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大学财经英语阅读

主 编: 肖文科

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白树勤

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前言

随着世界经济一体化进程的加快,面对中国人世后面临的机遇与挑战,社会对高校人才的财经外语水平的要求越来越高。为了适应人才培养的这一需求,我们特编写了《大学财经英语阅读》。

本教程共 10 部分,45 个单元。内容涉及经济学、国际贸易、金融学、管理学、市场营销学、会计学、统计学、信息科学、法学、世界经贸发展趋势等。绝大部分内容选自 20 世纪 90 年代末西方财经界的名人名著。内容丰富,既紧扣时代的脉搏,又久经时间的考验;文笔流畅,通俗易懂。

本教程适用于修完大学英语四级、进入专业阅读阶段的高校学生或其他具有同等英语水平的英语爱好者或财经专业人员。使用本书学习英语或学习财经专业的核心内容可收到事半功倍的效果。

本书由全国优秀教师肖文科教授主编,负责确定全书的选材范围、体例编排及统稿。参加编写的人员有:肖文科教授(第一、七、九部分)、唐大顺副教授(第二部分)、赵真副教授(第五、六、十部分)、白树勤教授(第四部分)、申屠菁教授(第三部分第十四单元)、王建生讲师(第八部分、第三部分其余单元及书稿整理工作)。

本书首次完稿以后,曾在山西财经大学试用两年。在试用过程中对部分内容进行了修改、充实与调整。

在本书的编写过程中,我们得到外语教学与研究出版社有关领导和编辑同志的热情鼓励和大力支持。舍此,本书难以付梓。在此,我们表示衷心的感谢。同时,我们对书中所选阅读材料的原作者及出版社表示最真诚的谢意。

在本书确定正式出版后,我们十分荣幸地得到我国著名语言学家、北京大学英语教授、博士生导师胡壮麟先生的亲笔序言。我们还得到北京林业大学外语学院院长史 宝辉教授的多方支持与帮助。在此,我们特向他们表示由衷的感谢。

由于我们经验不足,水平有限,缺点和错误在所难免。我们真诚地希望广大读者提出批评与建议。

编者

2002年2月

《大学财经英语阅读》经过在山西财经大学两年的试用,并由编者做了大量的补充、修订和完善工作,现正式出版。关于本书编写的主导思想和特色,编者们在前言中已经说得很清楚,我在这里只能谈一些感受了。

首先,我感到这是一部来自地方、来自基层、来自实践的财经专业英语教材。参与编写的主编肖文科教授,副主编赵真和白树勤副教授,以及其他老师能在条件不很优越的工作岗位上,在繁忙教学之余,胜利完成教材编写工作,殊不容易,我首先向他们表示祝贺。

我国是在 2001 年正式参加 WTO 的,本教材的编写和试用在两三年前已经启动,这反映了编者们很有预见。这种预见性得益于编者们对教育事业的热爱和投入,并把自己的工作与祖国的改革开放和世界的政治经济形势的变化发展联系起来。我想,教员虽不一定要具有商人那样把握市场瞬息变化的敏感性,但毕竟不能做一天和尚撞一天钟靠皇粮混日子,经常琢磨一下学生的需要、教学的需要,还是必要的。

本教材采用主题单元作为框架。全书 45 单元分成 10 个部分,即经济学、国际贸易、金融、管理、销售、会计、统计、信息技术、法律和趋势。每个部分又分若干单元主题,如经济学部分中的 5 个单元分别为成本分析、市场和经济效率、宏观经济学、开放经济宏观经济学,和全球经济的管理。每个单元有几个专题,如成本分析单元中的专题有成本的经济分析和机会成本等。结合这些专题选编课文。总之,选题做到了题材全面平衡,便于学生循序渐进。这些说明编者不仅是英语老师,还是财经专业的半"行家",或 Pseudo-professionals。近年来,人们多次强调复合型人才的培养,尽管我对某些把英语专业只看做是"工具"而不是"专业"的片面论点不敢苟同,我不得不承认要培养好复合型人才,老师自己也得先复合型化。

专业英语教材的一大困难是词汇量大,不易记忆,难于操作和上口。当然,学生们都是财经专业的,在理解和复用上,比一般人具有优势。何况编者们又提供了注解和翻译练习,这保证了本教材的顺利使用。要指出的是,这仅仅是迈出的第一步,希望编者们继续努力,总结经验,向同行们介绍大学专业英语阅读课的有效教学方法、实践和效果。这对我国如何有效地进行 ESP 教学必然有很大启示。

胡壮麟 2002 年 2 月 北京大学蓝旗营

Acknowledgment

We are extremely grateful to the authors and publishing houses of all the materials we have chosen as the texts for this textbook. And we apologize for the insufficient information in some cases due to our lack of resource. We intend to show every respect for intellectual property rights, but we hope our pleading for the permission to use the related materials for teaching purposes will receive kind and generous consideration.

- 1. Samuelson, Paul A. and William D. Nordhaus. *Economics*. 16th ed. USA. McGraw-Hill Companies, Inc., 1998.
- 2. Mishkin, Frederic S. The Economics of Money, Banking, and Financial Management. 5th ed. Reading: Addison-Wesley, 1998.
- 3. Stoner, James A. F., et al. Management. 6th ed. Englewood: Prentice Hall, 1995.
- 4. Zikmund, William G. and Michael d'Amico. *Marketing*. 4th ed. Minneapolis: West Publishing Company, 1993.
- 5. Meigs, Robert F. and Walter B. Meigs. Accounting: The Basis for Business Decisions. 9th ed. New York: Mcgraw-Hill, Inc., 1993.
- 6. Daniel, Wayne E., and James C. Terrell. Business Statistics for Management and Economics. 6th ed. Boston: Houghton Mifflin Company, 1992.
- 7. Khazanize, Ramakant. *Elementary Statistics in a World of Applications*. 3th ed. USA: Harper Collins Publishers Inc., 1990.
- 8. O'Brien, James A. Introduction to Information Systems. Chicago: Richard D. Irwin, Inc., 1995.
- 9. Clarkson, Kenneth W., et al. West's Business Law. St. Paul: West Publishing Company, 1992.
- 10. Ashcroft, John D. and Janet E. Ashcroft. *College Law for Business*. 9th ed. Cincinnati: South-Western Publishing Co., 1981.
- 11. Farrell, Jame L., Jr. & Walter J. Reinheart. *Portfolio Management: Theory and Application*. USA: McGraw-Hill Company, 1997.
- 12. Fischer, Stanley. Globalization. In World Economic Outlook May 2000.

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PART I ECONOMICS

UNIT 1 ANALYSIS OF COSTS

verywhere that production goes, costs follow close behind like a shadow. In a world of scarcity, firms have to pay for their inputs: steel, screws, solvents, engineers, secretaries, computers, telephones, lights, and pencils. Profitable businesses are acutely aware of this simple fact as they set their production strategies, since every dollar of unnecessary costs reduces the firm's profits by that same dollar. Indeed, too much production can be as dangerous as too little; history shows that over-expansion can often drive a fast-growing company into bankruptcy, by pushing up costs far faster than revenues. But the role of costs goes far beyond influencing the level of production. Smart businesses also pay close attention to their costs when they are making their operating decisions.

1-1 THE LINK BETWEEN PRODUCTION AND COSTS

What determines a firm's cost curve? Clearly the prices of inputs like labor and land are important factors influencing costs. Higher rents and wages mean higher costs, as any business manager will tell you.

But the cost curve for a firm also depends very closely on the firm's production function. To see this, note that if technological improvements allow the firm to produce the same output with fewer inputs, the firm's costs will fall, and the cost curve will shift down.

Indeed, if you know factor prices and the production function, you can calculate the cost curve. Suppose a firm is aiming to produce a particular level of output. The production function (plus factor prices) will tell us what is the least costly combination of inputs the firm can select that can yield that output. Calculate the total cost of the least-cost bundle of inputs.

We can see the derivation of cost from production data in the simple numerical example shown in Table 1. Suppose Farmer Smith rents 10 acres of land and can hire farm labor to produce wheat. Per period, land costs \$5.5 per acre and labor costs \$5 per worker. Using up-to-date farming methods, Smith can produce according to the production function shown in the first three Columns of Table 1. In this example, land is a fixed cost (maybe because Farmer Smith operates under a 10-year lease), while labor is a variable cost (maybe because farm workers, unlike faculty members, can easily be hired and fired).

Using the production data and the input-cost data, for each level of output we calculate the total cost of production shown in Column (6) of Table 1. As an example, consider the total cost of production for 3 tons of wheat. Using the given production function, Smith can produce this quantity with 10 acres of land and 15 farmhands. The total cost of producing 3 tons of wheat is \$130 (10 acres \times \$5.5 per acre + 15 workers \times \$5 per worker). Similar calculations

will give all the other total cost figures in Column (6) of Table 1.

(1)	(2)	(3)	(4)	(5)	(6)
Output (tons of wheat)	Land (acres)	Labor (workers)	Rent (\$ per acre)	Wage (\$ per worker)	Total Cost (\$)
0	10	0	5. 5	5	55
1	10	6	5. 5	5	85
2	10	11	5. 5	5	110
3	10	15	5. 5	5	130
4	10	21	5. 5	5	160
5	10	31	5. 5	5	210
6	10	45	5. 5	5	280
7	10	63	5. 5	5	370
8	10	85	5. 5	5	480

Table 1. Costs Are Derived from Production Data and Input Costs

Farmer Smith rents 10 acres of wheatland and employs variable labor. According to the farming production function, careful use of labor and land allows the inputs and yields shown in Columns (1) to (3) of the Table At input prices of \$5.5 per acre and \$5 per worker, we obtain Smith's cost of production shown in Column (6) All other cost concepts can be calculated from the total cost data.

Diminishing Returns and U-Shaped Cost Curves

The relationship between cost and production helps us explain why average cost curves tend to be U-shaped. Recall that analysis of production distinguished two different time periods, the short run and the long run. The same concepts can be applied to costs as well:

- The short run is the period of time that is long enough to adjust variable inputs, such as materials and production labor, but too short to allow all inputs to be changed. In the short run, fixed or overhead factors such as plant and equipment cannot be fully modified or adjusted. Therefore, in the short run, typically labor and materials costs are variable costs, while capital costs are fixed.
- In the long run, all inputs can be adjusted including labor, materials, and capital. Hence, in the long run, all costs are variable and none are fixed.

Note that whether a particular cost is fixed or variable depends on the length of time we are considering. Typically, in the short run, we will consider capital to be the fixed cost and labor to be the variable cost. That is not always true (think of your college's tenured faculty), but generally labor inputs can be adjusted more easily than can capital.

Why is the cost curve U-shaped? Consider the short run in which capital is fixed but labor is variable. In such a situation, there are diminishing returns to the variable factor (labor) because each additional unit of labor has less capital to work with. As a result, the marginal cost of output will rise because the extra output produced by each extra labor unit is going

down. In other words, diminishing returns to the variable factor will imply an increasing short-run marginal cost. This shows why diminishing returns lead to rising marginal costs after some point.

Figure 1, which contains exactly the same data as Table 1, illustrates the point. It shows that the region of increasing marginal product corresponds to falling marginal costs, while the region of diminishing returns implies rising marginal costs.

We can summarize the relationship between the productivity laws and the cost curves as follows:

In the short run, when factors such as capital are fixed, variable factors tend to show an initial phase of increasing returns followed by diminishing returns. The corresponding cost curves show an initial phase of declining marginal costs followed by increasing MC (marginal cost) after diminishing returns have set in.

1-2 CHOICE OF INPUTS BY THE FIRM

Marginal Products and the Least-Cost Rule

Every firm must decide how to produce its output. Should electricity be produced with oil or coal? Should cars be assembled in the United States or Mexico? Should classes be taught by faculty or graduate students? We now complete the link between production and cost by using the marginal product concept to illustrate how firms select the least-cost combinations of inputs.

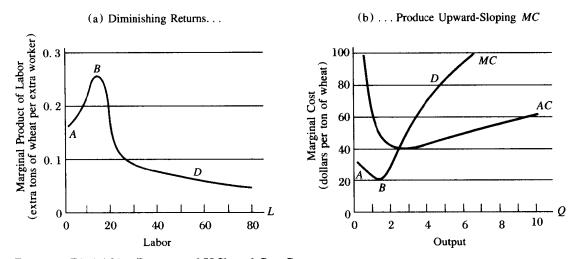


Figure 1. Diminishing Returns and U-Shaped Cost Curves

The U-shaped marginal cost curve in (b) arises from the shape of the marginal product curve in (a). With fixed land and variable labor, the marginal product of labor in (a) first rises to the left of B, peaks at B, and then falls at D as diminishing returns to labor set in.

The marginal cost curve derives from production data. In the region to the left of B in (b) — such as at point A — rising marginal product means that marginal cost is falling; at B, peak marginal product occurs at minimum marginal cost; in the region to the right of B, say, at D, as the marginal product of labor falls, the marginal cost of producing output increases.

Overall, increasing and then diminishing marginal product to the variable factor produces a U-shaped marginal cost curve.

In our analysis, we will rely on the fundamental assumption that firms minimize their costs of production. This cost-minimization assumption actually makes good sense not only for perfectly competitive firms but also for monopolists or even nonprofit organizations like colleges or hospitals. It simply states that the firm should strive to produce its output at the lowest possible cost and thereby has the maximum amount of revenue left over for profits or for other objectives.

More generally, there are usually many possible input combinations, not just two. But we don't have to calculate the cost of every different combination of inputs in order to find the one that costs the least. Here's a simple way to find the least-cost combination: Start by calculating the marginal product of each input. Then divide the marginal product of each input by its factor price. This gives you the marginal product per dollar of input. The cost-minimizing combination of inputs comes when the marginal product per dollar of input is equal for all inputs. That is, the marginal contribution to output of each dollar's worth of labor, of land, of oil, and so forth, must be just the same.

Following this reasoning, a firm will minimize its total cost of production when the marginal product per dollar of input is equalized for each factor of production. This is called the least-cost rule.

Least-Cost Rule: To produce a given level of output at least cost, a firm should buy inputs until it has equalized the marginal product per dollar spent on each input. This implies that:

(marginal product of L)/(price of L) = (marginal product of A)/(price of A)

A corollary of the least-cost rule is the substitution rule.

Substitution Rule: If the price of one factor falls while all other factor prices remain the same, firms will profit by substituting the now-cheaper factor for all the other factors.

Let's take the case of labor (L). A fall in the price of labor will raise the ratio MP_L/P_L above the MP/P ratio for other inputs. Raising the employment of L lowers MP_L by the law of diminishing returns and therefore lowers MP_L/P_L . Lower price and MP of labor then bring the marginal product per dollar for labor back into equality with that ratio for other factors.

1-3 THE BALANCE SHEET

Business accounting is concerned with more than the profits and losses that are the economic driving force. Business accounts also include the **balance sheet**, which is a picture of financial conditions on a given date. This statement records what a firm, person, or nation is worth at a given point in time. On one side of the balance sheet are the **assets** (valuable properties or rights owned by the firm). On the other side are two items, the **liabilities** (money or obligations owed by the firm) and **net worth** (or net value, equal to total assets minus total liabilities).

One important distinction between the income statement and the balance sheet is that

between stocks and flows. A stock represents the level of a variable, such as the amount of water in a lake or, in this case, the dollar value of a firm. A flow variable represents the change per unit of time, like the flow of water in a river or the flow of revenue and expenses into and out of a firm. The income statement measures the flows into and out of the firm, while the balance sheet measures the stocks of assets and liabilities at the end of the accounting year.

The fundamental identity or balancing relationship of the balance sheet is that total assets are balanced by total liabilities plus the net worth of the firm to its owners:

total assets = total liabilities + net worth

We can rearrange this relationship to find:

net worth = assets - liabilities

Table 2 shows a simple balance sheet for Hot Dog Ventures, Inc. On the left are assets, and on the right are liabilities and net worth. A blank space has been deliberately left next to the net worth entry because the only correct entry compatible with our fundamental balance sheet identity is \$200,000. A balance sheet must always balance because net worth is a residual defined as assets minus liabilities.

To Illustrate how net worth always balances, suppose that hot-dogs valued at \$40,000 have spoiled. Your accountant reports to you: "Total assets are down \$40,000; liabilities remain unchanged. This means total net worth has decreased by \$40,000, and I have no choice but to write net worth down from the previous \$200,000 to only \$160,000." That's how accountants keep score.

Balance Sheet of Hot Dog Ventures, Inc. (December 31, 1997)

Assets	; 	Liabilities and Net worth		
		Liabilitie	s	
Current assets:		Current liabilities:		
Cash	\$20,000	Accounts payable	\$20,000	
Inventory	80, 000	Notes payable	30, 000	
Fixed assets:		Long-term liabilities:		
Equipment	150, 000	Bonds payable	100,000	
Buildings	100, 000	Net worth		
	*	Stockholders' equity:		
		Common stock		
Total	\$350,000	Total	350, 000	

Table 2. The Balance Sheet Records the Stock of Assets and Liabilities, plus Net Worth, of a Firm at a Given Point in Time.

Accounting Conventions

In examining the balance sheet in Table 2 you might well ask: How are the values of the

different items measured? How do the accountants know that the buildings are worth \$100,000?

The answer is that accountants use a set of agreed-upon rules or accounting conventions to answer most questions. The most important assumption used in a balance sheet is that the value placed on almost every item reflects its historical costs. This differs from the economist's concept of "value". For example, the inventory of hot-dog buns is valued at the price that was paid for them. A newly purchased fixed asset — a piece of equipment or a building — is valued at its purchase price (this being the historical cost convention). Older capital is valued at its purchase price minus accumulated depreciation, thus measuring the gradual decline in usefulness of capital goods. Accountants use historical cost because it reflects an objective evaluation and is easily verified.

In Table 2 current assets are convertible into cash within a year, while fixed assets represent capital goods and land. Most of the specific items listed are self-explanatory. Cash consists of coins, currency, and money on deposit in the bank. Cash is the only asset whose value is exact rather than an estimate.

On the liabilities side, accounts payable and notes payable are sums owed to others for goods bought or for borrowed funds. Bonds payable are long-term loans floated in the market. The last item on the balance sheet is net worth, or stockholders' equity. This is the net value of the firm's assets less liabilities, when valued at historical cost. The net worth must equal \$200,000.

1-4 OPPORTUNITY COSTS

In this section we look at costs from yet another angle. Remember that one of the cardinal tenets of economics is that resources are scarce. That means every time we choose to use a resource one way, we've given up the opportunity to utilize it another way. That's easy to see in our own lives, where we must constantly decide what to do with our limited time and income. Should we go to a movie or study for next week's test? Should we travel in Mexico or buy a car? Should we get postgraduate or professional training or begin work right after college?

In each of these cases, making a choice in effect costs us the opportunity to do something else. The alternative forgone is called the opportunity cost. The immediate dollar cost of going to a movie instead of studying is the price of a ticket, but the opportunity cost also includes the possibility of getting a higher grade on the exam. The opportunity costs of a decision include all its consequences, whether they reflect monetary transactions or not.

Decisions have opportunity costs because choosing one thing in a world of scarcity means giving up something else. The opportunity cost is the value of the good or service forgone.

One important example of opportunity cost is the cost of going to college. If you went to a public university, you might calculate the total costs of tuition, books, and travel to be approximately \$14,000 in 1996. Does this mean that \$14,000 is your opportunity cost of going to school? Definitely not! You must include as well the opportunity cost of the time spent studying and going to classes. A full-time job for a 19-year-old high school graduate would on

average pay around \$16,000 in 1996. If we add up both the actual expenses and the earnings forgone, we would find that the opportunity cost of college is \$30,000 (\$14,000 + \$16,000) rather than \$14,000 per year.

Business decisions have opportunity costs, too. Do all opportunity costs show up on the profit-and-loss statement? Not necessarily. In general, business accounts include only transactions in which money actually changes hands. By contrast, the economist always tries to "pierce the veil of money" to uncover the real consequences that lie behind the dollar flows and to measure the true resource costs of an activity. Economists therefore include all costs — whether they reflect monetary transactions or not.

There are several important opportunity costs that do not show up on income statements. For example, in many small businesses, the family may put in many unpaid hours, which are not included as accounting costs. Nor do business accounts include a capital charge for the owner's financial contributions. Nor do they include the cost of the environmental damage that occurs when a business dumps toxic wastes into a stream. But from an economic point of view, each of these is a genuine cost to the economy.

Let's illustrate the concept of opportunity cost by considering the owner of Hot Dog Ventures. The owner puts in 60 hours a week but earns no "wages." At the end of the year the firm earns a profit of \$22,000 — pretty good for a neophyte firm.

Or is it? The economist would insist that we should consider the value of a factor of production regardless of how the factor happens to be owned. We should count the owner's own labor as a cost even though the owner does not get paid directly but instead receives compensation in the form of profits. Because the owner has alternative opportunities for work, we must value the owner's labor in terms of the lost opportunities.

A careful examination might show that Hot Dog's owner could find a similar and equally interesting job working for someone else and earning \$45,000. This represents the opportunity cost or earnings forgone because the owner decided to become the unpaid owner of a small business rather than the paid employee of another firm.

Therefore, the economist continues, let us calculate the true economic profits of the hot-dog firm. If we take the measured profits of \$22,000 and subtract the \$45,000 opportunity cost of the owner's labor, we find a **net loss** of \$23,000. Hence, although the accountant might conclude that Hot Dog Ventures is economically viable, the economist would pronounce that the firm is an unprofitable loser.

1-5 OPPORTUNITY COST AND MARKETS

At this point, however, you might well say: "Now I'm totally confused. First I learned that price is a good measure of true social cost in the marketplace. Now you tell me that opportunity cost is the right concept. Can't you economists make up your minds?"

Actually, there is a simple explanation: In well functioning markets price equal opportunity cost. Assume that a commodity like coal is bought and sold in a competitive

market. If I bring my ton of coal to market, I will receive a number of bids from prospective buyers: \$25.02, \$24.98, and \$25.01. These represent the values of my coal to, say, three electric utilities. I pick the highest — \$25.02. The opportunity cost of this sale is the value of the best available alternative, that is, the second-highest bid at \$25.01 — which is almost identical to the price that is accepted. As the market approaches perfect competition, the bids get closer and closer until in the limit the second highest bid (which is our definition of opportunity cost) exactly equals the highest bid (which is the price). In competitive markets, numerous buyers compete for resources to the point where price is bid up to the best available alternative and is therefore equal to the opportunity cost.

Opportunity Costs Outside Markets. The concept of opportunity cost is particularly crucial when you are analyzing transactions that take place outside markets. How do you measure the value of a road or a park, of a health or safety regulation? Even the allocation of student time can be explained using opportunity cost.

- The notion of opportunity cost explains why students watch more TV the week after exams than the week before exams. Watching TV right before an exam has a high opportunity cost, for the alternative use of time (studying) would have high value in improving grade performance. After exams, time has a lower opportunity cost.
- Say the federal government wants to drill for oil off the California coast. A storm of complaints is heard. A defender of the program states, "What's all the ruckus about? There's valuable oil out there, and there is plenty of seawater to go around. This is very low-cost oil for the nation." In fact, the opportunity cost might be very high. If drilling leads to oil spills that spoil the beaches, it might reduce the recreational value of the ocean. That opportunity cost might not be easily measured, but it's every bit as real as the value of oil under the waters.

Opportunity cost, then, is a measure of what has been given up when we make a decision. The crucial point to grasp is this: Economic costs include, in addition to explicit money outlays, those opportunity costs incurred because resources can be used in alternative ways.

NOTES

- 1. assets: the entire property owned by a person that can be used to settle debts 资产
- 2. balance sheet: a statement of a firm's financial position as of a given date, listing assets in one column, liabilities plus net worth in the other. Each item is listed at its actual or estimated money value. Totals of the two columns must balance because net worth is defined as assets minus liabilities. 资产负债表
 - 3. diminishing returns: a law stating that the additional output from successive increases of one input will eventually diminish when other inputs are held constant. Technically, the law is equivalent to saying that the marginal product of the varying input declines after a point. 收益递减
 - 4. fixed cost: the cost a firm would incur even if its output for the period in question were