张传德 编著

管理专业英语教程

English Coursebook for Management Students



西安交通大学出版社

管理专业英语教程

English Coursebook for Management Students

张传德 编著

西安交通大学出版社

内 容 提 要

本书是供管理学院的学生在学完"基础英语"之后而使用的管理英语教材。全书所有材料皆取自于近几年国外的英文书刊,内容丰富、题材广泛、语言流畅、文字活泼,既涵盖管理学科各方面的内容,又不乏有趣生动的案例,具有较强的可读性。

本书共20个单元,其后还附5篇管理学名著选文。各单元由课文、课文练习、精读、泛读组成。各单元内容相关性强,详尽的双语词汇注解和课文难点注释为学习者提供了方便;精心设计的课文练习和阅读理解有利于巩固、提高学生阅读、写作管理英语的能力。

本书适宜于作为大专院校、成人教育、自学考试管理专业的教学用书,也宜作学习管理英语的自学用书。

(陕)新登字 007 号

管理专业英语教程

English Coursebook for Management Students 张传德 编著 责任编辑 潘瑞麟

西安交通大学出版社出版发行 西安市咸宁西路 28 号 邮政编码 710049 电话:(02) 陕西省轻工印刷厂印装

各地新华书店经销

开本:787×1092 1/16 印张:21 字数:510 千字 1997 年 9 月第 1 版 1997 年 9 月第 1 次印刷

印数:1---3 000

ISBN7-5605-0943-6/H·121 定价: 21.00 元

若发现本社图书有倒页、白页、少页及影响阅读的质量问题,请去当地销售部门调换或与我社发行科联系调换。发行科电话:(029)3268357,3267874

前言

"管理英语"是管理学院在"基础英语"之后开设的课程,其后学生还要学习各自的"专业英语"。因此,在大学的整个外语教学过程中,"管理英语"起着承上启下的作用。在这个阶段,学生既要巩固"基础英语"阶段所学得的语言知识和技能,又要积累一定的专业语汇并熟悉有关的语言现象,为其后的专业英语学习铺平道路。这正是本书的编写宗旨。

本书所有材料皆取材于近几年国外原版著作,既有有关专业知识的论述,也不乏翔实的实例介绍。内容丰富,题材广泛,语言通俗流畅,文字生动活泼,具有较强的可读性。

本书共 20 个单元。每个单元由课文、课文练习、精读、泛读组成,内容有机联系,成一整体。各单元的课文和精读均附有英汉双解的词语表,文中难点也一一注释,为课堂教学以及自学提供方便,20 个单元后附管理学名著 5 篇,供学生课外阅读,以提高学生的阅读兴趣。

本书在编写过程中得到西安交通大学管理学院领导的大力支持和悉心指导;刘新法同志帮助编写了管理学名著部分的词汇和注释;全部书稿承葛元璋教授认真审阅并提出许多宝贵的修改意见。作者对上述诸位同志的鼎力相助深表谢意。

编著者 1997年3月10日

Contents

Unit 1					
Text: Should Water Be Worth More than Diamonds?	(1)				
Exercises to the Text	• ,				
Intensive Reading: Demand and Supply(
Extensive Reading: Adam Smith and the Birth of Economic Science	(12)				
Unit 2					
Text: Behavioral Considerations in Market Analysis	(14)				
Exercises to the Text (1					
Intensive Reading: Planning a Marketing Research Project ······	(19)				
Extensive Reading: Producing for the Consumer	(22)				
Unit 3					
Text: Motivational Research	(24)				
Exercises to the Text	(27)				
Intensive Reading: Gillette Goes High Tech	(29)				
Extensive Reading: Win over the Customer	(32)				
Unit 4					
Text: The Statistical Testing of Economic Theories: an Example					
Exercises to the Text					
Intensive Reading: Analysis of the Data					
Extensive Reading: Extending the Analysis	(41)				
Unit 5					
Text: Benefit-Cost Analysis					
Exercises to the Text	(47)				
Intensive Reading: Limitations and Problems	(49)				
Extensive Reading: Technological versus Economic Efficiency: an Example	(52)				
Unit 6					
Text: Importance of Product Innovation					
Exercises to the Text	(57)				

Intensive Reading: Development of New Products	(59)
Extensive Reading: What Is a "New" Product?	(61)
Unit 7	
Text: Management of Physical Distribution	(63)
Exercises to the Text	
Intensive Reading: Selection of Channels of Distribution for a New Product	
Extensive Reading: Optimization and Cost Trade-Offs	
Unit 8	
Text: Applying Management Science	(73)
Exercises to the Text	(77)
Intensive Reading: Iimitations of Management Science Models	(79)
Extensive Reading: IBM's Approach to Planning	(81)
Unit 9	
Text: Psychological Influence on Buyer Behavior ·····	
Exercises to the Text	
Intensive Reading: Decision Making Process in Buying	
Extensive Reading: Classification of Consumer Goods	· (94)
Unit 10	
Text: Risks and Its Management	
Exercises to the Text	
Intensive Reading: Risk Measurement	
Extensive Reading: Control of Risk	(106)
Unit 11	
Text: Advertising	
Exercises to the Text	
Intensive Reading: Developing the Media Plan	
Extensive Reading: The Advertising Media	(118)
Unit 12	
Text: Motivating Workers in Workplace 2000	
Exercises to the Text	
Intensive Reading: Japanese Approach to Business	
Extensive Reading: Ouchi—Theory Z	(128)

Unit 13	
Text: The World Bank ·····	
Exercises to the Text	
Intensive Reading: Computerized Banking	(135)
Extensive Reading: The British Bank	(138)
Unit 14	
Text: Basic Types of Securities	
Exercises to the Text	
Intensive Reading: The Securities Markets in U.S.	(147)
Extensive Reading: Listed Stock Prices	(151)
Unit 15	
Text: Structures for Operating in Foreign Markets	
Exercises to the Text	
Intensive Reading: Taking Advantage of Competitive Advantages	(160)
Extensive Reading: Cultural Considerations in Marketing	(163)
Unit 16	
Text: Multinationals	
Exercises to the Text	
Intensive Reading: India versus Coca Cola and IBM	
Extensive Reading: Pricing in International Markets	(175)
Unit 17	
Text: How to Utilize a Technology Advantage	
Exercises to the Text	
Intensive Reading: Technology and Man	
Extensive Reading: IBM in Mexico	· (187)
Unit 18	
Text: Management Uses of Computers	• (191
Exercises to the Text	
Intensive Reading: Business Data Processing	
Extensive Reading: Elecotronic Mail	• (201
Unit 19	
Text: What Is Marketing?	
Exercises to the Text	· (208

Intensive Reading: The Difference between Marketing and Selling	(210)
Extensive Reading: Who Are Our Customers?	
Unit 20	
Text: The General Agreement on Tarrifs and Trade	
Exercises to the Text	(224)
Intensive Reading: How Well Is GATT Doing?	(226)
Extensive Reading: GATT's Uruguay Round—Old MacDonald in the Way	
Selected Reading from Management Classics	
Achieving World-Class Performance in Quality, Services, and Innovation	(232)
The New Rules for Competition	(245)
Guidelines for CEOs, Managers and Entrepreneurs	(254)
The Winner's Choice	(261)
The Willies & Choice	\ <i>'</i>
Clock Building, Not Time Telling	•

. 1

Unit 1

Text

Should Water Be Worth More than Diamonds?

When Adam Smith was lecturing at the University of Glasgow in the 1760s, he introduced the study of demand by posing a puzzle. Common sense, he said, suggests that the price of a commodity must somehow depend on what that good is worth to consumers—on the amount of *utility* that commodity offers. Yet, Smith pointed out, there are cases in which a good's utility apparently has little influence on its price.

Two examples he gave were diamonds and water. He noted that water, which is essential to life and therefore undoubtedly of enormous value to most consumers, generally sells at a very low price, while diamonds, on the other hand, cost thousands of dollars even though they hardly constitute anything resembling a necessity. A century later, this puzzle, called the diamond-water paradox, helped to stimulate the invention of what is perhaps the most powerful set of tools in the economist's toolkit—marginal analysis.— Fortunately, we need only wait a few pages, not a century, to learn how marginal analysis—a general method for making optimal decisions—helps to resolve the paradox.

In the American economy, millions of consumers make millions of decisions every day. You decide to buy a movie ticket instead of a paperback novel. Your roommate decides to buy two pounds of imported cheese rather than one or three. How are these decisions made?

Economists have constructed a simple theory of consumer choice based on the hypothesis that each consumer spends his or her income in the way that yields the greatest amount of satisfaction, or utility. This seems a reasonable starting point, since it says little more than that people do what they prefer. But, to make the theory operational, we need a way to measure utility.

A century ago, economists thought that utility could be measured directly in some kind of psychological units (sometimes called "utils"), after somehow reading the consumer's mind. But gradually it came to be realized that this was an unnecessary and, perhaps, impossible task. How many utils did you get from the last movie you saw? You probably cannot answer that question because you have no idea what a util is.

But you may be able to answer a different question like, How many hamburgers would you give up to get that movie ticket? If you answer "three," we still do not know how many utils you get from a film. But we do know that you get more than you get from a hamburger. Hamburgers, rather than utils, become the unit of measurement, and we can say that the utility of a movie (to you) is three hamburgers.

Early in the twentieth century, economists concluded that this more indirect way of measur

ing utility was all they needed to build a theory of consumer choice. We can measure the utility of a movie ticket by asking how much of some other commodity (like hamburgers) you are willing to give up for it. Any commodity will do for this purpose. But the simplest choice, and the one we will use here, is money.

Thus we are led to define the total utility of some bundle of goods to some consumer as the largest sum of money she will voluntarily give up in exchange for it. For example, suppose Jennifer is considering purchasing six pounds of Central American bananas. She has determined that she will not buy them if they cost more then \$2.22, but she will buy them it they cost \$2.22 or less. Then the total utility of six pounds of bananas to her is \$2.22—the maximum amount she is willing to spend to have them.

Total utility measures the benefit Jennifer derives from her purchases. It is total utility that really matters. But to understand which decisions most effectively promote *total* utility we must consider the related concept of marginal utility. This term refers to the *additional utility that* an individual derives by consuming one more unit of any good.

Remember: Whenever we use the terms *total utility* and *marginal utility*, we are defining them in terms of the consumer's willingness to part with money for the commodity——not in some unobservable (and imaginary) psychological units.

With these definitions we can now propose a simple hypothesis about consumer tastes: The more of a good a consumer has, the less will be the *marginal* utility of an additional unit.

In general, this is a plausible proposition. The idea is based on te assertion that every person has a hierarchy of uses to which he or she will put a particular commodity. All of these uses are valuable, but some are more valuable than others. Let's consider bananas again. Jennifer may use them to feed her family, to feed a pet monkey, to make a banana cream pie (which is a bit rich for her tastes), or to give to a brother-in-law for whom she has no deep affection. If she has only one pound, it will be used solely for the family to eat. The second, third, and fourth pounds may be used to feed the monkey; and the fifth may go into the banana cream pie. But the only use she has for the sixth pound, alas, is to give it to her brother-in-law.

The point is obvious. Each pound of bananas contributes something to the satisfaction of Jennifer's needs for the product. But each additional pound contributes less (relative to money) than its predecessor because the use to which it can be put has a lower priority. This, in essence, is the logic behind the "law" of diminishing marginal utility. (3)

Now let us put the concept of marginal utility to work in analyzing consumer choice. Every consumer has a limited amount of money to spend. There are always choices to be made among the many commodities that compete for the consumer's dollar. If she spends more on bananas she will have less to spend on ice cream. Which items will she buy, and in what quantities? The theory of consumer choice is based on the hypothesis that she will spend her money in the way that maximizes her total utility. This hypothesis leads to the following optimal purchase rule:

It always pays the consumer to buy more of any commodity whose marginal utility (measured in money) exceeds its price, and less of any commodity whose marginal utility is less than its

price. When possible, the consumer should buy the quantity of each good at which price (P) and marginal utility (MU) are exactly equal, that is, at which

$$P = MU$$

because only these quantities will maximize the *total utility* she gains from her purchases given the fact[®] that the money she has available must be divided among all the goods she buys.

Notice that while our concern is with *total* utility, the rule is framed in terms of *marginal* utility. Marginal utility is not important for its own sake, but rather as an instrument used to calculate the level of purchases that maximizes total utility.

We can also use marginal utility analysis to solve the mystery of Adam Smith's diamond—-water paradox——his observation that diamonds are generally considered very expensive, while water is usually considered cheap, even though water seems to offer far more utility. The resolution of the diamond——water paradox is based on the distinction between marginal and total utility.

The *total* utility of water—its life-giving benefit—is indeed much higher than that of diamonds, just as Smith observed. But price, as we have seen, is not related directly to total utilityl. Rather^⑤, the optimal purchase rule tells us that price will tend to be equal to *marginal* utility. And there is every reason to expect the marginal utility of water to be very low while the marginal utility of diamonds is very high.

Water is extremely plentiful in many parts of the world, and so its price is generally quite low. Consumers thus use correspondingly large quantities of water. By the principle of diminishing marginal utility, therefore, the marginal utility of water to a typical household will be pushed down to a low level.

On the other hand, diamonds are scarce. As a result, the quantity of diamonds consumed is not large enough to drive the MU of diamonds down very far, and so buyers are willing to pay high prices for them. The scarcer the commodity, the higher its *marginal* utility and its market price will be, regardless of the size of its total utility.

Thus, like many paradoxes, the diamond—water puzzle has a straightforward explanation. In this case, all one has to remember is that:

Scarcity raises price and marginal utility but not necessarily total utility.

Words and Expressions

- 1. pose ['pouz] v. put forward for discussion 提出问题
- 2. utility [ju:'tiliti] n. quality of being useful 效用
- 3. diamond ['daiəmədn] n. brilliant precious stone of pure carbon in crystallized form 金刚石, 铁石
- 4. constitute ['kənstitju:t] v. make up a whole; amount to 构成
- 5. resemble [ri'zembl] v. be like; be similar to 类似,相像
- 6. paradox ['pærədəks] n. statement that seems to say sth. opposite to common sense or truth, but which may contain a truth 似非而可能是的观点

3

- 7. stimulate ['stimjuleit] v. excite; rouse 刺激,激发
- 8. toolkit [tu:lkit] n. a box for a set of articles, esp. tools 工具箱
- 9. marginal ['ma:dʒinəl] adj. of an edge or border 边际的
- 10. optimal ['optimal] adj. best or most favourable 最佳的
- 11. hypothesis [hai'po@isis] n. idea, suggestion, put forward as starting point for reasoning of explanation 假说.假设
- 12. yield [ˈjiːld] v. produce 产生
- 13. operational [ɔpəˈreiʃənl] adj. of, for, used in operations 业务上的,用于操作的
- 14. psychological [saikə'lədʒikəl] adi. of mind 心理学的
- 15. rather than more, in a greater degree 更为
- 16. voluntarily ['volenterili] adv. willingly 自愿地,情愿地
- 17. maximum ['mæksiməm] adj. greatest possible or recorded degree, quantity, etc. 最大的
- 18. matter ['mætə] v. be of importance 有关系,要紧
- 19. derive [di'raiv] v. have as a starting point, source, or origin 得到;推知;源出于
- 20. refer to speak of; apply to 谈到;涉及;参考
- 21. in terms of mode of expression 用……的话;根据……
- 22. willingness ['wilinnes] n. state of being willing 情愿
- 23. plausible ['plozzibl] adj. seeming to be right or reasonable 似乎有理的
- 24. assertion [ə'səːʃən] n. strong statement; claim 断言
- 25. hierarchy ['haiəra:ki] n. organization with grades of authority from lowest to highest 等级制度
- 26. affection [əˈfekʃən] n. kindly feeling; love 慈爱,情感
- 27. contribute [kon'tribju:t] v. join with others in giving; have a share in 贡献;资助
- 28. predecessor ['pri:disesə] n. former holder of any office or position 前辈;前任者
- 29. priority [prai oriti] n. being prior 优先;重点
- 30. in essencein in its/one's nature 实质上
- 31. maximize ['mækisimaiz] v. to increase to greatest possible size 最大化
- 32. exceed [ik'si:d] v. be greater than 超过
- 33. distinction [dis'tinkfən] n. keeping things different 区分,区别
- 34. correspondingly [koris pondinli] adv. in a matching way 相应地
- 35. scarce [skees] adj. not available in sufficient quantity 稀有
- 36. straightforward [streit'fo:wəd] adj. easy to understand or do 易做的,易懂的
- 37. scarcity ['skeasiti] n. state of being scarce 稀少

Notes to the Text

- 1. marginal analysis 边际效用分析
- 2. marginal utility 边际效用
- 3. te law of diminishing marginal utility 边际效用递减规律
- 4. given the fact... given 在这里=if 之意

5. rather 更确切地说;相反

Exercises to the Text

I. Give the Chinese equivalents of the following:
1. marginal analysis
2. total utility
3. marginal utility
4. the law of diminishing marginal utility
5. optimal purchase rule
6. maximize the total utility
7. measure marginal utility in money terms
8. the relationship between scarcity and total utility
9. a plausible proposition
10. a particular commodity
II . Fill in the blank with the right form of the word or expression given below:
give up, additional, total utility, derive, purchase, marginal utility, diminish, decrease, re-
main, aquire, maximize, distinguish, calculate, maximum, regardless of, despite, abun-
dant, low price.
1. Economists between total and marginal utility. Total utility, or the benefit a
consumer from a purchase, is measured by the amount of money he
or she would in order to have the good in question. Rational consumers seek
total utility.
2. Marginal utility is the amount of money a consumer is willing to pay for an
unit of a particular commodity. Marginal utility is useful in what set
of purchases maximizes total utility.
3. The law of marginal utility is a psychological hypothesis stating that as a con-
sumer more and more of a commodity, the of additional units of the
commodity will
4. To maximize the obtained by spending money on some commodity X, given the
fact that other goods can be only with the money that after buying X,
the consumer must a quantity of X such that the price is equal to the commod-
ity's in money terms.
5 goods tend to have a and low marginal utility whether their
toatal utility is high or low. That is why water can have a low price its hight to-
tal utility.
III. Fill in the blank with the appropriate preposition.
The quantity supplied is the amount a good that producers plan to sell a
given period time. Other things being equal, the quantity supplied a good in-
5

IV. Put the following into Chinese.

- Faced with scarcity, people must make choices. When we cannot have everything that we
 want, we have to choose among the available alternatives. Because scarcity forces us to
 choose, economics is sometimes called the science of choice—the science that explains
 the choices that people make and predicts how changes in circumstances affect their choices.
- 2. Economists use the term opportunity cost to emphasize that making choices in the face of scarcity implies a cost. The opportunity cost of any action is the best alternative forgone. If you cannot have everything that you want, then you have to choose among the alternatives. The best thing that you choose not to do—the alternative forgone—is the cost of the thing that you choose to do This is the meaning of opportunity cost.
- 3. Economic theory bridges the gap between an economic model and the real world. Economic theory proposes that the economic behavior of people in actual economics can be predicted by using models in which each other in an equilibrium. Economics develops models based on this idea to explain all aspects of economic behavior. But economic models have to be tested.
- 4. Economic models fall into two categories: microeconomic and macroeconomic. Microeconomics is the branch of economics that studies the decisions of individual households and firms. Microeconomics also studies the way that individual markets work and the detailed way that regulation and taxes affect the allocation of labor and of goods and services.
- 5. Macroeconomics is the branch of economics that studies the economy as a whole. It seeks to understand the big picture rather than the detailed individual choices. In particular, it studies the determination of the overall level of economic activity—of unemployment, aggregate income, average prices, and inflation.

V. Chinese-English Translation.

- 1. 需求是指居民户在某一特定时期内,在某一价格水平时愿意而且能够购买的商品量。
- 2. 各种商品之间存在着不同的关系,因此其它商品价格的变动也会影响对某种商品的需

求。

- 3. 消费者消费某种物品所获得的满足程度高就是效用大;反之,满足程度低就是效用小。
- 4. 消费者为购买一定量的某种物品所愿意付出的货币量取决于他从这一定量的物品中 所获得的效用。
- 5. 总效用是指从消费一定量的某种物品中所得到的总满足程度,而边际效用是指某种物品的消费量每增加一单位所增加的满足程度。
- 6. 随着消费者对某种物品消费量的增加,他从该物品连续增加的消费单位中所得到的边际效用是递减的,这就是我们所谓的边际效用递减规律。

Intensive Reading Demand And Supply

The term "demand" has a very definite meaning to the econoimst. Demand is defined as a schedule which shows the various amouts of a product which consumers are willing and able to purchase at each specific price in a set of possible prices during some specified period of time. Demand simply portrays a series of alternative possibilities which can be set down in tabular form. As our definition indicates, we usually view demand from the vantage point of price; that is, we read demand as showing the amounts consumers will buy at various possible prices. It is equally correct and sometimes more meaningful to view demand from the reference point of quantity. That is, instead of asking what quantities can be sold at various prices, we can ask what prices can be gotten from consumers for various quantities of a good. Table 1 is a hypothetical demand schedule for a single consumer who is purchasing bushels of oats.

TABLE 1 AN INDIVIDUAL BUYER'S DEMAND FOR OATS (hypothetical data)

Price per bushel	Quantity demanded per week	
\$ 5	10	
4	20	
3	35	
2	55	
1	80	

This tabular portrayal of demand reflects the relationship between the price of oats and the quantity that our mythical consumer would be willing and able to purchase at each of these prices. Note that we say willing and able, because willingness alone is not effective in the market.

The demand schedule in and of itself⁽¹⁾ does not tell us which of the five possible prices will actually exist in the oats market. This depends on demand and supply. Demand, then, is simply a tabular statement of a buyer's plans, or intentions, with respect to the purchase of a product.

A fundamental characteristic of demand is this: As price falls, the corresponding quantity de-

manded rises, or, alternatively, as price increases, the corresponding quantity demanded falls. In short, there is an inverse relationship between price and quatity demanded. Economists have labelled this inverse relationship the law of demand. People ordinarily buy more of a given product at a low price than they do at a high price. To consumers, price is an obstacle which deters them from buying. The higher this obstacle, the less of a product they will buy, the lower the price obstacle, the more they will buy. The plain fact that businessmen have "sales" is concrete evidence of their belief in the law of demand.

Supply may be defined as a schedule which shows the various amounts of a product which a producer is willing and able to produce and make available for sale in the market at each specific price in a set of possible prices during some specified time period. This schedule portrays a series of alternative possibilities, such as those shown in Table 2.

TABLE 2 AN INDIVIDUAL PRODUDCER'S SUPPLY OF OATS (hypothetical data)

Price per bushel	Quantity supplied per week for a single producer
\$ 5	60
4	50
3	35
2	20
1	5

Let us suppose in this case that our producer is a farmer producing oats, the demand for which we have just considered. Our definition of supply indicates that supply is usually viewed from the vantage point of price. That is, we read supply as showing the amounts producers will offer at various possible prices. It is more useful and quite correct in some instances to view supply from the reference point of quantity. Instead of asking what quantities will be offered at various prices, we can ask what prices will be required to induce producers to offer various quantities of a good.

It will be immediately noted that Table 2 shows a direct relationship between price and quantity supplied. As price rises, the corresponding quantity supplied rises; as price falls, the quantity supplied also falls. This particular relationship is called the law of supply. It simply tells us that producers are willing to produce and offer for sale more of their product[®] at a high price than they are at a low price.

The obstacle of a high price means that the consumer, being on the paying end of this price, will buy a relatively small amount of the product; the lower the price obstacle, the more the consumer will buy. The supplier, on the other hand, is on the receiving end of the product's price. To him, price is an inducement or incentive to produce and sell a product. The higher the price of the product, the greater the incentive to produce and offer it in the market.

You will also remember that the law of demand was explainable on the basis of product sub-

stitution. When the price of product X rises, consumers tend to substitute other goods for it, therefore buying less of X. When the price of X declines, consumers buy more of X, substituting it for other products. The direct relationship between price and quantity supplied can also be explained on the basis of substitutability. In many instances the resources and productive techniques used by a supplier are readily adaptable to a variety of products. A farmer's land and capital, for example, may be of about equal efficiency in producing oats, wheat, rye, rapeseed, and so forth. As the market price of one of these products—say, oat—rises, the farmer will shift his resources from other commodities to oats because it pays him to produce more oats when the price goes up.

A simple example may help at this point. Suppose a farmer has just 2 acres of land. He finds from experience that these 2 acres are equally prolific in the production of oats and wheat. Specifically, he has found that each acre is capable of producing either 20 bushels of wheat or 20 bushels of oats. Suppose, too, that no matter how our farmer decides to apportion his 2 acres between wheat and oats, his total cost of production are always the same—say \$100. To begin[©], let us say that the price of oats is \$3 per bushel and that of wheat is \$4 per bushel. The farmer will obviously plant all his land to wheat, producing 40 bushels. Total revenue will be \$160(=40×\$4) and profits will be \$60(=\$160-\$100). The output of oats, the crop in which we are particularly interested, will be zero. To plant any oats at a price of \$3 per bushel will necessarily result in profits of less than \$60. But what if the market price of oats rises to \$5, while the price of wheat remains at \$4? It would now be profitable for the farmer to shift all his resources to oats, that is, to substitute oats for wheat production. By doing so, his total revenue will be increased to \$200(=40 * \$5) and his profits to \$100(=\$200-\$100).

We may now bring the concepts of supply and demand together to see how the interaction of the buying decisions of households and the selling decisions of producers will determine the price of a product and the quantity which is actually bought and sold in the market. In Table 3, columns 1 and 2 reproduce the market supply schedule for oats, and columns 2 and 3, the market demand schedule for oats. Note that in column 2 we are using a common set of prices. We assume competition—the presence of a large number of buyers and sellers.

Now the question to be faced is this: of the five, possible prices at which oats might sell in this market, which will actually prevail as the marke price for oats? Let us derive our answer throught the simple process of trial and error. For no particular reason, we shall start with an examination of \$5. Could this be the prevailing market price for oats? The answer is "No," for the simple reason that producers are willing to produce and supply to the market some 12,000 bushels of oats at this price while buyers, on the other hand, are willing to take only 2,000 bushels off the market at this price. In other words, the relatively high price of \$5 encourages farmers to produce a great deal of oats, but that same high price discourages consumers from taking the product off the market. Other products appear as "better buys" When oats are high-priced. The result in this case is a 10,000—bushel surplus of oats in the market. This surplus, shown in column 4, is the excess of quantity supplied over quantity demanded at the price of \$5. Practi-