعیت بارها اظهار گله و ناخشنودی نمودهاند.

کتاب، دروازهای به سوی گستره ی دانش و معرفت است و کتاب خوب، یکی از بهترین ابزارهای کمال بشری است. همه ی دستاوردهای بشر در سراسر عمر جهان، تا آنجا که قابل کتابت بوده است، در میان دست نوشته هایی است که انسان ها پدید آورده و می آورند. در این مجموعه ی بی نظیر، تعالیم الهی، درسهای پیامبران به بشر، و همچنین علوم مختلفی است که سعادت بشر بدون آگاهی از آنها امکان پذیر نیست. کسی که با دنیای زیبا و زندگی بخش کتاب ارتباط ندارد بی شک از مهم ترین دستاورد انسانی و نیز از بیشترین معارف الهی و بشری محروم است. با این دیدگاه، به روشنی می توان ارزش و مفهوم رمزی عمیق در این حقیقت تاریخی را دریافت که اولین خطاب خداوند متعال به پیامبر گرامی اسلام (ص) این است که «بخوان!» و در اولین خطاب خداوند متعال به پیامبر گرامی اسلام (ص) این است که «بخوان!» و در اولین

سورهای که بر آن فرستاده ی عظیم الشأن خداوند، فرود آمده، نام «قلم» به تجلیل یاد شده است: «إقْرَأُ وَ رَبُّکَ الْاَکْرَمُ. اَلَّذی عَلَّمَ بِالْقَلَم» در اهمیت عنصر کتاب برای تکامل جامعه ی انسانی، همین بس که تمامی ادیان آسمانی و رجال بزرگ تاریخ بشری، از طریق کتاب جاودانه مانده اند.

دانشگاه پیامنور با گستره ی جغرافیایی ایرانشمول خود با هدف آموزش برای همه، همه جا و همهوقت، به عنوان دانشگاهی کتاب محور در نظام آموزش عالی کشورمان، افتخار دارد جایگاه اندیشه سازی و خردورزی بخش عظیمی از جوانان جویای علم این مرز و بوم باشد. تلاش فراوانی در ایام طولانی فعالیت این دانشگاه انجام پذیرفته تا با بهره گیری از تجربه های گرانقدر استادان و صاحب نظران برجسته کشورمان، کتاب ها و منابع آموزشی درسی شاخص و خود آموز تولید شود. در آینده هم، این مهم با هدف ارتقای سطح علمی، روز آمدی و توجه بیشتر به نیازهای مخاطبان دانشگاه پیام نور با جدیت ادامه خواهد داشت. به طور قطع استفاده از نظرات استادان، صاحب نظران و دانشجویان محترم، ما را در انجام این وظیفه ی مهم و خطیر یاری رسان خواهد بود. پیشاپیش از تمامی عزیزانی که با نقد، تصحیح و پیشنهادهای خود ما را در انجام این وظیفه ی خود دانسته و ما را در انجام این وظیفه ی خود دانسته و ما را در به روزی تمامی قدردانی گردد. موفقیت تولید کتاب و محتوای آموزشی درسی یاری نموده اند، صمیمانه قدردانی گردد. موفقیت تولید کتاب و محتوای آموزشی درسی یاری نموده اند، صمیمانه قدردانی گردد. موفقیت

دانشگاه پیامنور

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Kambakhsh Farahmand Habibi April, 2016.

Preface

The text book in hand called "Economics in English" is intended to be a self-study book primarily for a two-credit course of the same title. It is written and complied for the students of economics. Nevertheless, anyone who is interested in studying economics may also benefit from it.

This textbook consists of eight chapters, and a Glossary and a Bibliography. Each chapter has six types of Exercises, whose correct answers are included in the Answer Keys at the end of the chapters, to check the understanding of details and main concepts on behalf of the students.

Chapter one, as an introductory chapter, deals with primary meaning of economics and basic questions related to it. Chapters two to eight, each include some tough subject of economics, such as perfect competition, demand, supply and market, aggregate demand, fiscal policy, money and modern banking, clarifying them necessarily. The bibliography helps the students check the source of the information provided in each chapter and extends their knowledge.

This textbook has three advantages, first it is derived from basic context to economics (works of *paul Samuelsson* and *Fischer*), second it contains most principal subjects of economics and, as a result, not only improves students' understanding in English economic texts, but also familiarizes them with valuable resources of economics. And third, some Islamic views are presented (chapters 1 and 5) to

enhance students' knowledge regarding Islamic thought and as a result, promote their belief in Islam.

The students who would take this course are expected to have passed the book "English in Economics and Management". This means the level of the book would be most useful to those students who have uplifted themselves to intermediate level. Students should read each line, paragraph, and part of the chapters carefully in order to grasp its meaning and intention. This will help them not only to answer all kinds of questions, but also get familiar with objectives (general and behavioral) of each chapter.

Instructors may follow their own part-arrangement of the book according to page number or part division in order to cover the whole instructed pages within the allowed session. In payame Noor University, where the frequent number of classes is reduced, instructors should arrange their teaching sessions to cover the book appropriately. They can fix the length of the books segments to apportioned time. This can help them have planned time and session for the whole book to be covered.

Kambakhsh Farahmand Habibi April, 2016.

Lesson One

An Introduction to Economics and the Economy

A. General Objectives

This unit is designed to help you to:

- Explain why economics is a social science.
- Understand the meaning of scarcity.
- Define the meaning of production possibility frontier.
- Discuss the difference between microeconomics and macroeconomics.
- Get familiar with the economic system of Islam.

B. Behavioral Objectives

After reading the text, students are expected to:

- Learn and define the key terms and general words appeared in text.
- Be able to use the words in related passages.
- Define and explain the economic system of Islam.
- Do the exercises 1.1 to 1.6.

An Intouduction to Economics and the Economy

(Begg, Fischer, Dornbusch, 1987, Chap. 1)

Every group of people must solve three basic problems of daily living: what goods and services to produce, how to produce these goods and

services, and for whom to produce these goods and services. **Economics** is the study of how society decides what, how, and for whom to produce.

By goods we mean physical commodities such as steel, cars, and strawberries. By services we mean activities such as massages or live theatre performances which can be consumed or enjoyed only at the instant they are produced. In exceptional circumstances, society may find that some of the questions about what, how, and for whom to produce have already been answered; until the arrival of Man Friday, Robinson Crusoe need not worry about the 'for whom' question. In general, however, society must answer all three questions.

By emphasizing the role of society, our definition places economics within the social sciences; the sciences that study and explain human behavior. The subject matter of economics is that part of human behavior which relates to the production, exchange, and use of goods and services. The central economic problem for society is how to reconcile the conflict between people's virtually limitless desires for goods and services and the scarcity of resources (labor, machinery, and raw materials) with which these goods and services can be produced. In answering the questions what, how, and for whom to produce, economics explains how scarce resources are allocated between competing claims on their use.

Because economics is about human behavior, you may be surprised that we describe it as a science rather than a subject within the arts or humanities. This reflects the way economists analyze problems, not the subject matter of economics. Economists aim to develop theories of human behavior and to test them against the facts.

Three Economic Issues

Trying to understand what economics is about by studying definitions is like trying to learn to swim by reading an instruction manual. Formal analysis makes sense only once you have some practical experience. In this section we discuss three economic issues to show how society allocates **scarce** resources between competing uses. In

each case we see the importance of the questions what, how, and for whom to produce.

The Oil Price Shocks

Oil is an important commodity in modern economies. Oil and its derivatives provide fuel for heating, transport, and machinery, and are basic inputs for the manufacture of industrial petrochemicals and many household products ranging from plastic utensils to polyester clothing. From the beginning of this century until 1973 the use of oil increased steadily. Over much of this period the price of oil fell in **comparison** with the prices of other products. Economic activity was organized on the assumption of cheap and abundant oil.

Figure 1-1 shows the price of oil from 1970 to 1986. Between 1973 and 1974 the price of oil tripled, from \$2.90 to \$9 per barrel. After a more gradual rise between 1974 and 1978 there was another sharp increase between 1978 and 1980, from \$12 to \$30 per barrel. The dramatic price increases of 1973-74 and 1978-80 have become known as the Organization of Petroleum Exporting Countries (OPEC) oil price shocks, not only because they took the rest of the world by surprise but also because of the upheaval they inflicted on the world economy which had previously been organized on the assumption of cheap oil prices.

Consider first how the economy produces goods and services. When, as in the 1970s, the price of oil increases six fold, every firm will try to reduce its use of oil-based products. Chemical firms will develop artificial substitutes for petroleum inputs to their production processes; airlines will look for more fuel-efficient aircraft; electricity will be produced from more coal-fired generators. In general, higher oil prices make the economy produce in a way that uses less oil.

How does the oil price increase affect what is being produced? Firms and households reduce their use of oil-intensive products which are now more expensive. Households switch to gas-fired central heating and buy smaller cars. Commuters form car-pools or move

closer to the city. High prices not only choke off the demand for oil-related commodities, they also encourage consumers to purchase substitute commodities. Higher demand for these commodities bids up their price and encourages their production. Designers produce smaller cars, architects contemplate solar energy, and research laboratories develop alternatives to petroleum in chemical production throughout the economy. What is being produced reflects a shift away expensive oil-using products towards less oil-intensive substitutes.

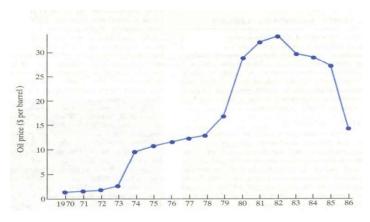


Figure 1-1. Price of Oil 1970-1986 (Source IMF, International Financial Statistics)

The 'for whom' question in this example has a clear answer. The Organization of Petroleum Exporting Countries (OPEC) revenues from oil sales increased from \$35 billion in 1973 to nearly \$300 billion in 1980. Much of their increased revenue was spent on goods produced in the **industrialized** Western nations. In contrast, oil-importing nations had to give up more of their own production in exchange for the oil imports that they required. In terms of goods as a whole, the rise in oil prices raised the buying power of the Organization of Petroleum Exporting Countries (OPEC) and reduced the buying power of oil-importing countries such as Germany and Japan. The world economy was producing more for the Organization of Petroleum Exporting Countries (OPEC) and less for Germany and

Japan. Although this is the most important single answer to the 'for whom' question, the economy is an intricate, interconnected system and disturbance anywhere ripples throughout the entire economy. In answering the 'what' and 'how' questions, we have seen that some activities expanded and others contracted following the oil price shocks.

The Organization of Petroleum Exporting Countries (OPEC) oil price shocks example illustrates how society allocates scarce resources between competing uses. A scarce resource is one for which the demand at a zero price would exceed the available supply. We can think of oil as having become scarcer in economic terms when its price rose.

The Role of Government

We now examine in greater detail the role of the government in society. In every society governments provide such services as national defense, police, firefighting services, and administration of justice. In addition, governments make **transfer payments** to some members of society.

Transfer payments are payments made to individual without requiring the provision of any service in return. Examples are social security, retirement **pensions**, **unemployment** benefit, and, in some countries, food stamps. Government expenditure, whether on the provision of goods and services (defense, police) or on transfer payments, is chiefly financed by imposing taxes, although some (small) residual component may be financed by government borrowing.

Governments spend part of their revenue on particular goods and services such as tanks, schools, and public safety. They directly affect what is produced. Government affect for whom output is produced through their tax and transfer payments. By taxing the rich and making transfers to the poor, the government ensures that the poor are

allocated more of what is produced than would otherwise be the case; and the rich get correspondingly less.

The government also affects how goods are produced, for example through the regulations it imposes. Managers of factories and mines must obey safety requirements even where these are costly to implement, firms are prevented from freely **polluting** the atmosphere and rivers, offices and factories are banned in attractive residential parts of the city.

The scale of government activities in the modern economy is highly controversial. In the UK the government takes nearly 40 percent of national income in taxes. Some governments take a larger share, others a smaller share. Different shares will certainly affect the questions what, how, and for whom, but some people believe that a large government sector makes an economy inefficient, reducing the number of goods that can be produced and eventually allocated to consumers.

It is commonly **asserted** that high tax rates reduce the incentive to work. If half of all we earn goes to the government, we might prefer to work fewer hours a week and spend more time in the garden or watching television. That is one possibility, but there is another one: if workers have in mind a target after-tax income, for example to have at least sufficient to **afford** a foreign holiday every year, they will have to work more hours to meet this target when taxes are higher. Whether on balance high taxes make people work more or less remains an open question. Welfare payments and unemployment benefit are more likely to reduce incentives to work since they actually contribute to target income. If large-scale government activity leads to important disincentive effects, government activity will affect not only what, how, and for whom goods are produced, but also how much is produced by the economy as a whole.

The **discussion** of the role of the government is central to the process by which society allocates its scarce resources. It also raises a question. Is it **inevitable** that the government plays an important role in the process by which society decides how to allocate resources

between competing demands? This question lies at the heart of economics, and we return to it shortly when we examine the role of markets in economic life.

First, however, we must refine our notion of scarce resources. To do so, we introduce a useful tool of economic analysis, the **production possibility frontier.**

Scarcity and the Competing Use of Resources: The Production Possibility Frontier

To see how this tool helps us to think about scarcity and the problem of what to produce, we consider a hypothetical economy in which there are two types of good, food and films. There are four workers in the economy. A worker can produce in either the food industry or the film industry.

Table 1-1 shows how much of each good can be produced per week. The answer depends on how the workers are allocated between the two industries. In each industry, the more workers there are, the greater is the total output of the good produced. We have assumed that production in each industry satisfies the **law of diminishing returns**. Each additional worker adds less to total industry output than the previous additional worker added. Beginning from the position of no workers and no output, the first worker employed increases output by 9 units per week. Adding a second worker raises film output only by 8 units per week, taking total film output to 17 units per week. Adding a third worker increases output by only 7 units per week, and the addition of yet more workers leads to even smaller increases in film output.

Table 1-1. Production Possibilities in the Hypothetical Economy

EMPLOYMENT IN FOOD	OUTPUT OF FOOD	EMPLOYMENT IN FILMS	OUTPUT OF FILMS
4	25	0	0
3	22	1	9
2	17	2	17
1	10	3	24
0	0	4	30

What lies behind the law of diminishing returns? We have implicitly assumed that workers in the film industry have at their disposal a fixed total amount of cameras, studios, and other equipment. The first worker has sole use of all these facilities. When a second worker is added, the two workers must share these facilities. The addition of further workers reduces equipment per workers to even lower levels. Thus, the output per worker in the film industry falls as employment in the film industry rises. One worker produces 9 units per week, two workers average only $8\frac{1}{2}$ units per week, and three workers average only 8 units per week. A similar story applies in the food industry. The fixed total supply of available land, water, and fertilizer must be shared among the total workforce. The first worker, using all these resources, produces 10 units of food per week, but the output per person falls to $8\frac{1}{2}$ units per week when two workers share these resources, and is only $7\frac{1}{3}$ units per week when three workers share them. Both industries exhibit diminishing returns as additional workers are added.

Table 1-1 shows the possible combinations of food and film output that can be produced in the hypothetical economy if all workers were employed. At one extreme, with all workers employed in food production, the economy can produce 20 units of food and 0 units of film. At the other extreme, with all workers employed in the film industry, the economy can produce 30 units of films but no food. By transferring workers from one industry to the other, the economy can produce more of one good, but only at the expense of producing less of the other good. We say that there is a **trade-off** between food production and film production. In moving down the rows of Table 1-1, society is trading off food for films, giving up units of food production to obtain additional units of film output.

In Figure 1-2 we illustrate the maximum combinations of food and film output that the economy can produce. The point A corresponds to the first row of numbers in Table 1-1, where food output is 25 units and film output is zero. The point B corresponds to the second row of numbers in Table 1-1, with 22 units of food output and 9 units of film output. The points C, D, and E correspond to the last three rows of the Table 1-1. The curve joining A to E in Figure 1-2 is called the 'production possibility frontier.

The production possibility frontier shows, for each level of the output of one good, the maximum amount of the other good that can be produced.

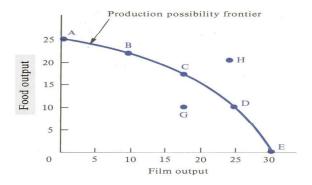


Figure 1-2. The Production Possibility Frontier

The production possibility frontier shows the maximum combinations of output that the economy can produce using all available resources. The frontier represents a trade-off; more of one commodity implies less of the other. Points such as H lying above the frontier are unattainable. They require more resource inputs than the economy has available. Points such as G inside the frontier are inefficient. By fully utilizing available resource inputs the economy could expand output and produce on the frontier.

Notice the way the frontier bends round. Mathematically, we say that the curve is concave to the origin. It curves around the point given by zero production of both goods. This is because of the law of diminishing returns. Movements from A to B to C each involve the transfer of one worker from the food industry to the film industry, and each transfer reduce output per person in the film industry but increases output per person in the food industry. With each transfer we get less additional film output and have to give up increasing amounts of food output. To explain why the curve through the points A to E is called a 'frontier', let us think about the point G in Figure 1-2. Society is then producing 10 units of food and 17 units of films. This is a feasible combination. From Table 1-2 it can be seen that this requires one person in the food industry and two in the film industry. But with only three people working, society has spare resources because the fourth person is not being employed. G is not a point on the production possibility frontier because it is possible to produce more of one good without sacrificing output of the other good. Putting the extra person to work in the food industry would take us to the point C, yielding 7 extra units of food for the same film output. Putting the extra person to work in the film industry would take us to the point D, with 7 extra units of films but no loss of food output.

The production possibility frontier shows the points at which society is producing efficiently. More output of one good can be obtained only by sacrificing output of the other good. Points such as G, which lie inside the frontier, are inefficient because society is wasting resources.

More output of one good would not require less output of the other. In our hypothetical example, the waste or inefficiency arises because some members of the potential workforce are not being used to produce goods.

Points that lie outside the production possibility frontier, such as the point H in figure 1-2, are said to be unattainable. It would be nice to have even more food and films but, given the amount of labor available, it is simply impossible to produce this output combination. Scarcity of resource, in this example the restriction that at most only four workers are available for producing goods, limits society to a choice of points that lie inside or on the production possibility frontier. Society has to accept that its resources are scarce and make choices about how to allocate these scarce resources between competing uses. In this example, the competing uses are employment in the food industry and employment in the film industry.

Given that people like food and films, society should want to produce **efficiently**. To select a point inside the production possibility frontier is to sacrifice output unnecessarily. Society's problem is therefore to make a choice between the different points that lie on the production possibility frontier. In so doing, it decides what to produce. It might select the point A, with no films but a lot of food, or the point C, with a more **balanced** mixture of food and films. Depending on society's preferences between food and films, it might choose any point on the production possibility frontier.

However, in choosing a particular point, society will also be choosing how to produce. It will then be necessary to refer back to Table 1-2 to determine how many workers must be allocated to each of the industries to produce the desired output combination. As yet, our example is too simple to show for whom society produces. To answer that question, we need more information than the position on the production possibility frontier.

How does society decide where to produce on the production possibility frontier? One possibility is that the government decides. In Figure 1-3 we show a production possibility frontier where the two goods are private goods (motor-cars, lawn-mowers, holidays) and social services (police, education, road sweeping). Through the political process a society might decide which point on this frontier to select. A 'big government' country like Sweden might choose a point such as B, where output of social services is highly relative to the

output of private goods. A country like Japan might choose a point such as D, where priorities are reversed.

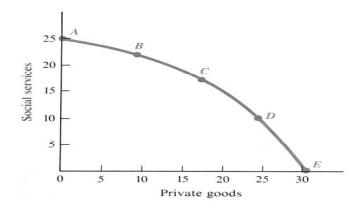


Figure 1-3. Society'S Choice Between Social Services and Private Goods

This production possibility frontier shows the choices society faces between social services and private goods. This choice is made through the political process. A big government country, like Sweden, chooses a point like 8, with a lot of social services and not many private goods. A country like Japan chooses a point like D, where the output of private goods is large and that of social services small.

That is one way of allocating scarce resources. But in most Western economies, the most important process that determines what, how, and for whom goods are produced is the operation of markets.

The Role of the Market

Markets bring together buyers and sellers of goods and services. In some cases, such as a local fruit stall, buyers and sellers meet physically. In other cases, such as the stock market, business can be transacted over the telephone, almost by remote control. We need not go into these details. Instead, we use a general definition of markets.

A market is a shorthand expression for the process by which households' decisions about consumption of alternative goods, firms' decisions about what and how to produce, and workers' decision about how much and for whom to work are all reconciled by adjustment of prices.

Prices of goods and of resources, such as labor, machinery and land, adjust to ensure that scarce resources are used to produce those goods and services that society demands.

Microeconomics and Macroeconomics

We can classify branches of economics according to the approach or methodology that is used. The very broad division of approaches into microeconomic and macroeconomic cuts across the large number of subject groupings. Microeconomic analysis offers a detailed treatment of individual decisions about particular commodities. For example, we might study why individual households prefer cars to bicycles and how producers decide whether to produce cars or bicycles. We can then aggregate the behavior of all households and all firms to discuss total car purchases and total car production. Within a market economy we can discuss the market for cars. Comparing this with the market for bicycles, we may be able to explain the relative price of cars and bicycles and the relative output of these two goods. The sophisticated branch of microeconomics known as general equilibrium theory extends this approach to its logical conclusion. It studies simultaneously every market for every commodity. Microeconomists tend to offer a detailed treatment of one aspect of economic behavior but ignore interactions with the rest of the economy in order to preserve the simplicity of the analysis.

Macroeconomics emphasizes the interactions in the economy as a whole. It deliberately simplifies the individual building blocks of the analysis in order to retain a manageable analysis of the complete interaction of the Economy. For example, macroeconomists typically do not worry about the breakdown of consumer goods into cars, bicycles, televisions, and calculators. They prefer to treat them all as a single bundle called 'consumer goods' because they are more interested

in studying the interaction between households' purchases of consumer goods and firms' decisions about purchases of machinery and buildings.

Because these macroeconomic concepts are intended to refer to the economy as a whole, they tend to receive more coverage on television and in the newspapers than microeconomic concepts, which are chiefly of interest to those who belong to the specific group in question. To give an idea of the building blocks of macroeconomics, we introduce three concepts which you have probably read about in the newspapers or seen discussed on television.

- 1. Gross National Product (GNP): It is the value of all goods and services produced in the economy in a given period such as a year. GNP is the basic measure of the total output of goods and services in the economy.
- **2.** The aggregate price level: It is a measure of the average level of prices of goods and services in the economy, relative to their prices at some fixed date in the past. The aggregate price level tells us what is happening to prices on average. When the price level is rising, we say that the economy is experiencing inflation.
- **3.** The unemployment rate: It is the percentage of the labor force without a job. By the labor force we mean those people of working age who in principle would like to work if a suitable job were available.

Vocabulary Help

afford v.

be able to pay for; be able to risk

We were too poor to afford a doctor.

assert v.

declare forcefully

It is commonly **asserted** that high tax rates reduce the incentive to work.

balanced adj.

the condition that exists when two opposites are equal or in correct proportions

By **balanced** budget, policy makers can increase aggregate demand.

comparison n.

judgment for one thing against another thing; to show likeness or difference

Qom is small in **comparison** to Mashhad.

discuss v.

talk about

Within a market economy we can **discuss** the market for cars.

economics n.

the study of how society decides what, how, and for whom to produce The subject matter of **economics** is that part of human behavior which relates to the production, exchange, and use of goods and services.

efficiently adv.

in an efficient manner, professionally

The production possibility frontier shows the points at which society is producing **efficiently**.

Gross National Product (GNP) np.

the value, at current market prices, of all final goods and services produced within some period by a nation (without any deduction for depreciation of capital goods).

Gross National Product (GNP) is the basic measure of the total output of goods and services in the economy.

inflation n.

the percentage change in the value of the Wholesale Price Index (WPI) on a year-on-year basis