Optional Extra Credit Assignment Instructions

- 1. Answer the following Questions (1-9), Exercises (20, 23, 27), and Problems (31, 37) based on Chapter 15 (Transfer Pricing) of the Lanen 4e text.
- 2. The criteria used to allocate points to this assignment are:
 - a. Completion
 - b. Neatness, clear labeling, and demonstration of effort
- 3. Based on my strict discretion:
 - a. 20 points will be earned if both criteria are fully met.
 - b. 10 points will be earned if the criteria are substantially (but not fully) met.
 - c. O points will be earned if the criteria are not substantially met.
- 4. Points earned will be added only to the numerator (not the denominator) of your total point percentage in the course. Mathematically, this is to your advantage (as opposed to also adding the 20 points possible to your denominator).
- 5. A hard copy of this assignment is due and should be submitted to my office (TAH 2098) on or before the date of your final exam.
- 6. There is no penalty for not doing this assignment. It is completely optional.
- 7. All answers must originate from the individual student. No copying, collaboration, answer borrowing, or consulting with others is allowed.

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REVIEW QUESTIONS

- **15-1.** What is the purpose of a transfer price?
- 15-2. Do transfer prices exist in centralized firms? Why?
- **15-3.** Many firms prefer to use market prices for transfer prices. Why would they have this preference?
- **15-4.** What are the limitations of market-based transfer prices? What are the limitations of cost-based transfer prices?
- **15-5.** When would you advise a firm to use direct intervention to set transfer prices? What are the disadvantages of such a practice?
- **15-6.** When would you advise a firm to use prices other than market prices for interdivisional transfers?
- **15-7.** What is the basis for choosing between actual and standard costs for cost-based transfer pricing?
- **15-8.** What are the advantages and disadvantages of a negotiated transfer price system?
- **15-9.** What is the general transfer pricing rule? What is the transfer price that results from this rule when:
 - a. There is a perfect market for the product?
 - b. The selling division is operating below capacity?

15-20. Evaluate Transfer Pricing System

Division A offers its product to outside markets for \$60. It incurs variable costs of \$22 per unit and fixed costs of \$75,000 per month based on monthly production of 4,000 units. Division B can acquire the product from an alternate supplier for \$62 per unit or from Division A for \$60 plus \$4 per unit in transportation costs in addition to the transfer price charged by Division A.

- a. What are the costs and benefits of the alternatives available to Division A and Division B with respect to the transfer of Division A's product? Assume that Division A can market all that it can produce.
- b. How would your answer change if Division A had idle capacity sufficient to cover all of Division B's needs?

15-23. International Transfer Prices: Ethical Issues

Trans Atlantic Metals has two operating divisions. Its forging operation in Finland forges raw metal, cuts it, and then ships it to the United States where the company's Gear Division uses the metal to produce finished gears. Operating expenses amount to \$10 million in Finland and \$30 million in the United States exclusive of the costs of any goods transferred from Finland. Revenues in the United States are \$75 million.

If the metal were purchased from one of the company's U.S. forging divisions, the costs would be \$15 million. However, if it had been purchased from an independent Finnish supplier, the cost would be \$20 million. The marginal income tax rate is 60 percent in Finland and 40 percent in the United States.

- a. What is the company's total tax liability to both jurisdictions for each of the two alternative transfer pricing scenarios (\$15 million and \$20 million)?
- b. Is it ethical to choose the transfer price based on the impact on taxes?

15-27. Segment Reporting

Leapin' Larry's Pre-Owned Cars has two divisions, Operations and Financing. Operations is responsible for selling Larry's inventory as quickly as possible and purchasing cars for future sale. Financing Division takes loan applications and packages loans into pools and sells them in the financial markets. It also services the loans. Both divisions meet the requirements for segment disclosures under accounting rules.

Operations Division had \$51 million in sales last year. Costs, other than those charged by Financing Division, totaled \$39 million. Financing Division earned revenues of \$12 million from servicing loans and incurred outside costs of \$10 million. In addition, Financing charged Operations \$6 million for loan-related fees. Operations's manager complained to Larry that Financing was charging twice the commercial rate for loan-related fees and that Operations would be better off sending its buyers to an outside lender.

Financing's manager replied that although commercial rates could be lower, servicing Larry's loans is more difficult, thereby justifying the higher fees.

- a. What are the reported segment operating profits for each division, ignoring income taxes and using the \$6 million transfer price for the loan-related fees?
- b. What are the reported segment operating profits for each division, ignoring income taxes and using a \$3 million commercial rate as the transfer price for the loan-related fees?

15-31. Evaluate Profit Impact of Alternative Transfer Decisions

Amazon Beverages produces and bottles a line of soft drinks using exotic fruits from Latin America and Asia. The manufacturing process entails mixing and adding juices and coloring ingredients at the bottling plant, which is a part of Mixing Division. The finished product is packaged in a company-produced glass bottle and packed in cases of 24 bottles each.

Because the appearance of the bottle heavily influences sales volume, Amazon developed a unique bottle production process at the company's container plant, which is a part of Container Division. The Mixing Division uses all of the container plant's production. Each division (Mixing and Container) is considered a separate profit center and evaluated as such. As the new corporate controller, you are responsible for determining the proper transfer price to use for the bottles produced for Mixing Division.

At your request, Container Division's general manager asked other bottle manufacturers to quote a price for the number and sizes demanded by Mixing Division. These competitive prices follow:

Volume	Total Price	Price per Case
400,000 equivalent cases ^a	\$2,880,000	\$7.20
800,000	5,000,000	6.25
1,200,000	6,480,000	5.40

^aAn equivalent case represents 24 bottles.

Container Division's cost analysis indicates that it can produce bottles at these costs:

Volume	Total Cost	Cost per Case
400,000 equivalent cases	\$2,400,000	\$6.00
800,000	4,000,000	5.00
1,200,000	5,600,000	4.67

These costs include fixed costs of \$800,000 and variable costs of \$4 per equivalent case. These data have caused considerable corporate discussion as to the proper price to use in the transfer of bottles from Container Division to Mixing Division. This interest is heightened because a significant portion of a division manager's income is an incentive bonus based on profit center results.

Mixing Division has the following costs in addition to the bottle costs:

0,000	64.50
J,000	\$4.50
0,000	3.25
0,000	2.83
	0,000

The corporate marketing group has furnished the following price-demand relationship for the finished product:

Sales Volume	Total Sales Revenue	Sales Price per Case
400,000 equivalent cases	\$ 8,000,000	\$20
800,000	14,400,000	18
1,200,000	18,000,000	15

Required

- a. Amazon Beverages has used market price transfer prices in the past. Using the current market prices and costs and assuming a volume of 1.2 million cases, calculate operating profits for:
 - 1. Container Division.
 - 2. Mixing Division.
 - 3. Amazon Beverages.
- b. Is this production and sales level the most profitable volume for:
 - 1. Container Division?
 - 2. Mixing Division?
 - 3. Amazon Beverages?

Explain.

(CMA adapted)

15-37. Transfer Prices and Tax Regulations: Ethical Issues

Gage Corporation has two operating divisions in a semiautonomous organizational structure. Adams Division, located in the United States, produces a specialized electrical component that is an input to Bute Division, located in the south of England. Adams uses idle capacity to produce the component, which has a domestic market price of \$12. Its variable costs are \$5 per unit. Gage's U.S. tax rate is 40 percent of income.

In addition to the transfer price for each component received from Adams, Bute pays a \$3 per unit shipping fee. The component becomes a part of its assembled product, which costs an additional \$2 to produce and sells for an equivalent of \$23. Bute could purchase the component from a Manchester (England) supplier for \$10 per unit. Gage's English tax rate is 70 percent of income. Assume that English tax laws permit transferring at either variable cost or market price.

- a. What transfer price is economically optimal for Gage Corporation? Show computations.
- b. Is it ethical to choose a transfer price for tax purposes that is different from the transfer price used to evaluate a business unit's performance?
- c. Suppose Gage had a third operating division, Case, in Singapore, where the tax rate is below that of the United States. Would it be ethical for Gage to use different transfer prices for transactions between Adams and Bute and between Adams and Case?