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BOSTON COMMUNITY BANK: BUSINESS PERFORMANCE MEASUREMENT ASSURANCE SERVICES

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CASE OVERVIEW

The setting for the case is Boston Community Bank (Bank), a $200 million state chartered mutual bank located in Massachusetts. On June 25, 1999, a CPA client service team met with the executive management of the Bank to discuss: (1) the strategy of the Bank and (2) performance measures used at the Bank. The team consisted of an assurance partner and a consultant. The assurance partner had recently attended an in-house workshop on strategic performance measurement that included strategic assessment tools and the balanced scorecard framework. The workshop focused on the role of the assurance partner, as a business advisor in the area of business performance measurement.

The Bank's executive management group at the meeting included: the Chief Executive Officer, Senior Vice-President of Lending, Senior Vice-President of Operations and the Chief Financial Officer. The objective of the meeting was to assess the strategic objectives and performance measures at Boston Community Bank and to make recommendations for the improvement of the performance measurement system. The client service team obtained the following documents from Boston Community Bank's management:

- 1999 Strategic Plan
- 1999 Budget
- Executive Bonus Performance Measures

The client service team facilitated an analysis of Boston Community Bank's strengths, weaknesses, opportunities and threats (SWOT analysis) along with a discussion of the Bank's strategies. The team and executives also discussed the performance measures used at the Bank, including the executive bonus performance measures. The client service team presented a balanced scorecard framework (Kaplan and Norton, 1996) to assess the existing performance measures and to develop recommendations for improvement of the Bank's performance measurement system. The balanced scorecard is an approach to

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performance measurement that includes non-financial and financial performance measures that are linked to the organization's mission and strategy. It generally includes objectives and performance measures in the following areas:

- financial
- customer
- internal processes
- learning and growth

BOSTON COMMUNITY BANK BACKGROUND

Boston Community Bank (established 1888) has headquarters in Boston's North Shore area. It also has four full service branch offices and is one of the fastest growing banks on Boston's North Shore. Boston Community Bank is a state chartered mutual bank. A mutual bank has no shareholders and is operated solely for the benefit of its customers.

Boston Community Bank is a $200 million (in total assets) community bank operating in an environment of shrinking margins, limited growth opportunities, an aging customer base and increasing competition from traditional and non-traditional enterprises. Its customers are increasingly knowledgeable and sophisticated in financial matters and the Bank faces competitors who practice predatory pricing for products and services.

Four years ago, the Directors of Boston Community Bank adopted management's recommendation to reposition the Bank from a *traditional thrift institution* to a *full service community bank*. This change in strategic direction was based on the premise that in order to survive in the rapidly changing financial services industry, it would be necessary to diversify the Bank's sources of revenues (and assets).

A traditional thrift institution is a local community bank that collects deposits from its customers and returns those funds to the community, generally in the form of residential mortgage loans. A full service community bank provides a wide array of financial services including access to mutual funds, alternative investment products, and a full array of lending products to small businesses (lines of credit, letters of credit, working capital financing, commercial mortgages and SBA loans).

In 1996, the Bank changed its name to Boston Community Bank and acquired its first branch. From 1997 to 1999, the Bank added three more branches. In addition, the Bank increased the percentage of commercial loans to total loans from none in 1994 to forty percent in 1999.

Boston Community Bank has made progress toward achieving its mission over the past four years. The Bank is financially sound, it has a strong management team, and has strengthened its resources (people, products and systems) and increased its presence in the market. While accomplishing these results, the Bank has also maintained a high level of asset quality and a low level of interest rate risk. The next phase is to complete the transition to an effective and aggressive sales culture.

MISSION STATEMENT

The mission statement of Boston Community Bank is presented below:

> "Boston Community Bank is a strongly capitalized community bank, primarily serving North Shore communities, and is committed to becoming the pre-eminent, full service community bank in its market by strong customer relationships, by providing outstanding customer service, through community involvement and by striving for the highest levels of profitability and asset quality."

The key words in Boston Community Bank's mission statement are explained below:

Pre-eminent means that Boston Community Bank will achieve a leadership position that is recognized by ourselves, our customers, and our competitors.

Full Service emphasizes our commitment to diversity in products and customers.

North Shore defines our primary market.

Relationship banking and *customer service* signifies our approach to building and maintaining customer relationships.

Community involvement conveys our sense of responsibility to the communities that are the source of our business.

Profitability and *asset quality* underscore our overriding attention to operating efficiency and underwriting standards.

BRANDING/MARKETING

The Bank's branding image is in a state of transition. It changed its name in 1996 from a very local, community oriented name (generally only recognized in its immediate operating area), to a more broad generic name, representing the geographic area in which it wishes to serve. From discussions with management, it does not appear that the Bank has yet established a brand identity associated with the new name. Newer business customers of Boston Community Bank will probably understand the mission of the Bank to be to serve the needs of small businesses in the communities north of Boston. However, many of its older customers and perhaps even some employees will think of it as the old bank with a new name. They will not associate the change from a traditional thrift institution to a full service community bank.

KEY GOALS

The 1999 Strategic Plan of Boston Community Bank included the following two key goals:

- Career Development
- Business Development

Career Development involves assessing employee skills and identifying the potential staffing needs of the Bank. The goal was to complete the *skills assessment* part of the process for the entire staff by April of 1999. At the same time, management would project the Bank's staffing needs for the next three years. This *staffing assessment* would be based on the business objectives established in the business plan, and will take into account projected loan and deposit growth, branch expansion and potential new delivery channels, and new products and services that will likely be introduced over the next three years, and changes in workforce expectations.

The implementation phase of career development involves two issues. First, it is likely that individual skills and ambitions will not match, which may lead to the need for training, and sometimes reassignment. In addition, the training needs of individuals and the Bank's staffing needs have to be prioritized, because they will likely require a significant financial investment. However, management expects that the investment will pay dividends, both in terms of operating efficiency and improved morale.

Business Development was the second key goal in the strategic plan. Business development involves the following initiatives:

- commercial business development
- the sale of consumer products and services
- mortgage banking

Commercial business development requires experienced officers, competitive products, convenient distribution points, and effective coordination of the process. Boston Community Bank must demonstrate strength in all of these key elements in order to motivate a small business customer to move his or her account. Commercial business customers value personal relationships, and likely have, or have had such a relationship at another bank, and thus must perceive a significant benefit in order to move their accounts.

In recent years, the Bank's credibility in the area of commercial lending has improved due to the name change, the introduction of new products, competitive pricing, branch expansion, and the increased community participation on the part of several officers. These efforts must be intensified in order for the Bank to move to the next level.

In order to attract the small business customer, the Bank must enhance its product offerings for the commercial business market. Additional commercial business products and services include:

- Small business loans (revolving credit and/or term loans) based on minimum underwriting requirements.
- Accounts receivable loans.
- Expanded cash management services.
- Third party relationships for leasing.
- 401K and other asset management services.
- Internet banking.

The Bank has made a commitment to explore the most efficient way to introduce these products and to offer as many as possible in 1999. In addition to these specific products, the Bank must develop a network with agencies such as the SBA and local development corporations.

Sale of consumer products and services is another key element of business development. The Bank achieved a number of successes with respect to the sale of consumer products in 1998, helped by the opening of new branches and more directed advertising. There was growth in home equity lines and loans, and automobile and personal loans. There was also a respectable increase in the number of consumer transactions accounts and other low cost deposits. However, there is also the sense that the Bank missed opportunities in certain market segments (under-served, ethnic, bank at work) because of a lack of understanding as to the potential of these segments that will only come from a formal market analysis. There is a similar requirement to better understand the needs of the Bank's existing customer base and related opportunities. This is the type of information that is the product of a formal marketing plan and will help management to identify the markets and products which represent the greatest potential for growth and profitability.

One of the objectives of the marketing plan is to identify *cross-selling opportunities*. More than 7,000 households have a relationship with the Bank, and many of these continue to be single service households. The information from the marketing plan will enable management to develop an effective cross-selling program, resulting in a greater number of multiple service customers and increased profitability. There is also a need for *sales training,* as the information and products alone will not result in additional sales, and it may be time to experiment with new sales techniques such as dedicated telephone sales representatives. These decisions will be made upon completion of the marketing plan and the results of the career development initiative.

In the short run, *mortgage banking* can add to Boston Community Bank's profitability, because the Bank has the resources in place to accommodate approximately twice its current production of residential mortgages, and the fee income associated with this activity can help offset the pressure on the interest rate margin. Also helping profitability is the fact that originators are paid by commission, and therefore, any additional costs are directly related to production. From a customer and product standpoint, residential mortgages contribute to the Bank's mission of being a full-service community bank.

1999 BUDGET

The 1999 Budget for Boston Community Bank includes the following goals:

- increase commercial business
- balance sheet mix change
- reduction of controllable overhead expenses

The Bank projects its commercial loan portfolio to grow to forty percent of total loans by year-end. The long-term strategic objective is to have the commercial loan portfolio account for fifty percent of total loans. Growth in demand deposits is projected to be twenty percent for 1999 and thirteen percent for money market accounts. Other non-interest expense is projected to decrease by three percent.

SWOT ANALYSIS

The client service team led the executives through an analysis of strengths, weaknesses, opportunities and threats (SWOT analysis). The following is a summary of the SWOT analysis and discussion with the Bank's executive management group:

Strengths:

- Name recognition within the community
- Large customer base (7,000 households)
- Community involvement/increasing presence in the market
- Management knowledge of industry
- Financial condition: strong capital and asset quality
- Regulatory performance is strong and positive

Weaknesses:

- Training and career development for staff
- Overall profitability and operational inefficiencies of the Bank
- Lack of technological resources as well as Internet banking
- Lack of marketing resources/marketing plan
- Lack of knowledge of customer profile
- Aging customer base
- Insufficient focus on quality customer service and mortgage banking
- Overall market share needs to grow

Opportunities:

- Cross-selling existing customers
- Growth in commercial business
- Increase market share through growth of loan portfolio
- Increased presence by means of additional ATMs
- Niche markets (under-served ethnic markets, bank at work, etc.)
- Promotion of new products
- Enhanced business development in all product areas and promotion of those products
- Strategic marketing towards customers of large merging banks
- Attracting candidates for acquisition over the next few years
- Potential market for Internet banking
- Insurance products

Threats:

- Strong community bank competition
- Non-bank competition
- Inefficiencies within the operations of the Bank
- Turnover of staff
- Possibilities of more stringent regulations
- Lack of appeal to younger, affluent potential customers
- Ability of staff to adapt to changing banking environment

The client service team discussed how SWOT analysis is used to develop strategic objectives by seeking to *leverage* strengths, *address* weaknesses, *harvest* opportunities, and *attack* threats. Also discussed was how SWOT analysis can be used to evaluate existing strategies.

Executive Performance Measures

The client service team obtained a list of performance measures used in the executive bonus system. There are six performance measures used in the executive performance bonus system:

- Net Income
- Deposit Growth
- Loan Growth
- Non-Performing Asset Ratio = (NPA + REO)/(Loans + REO)
- Overdue Ratio
- Non-Interest Expenses

Note: (NPA + REO)/(Loans + REO) = (Non-performing assets + Real Estate Owned)/(Loans + Real Estate Owned)

Each performance measure is weighted as shown below for each executive's performance bonus.

The Chief Executive Officer's bonus is based on the following:

Performance Measurement	*Percentage Weight*
• Net Income	40%
• Deposit Growth	20%
• Loan Growth	20%
• Non-Performing Asset Ratio = (NPA + REO)/(Loans + REO)	20%

The Senior Vice President of Lending's bonus is based on the following:

Performance Measurement	*Percentage Weight*
• Net Income	25%
• Loan Growth	50%
• Overdue Ratio	10%
• Non-Performing Asset Ratio = (NPA + REO)/(Loans + REO)	15%

The Senior Vice President of Operation's bonus is based on the following:

Performance Measurement	*Percentage Weight*
• Net Income	25%
• Non-Interest Expense	25%
• Deposit Growth	25%
• Loan Growth	25%

The Chief Financial Officer's bonus is based on the following:

Performance Measurement	*Percentage Weight*
• Net Income	50%
• Non-Interest Expense	25%
• Deposit Growth	25%

The client service team noted that the six executive performance measures were primarily financial measures and were not customized to Boston Community Bank's strategy.

Client Service Team Objectives

After the meeting with the Bank executives, the client service team established three objectives:

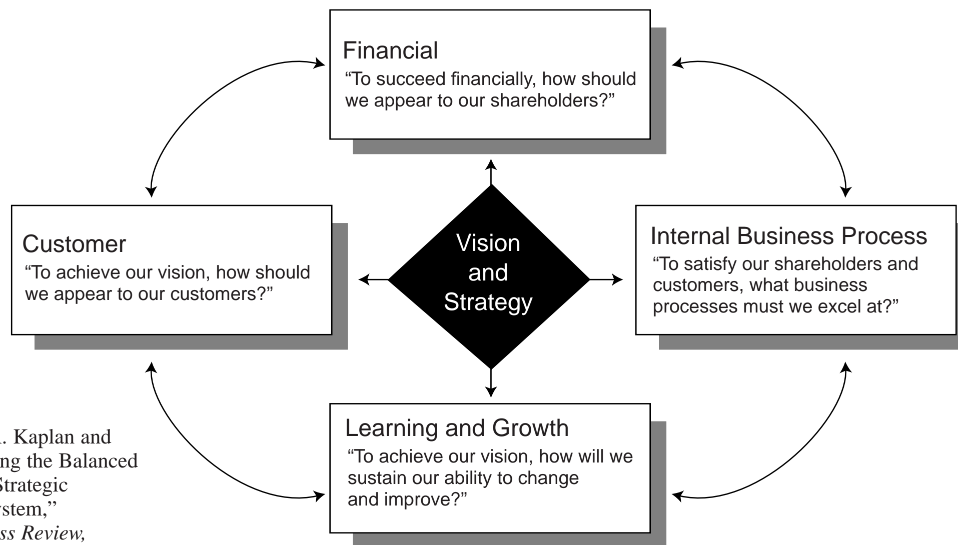
- Summarize the SWOT analysis and use it to assess and validate existing strategic objectives of Boston Community Bank and to develop other strategic objectives.
- Use the Balanced Scorecard framework to develop recommendations for improving the performance measurement system at Boston Community Bank.
- Use the Balanced Scorecard framework to develop a preliminary scorecard that would reflect the strategy of Boston Community Bank.

The characteristics of the Balanced Scorecard framework were used to develop the following questions for developing recommendations for improving the performance measurement system at Boston Community Bank:

- Are there linkages of performance measures to the mission and strategic objectives of Boston Community Bank?
- Do the performance measures include non-financial measures and financial performance measures?
- Do the performance measures include leading indicators (performance drivers) and lagging indicators (outcome measures)?
- Are there cause and effect linkages between performance measures and between objectives?

One of the basic characteristics of the balanced scorecard framework is that there should be a balance between performance drivers (leading indicators) and outcome measures (lagging indicators). Kaplan and Norton (1996, p. 150) provide a good summary of their point as follows:

> "A good Balanced Scorecard should have a mix of outcome measures and performance drivers. Outcome measures without performance drivers do not communicate how the outcomes are to be achieved. They also do not provide an early indication about whether the strategy is being implemented successfully. Conversely, performance drivers-such as cycle times and part-per-million defect rates-without outcome measures may enable the business unit to achieve short-term operational improvements, but will fail to reveal whether the operational improvements have been translated into expanded business with existing and new customers, and, eventually, to enhanced financial performance. A good Balanced Scorecard should have an appropriate mix of outcomes (lagging indicators) and performance drivers (leading indicators) that have been customized to the business unit's strategy."
>
> The following shows the Balanced Scorecard framework:



Adapted from R. Kaplan and D. Norton, "Using the Balanced Scorecard as a Strategic Management System," *Harvard Business Review,* January–February 1996, p. 76.

The Balanced Scorecard Four Perspectives

The balanced scorecard generally includes strategic objectives and related performance measures within four categories: financial, customer, internal process and learning and growth. The client service team wanted to use this framework to assess existing performance measures and to make recommendations for improving the performance measurement system at Boston Community Bank.

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GENERAL QUESTIONS ON ASSURANCE SERVICES

1. What are “assurance services?” Why is Business Performance Measurement considered an assurance service?
2. Describe Business Performance Measurement assurance services.
3. Performance measurement systems in organizations will vary greatly in the degree of development. Describe the spectrum of assurance services that CPAs can perform for clients that have (or do not have) performance measurement systems.

QUESTIONS RELATED TO BOSTON COMMUNITY BANK

1. What are the strategic objectives of Boston Community Bank?
2. Evaluate the strategic objectives in Boston Community Bank’s strategic plan. Are the strategic objectives consistent with the strengths, weaknesses, objectives and threats of Boston Community Bank? Also, what other strategic objectives could you develop that would *leverage* strengths, *address* weaknesses, *harvest* opportunities, and/or *attack* threats at Boston Community Bank?
3. Evaluate the existing Executive Bonus Performance Measures at Boston Community Bank. Are the performance measures leading or lagging indicators? How well do the executive performance measures link with the Bank’s strategy and mission?
4. Develop a recommendation for Boston Community Bank relating to improving their performance measurement system. Use one of the following forms in writing your recommendation:
   - Observation
   - Recommendation
   - Benefits of the Recommendation
5. Using the following Balanced Scorecard worksheet, develop strategic objectives and performance measures within the four dimensions of the balanced scorecard that could be used by Boston Community Bank.

Balanced Scorecard Worksheet

Strategic Objectives	Performance Measures
Financial F1 F2 F3	
Customer C1 C2 C3	
Internal Processes I1 I2 I3	
Learning and Growth L1 L2 L3	

PERSONAL FINANCIAL PLANNING FOR THE WIDOW

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CASE BACKGROUND

Alice Johnson is a 50 year-old woman who recently became a widow. Her husband, Robert Johnson, died suddenly on October 7, 2000. Robert was a school administrator. It is now early in January 2001 and this is your first meeting. You are highly recommended to Alice by her sister, a long time tax and financial planning client. The sister, a psychologist, and her husband respect your ability to listen, communicate, and bestow compassion as well as offer sound advice. Alice's sister accompanies her at the initial meeting. You are partner of a small CPA firm.

Alice is a mother of two children, Mary and Tim. Mary will turn 18 this year and plans to attend a state college in September. Tim will turn 15 this year and is midway through his sophomore year of high school. Tim also plans to go to college. Alice is employed at a job that offers great personal satisfaction, limited financial compensation, and no fringe benefits. Her job is physically demanding and she has some reservation about how long she will be able to continue. She has reasonable resources available, including family savings, investments, life insurance death benefits, and retirement accounts. Her children also will be receiving Social Security survivor benefits until they reach age 18 (or 19 if they are still in high school). Alice is very well organized and she brought all of the information that was requested, a listing of family assets and liabilities, an estimate of the investments' basis just prior to the husband's death, a copy of last year's tax return, and the family's insurance policies. This data is summarized at the end of the case.

Alice is very specific about her goals. Her principal concerns are maintaining her family's standard of living and providing a college education for her children. Her secondary interest is retirement. Alice wants you to help her allocate the family resources between the three goals: college education for the two children, living from now until retirement, and her retirement. She is very anxious about her family's situation. Twice during the meeting she stated, "Please show me in black and white how everything is going to work." Alice also has questions regarding income taxes and insurance coverage.

COLLEGE FUNDING

Alice would like you to recommend how much of the life insurance death benefit she should allocate for the children's education. She wants to consider the funds allocated to college funding as a separate account from her other goals. To resolve her anxiety, you plan to prepare a spreadsheet, which will illustrate the situation on a year-by-year basis. Mary will be attending college in the fall and Tim will be attending college in 2.5 years. Alice plans to provide each child a base amount for 4 years of college expenses and

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any costs over the base will be the responsibility of the child. In current year's dollars the base amount is $15,000 per year. She accepts the assumption that college expenses will grow at 150% of the inflation rate. She also understands that since college is a short-term goal; her investments for this purpose should be secure and low risk. Other assumptions for college funding are:

Rate of return for college funds	5.0%
Estimated inflation rate	3.0%
Estimated tax rate on investment income	20.0%

For purposes of simplicity and conservatism, it is assumed that college expenses for the year are withdrawn at the beginning of the year and the investment income for the year will be based upon the year's beginning balance less current year's disbursement.

CASH FLOW FOR THE CURRENT PERIOD UNTIL RETIREMENT

Alice also wants you to determine how much of the life insurance death benefit she should allocate to assist in maintaining the family's standard of living from the current period until planned retirement in 15 years. She wants to consider the funds for this purpose separate from the funds for her other goals. Alice estimates that she needs $3,500 per month after taxes for living expenses. Her current wage is $24,000 per year. Both her needs and wages are in today's dollars and are assumed to grow at the estimated inflation rate. Each child is receiving Social Security survivor benefits of $1,095 per month. Mary will receive benefits for six months this year and Tim will receive benefits for the balance of this year and for another 1.5 years. Using a conservative approach, the benefits are assumed to increase annually at ½ the inflation rate. Alice's risk tolerance is very low and the funds are to be invested safely.

Other assumptions for this analysis include:

Rate of return for savings	5.0%
Estimated inflation rate	3.0%
Estimated tax rate	20.0%

It is assumed that the Social Security survivor benefits will be used to meet some of the current year's living expenses. The children receive the benefits; therefore, the benefits are not taxable to Alice. Since the children's income is low, the benefits are not taxable. For purposes of simplicity and consistency, it is assumed that investment income is computed using the balance at the beginning of the year. This assumption is based upon the premise that Alice possesses cash for transactional purposes and that increases and decreases are made at the end of the year.

RETIREMENT PLANNING

Alice plans to commit her husband's pension and both IRAs to her retirement goal. The deferred compensation, Corporate Bond Fund, Equity Fund, and any remaining life insurance death benefit will be considered a planning buffer and not designated to a specific goal. The plan is to invest the planning buffer in tax- managed investments that will not generate current income. The planning buffer will be a reserve in case something unforeseen occurs. She desires to retire in 15 years. Her pre-tax retirement benefits under Social Security in today's dollars are $12,000 per year and at age 65 the benefits should be $15,000. Social Security benefits are assumed to grow at 1/2 the inflation rate. Alice is planning to continue to save at least $600 per year (adjusted annually for inflation) in her IRA. She will save more if necessary. Her key question is, "How much does she need to save annually to meet her retirement goals?" She plans to use a traditional IRA. Alice estimates that she will need $3,000 per month in today's dollars to live

comfortably at retirement. It is assumed that her needs will grow at the rate of inflation. Since her retirement planning horizon is long-term, her investment mix will be more aggressive. Other assumptions for her retirement planning include:

Rate of return for retirement assets (tax-deferred)	9.0%
Estimated inflation rate	3.0%
Estimated tax rate	20.0%
Life expectancy	90 years old

For purposes of simplicity and consistency, it is assumed that investment income is computed using the balance at the beginning of the year. Current year income and withdrawals are assumed to be made at the end of the year. Also, assume that at retirement Alice's Social Security benefits will be 100 % taxable.

RISK MANAGEMENT

Per your request, Alice brought the family's insurance policies to the meeting. After your review, you observed that she possesses homeowner's insurance providing all-risk replacement cost coverage for the dwelling. The home's contents are insured at actual-cost-value. General liability is $100,000 and the deductible is $250. Alice has complete automobile insurance with 100/300/50 liability limits and a $250 deductible. Her family medical coverage is through her husband's employer under COBRA at a monthly cost of $350 for family coverage. She does not possess general liability, life insurance, or disability insurance.

ENGAGEMENT LETTER

After the initial meeting you mailed an engagement letter to Alice. A copy of this letter is attached (see Exhibit 3).

QUESTIONS

Tax Issues (assume Alice resides in a state without an income tax):

1. Prepare a worksheet computing the federal income liability for the past year, 2000. The worksheet should present total income, adjustments, adjusted gross income, itemized deductions, exemption amount, taxable income, tax liability, credits, net amount due/refund, average tax rate, and marginal tax rate. The data is in Exhibit 1 and the assumed tax rates are in Exhibit 2.
2. Prepare a worksheet projecting the federal income liability for the current year. The worksheet should present total income, adjustments, adjusted gross income, itemized deductions, exemption amount, taxable income, tax liability, credits, net amount due/refund, average tax rate, and marginal tax rate. The data is in Exhibit 1 and the assumed tax rates are in Exhibit 2.
3. Alice was not given an opportunity to rollover the deferred compensation to an IRA. She was presented with two options: to receive the deferred compensation distribution in the year of death, year 2000 or the current year. Was it wise from a tax standpoint to withdraw the money this year?
4. If Alice sold the Corporate Bond Fund and Equity Fund in year 2000 at the year-end values, compute the income tax implications. Assume that the year-end value is the same as the value at the time of her husband's death and that Alice is a resident of a common law state.

Accounting Issues:

1. What are the basic financial statements for a set of personal financial statements? What is the generally accepted valuation method for personal financial statements? How does a compilation differ from a

review of personal financial statements? What is the role of a representation letter with regards to the preparation for personal financial statements?

2. Statement on Standards for Accounting and Review Services (SSARS) 6, *Reporting on Personal Financial Statements Included in Written Personal Financial Plans*, states that an accountant may submit a written personal financial plan containing unaudited personal financial statements to a client without complying with SSARS 1, *Compilation and Review of Financial Statements*, if certain conditions exist. What conditions warrant the preparation of personal financial statements under the SSARS 6? What are some of the differences between statements prepared under SSARS 1 in comparison to SSARS 6?
3. Prepare a statement of financial condition for Alice Johnson as of December 31, 2000, in accordance with Statement on Standards for Accounting and Review Services (SSARS) 6. Consider the accrual for current year income taxes to be immaterial and to be disregarded. Use data in Exhibit 1.

Developing Prospective Information Worksheets:

1. **College Funding:** Prepare a spreadsheet that presents to Alice the amount of the $400,000 life insurance death benefit she needs to allocate to meet the college funding commitment. The amount of the life insurance death benefits allocated to specific goals should be in multiples of $5,000. The spreadsheet should present on a year-by-year basis the education costs adjusted for inflation, the fund balance, withdrawal for education expenses, investment income, and income taxes. Use the assumptions stated in the case. The worksheet should be clear, concise, and self-explanatory. All assumptions should be explicitly stated on the schedule.
2. **Cash Flow for the Current Period until Retirement:** Prepare a spreadsheet that presents to Alice the amount of the $400,000 life insurance death benefit she needs to allocate to assist in maintaining the family's standard of living for the next 15 years. The amount of the life insurance death benefits allocated to specific goals should be in multiples of $5,000. The spreadsheet should present on a year-by-year basis: the fund balance, wages adjusted for inflation; inflows for investment income and the children's survivor benefits; and outflows for income taxes and living expense needs adjusted for inflation. Use the assumptions stated in the case. The worksheet should be clear, concise, and self-explanatory. All assumptions should be explicitly stated on the schedule.
3. **Retirement Planning Illustrated:** Prepare a spreadsheet that presents to Alice the amount that she needs to save annually to meet her retirement goals and how her savings will be consumed during her retirement. You can assume that little or none of her retirement assets remain at the end of her assumed life expectancy. The spreadsheet should present on a year-by-year basis the annual retirement needs adjusted for inflation, Social Security adjusted for inflation, fund balance for retirement assets, investment income from retirement funds, and withdrawals. Since the withdrawals from the retirement accounts and the Social Security are considered to be 100% taxable, it would be preferred to reflect the annual retirement needs on a before-tax basis. Use the assumptions stated in the case. The worksheet should be clear, concise, and self-explanatory. All assumptions should be explicitly stated on the schedule.

Risk Management:

1. Risk management is the process of evaluating risks faced by a client, identifying ways to avoid or reduce risks, minimizing the retained risks and the cost of transferring risks. A peril is an event that causes a financial risk. What are some of the perils faced by Alice?
2. What recommendations would you make with regards to Alice's current insurance policies? Are there ways to reduce costs? Do you see a need for changes with the current insurance policies?
3. Would you recommend that Alice purchase disability insurance, life or any other type of insurance? Explain the reasons for your recommendations.

Follow-up Consultation:

1. Several months after preparing the financial planning report for Alice Johnson, she called you for additional advice. The local school offered her a job as a secretary. The position requires her to work

full-time September through June and flexible half time for July and August. She will not work during school holidays. The job offers full benefits including family medical, disability insurance at 60% current wage, life insurance at 3.5 times salary, and a defined benefit pension plan. The school estimates that at 65 she would be entitled to 25% of her final year's base wage. The starting salary is $18,000 and the salary should grow with inflation. Alice asks you to assist her by identifying the quantitative and qualitative factors with the decision to take the job. List the factors and assign a monetary value if appropriate.

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Keown, Personal Finance, *Turning Money into Wealth*, Prentice Hall, 1998.

INTERNET SITES:

There are hundreds of Web sites for the topic "personal finance." You can find a variety of relevant articles, useful calculators, and interesting databases. A helpful site containing personal finance terms is:

http://www.tiaa-cref.org/dict.html.

A site containing worthwhile up-to-data tax information is:

http://www.irs.ustreas.gov/prod.

A site providing information concerning accounting industry standards, publications, and courses is:

http://www.aicpa.org.

Other sites that you might want to visit are:

http://www.bloomberg.com,
http://www.fool.com,
http://www.kiplinger.com,
http://www.morningstar.com,
http://www.quicken.com,
http://www.smartmoney.com, and
http://www.quote.yahoo.com.

Exhibit 1
ALICE JOHNSON
Statement of Assets and Liabilities

	12/31/00 Value	Prior to Death 10/6/00 Basis	Title
Assets			
Checking account	2,500	2,500	JT
Bank money market	3,500	3,500	JT
Mutual fund money market	8,500	8,500	JT
Life insurance death benefit — money market	400,000	400,000	H
Corporate Bond Fund	35,000	36,000	JT
Equity Fund	220,000	12,000	H
Deferred compensation plan	7,500	–	H
IRA's	21,000	12,000	H
IRA's	18,000	10,000	W
Pension plan	152,400	–	H
Residence	175,000	90,000	JT
Automobile	20,000	30,000	JT
Other personal property	65,000	80,000	JT
	928,400		
Liabilities			
Credit card charges payable	2,750		JT
Mortgage, 7.5%, 15 yrs remaining, monthly payment $500.	53,930		JT
	56,680		

JT – Joint
H – Husband
W – Wife

Exhibit 1 (continued)
ALICE JOHNSON
Income Tax Data
For the Years 1999, 2000, and 2001

	1999	2000	Estimated 2001
Wages — (H)	72,000	50,000	–
Wages — (Alice)	24,275	25,000	25,750
Interest and dividends	3,600	3,720	26,500
Capital gain distributions	375	400	425
Deferred compensation distribution			7,500
IRA Contribution — (H)	2,000	2,000	–
IRA Contribution — (Alice)	600	600	600
Medical expenses	1,800	1,900	4,200
Real estate taxes	3,880	4,000	4,120
Mortgage interest	4,268	4,122	3,976
Charitable contributions	1,550	1,600	800
Miscellaneous deductions	1,400	1,500	500
Federal withholding (H)	10,900	4,900	–
Federal withholding (Alice)	3,400	3,500	3,605
Federal tax due	1,925		

Exhibit 2
Assumed Tax Rate Schedules,
Standard Deduction Amounts, and Exemption Deductions
For Years 2000 and 2001

Single — Schedule X

If taxable income is: Over	But not over –	The tax is:			of the amt. over –
$ –	$ 25,750		+	15.0%	$ –
25,750	64,450	3,863	+	28.0%	25,750
64,450	130,250	14,139	+	31.0%	64,450
130,250	283,150	35,157	+	36.0%	130,250
283,150		90,201	+	39.6%	283,150

Married filing jointly or Qualifying widow(er) — Schedule Y — 1

If taxable income is: Over	But not over –	The tax is:			of the amt. over –
$ –	$ 43,050			15.0%	$ –
43,050	104,050	6,458	+	28.0%	43,050
104,050	158,550	23,538	+	31.0%	104,050
158,550	283,150	40,433	+	36.0%	158,550
283,150		85,289	+	39.6%	283,150

Married filing separately — Schedule Y — 2

If taxable income is: Over	But not over –	The tax is:			of the amt. over –
$ –	$ 21,525			15.0%	$ –
21,525	52,025	3,229	+	28.0%	21,525
52,025	79,275	11,769	+	31.0%	52,025
79,275	141,575	20,216	+	36.0%	79,275
141,575		42,644	+	39.6%	141,575

Exhibit 2
Assumed Tax Rate Schedules,
Standard Deduction Amounts, and Exemption Deductions
For Years 2000 and 2001

Head of Household — Schedule Z

If taxable income is: Over	But not over –	The tax is:			of the amt. over –
$ –	$ 34,550	15.0%			$ –
34,550	89,150	5,183	+	28.0%	34,550
89,150	144,400	0,471	+	31.0%	89,150
144,400	283,150	37,598	+	36.0%	144,400
283,150		87,548	+	39.6%	283,150

Basic Standard Deduction

Single	$4,300
Married, filing jointly	7,200
Surviving spouse	7,200
Head of household	6,350
Married, filing separately	3,650

Capital Gain Tax Rates

If taxable income is taxed at:	the capital gain tax rate is:
15%	10%
28 % or higher	20%

Personal and Dependency Exemption $2,750

Exhibit 3
ENGAGEMENT LETTER

Dear Mrs. Johnson:

We are looking forward to working with you in designing your personal financial plan. The financial planning process is complex and sometimes tedious. It is an important step toward achieving personal financial goals. This letter highlights the activities involved in developing, implementing and maintaining your financial plan. It also confirms the terms and objectives of our engagement.

Highlights of Activities

The initial phase involves accumulating and organizing facts about your current and desired financial status and identifying your specific goals and objectives. This will be accomplished through a series of interviews and the data(c)gathering questionnaire.

The next step involves analysis of the data accumulated. After a review of the results of the preliminary analysis and cash flows with you, we will begin performing detailed analyses of your specific financial circumstances.

Following the analysis and discussion with you, we will meet to review our preliminary recommendations. As a result of these meetings, a written draft of your plan will be prepared. We then will be able to finalize your plan and to set time goals and establish responsibilities for the implementation. We will prepare, in writing, specific recommendations that will seek to address your financial goals. Where appropriate, we will include financial illustrations and projections for greater understanding of potential outcomes of financial alternatives.

We will assist you, as a separate engagement, in implementing the strategies that have been agreed upon. Accordingly, we will be available on an ongoing basis to answer questions, to assist you or your advisors, to take necessary actions, and to make recommendations regarding financial matters. Your plan should be reviewed informally on a quarterly basis and formally annually. These update sessions are vital so that adjustments can be made for changes in your personal circumstances, overall economic conditions, and future tax law revisions.

Terms and Objectives

At our initial meeting, you indicated five concerns: allocating family resources, income tax implications, maintaining your family's standard of living, risk management, and future financial security. The primary objective of our engagement is to prepare a review of your personal financial situation in light of your concerns. This review will emphasize your personal financial goals and objectives and will include strategies to attain them if possible. We will be relying upon your representations.

During this engagement, we will prepare a statement of financial condition to help you plan your personal finances. Accordingly, it may be incomplete or contain other departures from generally accepted accounting principles and should not be used to obtain credit or for any purpose other than planning your personal finances. We will not audit, review, or compile the statement.

We will also compile the following projections:

Income tax liability for years 2000 and 2001,

College funding,

Cash flow from the current period until retirement, and

Retirement planning worksheet.

The projections will be prepared from information you provide. They will not express any form of assurance on the achievability of the projections or reasonableness of the underlying assumptions. You are responsible for providing the prospective financial information to us and for communicating to us any significant information that might affect the ultimate realization of the projected results.

The suggestions and recommendations included in your financial plan will be advisory in nature, and we cannot guarantee the performance of any investment or insurance products which may be purchased to implement recommendations in your plan. The plan will also include financial projections based on assumptions about future events. We cannot vouch for the achievability of such projections as the assumptions about future events may not be accurate.

Insurance recommendations developed as part of your financial plan or to implement the financial plan should be made by licensed insurance professionals you choose to engage. We are not responsible for the success or failure of any specific policy or insurance strategy recommended by such advisors.

Investment recommendations developed as part of your financial plan or to implement the financial plan should be made by registered investment advisors or other licensed investment advisors you choose to engage. We are not responsible for the success or failure of any specific investment recommended by such advisors.

It is agreed and understood that [*firm name*] will not accept or receive fees, commissions, or other remuneration or compensation from the investment advisors or from originators, sponsors, syndicators, or distributors of investment of insurance products purchased by you.

We cannot be responsible for the acts, omissions, or solvency of any broker, agent, or independent contractor or other advisor selected in good faith to take any action to negotiate or consummate a transaction for your account. Our services are not designed and should not be relied upon as a substitute for your own business judgment, nor are they meant to mitigate the necessity of your personal review and analysis of a particular investment. These are not investment advisor services. Our services are designed to supplement your own planning analysis and aid you in fulfilling your financial objectives.

In addition, these services are not designed to discover fraud, irregularities or misrepresentations made in materials provided to us concerning your potential investments or insurance coverages.

You will, of course, be free to follow or to disregard, in whole or in part, any recommendations we make. You will be responsible for any and all decisions regarding implementation of the recommendations. At your request, we will be happy to coordinate implementation, as a separate engagement, with any insurance agent, investment broker, and/or attorney of your choosing.

The fee for this planning service will be based on our regular hourly rates plus out(c)of(c)pocket expenses. We project our fee will range between $[ ] and $[ ] plus direct out(c)of(c)pocket expenses for the initial plan development. Update sessions and follow up work are separate engagements and will be billed separately. As work progresses, we will make progress billings, which are due and payable upon presentation.

I will be pleased to discuss this letter with you at any time. If the foregoing is in accordance with your understanding, please sign one copy of this letter in the space provided and return it to us. The additional copy is for your files.

If we can be of assistance to you in any other way, please do not hesitate to contact us. We look forward to helping you develop and maintain a sound, businesslike approach to your personal financial affairs.

Sincerely,

[FIRM NAME]

Approved by:

Date

KINGFISCHER MUTUAL[1] INSURANCE COMPANY

James Lloyd Bierstaker, Assistant Professor
University of Massachusetts–Boston, Boston, Massachusetts

Myles J. Tilley, Senior Consultant
Ernst & Young, Boston, Massachusetts

CASE OVERVIEW

Recently, the importance of business and industry knowledge for assessing client business risk has been emphasized in public accounting. The purpose of this case is to develop your understanding of business risk in the insurance industry. The case is based on a composite of actual incidents that occurred in several large insurance companies. A general overview of the insurance industry is given first, followed by background on a hypothetical insurance company (Kingfisher), and a detailed description of its contractual relationship and history with another hypothetical company (Finch).

INSURANCE INDUSTRY OVERVIEW

In 1995, the insurance industry in the United States managed almost $2.90 trillion of assets and generated revenues of $808.8 billion for the year.[2] Thus, the insurance industry makes a significant contribution to the domestic and global economy, representing over 11% of GDP, and is a common area of specialization within public accounting firms. The insurance industry also serves an important function in the economy. By purchasing insurance for an affordable fixed amount, individuals and businesses are able to transfer exposure to an uncertain and potentially devastating financial loss to an insurance company, allowing them the freedom to pursue their personal and business interests. In this way, through the fostering of economic activity, insurance serves to benefit society as a whole.

Industry Segments

Within the insurance industry, companies are divided into categories based on the types of products they sell. These categories are broadly 1) life and health, and 2) property and casualty. Life and health companies sell products which address risks associated with death and illness and provide investment opportunities. Property and casualty companies sell products which address risks involving accidental loss or damage to property and liabilities for such damages and/or injuries to persons.

This case is set in the property and casualty segment of the insurance industry. Property and casualty companies usually distinguish their business between personal and commercial markets. Personal markets include products such as automobile and homeowner's insurance which are sold to individuals. Com-

[1]Ownership of mutual companies rests with its policyholders. This is in contrast to stock companies in which ownership rests with its stockholders.

[2]Statistical Abstract of the United States: 1998

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mercial markets include products such as workers compensation, general liability, and property insurance which are sold to businesses. Companies may also separately classify certain uncommon products, such as professional liability, fidelity, surety, and excess and surplus lines into a "Special" markets category. These products may be distinguished by the lower volume of policies issued. Generally only "specialist" companies will underwrite them, and operations involve highly technical underwriting and claims issues. Professional liability products would include medical malpractice, a type of coverage that is well known for its volatile nature. Fidelity and surety products include coverage for dishonest acts of employees and financial guarantees. Excess and surplus lines addresses extraordinary insurance requirements (in either size or type) that are not readily available.

Distribution Systems

Insurers may sell their products through various distribution channels. Under an "agency" system, companies rely upon an independent sales force to sell their policies. Companies will pay a "commission" to the agent when a policy is sold. Companies which utilize their own sales force of employees are described as "direct writers". Some companies may use both types of channels. Recently, new distribution channels have begun to develop such as selling via telephone and the internet.

The Insurance Transaction Cycle

The insurance transaction cycle begins when customers pay a "premium" to the insurer to purchase insurance coverage for a fixed period of time (the "policy period"). Depending on the distribution system, the insurer will compensate the sales force which produced the sale either through salaries and overhead (direct), or "commissions" (agency). In exchange for the premium, the insurer agrees to pay "claims" to or on behalf of the customer only if certain accidents occur during the policy period which result in financial losses to the customer. If premiums exceed the sum of commissions, operating expenses and claims, the insurer has generated an "underwriting" profit, and if not, an underwriting loss results. However, because the insurer collects premium funds in advance of its claims paying obligation it can derive an additional source of revenue ("investment income") from investing these funds during this interval.

In theory, because the insurer can pool together many similar risks it can establish appropriate premiums that in the aggregate will allow it to pay claims, commissions, and other operating expenses, and with an added boost from some investment income, return a profit to its owners. In practice, however, the profitability of insurers is complicated by other influences such as competition, errors in estimating claims costs, changes in investment rates of return, and developments in the law which affect claims covered by their policies. Such factors can result in insurers being unable to quantify their "cost of goods sold" until many years after a sale has been made.

Reinsurance

An insurer may transfer some of its insurance risk to another insurer. This process is known as "reinsurance". In such a transaction the transferor, who will pay a premium and cede claims, is known as the "ceding company" and the transferee, who will collect a premium and assume claims, is known as the "reinsurer" or "assuming company". Reinsurance can be used as a means to manage the insurance risk accumulated by an insurer through the course of its operations. For example, it can be used to increase an insurers' capacity to underwrite new business or to stabilize an insurers' results by controlling large individual losses or accumulations of losses. However, it is important to note that the ceding company does not discharge its claims paying obligation to its insureds through the reinsurance transaction.

Regulation

Insurance is regulated by individual states. Regulations vary by state, but generally address company solvency, premium rate equity, policyholder relations, and financial reporting.[3] If an insurance company is found in violation of state regulations, it may lose its license to sell insurance in that state.

[3]AICPA "Audits of Property and Liability Insurance Companies", 1990, p. 18.

COMPANY BACKGROUND

Kingfischer Mutual Insurance Company is a large mutual property and casualty insurer that has demonstrated steady earnings growth over the past five years. Kingfischer has three main segments: Personal, Commercial, and Specialty. Of these three segments, Specialty is the smallest, accounting for about 10% of revenues and less than 1% of income (see Exhibit 1). Since the Specialty segment had not been performing well for Kingfischer, the management of this segment was under pressure to improve financial results. To generate additional income within the Specialty segment, and enter a new line of business with a minimal capital investment, Kingfischer initiated a relationship beginning in 20X2 with an independent Managing General Underwriter (MGU), Finch Company, which possessed expertise in the excess and surplus lines insurance business. Excess and surplus lines insurance, along with providing coverage for unique risks, also has been said to act as an "escape valve" for the standard markets during periods when there is too much demand and too little supply.

Contractual Relationship With Finch

In conjunction with this new relationship, Kingfischer placed a considerable amount of fiduciary funds under Finch's management. Kingfischer also delegated a variety of important responsibilities to Finch including: issuing policies, collecting premiums, adjusting and paying claims, arranging for reinsurance, paying reinsurance premiums, collecting reinsurance proceeds, managing fiduciary funds, and premium and loss accounting. Given the breadth and importance of these duties, Finch could be said to "have the pen" of Kingfischer. Although Finch was capable of providing such services to several insurers at the same time, and previously had, Kingfischer was now its only client.

In order to reduce their underwriting risk, Kingfischer instructed Finch to reinsure a large proportion of each policy written (approximately 98%). Therefore, although Kingfischer planned for only a minimal underwriting profit or loss, it also did not in principle bear a great deal of the insurance risk because of the risk transfer that resulted from the extensive reinsurance. As illustrated in Exhibit 2, Kingfischer assessed its own risk in entering the Finch arrangement to be insignificant in contrast to the risk faced by its reinsurers. Kingfischer expected its main source of income from the relationship to be generated by the receipt of "fronting fees" equal to 4% of all premiums underwritten.

In return for performing various duties on behalf of Kingfischer and its reinsurers, Finch would receive a fee based on negotiating expense allowances from Kingfischer and reinsurers as high as possible (income to Finch), and negotiating fronting fees, sales commissions and service fees from various sub-contractors as low as possible (expenses to Finch). Finch was also responsible for paying state premium taxes on the business it produced. Finch's net fee (its gross margin) was limited to a maximum of 12% of the premium volume it generated. An example of Kingfischer's projection of the Finch contract results for the year 20X2 is contained in Exhibit 3.

Happy Times: Early Growth Of The Business

The principal executive of Finch Company, J. T. Horton, was a widely respected insurance businessman. Mr. Horton had successfully cultivated many strong relationships with a variety of agents, brokers, and reinsurers. As a result of Mr. Horton's extensive business contacts, premium volume underwritten by Finch on behalf of Kingfischer grew from $86 million in 20X2 to $116 million in 20X4 (see Exhibit 4). Finch collected about 32% of this premium income as an expense allowance (68% went to Kingfischer and its reinsurers). After deducting fronting fees and premium taxes (about 6% of premiums), and service fees and commissions (about 20% of premiums), roughly 6% of premium income was left over to pay Finch's operating expenses, with the remainder being Finch's profit.

Internal Audits

Kingfischer's internal auditors visited Finch every one or two years. These audits generally consisted of procedures designed to evaluate the adequacy of internal control over the fiduciary trust accounts, and to assess whether the calculation of Kingfischer's fronting fees was consistent with the established contractual provisions. The findings of these audits were relatively minor, consisting mainly of recommendations

to reconcile certain accounts on a more timely basis, improve follow-up and reporting on outstanding checks, and improve password security. The audits did not include a review of Finch's financial statements, testing of bank accounts, confirmations with policy holders and reinsurers, or an examination of Finch's underwriting or claims handling processes.

External Audits

Kingfischer's external auditors (Chickadee LLP) considered excess and surplus lines insurance to be an immaterial portion of Kingfischer's overall business. In addition, due to the extensive reinsurance, Chickadee evaluated the risks of Kingfischer's involvement in excess and surplus lines insurance, and its relationship with Finch, as relatively low. Chickadee did examine the financial ratings of several reinsurers and found them to be financially solvent. Chickadee was also impressed with Mr. Horton's reputation for honesty and integrity. Moreover, Kingfischer encouraged Chickadee to rely on the work of their internal auditors whenever possible to enhance audit efficiency. Based on these factors, Chickadee never visited the offices of Finch company.

Exiting The Specialty Segment

In 20X6, Kingfischer decided to exit the specialty segment, including excess and surplus lines insurance, because of poor financial performance overall. In fact, other than the income generated by the arrangement with Finch, specialty insurance had been unprofitable for Kingfischer over the past five years (see Exhibit 1). Furthermore, Mr. Horton had left Finch in 20X5, and the new management of Finch was relatively inexperienced and less reliable. In the fall of 20X6, Kingfisher found a buyer, Wise Old Owl Company, for its ongoing specialty operations. However, after a due diligence investigation was performed by their external auditors, Wise Old Owl chose not to "step into the shoes" of Kingfischer in its relationship with Finch. Instead, Wise Old Owl elected only to become involved in the business produced by Finch as a further reinsurer for the remaining 2% of the policies that Kingfischer had not otherwise reinsured. Once this deal was struck with Wise Old Owl, Kingfischer informed Finch that it would terminate its contract with Finch at the earliest date possible within their contract (August 20X7).

Missing Funds

In the spring of 20X7, Finch informed Kingfischer that it was encountering cash flow difficulties. Finch reported that it had exhausted the fiduciary funds under its management and would require direct funding by Kingfischer to continue processing claims. The new management of Finch alleged that one cause of the cash flow predicament was that Mr. Horton had previously advanced approximately $6 million in fees from the fiduciary accounts in excess of the amounts contractually allowed by Kingfischer, and that these funds were missing.

Although Kingfischer intends to hold Finch responsible for the missing funds, it may not wait to recover the funds from Finch. Kingfischer is bound contractually by the policies issued to the insureds and must first pay the claims before seeking recovery from its reinsurers. Also, while Kingfischer has every legal reason to hold Finch and Horton accountable, they may not be able to recover the missing funds if the cash has already been consumed. Thus, Kingfischer must now use its own funds to address the critical claims situation. Kingfischer must also forward additional funds to Finch so that Finch will be able to pay their personnel to continue processing claims, or if necessary, subcontract out to another claims processing agency.

Poor Claims Handling

In addition, Kingfischer now learned that in 20X6 Finch had slashed the number of staff processing claims by approximately 50% in order to reduce expenses. Unfortunately, this resulted in a serious backlog of claims processed by Finch. Because of the long delays in the payment of claims complaints skyrocketed, and many claimants re-filed claims which resulted in large numbers of duplicate claims clogging the system. Moreover, Kingfischer is concerned that because of the long delays in processing claims, they may be exposed to significant litigation for bad faith claims handling.

Kingfischer now also found itself facing additional difficulty and uncertainty in collecting the anticipated claims payments from its reinsurers. Reinsurers may not provide coverage for extra contractual obligations faced by Kingfischer as a result of its claims handling practices. In addition, reinsurers may dispute other claims submitted for reimbursement and seek audits to verify premium and claims figures reported to them. In this case Kingfischer will either seek to compromise the disputes or be involved in costly and lengthy arbitration or litigation proceedings.

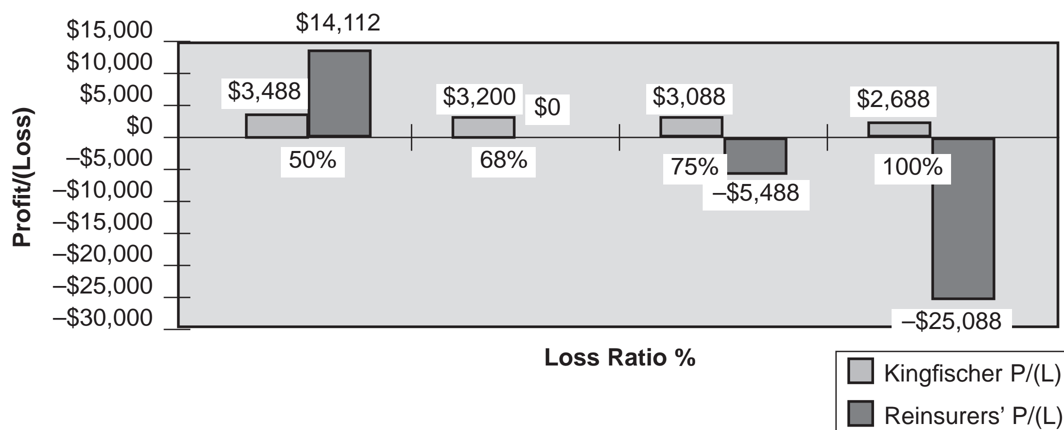
DISCUSSION QUESTIONS

1. What important risks did the contractual arrangement with Finch pose for Kingfisher?
2. Were any of these risks overlooked by Kingfischer's management, their internal auditors, or their external auditors? What role does business and industry knowledge play in risk evaluation?
3. What additional procedures could have been performed by Kingfischer's internal or external auditors?
4. What damages are likely to be incurred by Kingfischer as a result of its contractual relationship to Finch?

Exhibit 1
Kingfischer Mutual Insurance Company Net Income by Segment
($ Millions)

Segment	20X7	20X6	20X5	20X4	20X3
PERSONAL					
Homeowners	230	100	90	50	150
Automobile	20	5	5	10	35
Total	250	105	95	60	185
COMMERCIAL					
Workers Comp.	200	190	170	125	130
SPECIALTY					
Professional Liability	0	(1)	(6)	(23)	(3)
Excess & surplus	2	4	3	5	4
Total	2	3	(3)	(18)	1
GRAND TOTAL	452	298	262	167	316

Exhibit 2
Kingfischer Risk Assessment
($ Thousands)



Note: the loss ratio is equal to claims divided by premiums.

Exhibit 3
Kingfischer projection of Finch contract for 20x2
($ Thousands)

	Gross	Reinsurance	Net
Premiums	80,000	(78,400)	1,600
Fronting Fees	3,200		3,200
Ceding Commissions	(25,600)	25,088	(512)
Claims*	(54,400)	53,312	(1,088)
Profit/(Loss)	3,200	0	3,200

*Claims estimated at 68% of premiums

Exhibit 4
Finch Company Gross Premiums and Net Fees
($ Thousands)

	20X7	20X6	20X5	20X4	20X3	20X2
Gross Premiums	61,800	91,800	86,100	117,000	95,800	86,100
REVENUES	19,000	29,000	26,400	39,600	33,400	27,800
EXPENSES						
Insurer fees	2,400	3,600	3,400	3,500	2,800	2,600
State premium taxes	1,200	1,800	1,600	2,200	1,800	1,600
Agents commission	12,600*	18,400*	15,600	24,800	21,600	16,100
Reinsurance fees	300*	500*	500	600	600	200
Net fees	2,500	4,700	5,300	8,500	6,600	7,300

*Figures are estimated.

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GLOBAL CANDY COMPANY IMPLEMENTING SFAS 133: ACCOUNTING FOR DERIVATIVE INSTRUMENTS AND HEDGING ACTIVITIES

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COMPANY OVERVIEW

Global Candy Co. (GCC) is a large multi-national corporation headquartered in the United States. The Company produces a wide variety of confectionery products and has operations throughout North America and Asia. In addition, Global Candy Co. is currently considering expansion to Europe to increase its market share in the highly competitive confectionery products industry. Global Candy Co. has been very profitable over the past several years and enjoys a double-A credit rating.

As a multi-national corporation, Global Candy Co. is exposed to a variety of risks, including interest rate risk, commodity price risk, and foreign exchange risk. The Company's risk management policy is to enter into derivative instruments that will hedge those risks as necessary to protect the value of its assets and to manage its cash flows.

Global Candy Co. has recently entered into four transactions (Case Studies 1–4) that involve various derivatives and hedging activities. The company would like to make certain that all transactions are accounted for consistent with Statement of Financial Accounting Standards No. 133 (SFAS 133), *Accounting for Derivative Instruments and Hedging Activities.*

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Case Study 1
Fair Value Hedge of Fixed-Rate Debt Using an Interest Rate Swap

SUMMARY OF TRANSACTION

Global Candy Co. (GCC) recently decided to issue a note payable to fund its potential expansion and evolving product line. The Company would prefer to issue variable-rate debt, primarily because it has invested in a number of bonds that pay a variable rate of interest. The company would like to match the interest rate type received on its bond investments with the interest rate type to be paid on its debt. This will help ensure that the Company will have sufficient cash flows to meet its interest payment obligations. However, due to Global Candy Co.'s excellent credit rating, as well as current market conditions, the company has determined it is more economical to issue fixed-rate debt. Management's plan, then, is to synthetically create variable-rate debt by simultaneously entering into a fixed-for-variable interest rate swap.

Global believes that its credit rating justifies a variable rate on its debt equal to LIBOR plus 1%. This is the target rate the company would like to achieve through the interest rate swap transaction. Another of Global's objectives for this transaction is to make sure the swap is perfectly effective at offsetting all changes in the fair value of its debt due to changes in market interest rates. In doing so, Global wants to be certain it can use the shortcut method allowed by SFAS 133 to account for this swap. (One of requirements for using the shortcut method is that the critical terms of the debt and the interest rate swap match, i.e., principal/notional amount and maturity/expiration dates.)

Therefore, on July 1, 20X0, Global Candy Co. issued a $5,000,000, non-prepayable, 8% fixed-rate note payable. The note is due on July 1, 20X3, with semiannual interest payments due each January 1 and July 1 until maturity. On the same day, Global Candy Co. also entered into a 3-year interest rate swap with a $5,000,000 notional amount. Under the terms of the swap, Global receives interest at a fixed rate of 7% and pays interest at a variable rate equal to LIBOR. The swap contract calls for semiannual settlements and specifies that the market rate on the first day of each semiannual period will be used to compute the settlement payment at the end of the period. For purposes of this illustration, assume that LIBOR is 6% on July 1, 20X0 and 5% on January 1, 20X1 and remains unchanged thereafter. The fair value of the interest rate swap is zero at inception (i.e., there is no exchange of a premium at the initial date of the swap). Global Candy Co. immediately designates the swap as a hedge of the changes in fair value of the fixed-rate note payable due to changes in market interest rates.

REQUIREMENTS

A. Identify GCC's risk management objectives related to its debt issuance.

B. Explain how the fixed-for-variable interest rate swap did (or did not) achieve GCC's risk management objectives.

C. Prepare the journal entries that GCC would make on July 1, 20X0.

   Remember that GCC entered into the swap contract at-the-money. This implies that the fair value of the swap was zero at inception. However, there are other items which may require an entry on this date, such as:

   (1) Global Candy Co.'s issuance of its note payable on this date.

D. Prepare the journal entries that GCC would make on January 1, 20X1.

   Assume the hedge qualifies for the shortcut method described in paragraphs 68 and 114 of SFAS 133. Under the shortcut method, changes in the fair value of the interest rate swap are considered perfectly effective at hedging the changes in the fair value of the debt due to changes in market interest rates over its term.

Also note the rates in effect for this settlement date are the rates as of the first day of the semiannual period. Therefore, the rates used to compute the settlement on the swap contract at January 1, 20X1 are 7% for the fixed leg and 6% (LIBOR on July 1, 20X0) for the variable leg. Assume that market interest rates applicable to the debt and to the swap decline such that an at-market, identical term swap with one less period remaining that is entered into on January 1, 20X1 would be priced at a 6% receive-fixed rate. Due to the decrease in interest rates, the swap has a fair value of $114,500 (rounded) as of January 1, 20X1. This present value estimate is based on the 5 remaining swap cash flow dates and a semiannual market rate of 3% (one-half of 6%), as well as the assumption of a flat interest rate curve. As of January 1, 20X1, the swap has an anticipated cash inflow each semiannual period of $25,000. This is calculated by taking the $5,000,000 notional amount × 1% (the 7% receive-fixed rate on Global's swap less the 6% receive-fixed rate on a current at-market swap) × 1/2. The present value computation of $114,500 = [$25,000/(1.03)^1 + 25,000/(1.03)^2 + 25,000/(1.03)^3 + 25,000/(1.03)^4 + 25,000/(1.03)^5$]. Considering this information, the following entries are needed at January 1, 20X1:

(2) Recognize the change in the fair value of the swap.
(3) Recognize the change in the fair value of the note payable due to changes in interest rates.
(4) Record the interest payment on the note.
(5) Recognize the semiannual settlement on the swap.

E. Prepare the journal entries that GCC would make on July 1, 20X1.

Computations on this settlement date should be made with LIBOR equal to 5%. One of the first tasks is to compute the fair value of the swap as of July 1, 20X1. Remember that in addition to the new LIBOR rate, there are now only 4 remaining swap cash flow dates. You should follow the same method used at January 1, 20X1 to arrive at the fair value of the swap. You will need to make the following journal entries on July 1, 20X1:
(6) Recognize the change in the fair value of the swap.
(7) Recognize the change in the fair value of the note payable due to changes in interest rates.
(8) Record the interest payment on the note.
(9) Recognize the semiannual settlement on the swap.

Case Study 2
Cash Flow Hedge of a Foreign-Currency-Denominated Forecasted Sale Using a Forward Contract

SUMMARY OF TRANSACTION

Having obtained the necessary funding through the issuance of a $5,000,000 note payable on July 1, 20X0, Global Candy Co. (GCC) has decided to market its products in Europe on a test basis. The Company will begin selling its products in Great Britain and, if successful, will expand its distribution to mainland Europe.

On August 1, 20X0, Global Candy Co. forecasts the sale of 100,000 boxes of its top-quality chocolates to a British distributor for a price of 1,000,000 British pounds (£1,000,000). The sale has not been firmly committed to, but the Company believes that the transaction is probable and expects the sale to occur in five months, on December 31, 20X0.

As a consequence of the forecasted sales transaction, Global Candy Co. is exposed to foreign currency exchange risk because the Company's functional currency is the U.S. dollar and the sale will be consummated in British pounds. Accordingly, the Company enters into a foreign-currency-exchange forward contract with BigBenBank on August 1, 20X0 to sell £1,000,000 for $1,586,500 on December 31, 20X0, thereby hedging its exposure to fluctuations in the U.S. dollar-British pound exchange rate. The forward contract has the following terms:

Contract amount:	£1,000,000
Maturity date:	December 31, 20X0
Forward contract rate:	$1.5865 = £1

HOW THE EFFECTIVENESS OF THE HEDGE WILL BE ASSESSED

Hedge effectiveness will be assessed based on the overall changes in fair value of the forward contract (i.e., based on changes in the December 31, 20X0 forward rate). Because the critical terms of the forward contract have been negotiated to match the terms of the forecasted transaction (i.e., dates, quantities, currency types), the hedge will be considered perfectly effective against changes in the expected cash flows on the forecasted transaction. The hedge is structured as a perfect hedge, and there should be no hedge ineffectiveness or need to periodically reassess the effectiveness. The hedge meets the criteria for a cash flow hedge.

The forward exchange rates in effect on key dates during the forward contract are as follows:

Date	Spot Exchange Rate	Forward Exchange Rate for Settlement on 12/31/X0
Inception of hedge — 8/1/X0	$1.5725 = £1	$1.5865 = £1
Quarter end — 9/30/X0	$1.6056 = £1	$1.6119 = £1
Sales transaction — 12/31/X0	$1.6335 = £1	$1.6335 = £1

Based on the above forward exchange rates, the forward contract would have the following fair value and associated gain or loss for the period (i.e., change in fair value) on each of these key dates:

Date	Fair Value	Gain (Loss) for the Period
Inception of hedge — 8/1/X0	$ 0	$ 0
Quarter end — 9/30/X0	(25,025)	(25,025)
Sales transaction — 12/31/X0	(47,000)	(21,975)

Note that, because Global Candy Co. has elected to assess effectiveness based on changes in the forward rate, the changes in the spot rate are irrelevant in this example.

REQUIREMENTS

A. Identify GCC's risk management objectives related to its foreign-currency-exchange forward.

B. Explain how the foreign-currency-exchange forward did (or did not) achieve GCC's risk management objectives.

C. Reconstruct the computation for the fair value figures shown in the table above as of both Quarter end (9/30/X0) and Sales transaction (12/31/X0). Assume 6% is the appropriate discount rate.

D. Prepare the journal entries that GCC would make on August 1, 20X0.

E. Prepare the journal entries that GCC would make on September 30, 20X0. This would include the entry:

   (1) To recognize the change in the fair value of the forward contract.

F. Prepare the journal entries that GCC would make on December 31, 20X0. This would include the entries:

   (2) To recognize the change in the fair value of the forward contract.

   (3) To record the cash settlement of the forward contract at its maturity.

   (4) To record the sale of 100,000 boxes of chocolate for £1,000,000 at the spot rate of $1.6335 per £1.

   (5) To transfer of the loss on the forward contract from other comprehensive income to earnings upon sale of the chocolates.

Case Study 3
Fair Value Hedge of an Available-for-Sale Security Using Options

SUMMARY OF TRANSACTION

On June 30, 20X0, Global Candy Co. (GCC) purchased 10,000 shares of UYB Co. for $30 per share. Global Candy Co. classified its investment in UYB Co. as available-for-sale pursuant to SFAS 115. Over the next six months, UYB Co.'s share price increased to $50 per share.

On December 31, 20X0, Global Candy Co. decides to hedge a majority of its unrealized gain on its investment in UYB Co. by entering into a "costless" collar. This collar is created by combining purchased put options with written call options. Each option contract has a notional amount of 100 shares. Thus, Global Candy Co. purchases 100 put options for a total of $40,000 that give it the right to sell 10,000 shares of UYB Co. stock in six months at an exercise price of $45 per share. To monetize (pay for) the cost of the put options, Global Candy Co. also writes 100 call options that obligate it, at the counterparty's option, to deliver (sell) 10,000 shares of UYB Co. stock in six months at an exercise price of $55 per share. The Company receives a $40,000 premium for writing the call options. Based on the exercise prices of the options, Global Candy Co. will realize a gain on its investment in UYB Co. (assuming it sells the stock at the end of the option period) of some amount between $150,000 ([$45 − $30 per share] × 10,000 shares) and $250,000 ([$55 − $30 per share] × 10,000 shares).

Global Candy Co. immediately designates the collar (i.e., the combination of the options) as a fair value hedge against changes in the overall fair value of its investment in UYB Co. stock. The collar is not considered a net written option pursuant to SFAS 133 (special hedge accounting rules apply to written options).

HOW THE EFFECTIVENESS OF THE HEDGE WILL BE ASSESSED

Hedge effectiveness will be assessed by comparing the changes in the intrinsic values of the options (measured as the difference between the current market price and the strike price) with the changes in the fair value of UYB Co.'s stock below $45 per share and above $55 per share. Changes in the intrinsic value of the purchased put options are expected to be perfectly effective at offsetting decreases in the fair value of the investment below $45 per share, and changes in the intrinsic value of the written call options are expected to be perfectly effective at offsetting increases in the fair value of the investment above $55 per share. Because options provide only one-sided protection, effectiveness is required to be assessed only during those periods in which the options have intrinsic value. Changes in the time value of the options will be excluded from the assessment of effectiveness and will be recognized directly in earnings each period.

FAIR VALUE INFORMATION

The share price of UYB Co. stock and the fair value of Global Candy Co.'s investment in UYB Co. during the period of the hedge are as follows:

Date	Share Price	Fair Value
December 31, 20X0	$50	$500,000
March 31, 20X1	20	470,000
June 30, 20X1	40	400,000

The intrinsic value, time value, and overall fair value of the purchased put options and the written call options by relevant date over the period of the hedge are shown below.

	Fair Value at 12/31/X0	Fair Value at 3/31/X1	Fair Value at 6/30/X1	Gain (Loss) from 12/31/X0 to 6/30/X1
Purchased put options:				
Intrinsic value	$ 0	$ 0	$50,000	$50,000
Time value	40,000	27,000	0	(40,000)
Total put options	$ 40,000	$ 27,000	$50,000	$10,000
Written call options:				
Intrinsic value	$ 0	$ 0	$ 0	$ 0
Time value	(40,000)		0	40,000
Total call options	$(40,000)	$(22,000)	$ 0	$40,000

REQUIREMENTS

A. Identify GCC's risk management objectives related to purchased put options with written call options.

B. Explain how the purchased put options with written call options did (or did not) achieve GCC's risk management objectives.

C. Prepare the journal entries that GCC would make on June 30, 20X0. This would include the entry:
   (1) To record the purchase of 10,000 UYB Co. shares.

D. Prepare the journal entries that GCC would make on December 31, 20X0. This would include the entries:
   (2) To recognize the appreciation in the UYB Co. shares.
   (3) To record the purchased put options at fair value.
   (4) To record the written call options at fair value.

E. Prepare the journal entries that GCC would make on March 31, 20X1. This would include the entries:
   (5) To record the change in fair value of the purchased put options from $40 to $27.
   (6) To record the change in fair value of the written call options from $40 to $22.
   (7) To recognize the change in fair value of the investment in UYB Co. due to the change in stock price from $50 to $47 per share.

F. Prepare the journal entries that GCC would make on June 30, 20X1, assuming the put options were settled through delivery of UYB Co. shares rather than net settled in cash. This would include the entries:
   (8) To record the change in the time value portion of the purchased put options.
   (9) To record the change in the time value portion of the written call options.
   (10) To record the change in the intrinsic value portion of the purchased put options.
   (11) To recognize the change in fair value of the investment in UYB Co.
   (12) To record the settlement of the purchased put options through delivery of the 10,000 shares of UYB Co. stock at a price of $45 per share.
   (13) To reclassify the unrealized gain on the investment in UYB Co. from OCI to earnings upon sale of the shares.

Case Study 4
Cash Flow Hedge of a Forecasted Purchase Using Futures Contracts

SUMMARY OF TRANSACTION

Global Candy Co. uses a wide variety of sweeteners in its products, including high fructose corn syrup. On January 1, 20X2, Global Candy Co. forecasts the purchase of 10 million pounds of corn syrup in 6 months. Because the Company is concerned that the price of corn syrup will increase during the coming months, it enters into 50-long June CBT (Chicago Board of Trade) corn futures contracts on January 1, 20X2 (i.e., contracts to buy corn in June at the CBT at a specified price). Each futures contract is based on the purchase of 5,000 bushels of corn at $2.65 per bushel on June 30, 20X2. Since approximately 40 pounds of corn syrup can be produced per bushel of corn, 50 futures contracts are needed to hedge the forecasted purchased of corn syrup (50 contracts × 5,000 bushels/contract × 40 lbs./bushel = 10,000,000 lbs.).

Global Candy Co. immediately designates those futures contracts as a hedge of its forecasted purchase of corn syrup. Global Candy Co. neither pays nor receives a premium as a result of entering into the futures contracts (i.e., the fair value of the futures contracts is zero at inception). For purposes of this example, the margin accounts with the clearinghouse have been ignored.

HOW THE EFFECTIVENESS OF THE HEDGE WILL BE ASSESSED

Based on prior history, the prices of corn and the prices of corn syrup have been highly correlated over six-month periods and are expected to continue to be highly correlated. Hedge effectiveness will be assessed by comparing the overall changes in cash flows on the corn futures contracts with the changes in the expected cash flows on the forecasted corn syrup purchase. The cash flows on the forecasted purchase will be estimated using a hypothetical derivative, i.e., by analyzing the hypothetical cash flows on a forward contract to purchase the same quantity of corn syrup at the same time and location as the forecasted purchase. (The hypothetical forward contract is never actually entered into and is being used only to estimate the cash flows on the forecasted transaction for accounting purposes. The Company is using corn futures contracts rather than a corn syrup forward contract to hedge its exposure to changes in the price of corn syrup because it is more economical to do so and there is a ready exchange with which to enter into the contracts.) In addition, in this example, the hedge may not be perfectly effective. Global Candy Co. is accepting some "basis" risk because it plans to purchase corn syrup, but the futures contracts are based on the price of corn. Thus, to the extent the prices of corn and corn syrup do not move in tandem, hedge ineffectiveness will result.

PRICING INFORMATION FOR FUTURES AND FORWARD CONTRACT

The following chart outlines the key assumed facts by relevant date over the life of the futures contracts and hypothetical forward contract (note that the corn futures contracts are quoted based on price per bushel and the hypothetical corn syrup forward contract is quoted based on price per pound):

	June 30, 20X2 Corn Futures Contracts	June 30, 20X2 Hypothetical Corn Syrup Forward Contract
For the Period Ended March 31, 20X2:		
Futures price per bushel/forward price per pound end of period (March 31, 20X2)	$ 2.75	$ 0.1072
Futures/forward price at beginning of period (January 1, 20X2)	2.65	0.1050
Change in price per bushel/pound	0.10	0.0022
Units under contract:		
Futures: 50 contracts @ 5,000 bushels each	× 250,000	
Forward: 10,000,000 pounds		× 10,000,000
Change in fair value — gain (loss)	$ 25,000	$ 22,000[1]
Correlation percentage: ($25,000/$22,000) = 114% This is within the 80% to 120% range considered to be "highly effective."		
For the Period Ended June 30, 20X2:		
Spot price (and futures/forward price) at end of period (June 30, 20X2)	$ 2.81	$ 0.1093
Futures/forward price at beginning of period (March 31, 20X2)	2.75	0.1072
Change in price per bushel/pound	0.06	0.0021
Units under contract:		
Futures: 50 contracts @ 5,000 bushels each	× 250,000	
Forward: 10,000,000 pounds		× 10,000,000
Change in fair value — gain (loss)	$ 15,000	$ 21,000
Cumulative change in fair value-gain (loss)	$ 40,000	$ 43,000
Correlation percentage: ($40,000/$43,000) = 93% This is within the 80% to 120% range considered to be "highly effective."		

[1]Note that because the hypothetical forward contract to purchase corn syrup on June 30, 20X2 is in a gain position, the forecasted transaction is actually in a "loss" position; that is, the expected cash *outflows* on the forecasted transaction have increased as the purchase price of corn syrup has increased. (Recall that the hypothetical forward contract was never actually entered into and is being used only to estimate the cash flows on the forecasted transaction.)

HEDGE EFFECTIVENESS COMPUTATIONS

The following table details the steps necessary to account for a cash flow hedge that is "highly effective" but not perfectly effective (as illustrated by the fact pattern in this example):

	Fair Value of Derivative Increase (Decrease)		Expected Future Cash Flow on Hedged Transaction Increase (Decrease)			
	(A)	(B)	(C)	(D)	(E)	(F)
Period Ended	Change during the Period	Cumulative Change	Change during the Period	Cumulative Change	Lesser of the Two Cumulative Changes	Adjustment to OCI
3/31/X2	$25,000	$25,000	$(22,000)	$(22,000)	$22,000	$22,000
6/30/X2	15,000	40,000	(21,000)	(43,000)	40,000	18,000

Step 1: Determine the change in the fair value of the derivative and the change in the expected future cash flows on the hedged transaction during the period (columns A and C).

Step 2: Determine the cumulative change in the fair value of the derivative and the cumulative change in the expected future cash flows on the hedged transaction (columns B and D).

Step 3: Determine the lesser of the absolute values of the two amounts in Step 2 (column E).

Step 4: Determine the change during the period in the lesser of the absolute values (column F).

Step 5: Adjust the derivative to reflect its change in fair value and adjust other comprehensive income (OCI) by the amount determined in Step 4. Balance the entry, if necessary, with an adjustment to earnings.

The above steps can be followed to determine the necessary journal entry each period.

REQUIREMENTS

A. Identify GCC's risk management objectives for entering into the hedge.

B. Explain how the futures contracts did (or did not) achieve GCC's risk management objectives.

C. Explain why only a memorandum entry is required on January 1, 20X2.

D. Prepare the journal entries that GCC would make on March 31, 20X2 (you may find it useful to refer to the hedge effectiveness computations above). This would include the entry:
   (1) To recognize the change in the fair value of the effective portion of the futures contracts in other comprehensive income and the ineffective portion in earnings.

E. Prepare the journal entries that GCC would make on June 30, 20X2, assuming that Global Candy Co. purchases the corn syrup as anticipated and cash settles the futures contracts (you may find it useful to refer to the hedge effectiveness computations above). This would include the entries:
   (2) To recognize the entire change in fair value of the futures contracts in OCI and to reclassify into OCI the gain on the futures contracts that was previously recognized in earnings.
   (3) To record the purchase of corn syrup at the current price ($0.1093 per pound).
   (4) To record the settlement of the futures contracts.

F. Assume the entire inventory (candy produced from the corn syrup) is sold at one time. (Note that any amount deferred in accumulated other comprehensive income is reclassified into earnings during the period or periods when the inventory is sold.) Prepare the entry to GCC would make to remove the inventory from the company's books. This would include the entry:

   (5) To record cost of sales of the corn syrup, including reclassification of the related hedge amount deferred in accumulated OCI into earnings as an offset to cost of sales.

PLANTATION VILLAGE, INC. — A

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". . . The North Carolina Department of Insurance is charged with the responsibility of monitoring and licensing continuing care facilities based on statutory compliance and financial viability. Recently, the PLANTATION VILLAGE filing was reviewed and the facility was found to be in a hazardous financial condition. The December 31, 1992 financial statements indicate an insolvent position, with $3,513,000 (deficit) Equity.

North Carolina General Statute 58-64-10(a)(6) requires revocation of a Continuing Care license for facilities determined to be in a hazardous financial condition. Therefore, it will be necessary to revoke your facility's permanent license. Shortly, we will be sending you a restricted license with the following conditions for continued operations: the facility will be required to submit monthly interim financial reports; and, all entrance fees received by the facility in excess of any required repayments to former residents or their estates must be independently trusteed in an escrow account and not released . . ."

— Excerpt from a letter addressed to Plantation Village from the North Carolina Department of Insurance

George Nadeau, President of Plantation Village, read the determination of the North Carolina Department of Insurance in disgust. The consequences of such a sanction would have adverse effects on the present and potential residents of the facility, not to mention an additional drain on cash. George discussed the stance taken by the DOI with Brett Logan, the Administrator of Plantation Village.

George Nadeau: *Brett, you know what the problem with the Department of Insurance (DOI) is? They make assumptions about our financial position without looking at the whole picture. I've been in real estate for 20 years and I know when a company is insolvent. Plantation Village is in fine shape. We have over $1,000,000 in cash and short term investments and a great operating plan.*

Brett Logan: *I know exactly what you're saying. The worst thing about it is that whatever they say goes. And while we debate our financial position, our residents get uneasy. We run Plantation Village with high regard to providing a secure living environment, and these sanctions make it sound like we could go out of business any minute.*

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George Nadeau: *How does the DOI expect us to boost our fund balance when they mark us with sanctions that are going to scare away future residents? We have worked very hard to make Plantation Village one of the nicest continuing care facilities in the Southeast. It is just a shame that an unsubstantiated claim against our financial position could ruin everything.*

Brett Logan: *How are we going to make debt service payments or capital repairs if they restrict all the excess entrance fee income? We've got to get out of this situation, and our only recourse is to prove them wrong. George, our permanent license may be gone, but we still have a restricted license. We've got to somehow prove that Plantation Village is all right before the DOI shuts us down.*

George Nadeau: *To get our permanent license back and get these sanctions lifted, we need help. I talked to a CPA who could add some credibility to our case. We really are solvent and we need the numbers to prove it!*

PLANTATION VILLAGE

Plantation Village, Inc., is a not-for-profit life care retirement community designed to accommodate persons 62 years of age or older in an independent and dignified manner. Located in an affluent area of Wilmington, North Carolina, the Village has 136 living units including apartments and 32 villas with more than 9,865 square feet of common space. Plantation Village is authorized to build up to 210 units. 191 residents currently occupy all existing units with a waiting list for new or vacated units. Plantation Village was founded in 1988 on donated land with 100% construction financing and is professionally managed by Life Care Services Corporation, a non-profit organization.

The primary intent of Plantation Village is to assure residents life care throughout their retirement years. The Village is an all-inclusive facility that provides meals, medical services, and housekeeping. Many other amenities are offered as well, including solarium lounges equipped with small libraries, nature pathways, an auditorium, local mini-bus transportation, a Wellness Center, golf-club membership, planned social events, and beauty salons. Long term nursing care is guaranteed to all residents at the Cornelia Nixon Davis Nursing Home, a separate non-profit organization that is located beside Plantation Village.

Residents are attracted to Plantation Village through advertisements and word-of-mouth referrals. Sales representatives aggressively market the life care concept, financial living security, and the Village amenities. Potential residents are carefully screened. Due to the inherent risk related to long term nursing care, each prospective resident is required to pass a physical examination before being accepted for residency. Residents must also have two times the entrance fees in net assets and two times the monthly service fee in monthly income to qualify for housing at Plantation Village. This currently requires approximately $300,000 net worth and monthly income of at least $3,000. These financial requirements attract a high income resident buying guaranteed life-style and health care security.

When accepted, a resident can choose between two purchase plans. The first is the *Return of Capital Plan,* which requires an advance entrance fee as well as monthly service fees. The entrance fees are based on the type of living unit selected. The *Return of Capital Plan* guarantees that 90% of a resident's entrance fee will be refunded when all conditions of termination are met.

The second purchase plan is the *Traditional Plan,* which requires a lower entrance fee and equivalent monthly service fees. Once again, the entrance fees are based on the type of unit selected. Under the *Traditional Plan,* residents receive a refund of the entrance fee less two percent for each month of residency. No amount is refunded after the fifth year, and amounts can only be refunded when all the conditions for termination are met.

Under both purchase plans the residents are buying the right to life care, not a physical unit. The entrance fees are based on the type of unit initially selected and are actuarially determined annually to ensure coverage of costs. The present value of the net estimated cost of future services is compared to the balance of deferred revenue from advanced fees. If the present value of the net cost of future services and use of facilities, discounted at eight percent, exceeds deferred revenue from advance fees, a liability would have to be recorded with a corresponding charge to income. Since Plantation Village began operations, entrance fees have been set by the Board of Directors to ensure that deferred revenue always exceeded the present value of the net estimated cost of future services and use of facilities.

Monthly fees are also set by the Board of Directors and are adjusted annually due to inflation, rising health care costs, and nursing home costs. The Board bases, in part, the annual fees on an actuarial assumption that a certain percentage of residents per year will be replaced by new residents paying new, higher entrance fees. A substantial fraction of these entrance fees is used to subsidize ongoing costs of the community, including nursing care. Over the past ten years monthly fees have increased from 0% to 10% annually largely depending on construction and sales of new units. Exhibit 1 gives the current entrance fees and monthly fees for each type of unit under both purchase plans.

Nursing home care is guaranteed through a long-term contract with the Cornelia Nixon Davis Nursing Home. Plantation Village pays a negotiated monthly rate that is slightly below Cornelia Nixon Davis's market rate for each Village resident in the nursing home. In addition, PV pays for two empty beds each month. This arrangement ensures immediate nursing home space for Village residents. When a resident is moved into the nursing home, their monthly fees remain at the level they were paying in their apartment or villa. Thus, Plantation Village subsidizes resident nursing home care as an ongoing expense.

CONTINUING CARE RETIREMENT COMMUNITIES AND THE DEPARTMENT OF INSURANCE

Like Plantation Village, most continuing care retirement communities (CCRCs) in North Carolina are not-for-profit entities that provide accommodations for residents between sixty and eighty plus years of age. CCRCs are often operated by religious or charitable organizations, and the intent of such communities is not to accumulate wealth, but to provide a much-needed service to the communities they serve. Most communities offer a wide range of services, charge refundable advanced entrance fees, and operate on monthly service fees.

The rapidly increasing demand for CCRCs by the growing and increasingly affluent over 60 population has resulted in numerous new senior living facilities, and regulation has become increasingly important to protect seniors from losing their life savings in financially unsound living arrangements. Local for-profit organizations as well as giants such as Marriott Corporation, are entering the traditionally non-profit CCRC market with large amounts of investor capital. To meet the increasing regulatory demands, in November 1989, the North Carolina Department of Insurance (DOI) replaced the Department of Human Resources as regulator of N.C. continuing care providers. The DOI regulates CCRCs to assure financial stability and to protect residents from default. The DOI is responsible for monitoring statutory compliance and issuing operating licenses to CCRCs. The DOI mandates that CCRCs keep reserve or escrow accounts to assure the coverage of operational costs and refunds. DOI regulates for-profit and not-for-profit CCRCs in the same manner.

Operating licenses are reviewed and renewed annually by the DOI based on financial status. The DOI relies on interim unaudited financial reports, annual audited financial statements, and 5 year projections to determine the financial status of a CCRC (Exhibits 2–7). The DOI may, based on its judgement of financial condition, impose additional reserve requirements and sanctions on a CCRC. Sanctions often include setting reserve requirements on attrition income, where attrition income equals the current cash value of a unit less the amount refunded to the previous owner.

The DOI placed additional restrictions on Plantation Village in 1993 based on its determination of financial instability. The deficit balance on the Plantation Village balance sheets between 1992 and 1993 forced the DOI to name Plantation Village insolvent, revoke its permanent license, and administer additional reserve requirements. As a result, Plantation Village would have to submit monthly financial statements to the DOI, with a $25 reporting fee, and escrow 100% of attrition income. [1]

[1] Beginning in 1998, DOI regulations will require all CCRCs to have a funded operating reserve account with a percentage of total projected operating costs for the upcoming 12 months. The reserve percentage is based on occupancy level. CCRCs with occupancy below 90% must fund the reserve with 50% of total operating costs. CCRCs with occupancy equal to or greater than 90% must only fund the reserve with 25% of projected total operating costs. Additionally, the DOI mandates that CCRCs with occupancy below 75% place all entrance fees in an escrow account. Any funds escrowed are safely invested in treasury bills or certificates of deposit. The principal amount remains untouchable in the escrow account, while the interest income earned can be used by the CCRC.

SOP 90-8

CCRCs are governed by the AICPA Audit and Accounting Guide entitled *Audits of Providers of Health Care Services.* They refer specifically to Statement of Position (SOP) 90-8, *Financial Accounting and Reporting by Continuing Care Retirement Communities,* for accounting guidelines. The Audit Guide became effective for financial statement periods beginning on or after July 15, 1990, and the SOP became effective for financial statements for periods beginning on or after December 15, 1990.

Before SOP 90-8, little guidance existed relative to the recognition of income for advance fees, and advance fees were often recorded by CCRCs as revenue on the Statement of Revenue and Expenses and Changes in Fund Balance. Implementation of SOP 90-8 required CCRCs to report advance entrance fees as deferred revenue after the liability section of the balance sheet. The nonrefundable portion of entrance fees is recalculated annually and amortized using straight line method to income over the average expected life of each resident. The refundable portion of entrance fees is amortized to income over the estimated life of the related facilities, usually 20-40 years.

SOP 90-8 also requires fees that are to be paid to current residents or designees only upon re-occupancy of the contract holder's unit should be recorded as deferred revenue. In addition, attrition income should be deferred and amortized to income over future periods based on the remaining useful life of the facility.

Finally, future service obligations should be recorded when the present value of future net cash outflows exceeds unamortized deferred revenue plus depreciation of facilities to be charged related to the contracts and unamortized initial direct costs of acquiring the related continuing-care contracts.

THE DOI REPORT ARRIVES

George Nadeau and Brett Logan met with Chuck Earney, the CPA to review the insolvency accusations.

Brett Logan: *Word is spreading quickly among the residents that we have been declared insolvent by the DOI! They are all worried about losing their investment and the older ones are really concerned about losing the guaranteed life and nursing home care. I've sent out a memo trying to appease their concerns, but we need to move quickly on a convincing resolution.*

George Nadeau: *Chuck, you know Plantation Village well. Our reputation is impeccable. Politics in Raleigh and all these new retirement care providers have the DOI in a tizzy and they're taking it out on us. They think we are just like the new Marriott. We are not insolvent . . . we're always able to pay our bills plus providing the residents with an outstanding living facility. We need your help. What exactly is solvency anyway?*

Chuck Earney: *You're right, solvency is usually viewed as a firm's ability to pay its debts as they mature. To measure this ability, as well as the financial health of an entity, a number of areas typically required review. Profitability, liquidity, and solvency all play a part in determining financial stability. Generally, profitability addresses current and projected net operating income. Liquidity looks at relationships between current assets and liabilities, and solvency measures look at operating cash flows, debt, and total liabilities. These measures may give a better depiction of the present and future financial condition of Plantation Village than the DOI. We need a complete analysis to present to the DOI.*

SUGGESTED REFERENCE MATERIAL

AICPA, Statement of Position 90-8, *"Financial Accounting and Reporting by Continuing Care Retirement Communities".*

Exhibit 1:
Plantation Village Resident Agreement Plans

RETURN OF CAPITAL PLAN
PLANTATION VILLAGE
1993

Apartment Type	Entrance Fee	Refundable Participation at 90%	Monthly Fee	2nd Person
One Bedroom Units				
Traditional	$106,550	$ 95,895	$1,175	$550
Deluxe	120,990	108,891	1,285	550
Two Bedroom Units				
Traditional	$142,100	$127,890	$1,399	$550
Lakeside	152,100	136,890	1,438	550
Deluxe	160,990	144,891	1,512	550
Deluxe Villa	166,540	149,886	1,549	550

TRADITIONAL PLAN
PLANTATION VILLAGE
1993

Apartment Type	Entrance Fee	Refundable Participation After 12 Months	Monthly Fee	2nd Person
One Bedroom Units				
Traditional	$ 84,800	$0	$1,175	$550
Deluxe	93,900	0	1,285	550
Two Bedroom Units				
Traditional	$112,100	$0	$1,399	$550
Lakeside	122,100	0	1,438	550
Deluxe	130,100	0	1,512	550
Deluxe Villa	116,000	0	1,549	550

Conditions of Termination — Both Plans

1. Termination of the agreement through 120 days written notice or death of occupant
2. Re-occupancy of the unit
3. Collection of new entrance fees

Exhibit 2:
Audited Financial Statements

PLANTATION VILLAGE, INC.
STATEMENTS OF REVENUE AND EXPENSES
AND CHANGES IN FUND BALANCE (DEFICIT)
Years Ended December 31, 1993 and 1992

	1993	1992
Revenue:		
Resident Service Fees, including amortization of advance fees (1993 $593,000; 1992 $582,000)	$3,193,358	$ 3,100,170
Other	64,101	58,675
Total Revenue	$ 3,257,459	$ 3,158,845
Expenses:		
Resident care	$ 473,001	$ 467,949
Dietary	734,227	702,772
Housekeeping	172,957	173,988
Plant	531,744	535,199
General and administrative	585,664	567,481
Depreciation and amortization	661,252	702,460
Interest	125,415	149,495
Total Expenses	$ 3,284,260	$ 3,299,344
(Excess) of expenses over revenue	$ (26,801)	$ (140,499)
Non-operating gain (losses):	$ 33,501	$ (88,241)
Fund balance (deficit) beginning	(3,512,947)	(3,284,207)
Fund balance (deficit) ending	$(3,506,247)	$(3,512,947)

Exhibit 3:
Audited Financial Statements

PLANTATION VILLAGE, INC.
BALANCE SHEETS
Years Ended December 31, 1993 and 1992

	1993	1992
ASSETS		
CURRENT ASSETS		
Cash and cash equivalents	$ 247,676	$ 223,955
Short-term investments	226,154	48,064
Assets whose use is limited for operating reserves	790,000	405,000
Receivables	5,464	50,288
Prepaid expenses	48,483	45,672
Total Current Assets	$ 1,317,777	$ 772,979
ASSETS WHOSE USE IS LIMITED (restricted by DOI)	$ 181,559	$ 565,265
PROPERTY AND EQUIPMENT	$ 9,107,024	$ 9,470,560
OTHER ASSETS (deferred acquisition costs)	$ 1,717,298	$ 1,956,058
	$12,323,658	$12,764,862
LIABILITIES AND FUND BALANCE (DEFICIT)		
CURRENT LIABILITIES		
Current maturities of long-term debt	$ 132,904	$ 181,305
Accounts payable and accrued expenses	176,959	156,359
Deposits on unoccupied units	225,108	47,989
Total Current Liabilities	$ 534,971	$ 385,653
LONG-TERM DEBT, less current maturities	$ 1,911,742	$ 2,284,943
FUND BALANCE (DEFICIT)	$ (3,506,247)	$ (3,512,947)
	$12,323,658	$12,764,862

Exhibit 4:
Audited Financial Statements

PLANTATION VILLAGE, INC.
STATEMENTS OF CASH FLOWS
Years Ended December 31, 1993 and 1992

	1993	1992
CASH FLOWS FROM OPERATING ACTIVITIES		
(Excess) of expenses over revenue	$ 6,700	$(228,740)
Adjustments to reconcile excess expenses over revenue to net cash provided by operating activities:		
Net proceeds from advance fees	545,206	478,908
Amortization of advance fees	(592,108)	(582,314)
Depreciation and amortization	422,492	451,531
Amortization	238,760	250,929
Loss on disposal of property and equipment	4,667	4,666
Changes in assets and liabilities:		
Decrease in other current assets	42,013	114,914
Increase (decrease) in accounts payable and accrued expenses	20,600	(38,557)
Net Cash Provided by Operating Activities	$ 688,330	$ 451,337
CASH FLOWS FROM INVESTING ACTIVITIES		
Net (increase) decrease in assets whose use is limited and short-term investments	$(253,007)	$(157,588)
Acquisition and construction of property and equipment	10,000	0
Net cash (used in) investing activities	$(243,007)	$(157,588)
CASH FLOWS FROM FINANCING ACTIVITIES		
Principal payments on long-term debt	(421,602)	(114,490)
Net cash provided by (used in) financing activities	$(421,602)	$(114,490)
Net (increase) in cash and cash equivalents	$ 23,721	$ 179,259
Cash and cash equivalents:		
Beginning	223,955	44,696
Ending	$ 247,676	$ 223,955

Exhibit 5:
Actual and Projected Financials

PLANTATION VILLAGE, INC.
INCOME STATEMENT
Years Ended December 31
Figures in 000's

	ACTUAL		PROJECTED →				
	1992	**1993**	**1994**	**1995**	**1996**	**1997**	**1998**
Revenue:							
Resident service fees	$ 2,518	$ 2,601	$ 2,728	$ 3,612	$ 4,011	$ 4,987	$ 5,220
Amortization of advance fees	582	592	558	650	826	959	1,016
Other	59	64	43	46	6	63	66
Total Revenue	$ 3,159	$ 3,257	$ 3,329	$ 4,308	$ 4,900	$ 6,009	$ 6,302
Expenses:							
Resident care	$ 468	$ 473	$ 662	$ 759	$ 872	$ 1,030	$ 1,150
Dietary	703	734	737	856	928	1,066	1,108
Housekeeping	174	173	194	231	253	296	308
Plant	535	532	564	672	735	861	896
General and administrative	567	586	573	634	676	747	777
Depreciation and amortization	702	661	676	748	853	1,572	1,095
Interest	150	125	112	100	91	83	74
Total Expenses	$ 3,299	$ 3,284	$ 3,518	$ 4,000	$ 4,408	$ 5,655	$ 5,408
Income (loss) from operations	(140)	(27)	(189)	308	492	354	894
Nonoperating gain (loss)	(89)	34	40	58	88	119	185
Excess (deficiency) of Revenues and gains over Expenses	$ (229)	$ 7	$ (149)	$ 366	$ 580	$ 473	$ 1,079
Fund balance (deficit) beginning	(3,284)	(3,513)	(3,506)	(3,655)	(3,289)	(2,709)	(2,236)
Fund balance ending	$(3,513)	$(3,506)	$(3,655)	$(3,289)	$(2,709)	$(2,236)	$(1,157)

Exhibit 6:
Actual and Projected Financials

PLANTATION VILLAGE, INC.
BALANCE SHEETS
Years Ended December 31
Figures in 000's

	ACTUAL 1992	1993	PROJECTED → 1994	1995	1996	1997	1998
ASSETS							
CURRENT ASSETS							
Cash and cash equivalents	$ 224	$ 248	$ 288	$ 832	$ 1,752	$ 2,848	$ 3,152
Assets whose use is limited	48	226	513	617	248	121	125
Operating reserve	405	790	790	790	790	1,087	1,144
Other current assets	96	54	57	89	102	140	148
Total Current Assets	$ 773	$ 1,318	$ 1,648	$ 2,328	$ 2,892	$ 4,196	$ 4,569
ASSETS WHOSE USE IS LIMITED	$ 565	$ 182	$ 249	$ 337	$ 454	$ 585	$ 730
PROPERTY AND EQUIPMENT, NET	$ 9,470	$ 9,107	$12,327	$15,147	$18,173	$18,882	$18,254
OTHER ASSETS							
Organization and deferred costs, less accumulated amortization	$ 1,956	$ 1,717	$ 1,805	$ 1,733	$ 1,616	$ 1,347	$ 1,070
	$12,764	$12,324	$16,029	$19,545	$23,135	$25,010	$24,623
LIABILITIES AND FUND BALANCE (DEFICIT)							
CURRENT LIABILITIES							
Current maturities of long-term debt	$ 181	$ 133	$ 219	$ 243	$ 256	$ 161	$ 174
Accounts payable and accrued expenses	156	177	186	217	239	280	296
Interim Financing	0	0	3,900	1,853	600	0	0
Deposits on unoccupied units	48	225	513	617	247	121	126
Total Current Liabilities	$ 385	$ 535	$ 4,818	$ 2,930	$ 1,342	$ 562	$ 596
LONG-TERM DEBT, less current maturities	$ 2,285	$ 1,912	$ 1,632	$ 1,389	$ 1,115	$ 1,989	$ 736
DEFERRED REVENUE FROM ADVANCE FEES	$13,607	$13,383	$13,234	$18,515	$23,387	$24,695	$24,448
FUND BALANCE (DEFICIT)	$ (3,513)	$ (3,506)	$ (3,655)	$ (3,289)	$ (2,709)	$ (2,236)	$ (1,157)
	$12,764	$12,324	$16,029	$19,545	$23,135	$25,010	$24,623

Exhibit 7:
Actual and Projected Financials

PLANTATION VILLAGE, INC.
PROJECTED STATEMENTS OF CASH FLOWS
Years Ended December 31
Figures in 000's

	ACTUAL		PROJECTED				
	1992	**1993**	**1994**	**1995**	**1996**	**1997**	**1998**
CASH FLOWS FROM OPERATING ACTIVITIES							
(Excess) of expenses over revenue	$(229)	$ 7	$ (148)	$ 366	$ 579	$ 474	$ 1,079
Adjustments to reconcile excess expenses over revenue to net cash provided by operating activities:							
Net proceeds from advance fees	479	545	409	5,931	5,698	2,267	770
Amortization of advance fees	(582)	(592)	(558)	(650)	(826)	(959)	(1,016)
Depreciation and amortization	702	661	676	748	853	1,572	1,095
Loss on disposal of property and equipment	5	5	0	0	0	0	0
Write-down of property to net realizable value	128	0	0	0	0	0	0
(Increase) in other current assets	(13)	42	(3)	(33)	(13)	(38)	(8)
Increase (decrease) in accounts payable and accrued expenses	(39)	21	297	135	(346)	(87)	22
Net Cash Provided by Operating Activities	$ 451	$ 689	$ 673	$ 6,497	$ 5,945	$ 3,229	$ 1,942
CASH FLOWS FROM INVESTING ACTIVITIES							
Proceeds from (additions to) assets whose use is limited and operating reserve	$ (81)	$(180)	$ (356)	$ (191)	$251	$ (301)	$ (208)
Acquisition and construction of property and equipment	(77)	(74)	(3,657)	(3,321)	(3,621)	(236)	(190)
Acquisition of deferred costs	0	0	(327)	(175)	(140)	(8)	0
Proceeds from sale of property	0	10	0	0	0	0	0
Net cash (used in) investing activities	$(158)	$(244)	$(4,340)	$(3,687)	$(3,510)	$ (545)	$ (398)
CASH FLOWS FROM FINANCING ACTIVITIES							
Principal payments on note payable	$(114)	$(127)	$ (133)	$ (139)	$ (145)	$ (152)	$ (161)
Principal payments on long-term debt:							
Obligation payable to management company	0	(294)	(60)	(80)	(117)	(836)	(1,079)
Net proceeds from (repayment of) interim financing	0	0	3,900	(2,047)	(1,253)	(600)	0
Net cash provided by (used in) financing activities	$(114)	$(421)	$ 3,707	$(2,266)	$(1,515)	$(1,588)	$(1,240)
Net (decrease) in cash and cash equivalents	$ 179	$ 24	$ 40	$544	$920	$ 1,096	$ 304
Cash and cash equivalents:							
Beginning	45	224	248	288	832	1,752	2,848
Ending	$ 224	$ 248	$ 288	$ 832	$ 1,752	$ 2,848	$ 3,152

PLANTATION VILLAGE, INC. — B

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March, 1993 . . . Two months after the DOI report arrived.

Bill and Janice Kingsley recently retired from his long-term sales position in upstate New York. Their dream was to move to a warmer climate with secure living arrangement. Although Bill had not made a lot of money in his career, he had good pension and coupled with social security they had a comfortable fixed monthly income of $4,200. Property values had appreciated significantly and their lifetime home sold for close to $400,000. Additional savings were minimal, but they were proud of spending their discretionary income on their children's education.

They had friends who lived in North Carolina who encouraged them to come down and look around. The snow was still deep in New York and Wilmington looked like paradise when they arrived. They visited several condominium communities and on the third day decided to look at Plantation Village. Although they had not thought they were ready for a retirement community, the amenities and security of Plantation Village were very appealing. The salesman showed them the enclosed pool, dining facilities, and adjacent golf course and they were convinced this was the place for them. They felt they could afford one of the smaller units and still maintain $100,000 savings . . . plus the idea of a 90% guaranteed refund would ensure they could preserve some inheritance for their children.

Bill was ready to sign immediately, but Janice thought they should talk with their long-time CPA, Jeff Hunter, in New York. Jeff had always done their tax work and had recently been their financial advisor after the sale of the house. The salesman provided a copy of the audited financial statements and Bill sent them to Jeff along with the promotion information about Plantation Village. No mention was made of the DOI sanctions.

Required:

1. Do you think the salesman has an obligation to disclose the pending DOI action to Bill and Janice?
2. Jeff Hunter specializes in tax and financial advisory services clients and is now offering comprehensive eldercare services. He knows the Kingsleys personally as well as knowing their financial situation well. Bill called to tell him that they had found the perfect retirement community, but Janice wanted his endorsement. What should Jeff recommend? What are the ethical issues he should consider in his recommendation?

SMARTTOOL, INC.
A CASE STUDY

G. Ed McCormack, Associate Professor
Berea College, Berea, Kentucky

Elmer L. Parlier, Vice President of Investments
Kentucky Highlands Investment Corp., London, Kentucky

BACKGROUND

Eb Hammer is a full time tenured associate professor at East Central College in the mid-south. A licensed CPA and member of the AICPA, he also has a small accounting practice registered with the State Board of Accountancy. He conducts this practice, undergoing peer review etc.; in order to keep his hand in public practice. He enjoys the work and feels it energizes his teaching.

In 1985, an area non-profit investment company (NFP) engaged Eb to evaluate the investment potential of a small but growing tool and die company who had approached it for financing. The company, SmartTool, Inc. appeared to offer good investment potential because it had established a customer base in the automotive industry, which had began a substantial migration into the southern United States in the region near SmartTool's plant.

SmartTool had begun operations about five years earlier as a part time moonlighting operation by three toolmakers, a design engineer, and a professor of industrial arts at a nearby regional university. It had grown to a full time operation for the toolmakers and design engineer and in 1984 had generated $450,000 in revenues. Doug Bays, the entrepreneur who would ultimately become the CEO and largest stockholder, had wisely encouraged the others to take equity positions to provide the company's initial round of financing. As a result, in 1985 the company still had relatively little debt and was a profitable company with plenty of borrowing capacity to finance additional growth.

NFP had been contacted by SmartTool to finance the purchase of a wire EDM machine, a sophisticated CNC (computer numerical controlled) metal cutting machine costing $200,000. Commercial banks were not interested in financing the purchase because of a pending law suit against the company. Eb's investigation revealed that residents of a sub-division adjacent to SmartTool's plant, alleging the company had misrepresented its intended use of the land, had brought the lawsuit. Eb concluded the suit had no merit (later at trial SmartTool prevailed) and, based on that and other work he made a favorable recommendation to NFP, who decided to finance the purchase of the wire EDM. The purchase of this technology enabled the company to pursue larger, more profitable jobs, and set an aggressive pattern of growth that would continue for years.

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THE TOOL AND DIE INDUSTRY

Most companies engaged in manufacturing products with fabricated metal components have the need for tool and die producers. Dies are specially made tools that have a lower shoe and an upper shoe. These tools are fastened into large punch presses that raise the upper shoe, then lower it to mesh with the lower shoe with great force several times each minute. Large coils of various types of flat metal stock are fastened to the press and fed from the coil through the die as the upper shoe raises and lowers. The hardened metal components inside the die cut, form, bend and shape the flat metal stock into the component that the tool was designed to produce. Finished stampings drop off the end of the die into a container for packaging and shipping or for movement to another department for further processing. The two metal components on any floppy computer diskette are examples of delicate metal stampings. The various metal components in a seat belt assembly are also examples.

There are many companies that specialize in running metal stamping production, called stamping houses. These companies have a tool shop with toolmakers employed there, but typically these in-house shops are only sufficient to repair the tools that are being used to run production. Normally, stamping houses outsource many of their new dies to tool shops. SmartTool is such a job shop whose customers are stamping houses. Tool and die companies typically have annual sales in the $1 million to $20 million range; while their customers, the stamping houses have sales ranging to $100 million and more.

Here is the way SmartTool gets its business. A stamping house for which SmartTool is a supplier will get a new contract to stamp out a new component or group of components. The stamping house will then send an engineer's drawing of the component(s) they must produce to its supplier tool shops for competitive bids. Smart's personnel who are responsible for quoting jobs will then study the part to determine how much it will cost to design and build the tool that will stamp out that part according to the customer's specifications. Quoting is critical because these dies can range anywhere from fairly simple to extremely complex and take from three to twenty-six weeks to complete. A typical job for Smart ranges in price from $15,000 to $200,000.

When Smart's bid is accepted, a sales order is created and the job is scheduled for design. When the job is released the design work begins. Upon completion of the design, detailed blue prints go out to the various areas of the shop so the components of the die can be fabricated. Some of this work is done in the CNC wire department, some in the CNC milling department, and some in the conventional shop department which has manually operated lathes, mills, drill presses and surface grinders. After all the components are made the die can be assembled and placed into a tryout press to be "hit" to test how close the stamped part is to the customer's specifications. During this "tryout phase" the customer will require some of the samples to be shipped in order to let them know how the work is progressing. At this point a process of troubleshooting begins to make the final adjustments necessary to make the part conform to specifications. If things have gone well in engineering and production, troubleshooting will be quick and inexpensive. If things have not gone well however, the time and money spent in troubleshooting can be substantial. As SmartTool found out, the more complex the die the more time is needed in the troubleshooting phase of production. The die can be shipped immediately upon approval of the samples by the customer, therefore there is no finished goods inventory for completed dies. The job is simply closed and "shipped" which triggers the invoicing process and revenue recognition.

THE SUCCESSFUL GROWTH YEARS

With the purchase of the CNC wire EDM technology the company stepped up into a new class of competition. By 1989 the company had 40 full-time employees and had annual sales of $2.5 million. Its asset base had grown accordingly and the CEO's strategy to purchase the latest technology and master its use was successful. Eb had become the company's controller (part-time, in addition to his full time faculty position and apart from his accounting practice) and a shareholder.

Eb had developed a job order accounting system that was a combination of manual procedures and spreadsheet macro procedures. The spreadsheet macros were used primarily for spreading labor costs onto the 100 or so jobs going on at any given point in time. Janet Anderson took care of the main bookkeeping functions, Andrea Roecker did the payroll and was responsible for purchasing, and Pam Jett answered the

phone and took care of the many other duties necessary around the office. They were all excellent employees, very bright and willing to learn, and very thorough in their work. (Importantly, they were all related to Doug and the family group owned over fifty percent of the company's outstanding common stock.) The accounting system, over which Eb had a great deal of control, worked well for several years, providing accurate job cost data for evaluating performance and bidding on new jobs as well. Eb prepared the company's financial statements quarterly, indicating on the face of each, "Prepared by Management". The statements went out to the bank and NFP who were the company's primary financiers.

The eight shareholders also received a copy. Shareholders met quarterly to go over the statements and discuss financial matters. In the early years all the shareholders were encouraged to voice their opinions in these meetings. The shareholders had been hand picked by Doug because of their abilities in their respective areas of expertise. They were all relatively young and, like Doug, wanted to see how large and profitable they could grow the company. As time went on, Doug became less tolerant of criticism in these shareholder meetings. He began to allow his temper to show, sometimes to the embarrassment of everyone.

The company was quite profitable during the years between 1988 and 1991 for two reasons. It was earning good margins on its core tool and die business. Also, the company had obtained a "gravy" contract to run production in its tryout press using a die it had built for a customer. This business was available because of a lack of capacity in a customer's plant and it gave Smart 18 months of stamping work on its tryout press generating a whopping $300,000 profit.

The substantial cash flow generated during this time gave the company tremendous financial flexibility. Though leveraged at 2 to 1 (debt to equity) when the "gravy" job began, it could have become virtually a debt free company. Doug chose not to take the conservative route. His decision to expand its familiar tool and die business was now accompanied by rapid expansion into the metal stamping area. This was not only an area unfamiliar to the company's management both in terms of marketing and production, but also placed the company in competition with some of its largest tooling customers. This decision required large investments in equipment and additional floor space that was financed by the profits along with more debt financing.

Because of the increasing demands on its information system, the company decided to invest in a local area network and purchase a manufacturing software package which would meet its growing financial accounting, managerial accounting, and other information needs. Its installation took about eight months to complete and the resultant change touched practically everyone at the company. Eb completed the installation with the assistance of Brian, a bright young engineer who was moving up rapidly in the company.

A TROUBLED TIME

This unbridled growth after the windfall period saw rapid expansion of building space, equipment, and personnel (by 1992 over 100 employees). This growth had strained Doug's ability to effectively manage the company. Even though by 1994 the company's sales had grown to $5 million, it had depleted its retained earnings (once $800,000) and was losing $100,000 per quarter.

NFP, still a major investor in SmartTool, became so concerned that they engaged Elwood Carpenter, a CPA who worked as an analyst for an area venture capital firm, to conduct an independent review of the company's operations to determine 1) how to stop the bleeding and 2) whether further investment was wise. Coincidentally, Eb and Elwood were friends who respected each other's work and who had collaborated on other projects.

Elwood spent several days at the company analyzing its financial and non-financial data and interviewing its management. He noted that the company had been accepting increasingly complex "3-D" dies and had lost about $190,000 on seven large projects. He also observed that the company had spent $74,000 hiring a management consultant group and was also undergoing considerable effort and expense to become ISO 9000 certified. His conclusion, submitted in writing to NFP, was that the company should pull in its horns a bit by not pursuing increased levels of sales and physical plant expansion. He believed this would allow the company to stabilize at current levels, return to profitability, and re-build its equity base.

A BIG COVER-UP

By the end of 1995 it became obvious that to survive the company needed to secure additional working capital financing. Eb began working with Doug to develop a re-financing proposal for the company's bank and NFP. While engaged in this work, Eb discovered Internal Revenue Service documents in Janet's office that showed the company owed $200,000 in delinquent payroll taxes. Eb was surprised because the general ledger trial balance in the company's computer system showed no such payroll tax liability. He asked Janet for an explanation and she responded as follows:

"Eb, do you remember one Friday afternoon on the 30th of the month several months ago when I called and asked if I could show a receivable as collected that the customer had mailed to me but that I wouldn't receive until Monday the 1st? I told you I could deposit that check Monday when I got it to cover the check to the IRS and since the 31st was on a weekend the tax payments wouldn't be late. You said it would be O.K. When I entered this into our system it occurred to me that I could show any receivable as collected and it would look like I have more money than I actually have. Well Eb, I've been showing receivables as having been collected before they actually are and writing checks to the IRS but delaying the mailing of them ever since." Further, Eb knew Janet had done this with Doug's full knowledge.

Eb confronted Doug about the matter, pointing out that the financial statements for the last several months were misleading and inaccurate. Doug became indignant that Eb would question his judgment. He pointed out that to disclose the liability would alarm the bankers and investors thereby jeopardizing the working capital loan being sought and, consequently, the company's future. Eb stood firm, saying he could not support a deal that was backed by financial statements that contained material misstatements. He explained to Doug that to knowingly do so was against the law and that they both could be held liable for losses incurred by those who relied on the statements, and perhaps even risk going to jail. Doug stressed that he would never do anything to hurt the company, that he had the investment of the shareholders to think about as well as the jobs of over 100 people. The discussion was heated and frank.

Ultimately Eb prevailed and the amounts were properly recorded and disclosed in the statements. The proposal to the financiers was funded despite the $200,000 payroll tax liability, which had suddenly appeared on the balance sheet. The company secured an additional $500,000 in working capital to pay the payroll liabilities and catch up on payments to suppliers. It seemed the company had a new lease on life if it could turn its core business around and begin to generate some solid margins. It was not to be however.

Soon after the new working capital line was established to get the company financially sound, Doug began his old policy of stretching suppliers and using critical working capital dollars to purchase more equipment. It seemed his answer to all the company's problems was to buy more equipment. The company still continued to lose money although it did break even occasionally on a quarterly basis. Continuing poor profitability kept SmartTool in a highly leveraged position and cash management was a daily chore. By this time the company was a highly risky investment.

One day when Eb was at the company working on the quarterly financial statements he overheard Brian complaining to Pam about how posting labor costs to closed jobs wreaked havoc on the system. This certainly seemed an odd statement. Jobs that still had labor costs being incurred and reported to them from the shop floor should not be closed in the accounting system. Jobs were supposed to be closed only when samples were approved by the customer and the dies shipped. Closing jobs triggers the invoicing process and moves work in process costs to cost of goods sold. Upon further inquiry Eb learned that when some large jobs reached the troubleshooting stage, they were being closed in the computer system and invoiced per Doug's instructions. Clearly this was inconsistent with Eb's established accounting procedures. Eb asked Brian to write a computer routine that would search the database to see how much cost had been posted to closed jobs during the past quarter, along with the job numbers and dates the jobs were closed. He learned that in excess of $100,000 of cost had been posted to eighteen jobs in the last three months, some of which had been closed as much as six months prior.

When Eb approached Doug about this matter Doug acted as if nothing was wrong. Eb explained the language of generally accepted accounting principles with regard to revenue recognition and expressed his concern that the company was violating GAAP, and as a result was once again producing materially misleading statements. Doug answered that he could not wait around for the customers' engineers to sign off on these jobs, that oftentimes they unnecessarily delayed approving samples for various reasons and that the entire process of gaining final approval was ill-defined and open to negotiation. He said that in the

meantime SmartTool would be reporting inadequate sales and that it would make the company look bad to the bank and to NFP, its financiers. He flatly refused to back out the sales and COGS from the income statement or make any other disclosures. He said the bank was aware that was part of doing business in the tool and die trade. Eb told Doug he was not satisfied and would continue to pursue the issue. At this point in time the company was reporting sales of approximately $1.6 mil. per quarter and accounts receivable was averaging around $1mil. Assets totaled $3.75 mil. Eb believed that under the circumstances the misstatements were material. From early to mid-1996, Eb wrote a series of memoranda to Doug addressing these accounting matters. They are included as Appendix A and should be read at this time. It is important that these memos be read in their entirety.

Eb knew he had a tough decision to make. He had his professional reputation to uphold, which seemed to be increasingly more difficult as long as he was associated with the financial statements of SmartTool. He had responsibilities to the financiers and to the other stockholders. He also had a sizeable investment in the company himself and a part time job that earned him a substantial income. Since his friend Elwood was familiar with SmartTool and its management, Eb decided to give him a call. Elwood was shocked to hear of these matters because he had respect for the management skills of Doug and had no reason to doubt his integrity. The two talked at length. Finally Elwood told Eb that if what he was saying was true, with no mitigating circumstances, that Eb had no choice but to call the loan officers of both the bank and NFP and explain to them exactly what was going on. Eb called that very afternoon and scheduled meetings with Terry Hoch, the loan officer at the bank and Phil Tolliver, President of NFP. He did not call Doug, knowing that both Terry and Phil would contact Doug.

THE TRUTH COMES OUT

Within the next few days Eb met with Phil at NFP. He was surprised to learn that Phil was not terribly upset about the matter. This was especially peculiar to Eb since some of the invoices that were being generated on unfinished jobs were being used as collateral for a portion of its working capital loans at NFP, which totaled $500,000. His subsequent conversation with Terry at the bank was a different story. Terry knew precisely how this misrepresentation would distort profitability and make it impossible to determine how the components of cost of goods sold, i.e. direct materials, direct labor, and manufacturing overhead were performing as a percent of sales. He also understood the implications for analyzing the company's working capital position and needs. He thanked Eb for his honesty and for coming forth with the matter.

Eb later learned that the meeting at the company among Doug, Phil and Terry was a loud one, although no one sat in on the meeting except those three (walls sometimes have ears). After that meeting Eb got a call from Terry. The three parties had "agreed" to estimate the cost to complete the jobs that had been invoiced but that were still incurring cost and charge current period earnings, with an offsetting credit to a current liability account. Eb thought that while this was not the perfect solution it did improve the reporting and as long as the financiers agreed to it he too would go along. To Eb the correct thing to do would be to remove any sales for jobs that were incomplete and adjust the related cost of sales to work in process inventory. The proposed solution would, to the extent that the estimate could be correctly made, correct net income to date and help with the working capital reporting. Still, it left a sour taste in Eb's mouth for he knew the mismatching would still occur and the financial reports would not provide the kind of quality of information needed to successfully manage the company.

Eb, with Brian's help conducted an extensive study to make an estimate of the costs yet to be incurred on working jobs invoiced. It appeared at that time that $100,000 would finish all those jobs, so Eb booked an expense toward the current quarter's earnings and a current liability. He had Brian to run the program that reported how much of this cost was occurring weekly and include it on the company's weekly flash report. The flash report was a weekly report designed to show fifteen or twenty key indicators of workload, efficiency, gross sales by product line, gross profit by product line, etc. The weekly flash report also went out to the bank and NFP. Eb told Doug that if at any time the $100,000 estimate appeared to be too low he would increase it as needed. In an attempt to change Doug's behavior, he also explained that if at any time the estimated "liability" was too high and he was convinced that it would remain so, the company could recapture some or all of the $100,000 charge to income and remove a corresponding amount of the liability from its balance sheet.

That year, likely because of the concerns raised by Eb, the bank required SmartTool to have its ending accounts receivable and inventory audited by an independent CPA firm. Eb was careful to explain to the auditors the nature of the $100,000 liability that was actually related to both accounts receivable and work in process. The audit required no adjustments to either accounts receivable or work in process. The in-charge accountant remarked to Eb that that is the first time he had to argue with a controller that there should be no adjustments resulting from their audit.

RESIGNATION

Over the next few months the company continued to lose money. By the end of June 1997 the company had lost $300,000 for the year. It had total assets of $4.2 million, stockholders equity of only $400,000 and an accumulated deficit of $200,000. During August Eb was working at the company late one afternoon with Brian on an inventory problem. Doug came in to discuss some matter with Brian. After their conversation, Brian asked Doug if he had instructed one of the toolmakers in the shop to report time against an incorrect job number. Eb, who was standing nearby, got a sick feeling in his stomach. He knew instinctively that Doug had instructed a toolmaker to report time being worked on an invoiced job to another job not invoiced. Brian later confirmed his suspicion. Doug knew this would conceal cost from the weekly report Brian ran for Eb to determine if the $100,000 estimate was adequate. Later Eb went into Doug's office to ask him why he was requesting people to report time to the wrong jobs. Doug refused to discuss the matter. Eb went home and typed his letter of resignation, which is shown as Appendix B.

Appendix A
Memoranda
Page 1 of 3

MEMO

To: Doug Bayes
From: Eb Hammer
Date: March 23, 1996
Subject: Accounting Policies

As we had discussed on several earlier occasions, here are my recommendations for accounting for certain transactions.

1. SmartTool should invoice jobs and recognize revenue for dies when jobs are completed. When jobs are invoiced prior to this, a mismatching of revenues and expenses occurs. This undermines the integrity of the financial reporting process. If the revenue for a job is recognized in one accounting period, say a quarter, but substantial costs are yet to be incurred to complete the job, then in the subsequent quarter when those costs are incurred, they are matched against the revenues of the subsequent accounting period. This causes an overstatement of net income in the previous quarter and an understatement of net income in the subsequent one. In order to cover that deficiency the process must be repeated all over again. This results in financial statements being misleading and makes it impossible for us to know how we are actually doing.

   Statement of Financial Accounting Concepts Number Five states that "revenues should be recognized when they are (1) realized or realizable, and (2) earned. Revenues are realizable when related assets (i.e. accounts receivable) are readily converted into known amounts of cash or claims to cash. Revenues are considered to be earned when the entity has substantially completed what it must do to be entitled to the benefits represented by the revenues."

   I think the "substantially completed" criteria can be met in two different ways. Obviously, the cleanest way is when the customer approves the samples. On occasions where the customer is dragging its feet for whatever reason, but our inspectors unconditionally claim that the parts meet the original or modified customer specifications, it would seem to me that the "substantially complete" criteria would be met and that the job could be invoiced at that time.

   In the case where right at the end of a job, the customer comes through with an EC change, every effort should be made to have the customer allow us to invoice for the original amount. Then a new job number can be created to account for the EC change.

   Stampings should be invoiced when shipped to the customer, and should remain in inventory until that time.

2. I think it is important to keep track of costs that come in on jobs that were invoiced in the prior period (we could call these job number 000). Even though when we institute the above policy very little of this will occur, I still think we should track it and report it on Item C-1 of the weekly flash report. Brian has written a computer routine that will identify and summarize these costs.

3. No check should be recorded in the system, whether hand written or generated by the system unless it is mailed promptly to the payee. Likewise, no invoices should be shown as collected unless we have the customer's check in hand.

4. Every effort should be made to have all cash disbursements and customer invoices, as well as employee time cards posted in the system by the last day of the quarter. It is not until this time that the quarter ending WIP report should be prepared. No new business should be recorded in the system until this process is complete. This may mean that on occasion, all recording activity that affects the general ledger may have to be suspended until such time that the above process in completed. When recording activity resumes, nothing should be backdated as a prior quarter transaction.

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MEMO

To: Doug Bayes
From: Eb Hammer
Date: June 25, 1996

I wanted to report on the results of the work that I did last week with Brian. There is some good news and some bad news. First the good.

. . .

Now the bad news. There are twenty-six jobs invoiced so far this quarter that are not completed. Four were invoiced in April and twenty-two in May. These jobs have accumulated $47,666.65 of cost in June so far. Twenty-one of these jobs had cost posted to them as late as last week. This means the combined reported net income for April and May of $82,420 is overstated by $47,666.65 plus any additional costs that are incurred to complete these jobs. One of the jobs had to be released so it could be closed. This means no time had been reported against the main job. This early recognition of revenue makes our financial reports, both financial statements and flash report (see definition of flash report, page 5, last paragraph), misleading to us, our creditors and anyone else who has access to them. Again, I refer you to my March 23rd memo that includes the recommended accounting procedures regarding this matter.

In addition, this practice causes other problems. As with any decent software program, ours has certain controls programmed into it that help prepare accurate financial reports. While our software program will allow you to open jobs previously closed in order to post additional time and material to them, the process is tedious at best. This breach of the system's integrity affects purchasing, receiving, and labor entry. It also leaves page after page of negative values on the WIP report that must be removed. The system is simply not set up to borrow sales from the next accounting period.

In order to resolve this problem I again recommend that jobs not be closed and invoiced until they are completed. If, in certain cases, you must invoice them in order to speed up collection of the receivable fine, but leave them in unearned revenue so we do not overstate revenues, assets and income on our financial reports. In order to comply with my recommendation in paragraph three of my March 23rd memo, we should have our head inspector sign off on jobs when they are complete. This document should then be forwarded to the front office and attached to and be filed with the other paperwork for completed and earned jobs. If an exception must be made, an exception report should be completed and filed indicating the date, job number and reason for the exception. Since this should only happen on rare occasions it will cause very little additional work, maybe a minute or two per exception. Calling a job complete before its completion in order to make the financial reports look better than they actually are is not a legitimate reason for an exception. Calling a job complete and earned should never have anything to do with what time of the month or quarter it is.

In addition, we should notify anyone who received these above-mentioned financial reports of the overstatement of income and the reason for it. This should happen only after a thorough investigation to make sure the amounts are correct. I am available to assist in any way necessary for this, of course.

There is one more item I feel worth mentioning here. It is critical to understand that if a job does not cover all its cost, including overhead, that job lost this company money. We incur in excess of $500,000 of overhead cost each quarter. Approximately $95,000 of this is depreciation, but the remainder is cash money going out of here. I'm not saying every job will always be profitable, I'm just saying that when we look at a job upon its completion to see how it did, if it did not cover its overhead cost it was a loser.

I hope these remarks and recommendations are helpful. As always, I am only concerned with the well-being of this company. Without integrity in our financial reporting, we will never attain the great things we all expect for SmartTool. I know this is a difficult subject, and I appreciate the tremendous pressure you are under. If I did not call your attention to this matter so you can address it, I would not be doing my job. Please let me know if I can be of any assistance to you on this or any other matter.

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MEMO

To: Doug Bayes
From: Eb Hammer
Date: July 16, 1996

Please find the financial statements for June 30, 1996 enclosed. In observing the weekly flash report Brian prepared yesterday, I noted that there was roughly $11,000 of cost that has been incurred on jobs that had been invoiced in the second quarter but that we are still working on. The net loss of $88,618 for the quarter would be greater by this $11,000 amount plus whatever additional cost posted in the future on the uncompleted but invoiced jobs. Since this amount is about 12% of second quarter's net loss, users of these statements would probably consider this a material amount. Accordingly, I again recommend you notify anyone who uses these financial statements of this situation, the reason for it, its effect on net income, and how they can use the amounts of accumulated costs on invoiced jobs that appear on the weekly flash reports to gain a truer understanding of the results of the second quarter.

Appendix B
Letter of Resignation

August 16, 1997

Mr. Doug Bayes
SmartTool, Inc.

Dear Doug:

Effective immediately, I hereby resign my position as controller at SmartTool, Inc. The reason I must do this is your persistent willingness to do things which make it impossible for me to do my job, that is to prepare financial statements for use by our shareholders and creditors that are not misleading.

Several months ago, I complained so vigorously over your invoicing jobs that were sometimes months and many thousands of dollars away from completion that we agreed to accrue $100,000 on the financial statements. I understand that it may be necessary to invoice a little early in certain cases, but in the work that I did yesterday with Brian, Brian printed an R&R report that included all dies to which costs were added during July. Of the 56 dies on that list, 30 of them were invoiced prior to July. I have explained to you before how this practice causes a mismatching of revenues and expenses that make it practically impossible to determine how well the company is doing and also has the potential to make the financial statements misleading.

Now I find yesterday that you have instructed the shop foreman to have his men report time working on uncompleted but invoiced jobs against jobs that have not been invoiced. You know this will cause the work in process to be overstated on our next financial statements and cost of goods sold to be understated and income to be overstated. When I raised this question with you, you refused to even discuss it. We have in place a system of accounting that will track costs that are accumulating on invoiced jobs. While this system is far from ideal, your orders to override this system constitute a complete breakdown in our accounting.

I have explained to you many times that because of my professional status, I am personally responsible for the financial statements of SmartTool, Inc. I have tried my best to execute my responsibilities in a way that will allow accurate and reliable preparation of financial statements. You told me recently that our auditors were impressed by the system of accounting I have in place there. Because of this most recent development however, I have lost all confidence in the ability of the accounting system at SmartTool to allow me to prepare reliable and accurate reports. Given that you have made it impossible for me to do my job at SmartTool, I see no other alternative but to resign.

I will notify the other shareholders of my resignation soon. I will simply state that the reason for my resignation is over a disagreement with you over accounting principles and that because of it, I feel I can no longer properly do my job.

I do not know what to do about my shares. Be assured however I will not do anything to place myself in front of any of the other shareholders, including you, in terms of getting my investment back. It cannot truthfully be said that I am bailing out because of the poor financial health of the company. As long as I had the ability and freedom to accurately portray the financial position of SmartTool and the results of its operations, I was perfectly willing to ride it out to the bitter end if that is what you and all the other shareholders wanted to do. I can sleep with that. What I cannot sleep with is knowingly preparing false and misleading financial statements for our creditors to use when making decisions about SmartTool.

Sincerely,
Eb Hammer

QUESTIONS

Accounting Issues:

1. What does Generally Accepted Accounting Principles say about the proper time to invoice the dies being manufactured by SmartTool and recognize revenue? Can any argument be made (under GAAP) to support Doug's position. Cite the source for your arguments.
2. How was the premature invoicing affecting the income statement and balance sheet accounts in the current period and subsequent period? To assist you in your explanation assume the following.

		Costs in 1st Quarter			Costs in 2nd Quarter				
Job #	**Date Started**	**DM**	**DL**	**OH**	**DM**	**DL**	**OH**	**Selling Price**	**Date Completed**
1	15 Jan 96	1,000	8,000	4,000				17,500	21 Mar 96
2	10 Feb 96	2,500	11,500	5,750				19,000	30 Mar 96
3	15 Feb 96	4,000	17,000	8,500	2,000	8,000	4,000	35,000	10 May 96
4	11 Apr 96				4,000	15,000	7,500	32,000	25 May 96
5	30 Apr 96				7,500	20,000	10,000	32,000	22 June 96
6	20 May 96				8,000	15,000	7,500	45,000	25 July 96

a) Prepare a cost of goods manufactured statement and a partial income statement through gross margin for the first and second quarters assuming jobs are invoiced when completed. Assume no beginning work in process inventory as of Jan. 1.

b) Prepare a cost of goods manufactured statement and a partial income statement through gross profit assuming job number 3 was invoiced in the first quarter and job number 6 was invoiced in the second quarter. Again, assume no beginning work in process inventory as of Jan. 1. Write an explanation of the differences in a) and b) above caused by early invoicing of jobs.

c) Assume no receivables were collected in the first quarter and that the amounts for jobs number 1 and 2 were collected in the second quarter. Give the ending balances of accounts receivable and work in process inventory for both quarters under both case a) and case b).

d) In light of your answers to a), b), and c) above, why do you think Doug insisted that he be able to "manage" the dates when jobs would be invoiced in the accounting system? Why do you think Eb was equally insistent that GAAP be followed?

e) When looking at case b) above, why is it significant that SmartTool was using accounts receivable as collateral for working capital loans?

f) Do you think this was a difficult misrepresentation to make on the financial statements? Would the company's financiers have been able to know? After Eb's conversation with the financiers, why did the bank insist that the company's accounts receivable and inventories be audited?

3. Describe how Janet concealed the $200,000 payroll tax liability. Include in your description what account balances were affected and how this misrepresentation might affect users of the financial statements.
4. Describe the effectiveness of Terry's proposed solution of taking the $100,000 charge to income and accruing the liability. Did it cause the statements to conform to GAAP? Did Eb do the right thing by allowing this solution to be used in the statements? What information might Eb have included in a footnote that might have made the financial statements more useful?

Ethical Reporting and Professional Responsibility Issues:

1. What were Eb's professional responsibilities as the company's controller? How does the fact that Eb is a CPA affect his professional responsibility? Does the fact that Eb was a stockholder in the company affect his professional responsibility? Cite the sources of your response.

2. Do you think Eb was exposed to any personal liability for his association with the financial statements of SmartTool regarding either the payroll tax issue or the questionable invoicing issue? Was either Janet or Doug? Refer to sections on contract law and fraud in a business law text to help you with your answer.
3. What do you think about Elwood's advice to Eb to contact the financiers and of Eb's decision to do so without first contacting Doug.

Business Management Issues:

1. What do you think about Doug's ability to successfully launch a new venture? Explain.
2. After the "gravy" stamping job the company had great financial flexibility, but by mid 1996 the company had very low financial flexibility. Define financial flexibility. What did the company do with the profits from the lucrative stamping job? What might have been done differently?
3. What were Doug's apparent objectives for the company? How did he perceive the relative importance of operating profitably, the role of profit reinvestment, and the use or adequacy of working capital in his plans for the growth of SmartTool?
4. How did Doug's management style affect the other members of the management/shareholder group?
5. How did the slumping profitability affect Doug and Janet's judgement with regard to financial reporting?

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In addition, you should gain a thorough understanding of job order costing from a management accounting text and review the areas of contract law and fraud from a business law text.

Note to Students: The above references should give you adequate leads on researching the literature to cite the source of your responses to the questions above. Your research may turn up other relevant sources as well. Moreover, this exercise is intended to demonstrate how practicing accountants use authoritative literature to help resolve difficult issues in the conduct of their professional activities. The first and second items above address the revenue recognition issues. A good discussion of these topics can be found in most intermediate accounting texts. The third and fourth items address the ethical reporting questions. The third can be found in most auditing texts. The fourth is commonly called the "Code of Conduct for Management Accountants" and can be found in many managerial accounting texts. The fifth reference concerns the issue of financial flexibility. A good discussion of this topic can be found in many intermediate accounting and financial management texts. The non-specific references at the end to management accounting and business law are necessary to answer the questions about job order costing and personal liability for misleading financial statements. You should seek out and read all of these sources and have them on hand before you attempt to answer the questions. Your library may have many or all of the original sources on hand. If so, you should find and use the original sources.

ESTABLISHING AND MONITORING PERFORMANCE-BASED FEES FOR MANAGEMENT CONSULTANT CONTRACTS: REVENUE ENHANCEMENT IN THE LOUISIANA HEALTH CARE DEPARTMENT

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This case study is based on the Legislative Auditor's report on the Louisiana Department of Health and Hospitals and the Louisiana Health Care Authority dated February 8, 1995. We wish to thank the Office of the Legislative Auditor and its head, Dr. Daniel G. Kyle, for making the audit report and associated information available. We wish to also acknowledge Rick Tabor's helpful suggestions on an earlier version of the case.

BACKGROUND

The Louisiana Health Care Department (LHCD) is a component of State government responsible for providing health care services to Louisiana's uninsured and indigent citizens. These services are provided through a broad network of health care facilities and programs. Examples of services provided by the LHCD include providing health care for the mentally ill, alcohol and drug abusers, those requiring public health services, and those provided services under Medicaid entitlement. In performing these services, the LHCD oversees the operations of numerous health care facilities and various regulatory and licensing boards.

During 1989, the State of Louisiana was faced with a large budget shortfall, internal staff cutbacks, and no capacity to invest additional capital in improving resource management. A statewide initiative to reduce costs prompted the LHCD to issue a Request for Proposal (RFP) for identifying and implementing programs that would produce net savings within the department. The 1989 RFP was very broad in nature so as not to limit proposals, and did not clearly identify the objectives and deliverables to be attained. Proposals were required to identify net savings, a financial target upon which the contractor's proposed fee would then be based. Reimbursements to the contractor would occur as a result of net savings accrued by the State (and not paid on estimated savings). Boudreaux and Thibodeaux, CPAs, a major accounting and consulting firm, was successful in its bid for the RFP and was subsequently awarded five "revenue

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enhancement" contracts for selected LHCD facilities or programs. For example, one of the contracts covered the Office of Hospitals and several of the State's acute care hospitals. The contracts signed in September 1989 between the LHCD and B&T were originally for an 18-month period with renewal options that were subsequently exercised.

THE LHCD-B&T AGREEMENT

Under the terms of the contract, B&T's primary responsibility was to identify and analyze revenue recovery opportunities. The State revenues in question essentially were reimbursements for federal Medicaid program participants. The performance measurement used for evaluating B&T and upon which all fees were based was 1989 revenues, the year prior to contractor involvement; a percentage of total revenues realized above a 1989 baseline amount would be paid to B&T for services rendered. The contracts also specified a maximum amount payable of $4,472,500 to B&T over the life of the contracts. As the LHCD exercised the contracts' renewal options, the maximum payable to B&T increased to $33,047,500. Once the base period revenues were established, these performance measures remained unchanged throughout the lives of the contracts. Also, B&T had the option to pursue only those business opportunities it deemed worthwhile.

The following example illustrates how the revenue performance benchmark worked. The 1989 annual base revenue figure established for New Orleans Hospital was $51,063,082, of which, $38,202,087 was related to Medicaid. The Medicaid-related revenue was one area targeted by B&T for improved revenue recovery. Dividing the 1989 annual figure of $38.2 million in Medicaid-related revenue by 52 yielded a weekly revenue baseline of $734,656. If during any one week, current period Medicaid revenues exceeded the weekly baseline of $734,656, then B&T was paid a percentage of that excess. If the weekly revenue total did not exceed $734,656, then B&T received no payment. B&T was also not required to offset any weekly shortfalls against future increases.

The LHCD also requested the assistance of B&T in modeling the Medicaid disproportionate share rate (DISPRO). DISPRO is an additional federal reimbursement to states that provide a disproportionate amount of free care to their medically indigent citizens. The DISPRO payments are intended to help states recoup the additional costs of providing free health care to those who can not afford it. B&T assisted the LHCD in computing DISPRO rates, in developing and presenting DISPRO educational programs to State employees, and in training Blue Star auditors who have the responsibility for auditing DISPRO qualification and rate calculations. A sample of six major State hospitals shows that nearly one-half of all revenues received during the lives of the LHCD contracts were the result of DISPRO payments.

B&T also provided the LHCD with a number of services over the life of the contracts. Examples of these services include assistance in patient accounting, analysis of eligibility screening at various facilities, and reviews of the EDP systems in place at various facilities. Additionally, B&T and the LHCD expanded the scope of work performed under these contracts into the operations area. In particular, B&T reviewed nursing services, materials management operations, and information systems utilization. In the area of material management, B&T recruited and filled certain key management positions, initiated inventory reductions, and revised and implemented policies and procedures. On a larger scale, B&T determined that hospital management had no means to measure the performance of hospital departments, and there was no means of defining, measuring, or capturing data across departments. As a result, B&T provided the facilities with report-generating software. Although, these contractor services no longer appeared to be focused on enhancing revenue, the LHCD supported this change in scope with the justification that it constituted "long-term" revenue enhancement.

In 1992 the LHCD underwent a reorganization that required renegotiating the B&T contract for its acute care hospitals. The LHCD issued an RFP that required that the successful proposer to meet the current level of effort/work (revenue enhancement and operations improvement) being performed under the current contract. Again, B&T was the successful proposer (of three bidders). The terms of the contract awarded to B&T contained both similarities and differences from the earlier contracts. Similar to the prior contracts, a revenue baseline was used as the performance measure and B&T had the option to pursue only those business opportunities it deemed worthwhile. Unlike the earlier contract, the LHCD was to pay no fee to B&T until the cumulative revenues for the fiscal year exceeded the revenue baseline. The revenue

baseline established as the performance measure was $70,000,000. This figure represented the amount the LHCD estimated they would collect, exclusive of DISPRO, without the assistance of the contractor. Exhibit A provides a schedule of reimbursements to B&T based upon the revenues realized. Exhibit B provides additional information useful in evaluating the revenue baseline for the new LHCD contract.

OTHER FACTORS AFFECTING LHCD REVENUES

During the period in which the contracts with B&T were in effect, the LHCD received approval from the U.S. Health Care Financing Administration to increase the factor used in determining the DISPRO reimbursement from the federal government. The LHCD had applied for this change in the reimbursement factor before B&T's involvement with LHCD's facilities. Medicaid payments also are increased year-to-year to adjust for inflation.

While B&T assisted LHCD in collecting revenues for eligible patients at various facilities under the terms of the contracts, the LHCD also entered into a contract with another firm, MEDSCREEN, to provide determinations of Medicaid-eligibility. MEDSCREEN was reimbursed based on the percentage of "eligible recipients" (revenues from patient claims for which the medical facilities were eligible to receive Medicaid reimbursement). MEDSCREEN's reimbursement rate ranged from 20 to 22 percent, or $12.4 million based on $57.4 million in eligible receipts. Even though MEDSCREEN's services increased the LHCD's total revenue, MEDSCREEN-generated revenues were not deducted from those that B&T billed for its percentage reimbursement. The LHCD believed that claims worked by MEDSCREEN would not have been paid had not B&T provided additional revenue-enhancement and operations-improvement consulting services. The LHCD's conscious decision to allow both contractors to participate in the MEDSCREEN-generated revenues resulted in a combined reimbursement rate of 35 per cent to the two consulting firms for this portion of any 'enhanced' revenues.

DO THE ENDS JUSTIFY THE MEANS?

Facing austere fiscal support in 1989, the LHCD went to the marketplace to seek creative solutions through an RFP. B&T was awarded "revenue enhancing" contracts and over the ensuing three years committed significant resources to improving both revenue recovery (largely through reimbursement from federally mandated entitlements), and operational performance. Cumulative revenue collection over the 1990–1993 period exceeded FY89 levels by approximately $1.3 billion. Whereas in FY89, collections for LHCD hospitals were approximately 44 percent of expenditures, in FY93 collections exceeded expenditures by approximately 57 percent. Whereas in FY89 the LHCD's hospitals required funding augmentation from the State's general fund to cover expenditures, in FY93 the LHCD generated approximately $300 million in additional revenue for the State. For providing services as required by the LHCD contracts, B&T was paid a total of approximately $49 million during the 1990–1993 period.

Exhibit A
LHCD Contracts — 1992 Contract Provisions

Min Revenues Generated	Max Revenues Generated	Rate of Reimbursement
$0 -	$70,000,000	0
70,000,001 -	102,500,000	0.150
102,500,001 -	135,000,000	0.125
135,000,001 -	167,500,000	0.075
167,500,001 -	200,000,000	0.030
200,000,001 -		0.15

Exhibit B
Information Relevant to LHCD's 1992 Contract Negotiation

Fiscal Year	Total Revenues	DISPRO Revenues	Current Year MEDSCREEN-Generated Revenues	Medical Price Inflation Increases
1989	$185,486,036	$ 87,178,437	–0–	7.66%
1990	$236,673,501	$110,924,707	$ 7,454,396	9.27%
1991	$289,369,420	$140,165,973	$10,373,596	8.85%
1992	$340,503,698	$160,036,738	$15,497,255	7.57%
1993	$352,701,219	$168,256,300	$24,072,935	6.51%

DISCUSSION QUESTIONS

1. The LHCD contracts included no provisions for changing the 1989 revenue baseline upon which B&T's fees were based. What factors could affect the LHCD's revenues independent of B&T's revenue enhancement efforts?
2. The LHCD contracts gave B&T the flexibility to "cherry pick" those areas of revenue enhancement that it deemed most profitable. How should this flexibility be recognized in the initial contract by state negotiators? Is allowing such contractor flexibility consistent with the state's goal of overall revenue enhancement?
3. Comment on the LHCD contract's weekly computation of excess revenues (above the weekly baseline) as a means for determining B&T's fee. Assume that: (a) the LHCD has some latitude in delaying revenue recognition from one week to the next; (b) B&T had some ability to delay the LHCD's revenue recognition from one week to the next.
4. When the scope of B&T's services provided to the LHCD changed from revenue enhancing to improving operations (e.g., material management operations), should the LHCD have changed the contracts' performance measures (revenues above the 1989 baseline figure)?
5. Comment on the LHCD's decision to include MEDSCREEN-generated revenues in B&T's revenue-based performance measure.
6. Is there any ethical conflict with B&T's training of Blue Star auditors, responsible for overseeing DISPRO qualifications and rate calculations, while assisting and training state employees in the calculation of these rates?
7. Should the LHCD contract have excluded from the performance measure any revenues resulting from an increase in the DISPRO rate (used to compute the amount of federal reimbursement to the state)?
8. Comment on the $70,000,000 revenue baseline that was established as the performance measure in the LHCD contract. If you disagree with the baseline figure, can you come up with another figure that would be more appropriate?
9. The *AICPA Code of Professional Conduct* states that CPAs "should accept the obligation to act in a way that will serve the public interest, honor the public trust, and demonstrate commitment to professionalism." Comment on B&T's responsibilities in negotiating the agreement between B&T and LHCD. Did B&T take advantage of LHCD? Would your answer differ if the agreement was to find ways to reduce expenses (or increase net income) instead of increasing revenues?
10. In summary, do you believe that the revenue enhancement contracts between LHCD and B&T were effective (i.e., did they accomplish the task for which they were designed)? Were they efficient (i.e., was there a better way to accomplish the state's goals)?

WHEELEE, INC.

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THE COMPANY

Wheelee, Inc., is a leader in the design, manufacture and distribution of bicycles. It is engaged in the business of manufacturing a full range of adult and juvenile bicycles for every type of rider for sale to retailers.

Wheelee was founded by Mary Ryder, a former Olympian. The company is known for its advanced designs and materials, including lightweight materials. The company uses computer-aided design tools and structural analysis programs to enhance its product development efforts.

Since its incorporation, Wheelee has acquired strategically located distributorships in the worldwide market. These wholly-owned distributorships, along with independent distributors, act as a network to provide quality support to independent retailers, including prompt delivery of orders and parts. Most of the parts used in the manufacture of the bicycles are supplied by third parties.

As of December 31, 1998, the company had 500 full-time and part-time employees who are represented by the Teamsters Union. The company has good relations with its employees and has never suffered a material work stoppage or slowdown. In addition to occupational safety and health regulations, the company is subject to Federal, state and local regulations concerning consumer products, bicycles and the environment.

JUST-IN-TIME MANUFACTURING

Japanese manufacturers perfected the process known as “just-in-time” (JIT) inventory management, which provides for the cost effective production and delivery of only the necessary quantity of high quality parts at the right time and place. Like many other manufacturers, Wheelee is contemplating converting its inventory control procedures from “batch” to JIT processing.

A radical redesign of the manufacturing process, JIT involves a philosophy of eliminating waste. In the traditional manufacturing system, units are transported to the next stage of production as soon as they are ready. Units build up on the factory floor as they await further processing. Under a JIT system, units are accepted only as they are currently needed. Small amounts of inventory are maintained in the production line, and inventories are not stocked in anticipation of future sales.

The approach has reduced average inventory ratios in US industry. For example, IBM uses the term *Continuous Flow Manufacture;* Hewlett Packard calls it both *Stock-less Production* and *Repetitive*

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Manufacturing System; and General Electric calls it *Short Cycle Manufacturing*. Some companies are beginning to use the term *Time-Based Competition.*

Computer technology automated the processes required for successful implementation of JIT. The computer facilitates the storage and communication of information maintained to control inventory systems, programmed manufacturing and quality control. Computers also allow on-line management of raw materials, work-in-process, and finished goods, resulting in shortened lead times and lower inventory levels.

FINANCIAL STATEMENTS

Selected data from Wheelee's 1998 and 1997 annual reports follow:

Wheelee, Inc.
Summary of Operations

	1998	1997
Net Sales (in thousands)	101,000	92,000
Cost of Sales	71,000	58,800
Gross Profit	30,000	33,200
Selling, general and admin	18,000	17,000
Income from operations	12,000	16,200
Non-operating expenses:		
Amortization of intangibles	7,000	7,500
Interest	1,000	2,800
Income before taxes	4,000	5,900
Taxes (34%)	1,360	2,006
Net income	2,640	3,894

Wheelee, Inc.
Financial Position

	1998	1997
Inventories	20,000	23,000
Total assets	65,000	58,000
Current liabilities	6,000	5,000
Long-term liabilities	34,000	29,000
Stockholders' equity	25,000	24,000

QUESTIONS:

Strategic Planning Issues

1. Identify some of the earliest adopters of JIT. What were the characteristics of the industries in which these companies operated?
2. Compare and contrast operating and competitive factors in these industries with those in the bicycle manufacturing industry.
3. Compute performance ratios for Wheelee. Compare these ratios with its competitors. Use Dun & Bradstreet (SIC 3751) in your comparison.

4. In your opinion, is Wheelee a candidate for changing its inventory control methods?

For the remaining questions in this series, assume that Wheelee's management adopts JIT.

Tax Issues

1. Identify the specific costs associated with the conversion.
2. What is the tax treatment of the costs associated with the JIT conversion? Cite relevant authorities. Are there alternatives to the prescribed treatment? Explain.

Financial Issues

1. What is the financial accounting treatment of the costs associated with a JIT conversion?
2. How will these costs impact the financial statements?

Managerial Issues

1. How should management performance measures be adjusted, if at all, subsequent to the conversion?
2. What other recommendations would you make to management?

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CRYSTAL SUPPLY CO.*
A CASE DEMONSTRATING VALUATION, TAXATION, AND BANK COVENANT ISSUES THAT ARISE IN A PRIVATE COMPANY BUYOUT

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CASE SYNOPSIS:

In October 1997, Kevin Welch, the 40-year old President of Crystal Supply Co., was pondering the future of his company. Although the company had a long history of profitability, he and the other three shareholders of the company (Andy Reil, Ron Reil, and Mike Dinehart) were interested in selling the company and moving on to new adventures. Earlier in the year, the company received a buyout offer of $6 million in cash and stock from National Supply Co., a publicly traded company in the same industry. However, a stipulation to the deal was that Kevin must stay with the company and manage the daily operations. Kevin was not thrilled with this offer. If he was to be responsible for the financial performance of the company, he wanted to be able to reap the rewards that ownership often provides. After deliberations with the other shareholders, the offer from National Supply Co. was rejected. No subsequent offers had been received in 1997.

It had become apparent to Kevin that he was the key to the recent success enjoyed by the company, and any subsequent offers would most likely contain the same stipulation as the offer from National Supply Co. As a result, Kevin considered the idea of personally buying out the ownership of the other three shareholders. This option would provide Kevin with the potential rewards from the effective management of the company while allowing the other shareholders to pursue their other interests. Although Kevin found this option extremely appealing, a number of issues would have to first be resolved before any deal could be finalized. The most basic and important issues included the following:

- How much is the company worth?
- How should the potential buyout be financed?
- Are there important tax considerations that need to be considered in the deal? If so, what is the best way to structure the purchase to minimize the tax impact and maximize the likelihood that *all* of the shareholders will agree to the deal?

Because of the complexity of these issues, it was clear to Kevin that he would need assistance to properly plan a buyout that is beneficial to all the shareholders. He came to J. M. O'Brien and Company, PC in

*The names of the company and stockholders have been changed. All other information, including financial statement and projected income numbers, have not been altered.

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Springfield, MA. Like many CPA firms today, this firm had expanded into many new services beyond tax and audit to meet the needs of its clients. Jay O'Brien, the firm's proprietor, met with Kevin to discuss the buyout options available, and determine whether this transaction was indeed feasible from Kevin's perspective.

COMPANY HISTORY

Crystal Supply Co. was created by Henry Crystal in 1920 as an industrial supply wholesaler. In 1973, the company was purchased by Andy Reil who remained the sole shareholder of the company from 1973 to 1989. During this time period, the company experienced consistent growth in revenue and profitability. In 1987, revenue surpassed the $5 Million plateau. By 1989, at the age of 52, Andy decided to reduce his participation in the firm, and in 1990 he sold some of his shares to Kevin and Ron. In 1991, he further reduced his involvement in the company by selling shares to Mike. Since that time, the company has been managed by Kevin (President), Ron (Vice President of Operations), and Mike (Vice President of Finance). During the 1990s, Andy continued to divest his interest in the company by gifting additional shares to Kevin, Ron, and Mike as long as performance objectives were met.[1] By 1997, Andy owned just 381 shares of the company's 5,100 shares outstanding, while Kevin, Ron, and Mike each owned 1,573 shares. The three managers had individual strengths that contributed to the success of the company. Ron was a very good marketer and salesman. His "people" skills attracted many new customers. Mike was in charge of the company's finances. Kevin was responsible for managing the everyday activities, building strong relationships with key customers, and creating a strong employee culture. Kevin in many ways was the key to the success enjoyed recently by the company.

Since 1973, Crystal Supply Co. had become the recognized industry leader in its geographical market. The combination of engineering expertise and extensive product offering made the company the distributor of choice for its market. Unique to its market, Crystal entered into long-term supply contracts with many of its larger accounts. These contracts name the company as the sole source supplier for their industrial supply needs. These contracts show the great trust and confidence that customers place in Crystal. In addition, the company has a diversified client base with over 600 active accounts in 1996. Its customers include industrial companies, utilities, and construction firms. The top account was just 8% of sales.

Crystal has also been very dedicated to its employees. In particular, Kevin has stressed the importance of each employee, and he believes that a harmonious workplace is a key to success. Not only does the firm have little turnover, but it has received tremendous productivity from its employees. In 1996, the average sales per employee ($400,000) and gross profit per employee ($115,000) both exceeded industry norms.

During the 1990s, the company experienced sustained growth, and in 1997, Crystal Supply Co. had thirty employees and sales of $11.7 million. The growth of the company during the early 90's resulted in the company's need for new office and warehouse space. During 1992, the four shareholders formed a partnership for the purpose of acquiring land and a building. After an appropriate location was acquired, Crystal moved its operations to its current location and entered into a long-term lease for the property with the partnership. As a result, the land and building are not included on the books of Crystal.

By 1997, the four stockholders mutually agreed that it was time to sell the business and move into other ventures. At this time, Andy (60 years old) had become an outside shareholder and did not actively participate in the management of the company. Although each of the other three shareholders were just 40 years old, they had desires to start new challenges in their lives. In particular, Ron and Mike had each substantially reduced their role in company management for the past couple years. The company hired a business broker to prepare the necessary information and begin a search for a buyer. The broker was able to locate one potential buyer — National Supply Co. — that offered cash and stock valued at $6 million. For Ron and Mike, who each owned 30.8% of the company, this created an implied value of $1.848M for their respective shares. As noted earlier, this offer was rejected by the shareholders and no subsequent offer was received.

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[1]As is the case for many family businesses, transfer of ownership takes place in part through the process of gifting of shares. For Crystal Supply Co., Ron is Andy's son and Mike is Andy's son-in-law. Kevin is not related to Andy.

FEASIBILITY OF KEVIN'S BUYOUT

In October 1997, Kevin came to J.M. O'Brien & Company, P.C. to explore the option of purchasing the company. Andy, who was no longer active in the operation of the business, was willing to go along with whatever the other three shareholders decided. Ron and Mike were willing to sell their shares, but the offer received in 1997 had established a company value of $6 Million in their minds. Unfortunately, neither the company nor Kevin personally had the assets available to support a purchase price of that magnitude. In order to consummate the purchase, funds would have to be financed externally. Kevin's initial instinct was to purchase the company through an ESOP (Employee Stock Ownership Plan) structure. Kevin had a genuine concern for the employees and believed this method would provide the employees with the necessary motivation to work harder and become "company oriented." The following chart depicts how an ESOP could be used to finance the acquisition.

The ESOP would obtain a loan from a bank and use the proceeds to purchase the shares of Andy, Ron and Mike. After this initial transaction, the ESOP is formally the owner of the shares (its asset) and has a liability for the bank loan. Because the ESOP is a separate legal entity, Crystal Supply Co. would need to guarantee the future payments of the loan. In subsequent years, Crystal Supply Co. would make annual profit sharing contributions to the plan. The ESOP would then use these proceeds to make interest and principal payments on the bank loan. In addition, as the payments are made, the shares of stock are awarded to the accounts of the individual employees.

Unfortunately, Kevin would lose substantial control of the company through this type of structure. Jay O'Brien offered a different idea — use the company's assets and future cash flows to secure bank financing, carve out a financial and tax structure to the acquisition, and use the proceeds from the bank debt along with the company's strong cash flow to finance the acquisition. It was this latter method that became the focal point in formulating a buyout proposal. Because of the complexity of the deal, negotiations between the shareholders continued well into 1998.

FINANCIAL INFORMATION

Selected data from Crystal's financial statements for the past four years (including 1997) follows:

Crystal Supply Co.
Balance Sheets
December 31, 1997, 1996, 1995, and 1994

	1997	1996	1995	1994
ASSETS				
Current Assets:				
Cash	55,036	47,708	65,212	61,061
Accounts receivable	1,140,832	1,208,268	1,042,367	1,144,519
Due from partnership	–	–	–	66,652
Inventory	1,324,269	1,190,307	1,277,621	1,108,644
Prepaid expenses	–	–	–	420
Total Current Assets	2,520,137	2,446,283	2,385,200	2,381,296
Property and Equipment	79,157	62,606	63,923	38,765
Other Receivables	25,071	25,071	25,071	25,071
TOTAL ASSETS	**2,624,365**	**2,533,960**	**2,474,194**	**2,445,132**
LIABILITIES AND STOCKHOLDERS' EQUITY				
Current Liabilities:				
Line of credit	200,000	100,000	–	–
Current portion of long-term debt	331,000	363,000	365,000	365,000
Accounts payable	564,307	422,691	734,876	668,547
Accrued payroll and payroll taxes	39,781	338,757	132,441	217,826
Accrued expenses	–	9,794	2,921	16,803
Total Current Liabilities	1,135,088	1,234,242	1,235,238	1,268,176
Long-Term Debt	522,900	368,900	374,900	374,900
Total Debt	1,657,988	1,603,142	1,610,138	1,643,076
Stockholders' Equity:				
Common stock – no par, 7,500 shares Auth., 5,100 shares outstanding	50,000	50,000	50,000	50,000
Additional paid-in capital	60,000	60,000	60,000	60,000
Retained earnings	856,377	820,818	754,056	692,056
Total Stockholders' Equity	966,377	30,818	864,056	802,056
TOTAL LIABILITIES AND STOCKHOLDERS EQUITY	**2,624,365**	**2,533,960**	**2,474,194**	**2,445,132**

Crystal Supply Co.
Statements of Income and Retained Earnings
Years Ended December 31, 1997, 1996, 1995, and 1994

	1997	1996	1995	1994
Net Sales	11,468,820	11,656,777	10,757,866	11,694,902
Cost of Goods Sold	8,011,728	8,074,495	7,373,582	8,329,248
Gross Profit	3,457,092	3,582,282	3,384,284	3,365,654
Operating Expenses	3,407,119	3,441,997	3,249,173	3,166,778
Income From Operations	49,973	140,285	135,111	198,876
Other Income (Expense)				
Interest income	1,106	3,624	872	6,482
Commission income	65,322	29,035	26,111	–
Interest expense	(70,228	(62,559	(69,798)	(58,025)
Gain (Loss) on disposal of assets	–	1,750	–	(49,750)
Total Other Income (Expense)	(3,800	(28,150	(42,815)	(101,293)
Income Before Income Taxes	46,173	112,135	92,296	97,583
Income Taxes	10,614	40,273	30,296	33,258
Net Income	**35,559**	**71,862**	**62,000**	**64,325**
Retained Earnings, Beginning of Year	820,818	754,056	692,056	627,731
Dividends Paid	–	(5,100	–	–
Retained Earnings, End of Year	**856,377**	**820,818**	**754,056**	**692,056**

Crystal Supply Co.
Statements of Cash Flows
Years Ended December 31, 1997, 1996, 1995, and 1994

	1997	1996	1995	1994
CASH FLOWS FROM OPERATIONS				
Net income	35,559	71,862	62,000	64,325
Adjustments to reconcile net income to cash provided by operating activities:				
Depreciation	40,108	33,689	36,224	20,797
(Gain) Loss on sale of assets	–	(1,750)	–	49,750
Changes in:				
Accounts receivable	67,436	(165,901)	102,152	(191,145)
Inventory	(133,962)	87,314	(168,977)	(124,733)
Prepaid expenses	–	–	420	4,151
Accounts payable	141,616	(312,185)	66,329	58,360
Accrued payroll and payroll taxes	(298,976)	206,316	(85,385)	128,826
Accrued expenses	(9,794)	6,873	(13,882)	16,803
Net Cash Provided (Used) By Operations	**(158,013)**	**(73,782)**	**(1,119)**	**27,134**
CASH FLOWS FROM INVESTING ACTIVITIES				
Collections from partnership	–	–	66,652	137,760
Proceeds from sale of assets	–	1,750	–	–
Purchase of property and equipment	(56,659)	(32,372)	(61,382)	(21,145)
Net Cash Provided (Used) By Investing Activities	**(56,659)**	**(30,622)**	**5,270**	**116,615**
CASH FLOWS FROM FINANCING ACTIVITIES				
Net change in line of credit	100,000	100,000	–	(200,000)
Proceeds from stockholders' loans	130,000	–	–	–
Principal repayments on notes payable	(8,000)	(8,000)	–	–
Dividends paid	–	(5,100)	–	–
Net Cash Provided (Used) By Financing Activities	**222,000**	**86,900**	**–**	**(200,000)**
Increase (Decrease) in Cash	**7,328**	**(17,504)**	**4,151**	**(56,251)**
Cash, Beginning of Year	**47,708**	**65,212**	**61,061**	**117,312**
Cash, End of Year	**55,036**	**47,708**	**65,212**	**61,061**

RELATED PARTY TRANSACTIONS

As is common for many small privately held companies, Crystal Supply Co. had numerous transactions with its four shareholders. Because Kevin would be the sole shareholder after the buyout, these transactions must be considered when evaluating a "post-buyout" value of the company. Following is a summary of related party transactions for the four-year period covered by the financial statements:

	1997	1996	1995	1994
Salaries, bonuses, and related payroll tax for Andy, Ron, and Mike	969	897	657	640
Other fees and benefits paid for Andy, Ron, and Mike	240	160	159	154
Interest paid on loans to shareholders	53	62	67	55
Partnership expenses	83	44	78	53
Total	**1,345**	**1,163**	**961**	**902**

Because Crystal Supply Co. is an S-Corporation, the company would annually distribute earnings in the form of compensation to the owners. This accounts for the relatively large salary adjustments outlined above. If Kevin acquired the company, he believed that other employees could assume Ron's primary duties, and Mike's current assistant (with the help of Jay O'Brien) could handle Mike's financial responsibilities. Therefore, Kevin did not foresee the need of hiring additional employees after the buyout was completed.

The interest expense above represents amounts paid to Andy on loans made to the company. The balance of this loan at December 31, 1997, amounted to $331,000, and is included in current maturities of long-term debt on the balance sheet. Although not a related party transaction, it is important to note for valuation purposes that the income for 1994 includes a non-cash charge of $50,000 for the abandonment of leased property on the books when the company moved to its current location owned by the partnership.

DISCUSSION QUESTIONS

Part 1: Valuation Issues

1. Why do you think that Kevin's initial desire was to utilize an ESOP to purchase the company? What would be the disadvantages to this form of buyout?
2. In addition to the market risk premium and the risk-free rate, what other factors would you consider when preparing the valuation of a privately held company? Assuming a market risk premium of 7.5%, a risk-free rate of 6.16%, and an *industry* beta of 1.0, what do you believe would be an appropriate discount rate for Crystal Supply Co.?
3. Using the discount rate that you established in the above question, calculate an estimated value of Crystal Supply Co.'s equity using the discounted cash flow method. For simplicity, assume that Crystal is a mature company with no abnormal growth opportunities.
4. How does the value that you computed in (3) compare to the $6 Million offer the company received from National Supply Co.? Discuss possible reasons for the discrepancy. What changes in the assumptions used in (3) would be required to obtain a $6 Million value?

Part 2: Structuring the Buyout

5. Assume the value that you established in (3) was used to determine the cash payments made to the respective shareholders solely in return for their shares of stock. What would be the tax implications for the company and shareholders from this payment?

6. What advantages/disadvantages to the company and selling shareholders would you anticipate from including the following cash payments in the buyout settlement in lieu of reducing the amount paid in return for the stock: employment agreement, covenants not to compete, deferred compensation, increased property rent, and/or personal benefits.

7. From the perspective of a lending institution, would you be willing to make a loan to Crystal Supply Co. for the amount needed in this buyout? If so, what covenants would you include in the loan agreement to safeguard the bank's investment? From Crystal's standpoint, what would be the preferred repayment schedule?