PART II: SOLUTIONS TO PROBLEMS AND CASES

CHAPTER 1
INTRODUCTION

P 1–1: Solution to MBA Students (10 minutes)
[Using accounting information for decision making and control]

Together the two observations highlight the extremes in the trade-offs of using accounting information for decision and control. In the first case, there is more analysis of opportunity costs that are hard to capture with typical accounting information. In the second case, there is less intended interest in opportunity cost and greater emphasis on control.

P 1–2: Solution to One Cost System Isn't Enough (15 minutes)
[Economic Darwinism]

The first part of the quote describes the tension (and conflict) that arises when a single accounting system is used for multiple purposes. This part of the statement is an accurate description of practice. However, the quote has a couple of problems, including:

•While the quote describes the costs of using a single system ("a single system ... can't perform important managerial functions adequately"), the quote does not describe the benefits derived from using a single system (lower bookkeeping costs, a single audit, less confusion).

•Because the quote ignores the benefits of a single system, it ignores the concept of economic Darwinism. It does not address the question of how surviving (successful) companies can compete if a single system "can't perform important managerial functions adequately."

•Also, the quote assumes that managers are bound to their internal accounting systems, that no other alternative information sources are available. Often managers develop their own ad hoc, "off-line" information systems for decision making. These systems include spreadsheets, informal observation, and "walking around."

P 1–3: Solution to U.S. and Japanese Tax Laws (15 minutes)
[Influence of conflicting demands on cost systems]

The internal accounting system supports multiple uses, including financial reporting, taxes, contracting (debt and management compensation), internal decision making, and internal control. Because multiple purposes are served, trade-offs must be made among the competing demands. When more emphasis is placed on one purpose (taxes), less consideration can be given to other uses (internal decision making and control). By linking taxes to external reporting, Japanese firms' financial reports will be

based on accounting procedures that give more weight to tax considerations. In the U.S., companies can keep two sets of books, one for taxes and the other for financial reporting. Thus, in the U.S., there is more of a decoupling of taxes and everything else. Except for the additional bookkeeping costs of producing the two separate sets of reports, tax considerations are predicted to have less influence on the choice of internal (and thus external) accounting procedures in the U.S. than in Japan.

The question is raised as to why firms use the same accounting procedures for internal reports as they do for external reports. Or for that matter, why do tax laws and external financial reporting considerations have any effect on internal accounting procedures? Why don't firms maintain multiple sets of accounts, one for each purpose (e.g., financial reporting, internal decision making, and internal control)? Clearly there are additional bookkeeping costs for maintaining multiple sets of accounts. But also, there are confusion costs and, in many instances, firms explicitly link senior executive compensation to externally reported financial statements. Such explicit linkage of executive pay to externally reported net income presumably exists to control agency costs between management and shareholders. Once senior management performance and rewards are linked to external reports, the internal reporting system will become linked to the external reports and basically less consideration will be given to choosing accounting procedures that aid in internal decision making and internal control.

In Japan, the firm's accounting systems are less likely to be used for internal uses (decision making and control) than in the U.S. Because they cannot rely as much on their accounting systems for internal uses (because more weight is placed on using accounting procedures to reduce taxes), Japanese managers are more likely to use non-accounting-based systems for internal decision making and control.

P 1-4: Solution to Using Accounting for Planning (15 minutes)
[Usefulness of historical costs]

a. Historical costs are of limited use in making planning decisions in a rapidly changing environment. With changing products, processes and prices, the historical costs are inadequate approximations of the opportunity costs of using resources.

Historical costs may, however, be useful for control purposes, as they provide information about the activities of managers and can be used as performance measures to evaluate managers.

b. The purpose of accounting systems is to provide information for planning purposes and control. Although historical costs are not generally appropriate for planning purposes, additional measures are costly to make. An accounting system should include additional measures if the benefits of improved decision making are greater than the costs of the additional information.

P 1–5: Solution to Budgeting (15 minutes)
[Trade-off between decision making and control]

In this firm, the bonus is based on meeting the budget. Two incentives exist: sales people will under-forecast future sales and they have little incentive to sell more than the budget.

This firm tries to use the budget for two functions: decision making and control. In deciding on next year's production plans, sales peoples' forecasts of future sales are important. However, these same forecasts (after revision by supervisors) are used as part of the compensation scheme to motivate the sales people to achieve their goals. By using the budget (forecasts) as part of the control system, the firm gives up some of the budget's usefulness as a decision making tool to set production plans. While senior managers might recognize that the sales people's forecasts are low, they don't know exactly how low. This introduces more uncertainty into planning for next year's production.

P 1-6: Solution to Golf Specialties (20 minutes)
[Average versus variable cost of an incremental order]

a. Given that the variable cost per head cover is 1.10 euros, the fixed cost per week is:

AC = FC / Q + VC

3.10 = FC/600 + 1.10	3.50 = FC/500 + 1.10
FC = 1,200 euros	FC = 1,200 euros

b. The change in total cost if the 100 unit Kojo offer is accepted is:

600 × 3.10 euros – 500 × 3.50 euros = 110 euros

Or, each head cover has variable cost of 1.10 euro. Since Kojo is willing to pay 2 euros per head cover or 200 euros for 100 covers, by accepting this order GS makes 90 euros a week. Therefore, GS should accept Kojo's offer if these are all the relevant facts.

c. GS should consider the following non-quantitative factors:

- What prevents Kojo from reselling the head covers back to dealers in Europe at prices below GS's current price of 4.25 euros?
- If GS sells the head covers to Kojo at 2 euros, what prevents GS's European customers from learning of this special deal and demand similar price concessions. In other words, why do we expect to be able to implement this price discrimination strategy?

- Will Kojo purchase other GS products and import them to Japan?
- What is Kojo's credit worthiness and will they pay for the head covers upon taking delivery?

P 1–7: **Solution to Parkview Hospital** (25 minutes)
[Changes in the environment cause accounting system changes]

a. Parkview's accounting system was probably adequate 10 years ago. It faced little competition and had little incentive to have detailed cost and revenue data at the clinical levels.

b. With increased pressure to reduce costs, Parkview management wants detailed cost and revenue data at the clinic level to help identify units with excess revenues or deficits. This would help guide their decisions as to how to respond to the $3.2 million shortfall. The accounting system doesn't provide as much help as management would like.

c. The question of changing the accounting system should be approached as a cost-benefit decision. What will such changes cost, how long will they take to implement, and what benefits are derived?

While it is tempting to say more accurate tracking of costs and benefits allows better decision making, changing the accounting system, including all the data processing changes that are likely necessary, usually is a very costly and time consuming process. Often special studies based on approximations of clinical department costs and revenues might prove to be faster and cheaper than waiting to revamp the accounting system.

Notice the change in competition in the health insurance market caused by Trans Insurance's entry prompted a series of changes in Parkview, including a re-examination of its accounting system.

P 1–8: **Solution to Montana Pen** (25 minutes)
[Incremental cost of outsourcing]

a. The average cost information given in the problem does not tell us what 400 clips cost. Like in the Vortec example from the chapter, the incremental cost of the 400 clips must be estimated from the following:

$$\frac{\text{Change in total cost}}{\text{Change in volume}} = \frac{\text{B185} \times 1200 - \text{B212.5} \times 800}{1,200 - 800} = \text{B130/clip}$$

At the current volume of 1,200 clips, the total cost is B222,000 (B185 × 1,200). If 400 clips are outsourced, reducing in-house volume to 800, the total cost falls to B170,000 (B212.5 × 800). Hence, total cost falls B52,000 (B222,000 - B170,000), or B130 per clip (B52,000 ÷ 400). Therefore, if 400 clips are

outsourced to the Chinese company, Montana saves B130 per clip, but must pay the Chinese firm 136 per clip. Therefore, based solely on the cost data presented in the problem, do not outsource the gold clips.

b. There are a number of additional factors that must be considered besides just the costs:

i. How does the quality of the Chinese clips compare to Montana's quality? If it is significantly higher, then it might be worth paying six Baht more per clip (approximately $0.10). What about delivery reliability? Is the Chinese firm more or less reliable than producing the clips in-house?

ii. What alternative use can be made of the manufacturing capacity of the 400 clips freed up if they are outsourced? Is the Bangkok plant's manufacturing capacity constrained because there are not enough skilled goldsmiths or because of space or equipment? If so, by outsourcing the 400 clips to the Chinese, what other pen parts can these goldsmiths manufacture?

iii. What long-term benefits are created by developing a business relation with this Chinese firm? For example, might this Chinese firm become a possible business partner or useful in opening a Chinese pen factory? Will Montana's management learn anything new about business dealings with Chinese firms from outsourcing these clips? Will purchasing these clips in China help Montana sell more pens in China?