Exercises
E7-1. Conflicts of interest and agency costs

Requirement:
An *agency relationship*: whenever someone hires another person (the agent) to act on his or her behalf. Jensen and Meckling (p. 308) define an agency relationship as “a contract under which one or more individuals (principals) engage another person (the agent) to perform some service on their behalf which involves delegating some decision-making authority to the agent.” *Agency costs* are what the principals pay (in reduced wealth or utility) when they delegate decisions to the agent. An example: expected value of profits lost to the BookWorm owner when the manager closes the shop to join an old friend for lunch.

In the oil and gas drilling partnership, the general partner—Huge Gamble—makes all the operating decisions. Huge Gamble is the agent for the investor group (you and your friend). Is there any *agency conflict* here? Yes, because Huge Gamble gets paid whether oil and gas are discovered or not, but investors win only if petroleum deposits are uncovered. According to the management contract, Huge Gamble is reimbursed for all “operating costs” and receives a share of the profits if oil and gas are found. This contract structure encourages Huge Gamble to *overspend* by taking risky bets on exploration. After all, Huge Gamble has little downside risk (all costs are reimbursed) and big upside potential if oil and gas are discovered. This tendency to overspend is a *cost of the agency relationship*.

E7-2. Understanding debt covenants

**Requirement:**
Debt covenants are restrictive provisions written into loan agreements by the lender. Covenants are designed to reduce potential conflicts of interest between the lender and borrower. Typical restrictions include limits on additional debt, dividend payments, mergers, asset sales, as well as the various accounting-based covenants described in the chapter. Lenders include covenants as a form of protection against managerial actions that might unfairly reduce the likelihood of debt repayment. Borrowers agree to these restrictions because it reduces the cost of borrowing. Without covenants, lenders would charge more for the loan (a higher interest rate) as compensation for the added risks of lending. Debt covenants make both borrowers and lenders better off.

E7-3. Affirmative and negative debt covenants

**Requirement:**
**Affirmative covenants** describe actions that the borrower *must* take. Examples include: using the loan for the agreed-upon purpose (i.e., not substituting a more risky investment in place of the original investment the loan was sought for); having the company’s financial statements audited by an independent accounting firm; providing those statements to the lender on a timely basis, complying with all laws (e.g., environmental regulations); allowing the lender to inspect the borrower’s financial records or physical assets; and maintaining insurance on assets and key employees.

**Negative covenants** describe actions that the borrower may not take. Examples include: limits on total debt, capital expenditures, loans and advances to affiliated companies, cash dividends, share repurchases, mergers, and asset sales.

E7-4. Debt covenants and accounting methods

**Requirement:**
There are several reasons lenders may not want to require borrowers to use specific accounting methods. One important consideration is just the cost associated with keeping multiple sets of accounting records. Suppose a company had five loans, each from a different bank, and each bank required the company to prepare financial statements using a “fixed” set of accounting methods. Five loans, five banks, and five sets of books! This could prove to be very costly, especially if the loans required attestation by an independent accounting firm (five audits?).

Allowing some discretion also benefits lenders because managers can then adapt their accounting methods to the company’s changing economic
circumstances. Example: changing to LIFO inventory accounting when raw material price increases are expected. LIFO accounting can save tax dollars, and this cash flow improvement makes the debt less risky.

Another reason lenders may not want to require “fixed” accounting methods is that GAAP has a built-in tendency for conservatism (i.e., to understate assets and income, and to overstate liabilities).

Despite these reasons, some lenders do stipulate the accounting method(s) to be used in preparing financial data for loan covenant compliance purposes.

E7-5. Contracts and accounting numbers

Advantages:

- **Low cost**: Since the borrower (company) must produce financial statements anyway, there is no added out-of-pocket cost to using these same statements as a basis for loan agreements.

- **Accounting numbers are audited**: Since the financial statements are audited by independent accounting firms, lenders can be assured that the reported numbers are relatively free from error and material misstatements.

Disadvantages:

- **Management manipulation**: Even though the financial statements are audited, management still has some discretion over the reported numbers. Opportunistic reporting can never be completely ruled out. Examples include voluntary accounting method changes and changes in accounting estimates.

- **Mandatory accounting changes**: Accounting-based loan covenants can be influenced by mandatory accounting changes imposed by the FASB or other regulatory group. Lenders may feel that such changes detract from the ability of accounting numbers to accurately portray changes in a borrower’s credit risk. And, mandatory accounting changes may cause borrowers to be in technical violation of debt covenants even though there has been no real change in underlying default risk.

E7-6. Regulatory costs

**Requirement:**
Taxes and regulations can transfer wealth from companies and their stockholders to other groups or individuals. Consider, for example, local property taxes paid by a company. These taxes represent a wealth transfer...
from the company (and its stockholders) to the beneficiaries—often local school districts, their employees, students, and their parents.

Electricity rate regulation provides another example. State utility regulators set the price of electricity so that stockholders can earn a “fair” rate of return on their investment. If they earn too small a return, the company is allowed to raise its prices, transferring wealth from customers to stockholders. On the other hand, if stockholders earn too high a return, regulators force the company to lower its prices, transferring wealth back to customers.

Regulatory costs are important for understanding a company’s financial reporting choices because financial statement data are used by regulators to justify taxes and to set rates charged by utility companies. Consequently, companies have an incentive to “manage” their financial statements in ways that will influence regulators favorably. Local companies do not want to appear too profitable for fear that property taxes might be raised. Electric utility companies also do not want to appear too profitable for fear that their rates might be reduced.

E7-7. Regulatory accounting principles

Requirement:
When “construction in progress” costs are included in the rate base, regulators are allowing the company and its shareholders to earn a return on those costs before the construction project is completed. Other things equal, this should benefit shareholders at the expense of customers. Here’s an example:

<table>
<thead>
<tr>
<th>($ in millions)</th>
<th>CIP included</th>
<th>CIP excluded</th>
</tr>
</thead>
<tbody>
<tr>
<td>Allowed operating costs</td>
<td>$1,120</td>
<td>$1,120</td>
</tr>
<tr>
<td>Assets in service</td>
<td>$3,200</td>
<td>$3,200</td>
</tr>
<tr>
<td>Construction in progress</td>
<td>500</td>
<td>0</td>
</tr>
<tr>
<td></td>
<td>Allowed assets</td>
<td>$3,700</td>
</tr>
<tr>
<td>Allowed return on assets (8%)</td>
<td>$296</td>
<td>$256</td>
</tr>
<tr>
<td>Revenue requirement</td>
<td>$1,416</td>
<td>$1,376</td>
</tr>
<tr>
<td>( \div ) Estimated demand (millions of KWH)</td>
<td>14,000</td>
<td>14,000</td>
</tr>
<tr>
<td>Rate allowed per KWH</td>
<td>$0.1011</td>
<td>$0.0983</td>
</tr>
</tbody>
</table>

In this case, including CIP in the rate base allows the company to set electricity prices so that it receives $1,416 million in revenue rather than only $1,376 million. What’s the source of the added revenue? Customers pay 10.11 cents per KWH instead of 9.83 cents per KWH. Once the project has
been completed, however, the CIP costs are transferred to “operating assets” and the allowed revenue number then becomes the same.

Notice also that including CIP costs in the rate base may actually benefit customers if it results in earlier construction of additional and more efficient generating facilities, transmission systems, and distribution systems. That’s because the new facilities and systems might well result in lower future customer costs per KWH.

E7-8. Equipment repairs and rate regulation

Requirement:
The answer depends on when rates will be adjusted as well as how the tornado loss is classified for rate-making purposes. Let’s compare two different situations: rates set in the year of the loss versus rates set one year later.

<table>
<thead>
<tr>
<th>($ in millions)</th>
<th>Rates Set in Loss Year</th>
<th>Rates Set One Year Later</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Expense</td>
<td>Capitalize</td>
</tr>
<tr>
<td>Allowed operating costs (before loss)</td>
<td>$600.00</td>
<td>$600.00</td>
</tr>
<tr>
<td>Tornado damage</td>
<td>5.00</td>
<td>–</td>
</tr>
<tr>
<td></td>
<td>$605.00</td>
<td>$600.00</td>
</tr>
<tr>
<td>Assets in service</td>
<td>$1,600.00</td>
<td>$1,600.00</td>
</tr>
<tr>
<td>Capitalized tornado damage</td>
<td>–</td>
<td>5.00</td>
</tr>
<tr>
<td>Allowed assets</td>
<td>$1,600.00</td>
<td>$1,605.00</td>
</tr>
<tr>
<td>Allowed return on assets (8%)</td>
<td>$128.00</td>
<td>$128.40</td>
</tr>
<tr>
<td>Revenue requirement</td>
<td>$733.00</td>
<td>$728.40</td>
</tr>
<tr>
<td>÷ Estimated demand (millions of KWH)</td>
<td>14,000</td>
<td>14,000</td>
</tr>
<tr>
<td>Rate allowed per KWH</td>
<td>$0.05236</td>
<td>$0.05203</td>
</tr>
</tbody>
</table>

If electricity rates are set in the loss year, it is better for shareholders to have the company treat the repairs as an expense. That’s because doing so produces the highest allowed revenue—$733 million. But this also means that customers pay the full cost of the tornado repairs (through higher rates) in the first year and in each year thereafter until rates are set again.

If electricity rates are set in the loss year and the repairs are capitalized, customers may still pay the full cost of the repairs—but over an extended period of time. The exact amount paid and the timing depends on when rates are set again.
If rates are to be set the year after the tornado loss (but not the loss year), it is better for customers (but worse for shareholders) if the repairs are expensed in the loss year. That is because the repairs will then not be recovered in higher electricity rates—shareholders, not customers, bear the cost of the tornado.

If the repairs are capitalized, and rates are set in the year after the loss, customers pay for some (but not all) of the tornado damage. Notice that allowed operating costs in the example are $601 million—the extra $1 million represents depreciation of the capitalized repair costs (over a 5-year period). Capitalization produces the highest allowed revenue—$728.32 million.

Notice too that if rates are set both years, it is still better for shareholders (but worse for customers) to expense the repairs immediately because the entire cost of the repairs is recovered the first year. As a practical matter, some state utility commissions allow unusual losses such as this to qualify for special rate relief.

E7-9. Capital adequacy

Requirement:
Banks and insurance companies are required to maintain minimum levels of investor capital for two reasons. First, it provides a cushion to ensure that funds are available to pay depositors and beneficiaries. Second, investors who are also managers will make less risky business decisions when some of their own money is at stake. See the discussion in E7-1.

Minimum capital requirements affect the financial statements which banks and insurance companies prepare for shareholders in several ways:

- There’s expanded disclosure regarding a company’s capital structure and its compliance with regulatory capital requirements.

- Certain “exotic” financial instruments that count as investor capital for regulatory purposes (and are shown as capital in the financial statements) may in fact be debt and should be so regarded by analysts. Example: mandatorily redeemable preferred stock.
### E7-10. Incentive design

<table>
<thead>
<tr>
<th></th>
<th>Advantages</th>
<th>Disadvantages</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>After-Tax Operating Profits</strong></td>
<td>Pays for accounting performance of core business; doesn’t reward or penalize managers for one-time gains or losses.</td>
<td>Neglects asset utilization and, thus, it’s one-dimensional. Can be influenced by “earnings management.”</td>
</tr>
<tr>
<td><strong>Return on Assets (ROA)</strong></td>
<td>Incorporates profitability and asset utilization.</td>
<td>Ignores the cost of capital; ROA is increased when assets are depreciated. Can be influenced by “earnings” and “balance sheet” management (e.g., operating leases).</td>
</tr>
<tr>
<td><strong>ROA or Earnings Peer Group</strong></td>
<td>Pays for performance relative to competition; doesn’t reward or penalize managers when the whole industry improves or declines.</td>
<td>Unclear how the peer group should be identified.</td>
</tr>
</tbody>
</table>

All three changes may cause managers to adopt a short-term focus and devote attention to managing the performance measure rather than managing the business.

### E7-11. Medical malprofits

**Requirement:**
When doctors own the hospitals where they work, they may be tempted to overprescribe or overdiagnose medical treatments and procedures. That’s because hospital profits flow to the doctors who make decisions about the scope and level of treatment and diagnosis. Third-party reimbursement and trusting patients may not be effective impediments to this behavior. (Note: At the time of publication, the criminal investigation of Columbia/HCA was not resolved.)
Requirement:
Most shareholders would not feel very comfortable if managers had this type of compensation package. Consider, for example, the incentive bonus. It is based on annual increases in EPS, and the larger the EPS increase, the larger the bonus payment. But there are ways of increasing EPS that do not increase the value of the company’s common shares. LIFO liquidations and stock buybacks are just two examples. Notice also that Mr. Brincat’s stock options vest only if EPS grows by 20% or more in each of the next five years.

The combination of annual bonuses and stock options tied to EPS growth sends a clear signal to management: EPS is all that matters. Shareholders, on the other hand, want to make certain that EPS growth translates into higher dividends or greater share price appreciation.
Problems

P7-1. Managerial incentives and stock ownership

**Requirement 1:**
By the end of 1994, Mr. Johnson must hold stock worth \( \$757,500 \times 3 = \$2,272,500 \). Since his current holdings are worth \( \$1,600,000 \), he must acquire an additional \( \$672,500 \) worth of common stock by the end of the year.

Johnson’s after-tax salary for 1994 is \( \$800,000 \times (1 - 0.35) = \$520,000 \). This means that he must invest 129% of this amount in the company’s stock. Johnson must put some of his personal financial resources into the stock.

**Requirement 2:**
**Advantages:**

Requiring managers to purchase an equity stake in the company increases the likelihood that they will act in the best interests of the shareholders. In other words, equity ownership by managers reduces potential shareholder-manager conflicts of interest. Managers will be less inclined to waste corporate resources because doing so reduces their personal wealth. When managers own stock in the companies they run, they have a strong incentive to seek out investment opportunities that add the greatest value to the business. That is because they share in any value increase.

**Disadvantages:**

It is possible for too much of a manager’s wealth to be invested in the company’s stock. If this occurs, managers may become more risk-averse than shareholders would like. That is because managers lack diversification opportunities that are available to investors. The company’s other shareholders, who can diversify their investment risk, will prefer the business to undertake riskier projects than management would like.

Note: Some students will also consider the perspectives of creditors and employees when discussing the advantages and disadvantages of the stock ownership plan.
**Requirement 3:**
Institutional investors should favor the plan because it is designed to make managers act like “owners” (including those owners who are institutional investors). But, too much ownership by management can be bad for institutional investors. For example, managers with a controlling interest in the company may be inclined to pay higher dividends rather than reinvest in the company. Or they may spend lavishly on corporate offices. There is little institutional investors (or other shareholders) can do about it because the usual corporate governance mechanisms—proxy contests for board seats—do not work when management owns a controlling interest in the company.

P7-2. Managerial incentives and pay

Based solely on the information appearing in *The Wall Street Journal* article, Hudgens appears to have the upper hand.

**Requirement 1:**
Among the points that Hudgens should make are:

- **ConAgra’s earnings-per-share growth should be evaluated relative to the performance of competitors.** This approach is called “relative performance evaluation” and is used by many companies today. It rewards the CEO only when company performance exceeds the performance of the industry (or a group of designated peer companies). The idea is to diminish the influence of industry-wide business cycles (both good times and bad) on executive pay. Hudgens believes that some (much?) of the ConAgra’s earnings-per-share growth has been driven by favorable economic conditions throughout the industry rather than good management at the company.

- **The performance targets in the compensation plan are too low, and so it is too easy to earn the bonus.** Mr. Hudgens points out that ConAgra’s “earnings have grown at a 15.4% compounded annual rate” over the last five years. Thus, the CEO will not have a difficult time achieving the performance goals required by the compensation plan. The share award is almost a sure thing.

- **ConAgra’s internal goal is to achieve earnings-per-share growth of more than 14% a year.** This stated performance goal suggests that the minimum 10% growth rate specified in the incentive contract might not be very difficult to achieve.

- **Measured EPS growth should be based on Income from Continuing Operations.** Hudgens’ point here is that nonoperating items—like discontinued operations, extraordinary gains and losses, and the
cumulative effect of accounting method changes—should be excluded from EPS growth calculations for compensation purposes. This recommendation has considerable merit.

Requirement 2:
Based only on the information in the case, ConAgra’s Vice President for Human Resources has a more difficult task than does Hudgens. The news article provides no real guidance on the issues to be addressed by the VP, but here are two possibilities:

- ConAgra’s Board of Directors believes that the EPS-growth target used in the compensation contract is a reasonable basis on which to evaluate and reward the performance of the CEO.

- The company’s earnings have grown at an annually compounded rate of 15.4% in the last five years. The current incentive plan, with its minimum EPS-growth rate of 10%, is designed to motivate and reward the CEO for continuing to generate this superior level of earnings performance in a more challenging competitive marketplace.

Requirement 3:
Institutional investors are likely to approve incentive pay plans that provide managers with stronger incentives to increase firm value and shareholder wealth. In this particular case, Mr. Hudgens’ proposals attempt to “raise the bar” by requiring the CEO to achieve an even higher level of performance. These proposed changes are consistent with what other companies are doing, and the performance goal seems attainable. It is quite likely that institutional investors will also favor adoption of these changes.

Requirement 4:
The company’s 1995 proxy statement (dated September 28, 1995) shows that Hudgens was not entirely successful in his attempt to change the company’s compensation practices. Mr. Fletcher’s special long-term incentive plan (described in the news article) was continued. A long-term senior management incentive plan tied to EPS growth was also continued in 1995, but the award target was raised to 14% growth in earnings per share. The company did not adopt Hudgens’ recommendation that incentive compensation be based on performance relative to 13 other food companies.

P7-3. Corporate governance

Requirement 1:
The separation of company ownership (shareholders) from control of company resources (management) leads to potential conflicts of interest between shareholders and managers. For example, managers have incentives to divert corporate resources away from profitable investment
projects toward such things as corporate jets, lavishly decorated offices, and other expenditures that do not add value to the company. This resource diversion makes managers better off, but shareholders are worse off because they (not the managers) pay the bills.

The Board of Directors hires company officers (the CEO and other top executives). Then the Board monitors the behavior and performance of those officers to help ensure that they always act in the best interests of shareholders. Directors are elected by shareholders. They advise top management, approve major company decisions—like proposed mergers, divestitures, and major acquisitions—and ensure that the resources entrusted to management are properly maintained.

**Requirement 2:**
Long-time personal friends of the CEO who serve as directors may weaken the company’s corporate governance structure if their personal friendship prevents them from exercising their responsibility to advise and monitor managerial performance. Close personal friends may find it difficult to vote to fire a poorly performing CEO even when doing so is in the best interests of shareholders.

Board members who own little or no common stock in the company have no real economic stake in the business. With nothing to lose, such directors may be less inclined to scrutinize management’s performance or oppose management’s decisions. Only the director’s reputation suffers when decision outcomes are bad and performance is poor.

Board members that serve on ten or more boards weaken the corporate governance structure for the simple reason that they are spread too thin. With board responsibilities at several companies, it becomes difficult to effectively monitor and advise management at any one company.

Company-funded retirement plans weaken corporate governance when the plans are overly generous. In such cases, board members may be less inclined to monitor and advise management out of concern for their pension benefits.

**Requirement 3:**
The Calper’s proposals:

#1: By toughening the definition of an independent director, this proposal presumably improves corporate governance by ensuring that board members are free to scrutinize and oppose management’s decisions. Less independent directors may be less effective in this capacity because they fear reprisal—termination of lucrative personal service contracts or loss of corporate contributions to nonprofit organizations.
#2: Requiring the board to have a majority of independent directors gives outsiders (shareholders and their representatives) a stronger voice in the company. When insiders—the CEO and other corporate officers—dominate the board, it is more difficult to monitor management performance and conduct.

#3: The board chairman is usually the company’s CEO. Picking an independent lead director to serve as co-chair lessens the CEO’s power and influence over board matters, including when meetings are held and what is on the agenda.

#4: This proposal is aimed at encouraging board members to reduce competing time commitments by making those commitments public. A board member who seems overextended is less likely to be re-elected by shareholders.

#5: This proposal is not likely to enhance corporate governance. It presumes that older directors are less able to provide oversight and advice than are younger directors. We do not find this argument particularly compelling. At the same time, by encouraging board turnover, the proposal does provide a way of bringing contemporary thinking and new perspectives to a board.

Requirement 4:
The anecdotal evidence suggests that the answer is: Yes. Recent changes in the corporate governance practices of companies like IBM and General Motors were followed by improved financial performance. A substantial amount of research on corporate governance issues has been produced in the last 10 years, but few clear conclusions have yet emerged. The results of one study are described in the following Wall Street Journal article:

HEARD ON THE STREET: WHARTON STUDY CONNECTS STRENGTHS AND FLAWS OF DIRECTORS TO COMPANIES’ FINANCIAL RETURNS.

If a chief executive names his friends to his company’s board, some might say that raises ethical issues. Now a study by three professors at the University of Pennsylvania business school, the Wharton School, suggests that it also raises questions about the company’s future performance.

What the study found is that domineering, ‘entrenched’ chief executive officers with weak boards tend to get higher pay than other CEOs, and that the companies’ returns on assets and stock performance tend to be weaker than others’.

Wharton Profs. John Core, Robert Holthausen, and David Larcker found six different board characteristics linked to both higher CEO pay and weaker performance: the same person serving as CEO and chairman; a large board;
outside directors directly appointed by the CEO; outside directors who receive income from an association with the company; ‘busy’ outside directors who sit on several other boards; and outside directors aged 70 or older.

‘The conclusion,’ says Prof. Holthausen, ‘is that any of these factors is going to tend to cause poor governance systems and ultimately lead to poorer financial performance by the firm.’

Some money managers say they already look at such corporate-governance issues in identifying stocks to buy or to avoid. ‘It is a very important factor for us,’ says Anthony Kreisel, co-manager of the $24 billion Fund for Growth & Income at Putnam Investments in Boston. ‘The strong, confident, and mature CEO really looks for people on his board who will challenge and help him. He welcomes someone looking at his performance.’

Mr. Kriesel says the decision by International Business Machines’ CEO Louis Gerstner to add Emerson Electric Chairman Charles Knight to the board a couple of years ago helped him decide that depressed IBM stock was worth buying. And the presence on Eastman Kodak’s board of strong members, such as Coca-Cola Chairman Roberto Goizueta, suggested to him that weakening Kodak was due for a management shake-up—which occurred in 1993 and helped the stock.

The Wharton study was based on data collected on 205 large companies in 1982, 1983, and 1984 by an unidentified compensation-consulting firm. The authors identified negative board characteristics, correlated them with the chairman’s compensation and, through that relationship, related them to stock performance and return on assets over five years.

If a company’s board structure indicated a 30% excess in CEO compensation, for example, that correlated with a 2.3 percentage-point deficit in annual stock return. In a year when the average company gained 15%, that company would be expected to gain just 12.7%.

The authors identified a ‘busy’ outside director as one who sits on three or more other boards—or six or more for retirees. Their study didn’t point to an optimal size for boards; it simply indicated that the average size at the time was 13, and smaller was better.

One surprise: Although shareholder activists today favor outside directors, the authors found that companies generally did better with more inside directors. That could be because, in practice, outside directors often are handpicked by the CEO.

The study also noted that if someone other than the CEO owned 5% or more of the stock, that signaled better performance, as did the amount of the CEO’s stock ownership.
A representative of Fidelity Investments indicated that fund managers at the Boston mutual-fund complex aren’t convinced that separating a board chairman from a CEO is always a good idea. But Fidelity does look at whether the chief executive owns ‘a substantial amount of stock’ in the company as one factor among many.

The study’s findings are useful, but not foolproof. Prof. Holthausen says that H. J. Heinz and NationsBank are two companies that today have some board warning signs. Heinz’s 18-member board is larger than average, he says. Of its nine outside directors, six are older than 69 and four are ‘busy.’ Its chairman is CEO. NationsBank, he says, has a ‘huge,’ 26-member board, with eight of the 24 outsiders busy.

Heinz responds that its 12% profit growth last year and 24% stock-price gain in the past year are more important than corporate-governance debates. NationsBank notes that its stock has outperformed the market for most periods since the 1980s.

NationsBank also has outperformed most other big banks. But Heinz’s stock price has generally trailed those of other food companies and the market over the past five years.

**Board Warnings:**

Characteristics of boards of directors that can be danger signs for a stock, according to a study by three professors at the Wharton School:

- Chairman and chief executive are the same person
- Large board
- Chief executive himself appoints outside directors
- Outside directors who have business dealings with company
- Outside directors age 70 or over
- ‘Busy’ outside directors who serve on many other boards

*Source: The Wall Street Journal, April 25, 1997*
P7-4. Compensation of outside directors

Requirement 1:
Two advantages of the plan are:

- Making directors stakeholders in the company provides them stronger incentives to more carefully monitor management decisions. This is because, as investors, they will share in any gains from good management, and they will suffer from poor management, just like other stockholders.

- It is often alleged that managers are too focused on short-term results rather than on the company’s long-term success. Linking director compensation to stock value (or return) may encourage directors to adopt a long-term perspective when evaluating management’s plans and performance.

Potential disadvantages of the plan are:

- Stock-based compensation is risky and may cause directors to become too risk-averse. Stock prices are influenced by a variety of factors that are outside the control of management and the board. The added risk may cause directors to prefer safe investment projects and to reject risky, positive, net-present-value investment opportunities. As a result, stock-based compensation may be less effective than a fixed cash payment. One way overcome this problem is to pay directors for the added risk of a stock-based compensation plan by using an expected payoff higher than the fixed cash payment.

- The value of the stock may be a very small portion of a director’s overall wealth, and, thus, provide little incentive for increased monitoring of top management. (Of course, the same could be said about the amount of any director’s fees paid entirely in cash.)

Requirement 2:
Managers and directors should not be rewarded (or punished) for performance outcomes that are beyond their control. Doing so introduces unwanted variation (or “noise”) into the performance evaluation process and adds performance risk that managers and directors cannot influence. Companies in cyclical industries (e.g., construction) are a case in point. A company’s stock price will suffer during a business downturn no matter how well management has positioned the business to weather that downturn. Some compensation plans address this issue by indexing stock-based compensation to changes in the value of a market-wide or an industry-wide share price index. This approach has gained popularity in recent years and is known as relative performance evaluation.
Requirement 3:
Shareholders receive a return on their investment in two ways: cash dividends and share price appreciation. Other things equal, eliminating cash dividends will result in a higher stock price. To see this, consider a company whose stock is now selling for $10 per share with a $1 per-share annual dividend. Suppose investors require (demand) a 12% return on the company’s stock and that management delivers this level of performance by earning $1.20 per share. If $1 is paid out as dividends, the stock will be worth $10.20, but if no dividends are paid out, the stock will be worth $11.20.

Stock options, however, have a fixed exercise price that does not rise or fall with changes in the company’s dividend policy. This means that, other things equal, Times Mirror directors would favor the elimination of cash dividends any time they are holding options that cannot be exercised. Eliminating the dividend would cause the company’s share price to rise more quickly in the future, and thereby increase the value of directors’ stock options.

P7-5. Earnings quality and pay

Requirement 1:
The first thing to note about the suggested adjustments is that none of the nonoperating income items and gains are mentioned. The list provided by company managers is one-sided: It identifies nonoperating and extraordinary items that decreased reported earnings for the year, but it does not point to any of those items that increased earnings. Of course, without access to the complete financial statement, the compensation committee would not be aware of this intentional oversight.

Requirement 2:
Let us start with the three income-reducing special items:

a) Restructuring and other nonrecurring charges
b) Loss from discontinued operations prior to sale (net of tax)
c) Extraordinary charge, early retirement of debt (net of tax effect)

The compensation committee could agree that the bonus should be paid solely on the basis of reported net income and that no adjustment is necessary. One justification for this view is that income-reducing items such as these are offset by income-increasing items not contained on the adjustment list.

On the other hand, a reasonable argument can be made to exclude (a) and (b) from the bonus calculation. Changes in the company’s economic environment may have contributed to the need for a restructuring and the discontinued operations. Managers should not be penalized for making good business decisions. And, if annual bonuses are influenced by such
nonrecurring items, managers will be less inclined to make these tough decisions in the future.

A similar argument can be made for excluding (c) from the bonus calculation. Here, changes in the company’s optimal financial structure (best mix of debt and equity) may have prompted the early debt retirement. Don’t penalize managers for making good business decisions.

d) Cumulative effect on prior years of changes in accounting principles for:

- Postretirement benefits other than pensions (net of tax effect).

Although management could determine the timing of this accounting, the change itself was not voluntary. The FASB required all companies to adopt a new approach to accounting for postretirement benefits. For this reason, it seems reasonable to exclude the loss from the bonus calculation.

- Depreciation (net of tax effect) and warehouse and catalog costs (net of tax effect).

These accounting changes were initiated by management and not required by the FASB or some other regulatory body. As such, no adjustment to the bonus calculation should be made because managers presumably understood how the action would affect their compensation. A counterargument is that managers should not be penalized (or rewarded) for accounting decisions that have no real economic impact on the company.

Three possibilities for the appropriate net income figure come to mind:

(a) Income from continuing operations. The rationale here is to exclude items that have no direct bearing on the company’s sustainable income for the year.

(b) Income from continuing operations, adjusted for all nonrecurring items. The idea to exclude nonrecurring losses so that managers have an incentive to restructure operations when needed, and without harming their annual bonus. Nonrecurring gains are excluded so that managers are not rewarded for temporary income increases.

(c) Income from continuing operations, adjusted for nonrecurring losses only. As in (b), the rationale here is to provide managers with an incentive to restructure operations when needed and to reward them for any realized gains (even those gains that are not sustainable).

For most companies, the best choice is (b).
P7-6. **Avoiding debt covenant violations**
See also problem P7-7 for an update on Food Lion, Inc.

**Requirement 1:**
For most companies, the **fixed charges ratio** is just a variation of the interest coverage ratio. With only two weeks until the books are closed, the company needs to “find some income” that can increase the numerator of this ratio. Possible sources of income are:

- Accelerate the recognition of revenue from the first few days of next year into the last few days of this year (i.e., leave the books open past the fiscal year end).
- Delay the recognition of expenses from the last few days of this year until the first few days of next year (i.e., close the books early for expenses).
- Postpone discretionary expenses like maintenance, research and development, or advertising.
- Sell assets that have market values substantially in excess of their book values.
- Change one or more accounting methods to increase reported earnings. For instance: expand straight-line depreciation to all long-lived assets, eliminate LIFO accounting.
- Change one or more accounting estimates. For instance, increase the estimated useful lives of long-term assets, decrease salvage value estimates or bad debt allowances.

**Requirements 2 and 3:**
Some actions that could be taken are:

- Any of the actions outlined in (1) also apply here.
- Issue common stock before the end of the year.
- Reissue treasury stock before the end of the year.
- To reduce the ratio of consolidated debt to total capitalization (i.e., to total assets), the company could retire some debt before the end of the year. If the debt could be retired for a price close to its carrying amount, net worth would not change much.
- The last three items could be combined into a stock-for-debt exchange offer, although most transactions of this sort require more than two weeks’ time.
Requirement 4:
Answers to this question will vary from student to student. The dilemma confronting the banker involves a trade-off between (a) using covenants to restrict management’s action and thereby reduce credit risk and (b) inhibiting management from taking prudent actions that enhance cash flows and the likelihood of debt repayment. Students should be encouraged to see both sides of this situation.

P7-7. How debt covenants are structured

Requirement 1:
Delhaize America’s creditors included rent as part of “fixed charges” in the EBITDAR coverage ratio so that the company’s “leased” buildings and equipment is treated the same way as its “owned” buildings and equipment. Notice that the EBITDAR numerator of the coverage ratio excludes the cost of “owned” buildings and equipment (depreciation) and the cost of “leased” buildings and equipment (rent). Including rent in the “fixed charges” denominator of the coverage ratio means that payments for leased buildings and equipment are being treated just the same as debt payments (principal and interest) for purchased buildings and equipment. If rent were not included, company management would have an incentive to lease rather than buy new buildings and equipment. The additional cash flow commitments associated with these leases would increase the lender’s credit risk exposure.

As written, the EBITDAR coverage ratio restriction allows the lender to implicitly limit the company’s leasing activities while neither encouraging nor discouraging growth.

Requirement 2:
The coverage ratio gradually becomes more stringent over time. This provides company management with an incentive to grow sales and improve operating efficiency (increase EBITDAR), or reduce fixed charges from their current levels. By agreeing to the escalating coverage ratio, the company was presumably able to borrow money at a lower rate of interest than might otherwise have been charged.

Shareholders presumably benefit from the company’s improved operating performance and its reduced fixed charges. So does the lender because the credit risk exposure of the loan is reduced as well.

Requirement 3:
The debt to EBITDAR ratio is designed to limit future borrowing and force the company to become more liquid over time. By gradually reducing the acceptable amount of debt and rent, creditors have greater assurance that
Delhaize America will be able to repay interest and principal payments when they become due.

**Requirement 4:**
This reduction in the maximum acceptable debt-to-EBITDAR ratio means that the company must become more profitable over time (EBITDAR increases) or reduce its outstanding debt (repay existing loans). By agreeing to this restriction, the company was presumably able to borrow money at a lower rate of interest than might otherwise have been charged. Shareholders benefit from the company’s access to low-cost loans and from the operating improvements required over time under the more stringent debt-to-EBITDAR ratio. The lender benefits from the reduced credit risk of a healthier company.

**P7-8. Investment projects and stockholder-bondholder conflict**

**Requirement 1:**
The expected value of project A is:

\[
\text{Expected Value of Project A} = (250,000 \times 0.50) + (500,000 \times 0.50) = 125,000 + 250,000 = 375,000
\]

The expected value of project B is:

\[
\text{Expected Value of Project B} = (100,000 \times 0.50) + (650,000 \times 0.50) = 50,000 + 325,000 = 375,000
\]

If the company has no debt, risk-neutral shareholders are indifferent between the two projects because they have the same expected value. However, if the project is financed with debt, shareholders will prefer project B because of its greater payoff dispersion. This increases the likelihood of a higher payoff for shareholders. Here is how: Project A generates either just enough to pay bondholders ($250,000) or enough to pay the debt and to put $250,000 in the pockets of shareholders. Project B will generate either $100,000 (stockholders walk away and bondholders lose $150,000) or enough to pay bondholders in full and put $400,000 in the pockets of shareholders. The greater dispersion of project B relative to project A is why shareholders prefer project B.

Why are shareholders risk-neutral? The usual explanation is that they can diversify their risk across many investments, and, thus, care little about the risk of any individual investment.

**Requirement 2:**
The bondholders clearly prefer project A because regardless of which outcome occurs, this project always generates enough cash to repay the full $250,000 of debt. Project B has only a 50% chance of generating enough
cash to repay the debt in full, and there is a 50% chance that bondholders will lose $150,000.

**Requirement 3:**
The availability of project B creates a problem for bondholders if they price the debt assuming that project A will be selected. If project B is chosen instead, the value of the debt will fall because of the increased likelihood of default (non-payment). The decline in the value of the debt would be mirrored by an increase in share value.

On the other hand, if bondholders realize other investment projects may be available, they will protect themselves from asset substitution. One way to achieve this protection is to price the debt so that it reflects the possibility that a project riskier than A will be selected. But rational managers know that bondholders “price-protect” so they willingly agree to use the loan proceeds only for project A. The debt gets priced accordingly, and the company gets a lower cost of capital.

**P7-9. Microsoft’s “unearned revenues” account**

**Requirement 1:**
Microsoft cannot recognize all of the revenue from software sales until it is fully “earned.” Microsoft sets aside some software sales revenue as “unearned” because, at the time of sale, the company still has an obligation to provide the customer with substantial services (upgrades, support, and bug fixes) in the future. By postponing the recognition of this “unearned” revenue until later when the services are performed, Microsoft is just following GAAP revenue recognition principles.

**Requirement 2:**
Determining how much software sales revenue to set aside as unearned each quarter is a challenge because it requires an estimate of the future cost of providing the promised services to customers. Developing reliable cost estimates is no easy matter, particularly in an industry where technologies change rapidly and software released early is often error prone.

Once a cost estimate is determined, there are two ways Microsoft could then determine how much revenue to set aside as unearned. One approach would set aside just enough revenue to cover the estimated future costs of promised services. For example, suppose Microsoft expects to incur $5 in future expenses for each $100 software package it sells. The company would then recognize $95 of software sales revenue immediately and include this in current earnings. The remaining $5 would be recorded as unearned revenue, to be “earned” when the future services are performed.
A second approach would set aside enough revenue to not only cover the estimated future costs of the promised services, but to also earn a “normal” gross profit in the period when the services are performed. For example, suppose Microsoft again expects to incur $5 in future expenses for each $100 software package it sells and that it’s “normal” gross profit on software sales is 50%. In this case, the company would set aside $10 (the $5 of expected future cost plus a $5 gross profit) of software sales as unearned.

**Requirement 3:**
When the “unearned revenue” account is reduced by $100 million the dollars go to the “revenue” account and are included in net income. That’s because they are then considered earned revenue.

**Requirement 4:**
Contracting incentives (compensation and debt covenants) can exert a large influence on management’s decisions about the unearned revenue account. Consider a situation where management bonuses are based on achieving predetermined earnings (or earnings per share) targets. If management believes the company will exceed its profit goal this year, they have an incentive to increase the amount of software sales revenue set aside as unearned. Doing so will not jeopardize the bonus payment this year and it creates a cushion than can be used next year if the company appears to be falling short of its profit goal. Debt covenants can also provide incentives to “manage” the unearned revenue account, although they are unimportant for Microsoft because the company has very little debt outstanding.

The most important regulatory incentive facing Microsoft is potential political costs stemming from the company’s tremendous success. By increasing the amount of software sales revenue that it classifies as “unearned”, Microsoft can look less profitable. This may reduce the company’s political exposure to antitrust litigation or other forms or regulatory intervention.

**Requirement 5:**
Analysts and investors focus on changes in Microsoft’s unearned revenue account for several reasons. First, the unearned revenue account is a lead indicator of future profitability since today’s “unearned” revenues become tomorrow’s “earned” revenues. Less obvious, but undoubtedly more important, is the fact that changes in the unearned revenue account also is an indicator of the quality of Microsoft’s earnings. Analysts and investors look at this account to determine if Microsoft is “managing” its earnings each quarter—stockpiling unearned revenue in good quarters and drawing down the account in bad quarters.
P7-10. Executive pay when the CEO nears retirement

Requirement 1:
As a CEO approaches retirement, his/her decision horizon naturally becomes shorter. For example, suppose a CEO is paid an annual bonus based on the reported earnings. The CEO may be reluctant to invest in long-term projects if retirement is one or two years away. Nearing retirement also creates an incentive to manage the company’s financial reporting decisions (accounting method choices and accruals) so that revenue recognition is accelerated and expense recognition is delayed. Doing so can increase the last couple of bonus payments.

In addition, reported earnings can also be increased in the short run by reducing outlays for research and development, advertising, or other discretionary items. Such actions are likely to be detrimental in the long run, however.

Because annual bonuses may not be an effective way to motivate CEOs approaching retirement, it makes sense to change the incentive pay package. Common adjustments include eliminating or reducing earnings-based bonuses or deferring stock awards beyond the retirement date. These changes reduce the incentive to adopt a short-term decision horizon.

Requirement 2:
Some advantages are:

- The plan provides Mr. Stiritz with an incentive to focus on the long term because the value of his stock grant depends on how well the company performs after he retires. This seems to provide a strong incentive for him to select the best person as his successor.

- The options become exercisable in three tiers (or tranches) that become exercisable on September 26, 1998, 2001, and 2004, respectively. These staggered vesting dates mean that Stiritz cannot exercise the options all at once shortly after he retires. The fact that some options cannot be exercised until 2004 provides added incentive for Stiritz to adopt a long-term perspective as he selects a successor.

- Unless certain minimum levels of stock price performance are met, Stiritz will not be allowed to exercise the options. For example, the options scheduled to vest on 9/26/98 cannot be exercised unless the company’s stock price has increased to at least $74.14. If the share price is below this amount on 9/26/98, the options do not vest until the $74.14 price is subsequently reached. These minimum stock price requirements provide Stiritz with an added incentive to choose a successor who can create the most value for shareholders.
Some disadvantages are:

- As noted in the case, “all of the shares become exercisable, in any event, on the ninth anniversary of the date of grant.” Thus, regardless of how well or poorly the company’s stock performs over the nine-year period, Stiritz can exercise the options after nine years.

- The options are not indexed to the performance of the overall stock market or to the performance of Ralston’s industry. This means that part of any increase in the price of Ralston’s stock could reflect favorable market conditions or industry-wide conditions, rather than superior performance of the new CEO.

**Requirement 3:**
Some suggestions are:

- Set the exercise price at a level higher than the market price of the stock on the date the options were granted. This would require a higher level of performance by the new CEO and diminish the impact of favorable market-wide or industry-wide share price increases.

- Index the vesting date and exercise price to the company’s stock price performance relative to the industry or a peer group of similar companies.

- In addition to freezing Stiritz’s salary for the last couple of years before his retirement, require that a significant portion of his compensation be used to purchase Ralston’s common stock.

**Requirement 4:**
Many shareholders are likely to be disappointed by this outcome. The board’s stated rationale for changing its approach to compensating Stiritz was to get him to focus on “locating the right successor so that the company will do well after his retirement.” One interpretation of the appointment of two existing executives as co-chief executives is that Stiritz was unable to decide who should run the company after his retirement.

**P7-11. CEO compensation at Walt Disney Company**

**Requirement 1:**
In a corporation, shareholders delegate to professional managers control over the company’s resources and day-to-day operating decisions. However, shareholders are unable to directly observe the effort level put forth by the managers they hire. They cannot know whether managers are working hard to enhance the value of the firm, or whether they are just shirking. If top managers are paid a fixed salary, they have an incentive to shirk because they receive the same pay without regard to how well or how poorly the
company does. Earnings-based bonus plans overcome this problem and allow the managers to share in the company’s success. Managers then have an incentive to put forth more effort because their pay increases with profits, and profits increase when they put forth greater effort running the company.

*The plan requires Disney to earn a minimum rate of return of 11% before Eisner begins to receive a bonus. Is this a reasonable threshold?*

- One way to answer this question would be to look at the rate of return that Disney was earning prior to the adoption of the plan in 1989. If the company had been earning a higher rate of return, then one might conclude that the performance level required by the plan is too low.

- You might also look at the rate of return earned by Disney’s competitors. If the required rate of return is at or above the industry average, one might conclude that the performance level required by the plan is reasonable. Alternatively, if the required rate of return is below the industry average, one might conclude that the performance level required by the plan is too easy.

**Requirement 2:**
In addition to paying Eisner an annual cash bonus, Disney also awards stock options that provide a further incentive for Eisner to work hard to create value for shareholders. One problem with annual bonus plans is that managers can manipulate accounting income in the short term. Stock option grants get managers to take a long-term perspective.

**Requirement 3:**
The reason the exercise price of some options is set at a level above the current market price of Disney stock is that it provides Eisner with an added incentive to further increase the share value. Notice that these options are not “in the money” (have no value to Eisner) until Disney’s shareholders are all made better off by at least $10 per share. Setting the exercise price above the market price on the grant date also serves to reduce the impact of stock price run-ups that are due to general economic conditions (i.e., a bull market).

**Requirement 4:**
The table shows the value of $100 invested in Disney common stock, the S&P 500 market index, and the industry peer group (with dividend reinvestment). For example, $100 invested in Disney stock in September 1991 would be worth $229 in September 1996. Similar investments in the S&P 500 and the peer group would be worth $203 and $226, respectively. Investors in Disney common stock earned a return of 129% over the five-year period, compared to a market and peer group return of 103% and 126%, respectively.
This means that the Disney investment would be worth only $3 more than an investment in the peer group, and only $26 more than the market index. In percentage terms, Disney outperformed the market by an annual average of 5.2%, but by only about 0.6% over the peer group.

On the surface, the fact that Disney performed about the same as the peer group over the 1991-1996 period might suggest that Eisner was paid handsomely to match, but not outperform, peer companies.

However, before concluding that his compensation was excessive in relation to performance, the compensation strategies of the peer groups should be examined. One possibility is that peer group companies performed as well as Disney (on average) even though they had less expensive CEO pay plans. This would add credence to the claim that Disney’s shareholders overpaid Eisner for the level of stock price performance he delivered over the 1991-1996 period. On the other hand, peer group firms may have had even richer CEO pay packages.

**Requirement 5:**
The fact that Disney’s management selects peer group firms is problematic. Management may be tempted to select a peer group that it knows it will outperform. This complicates any analysis of pay-for-performance because you cannot be certain if Disney’s superior performance was due to having a better (more motivating) pay plan or because the peer group consists of relatively weak companies. One way analysts and investors can overcome this problem is to construct their own peer group for use in gauging Disney’s performance.

**P7-12. A new employment agreement at Disney**

**Requirement 1:**
To receive a bonus under the new plan, Eisner must increase Disney’s earnings-per-share (EPS) by more than 7.5% from the 1996 level. For example, if EPS was $1.00 in 1996, it would have to exceed $1.075 in 1997 (i.e., exceed $1.00 \times 1.075) before Eisner receives a bonus.

The old bonus plan required Disney to earn an 11% return on stockholders’ equity (ROE). The new plan calls for EPS growth of 7.5%. Despite this difference, the two plans are alike in many ways. For example, they both pay for earnings performance, and the dollar earnings hurdle increases each year (as long as Disney’s dividend payout ratio is less than 1.0).

Stock options are granted under both plans. Under the old plan, 75% of the options had an exercise price equal to the market price of the stock on the grant date. Under the new plan, this percentage falls to 62.5% with the remaining 37.5% having higher exercise prices. These staggered exercise
prices range from 25% above the market price to 100% above the market price. This feature of the new plan should provide a stronger incentive for Eisner to increase the value of Disney shares.

**Requirement 2:**
Are the new performance goals reasonable? There is no correct answer to this question, but here are some points to consider:

- How does the new performance goal compare to the company’s past record of EPS growth? If EPS has been growing at a rate substantially above 7.5%, the new performance goal should be easily achieved and, thus, might be too low.

- In addition to Disney’s historical performance, how does the goal compare to the EPS growth rates of the company’s competitors? Again, if competitor EPS growth has been substantially above 7.5%, the new performance goal might be too low to provide an incentive for superior performance.

- One issue that does arise with regard to the new bonus plan is the impact that share repurchases can have on EPS growth. If Disney aggressively repurchases common shares each year, the number of shares outstanding will decline, and EPS will increase over time even though earnings itself stays level. The new bonus plan creates an incentive to repurchase shares instead of paying cash dividends to stockholders because doing so makes it easier to achieve the EPS growth target.

**Requirement 3:**
There is no “correct” answer to this question. On the one hand, the agreement continues to tie compensation to accounting performance, not shareholder value, and that is a reason to vote against the contract. On the other hand, the staggered exercise price on the options does provide an incentive to increase the company’s share price, and that is a reason to vote for the contract. In the end, the question is simply: Does the new contract better align Eisner’s incentives with those of shareholders?

Given the (hypothetical) value of Eisner’s options as reported in the problem (in excess of $190 million), some students may be tempted to respond to this question by saying that they would vote against the plan because the level of compensation seems so excessive. The following points should also be considered:

- How does Eisner’s compensation package compare with that of other CEOs in the industry?

- How successful has Disney been under Eisner’s leadership? How much value has been created for shareholders, and how does this compare to
other companies in the industry and to the level of compensation paid to Eisner?

- What other employment opportunities does Eisner have? If he is an exceptional CEO with a national reputation, his pay package might have to be rich just to keep him at Disney. Skilled executive talent is a scarce resource, and the most talented CEOs should be the most richly rewarded.

P7-13. Understanding rate regulation and accounting choices

**Requirement 1:**
The following table shows the impact of the proposed accounting changes on 2001’s revenue requirement and rate per kilowatt hour:

<table>
<thead>
<tr>
<th>Proposed accounting changes</th>
<th>Base Case</th>
<th>Extend Plant Life</th>
<th>Increase Bad Debts</th>
<th>Amortize Takeover Costs</th>
<th>Write-Up Inventories</th>
</tr>
</thead>
<tbody>
<tr>
<td>Allowed operating costs</td>
<td>$1,120.0</td>
<td>$1,120.0</td>
<td>$1,120.0</td>
<td>$1,120.0</td>
<td>$1,120.0</td>
</tr>
<tr>
<td>Accounting change adjustment</td>
<td>–</td>
<td>(5.0)</td>
<td>7.0</td>
<td>1.5</td>
<td>–</td>
</tr>
<tr>
<td></td>
<td>$1,120.0</td>
<td>$1,115.0</td>
<td>$1,127.0</td>
<td>$1,121.5</td>
<td>$1,120.0</td>
</tr>
<tr>
<td>Assets in service</td>
<td>$3,200.0</td>
<td>$3,200.0</td>
<td>$3,200.0</td>
<td>$3,200.0</td>
<td>$3,200.0</td>
</tr>
<tr>
<td></td>
<td>–</td>
<td>175.0</td>
<td>(7.0)</td>
<td>3.0</td>
<td>60.0</td>
</tr>
<tr>
<td></td>
<td>$3,200.0</td>
<td>$3,375.0</td>
<td>$3,193.0</td>
<td>$3,203.0</td>
<td>$3,260.0</td>
</tr>
<tr>
<td>Allowed return at 8.75%</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>$280.0</td>
</tr>
<tr>
<td>Revenue requirement</td>
<td>$1,400.0</td>
<td>$1,410.3</td>
<td>$1,406.4</td>
<td>$1,401.8</td>
<td>$1,405.3</td>
</tr>
<tr>
<td>Estimated demand (millions of KWH)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>14,000</td>
</tr>
<tr>
<td>Rate per KWH allowed</td>
<td>$0.10000</td>
<td>$0.10074</td>
<td>$0.10046</td>
<td>$0.10013</td>
<td>$0.10038</td>
</tr>
</tbody>
</table>
Alternate solution format:

<table>
<thead>
<tr>
<th>Current allowed operating costs</th>
<th>Estimated Demand</th>
<th>Rate per KWH Allowed</th>
</tr>
</thead>
<tbody>
<tr>
<td>$1,120.0</td>
<td>14,000</td>
<td>$0.08000</td>
</tr>
</tbody>
</table>

Effects of proposed accounting changes:

- Extend plant depreciation life ($5.0) | 14,000 | ($0.00036) |
- Increase bad debts $7.0 | 14,000 | $0.00050 |
- Amortize hostile takeover costs $1.5 | 14,000 | $0.00011 |
- Write-up fuel and materials inventories $0.0 | 14,000 | $0.00000 |

Subtotal $1,123.5 | 14,000 | $0.08025 |

Current assets in service × 8.75%

<table>
<thead>
<tr>
<th>Estimated Demand</th>
<th>Rate per KWH Allowed</th>
</tr>
</thead>
<tbody>
<tr>
<td>$280.00</td>
<td>14,000</td>
</tr>
</tbody>
</table>

Effects of proposed accounting charges:

- Extend plant depreciation life ($175 million × 8.75%) $15.31 | 14,000 | $0.00109 |
- Increase bad debts ($7 million decrease × 8.75%) ($0.61) | 14,000 | ($0.00004) |
- Amortize hostile takeover costs ($3 million × 8.75%) $0.26 | 14,000 | $0.00002 |
- Write-up fuel and materials inventories ($60 million × 8.75%) $5.25 | 14,000 | $0.00038 |

Subtotal $300.2 | 14,000 | $0.02144 |

**Requirement 2:**
The bad debt increase seems quite plausible as long as the revised estimate (1.5% of sales) conforms to the company’s actual experience. This change would probably be allowed.

The inventory write-up to current replacement value makes good economic sense. Investors should be allowed to earn a fair return (8.75%) on their current investment in the company, not on an outdated historical measure of that investment. If LIFO inventory accounting were used, for example, the inventory cost numbers could be several decades old. Unfortunately, regulators have so far rejected this line of argument and required utilities to maintain their balance sheet at historical cost.

The plant life extension would be allowed, but not the $400 million increase in asset book value.

Regulators would disallow amortization of the hostile takeover cost incurred last year. This is nothing more than a bold attempt to get one of last year’s expenditures into this year’s rate base. The company may initiate a request for a special rate surcharge to cover this unusual expenditure, but that too is likely to be rejected because the outlay was of little benefit to customers.
Cases

Requirement 1:
Symantec’s inventory of payable funds (IPF) for 1996 is equal to $10.0 million plus 25% of the company’s net income since 1993, minus the sum of all cash dividends and share repurchases since 1993. The financial statement excerpt does not indicate how proceeds from stock sales are to be handled in the IPF calculation, so two alternative IPF numbers are shown below.

Excluding the proceeds from stock sales:

\[
\text{IPF} = 10,000,000 + 0.25 \times (-44,421,000 + 33,409,000 - 39,783,000)
\]

\[
= 10,000,000 - 12,698,750 = -2,698,750
\]

Based on this calculation, Symantec has a negative IPF and cannot pay cash dividends or repurchase stock.

Including the proceeds from stock sales:

\[
\text{IPF} = 10,000,000 + 0.25 \times (-44,421,000 + 33,409,000 - 39,783,000) + (47,969,000 + 21,395,000 + 20,770,000)
\]

\[
= 10,000,000 - 12,698,750 + 90,134,000 = 87,435,250
\]

Based on this calculation, Symantec can pay cash dividends or repurchase stock up to the amount of $87,435,250.

Requirement 2:
The percentages are: Genesco 50%, Worthington 75%, and Symantec 25%.

Why does this percentage vary across companies and industries? By limiting a company’s ability to pay cash dividends, bondholders are implicitly imposing a minimum reinvestment constraint on the business. Limiting cash distributions to shareholders means that more cash is retained in the business and available to fund new investments—new product development, capital projects, advertising, and so on. Bondholders benefit from these...
investments if they enhance future cash flows of the firm, because this increases the likelihood of debt repayment. Thus, one reason the IPF net income percentage might be set low is that bondholders want the company to reinvest a larger portion of its earnings. This might be true for small companies, companies that have recently gone public, or companies in highly competitive industries.

**Requirement 3:**
Cash dividends and share repurchases are treated the same for IPF purposes because they both reduce the cash available to repay debt. In addition, since the cash leaves the company, dividends and share repurchases also reduce the cash available for investment in positive NPV projects inside the company. This reduces the future cash flows available for debt repayment.

**Requirement 4:**
Bondholders limit cash distributions to shareholders to prevent managers from just giving the money away to owners and increasing the default risk of the business. Cash dividends paid out of debt proceeds or funded by asset sales increase default risk. That is why the IPF is not increased when the company issues more debt.

Cash dividends paid from the stock sale proceeds do not increase the company’s default risk—managers are merely taking money in from new stockholders and paying it out to old stockholders.

**Requirement 5:**
In the very near term, the deficit could be eliminated by issuing common stock, making an income-increasing accounting method change, or reducing discretionary expenditures like advertising or R&D. Of course, the best way to eliminate the deficit would be to improve the company’s real profitability. Generate higher sales, reduce costs, and grow earnings.

**Requirement 6:**
Why do companies like Worthington maintain large IPF balances? One reason is that managers are reluctant to cut cash dividends when earnings performance slackens. This is because the stock market reacts negatively to most dividend cuts. Thus, a company that maintains a small or negligible IPF runs the risk of having to cut dividends in any year that earnings are small or negative (loss). Earnings volatility thus plays an important role in managers’ decisions about optimal IPF balances. Companies that maintain a sizable IPF balance do not find it necessary to reduce dividends as quickly.
C7-2. **Huffy Corporation, Caesars World, and Lands’ End (CW):**
Accounting-based incentive bonus plans

**Requirement 1:**
In a corporation, shareholders delegate control over the company’s resources and day-to-day operating decisions to professional managers. However, shareholders are unable to directly observe the effort level put forth by the managers they hire. They cannot know whether managers are working hard to enhance the value of the firm, or whether they are just shirking. If top managers are paid a fixed salary, they have an incentive to shirk because they receive the same pay without regard to how well or how poorly the company does. Earnings-based bonus plans overcome this problem and allow the managers to share in the company’s success. Managers then have an incentive to put forth more effort because their pay increases with profits, and profits increase when managers put forth greater effort running the company.

**Requirement 2:**
Huffy reported net income of $4,215,000 and income before the cumulative effect of accounting changes of $11,843,000. Average net assets are $121,342,000 \[($124,997,000 + $117,687,000)/2\]. Whether or not managers achieved a RONA greater than 8.5% depends on whether the income effect of the accounting method change is included or excluded from the RONA calculation:

\[
\text{RONA (including the accounting change)} = \frac{4,215,000}{121,342,000} = 3.47\%
\]
\[
\text{RONA (excluding the accounting change)} = \frac{11,843,000}{121,342,000} = 9.76\%
\]

Without the bonus plan details, we cannot tell if Huffy’s managers are entitled to a bonus. A reasonable presumption is that the RONA calculation used by the board of directors excludes the income effect of the accounting change, especially if the change is one mandated by the FASB. In fact, one way to avoid this kind of problem is to have the bonus based on Income from continuing operations rather than net income.
Requirement 3:
Calculations for both years appear below. Two calculations for each year are presented, with and without the adjustment for stock sales and repurchases.

For 1993:

Pre-tax income = $133,976

Beginning equity = $384,648 (i.e., the ending equity of 1992)

Beginning equity adjusted for stock sales and repurchases  
= $384,648 + $1,369 (stock sales in 1993) - $1,338 (stock repurchased in 1993)  
= $384,679

Minimum required rate of return for 1993:

= $384,648 \times 0.12 = $46,157.76
or
= $384,679 \times 0.12 = $46,161.48

In either case, the minimum required rate of return is met because pre-tax income is $133,976.

For 1994:

Pre-tax income = $128,555

Beginning equity = $472,890 (i.e., the ending equity of 1993)

Beginning equity adjusted for stock sales and repurchases  
= $472,890 + $2,111 (stock sales in 1994) - $2,337 (stock repurchased in 1994)  
= $472,664

Minimum required rate of return for 1994:

= $472,890 \times 0.12 = $56,746.80
or
= $472,664 \times 0.12 = $56,719.68

In either case, the minimum required rate of return is met because pre-tax income is $128,555.
Requirement 4:
To receive the annual bonus, pre-tax income must exceed 6% of sales:

<table>
<thead>
<tr>
<th>Year</th>
<th>Sales</th>
<th>( \times 0.06 )</th>
<th>Threshold</th>
<th>Pre-tax Income</th>
</tr>
</thead>
<tbody>
<tr>
<td>1991</td>
<td>$601,991</td>
<td>$36,119.46</td>
<td>$29,943</td>
<td></td>
</tr>
<tr>
<td>1992</td>
<td>$683,427</td>
<td>$41,005.62</td>
<td>$47,492</td>
<td></td>
</tr>
<tr>
<td>1993</td>
<td>$733,623</td>
<td>$44,017.38</td>
<td>$54,033</td>
<td></td>
</tr>
<tr>
<td>1994</td>
<td>$869,975</td>
<td>$52,198.50</td>
<td>$69,870</td>
<td></td>
</tr>
<tr>
<td>1995</td>
<td>$992,106</td>
<td>$59,526.36</td>
<td>$59,663</td>
<td></td>
</tr>
</tbody>
</table>

The threshold rate of return was not earned in 1991, but was earned in 1992–1995.

Requirement 5:
Perhaps the most reasonable response to this question is that different companies (and different industries) are likely to have different value drivers (i.e., key factors that enhance shareholder wealth). For example, asset utilization is often a key value driver in capital-intensive industries, whereas cost containment and margins are important in retail. Different economic circumstances require managers to be focused on different financial performance measures.

Requirement 6:
All three compensation plans are based on accounting earnings. As a result, managers have an incentive to make financial reporting decisions that accelerate revenues and delay expenses because doing so can increase the present value of their bonuses. Examples of financial reporting decisions that might be worth monitoring include:

- Changes in accounting methods (e.g., accelerated to straight-line depreciation),
- Increases in the useful lives of long-term assets,
- Accruals for future obligations under warranties,
- Accruals for future bad debts,
- Decisions about the classification of marketable equity securities as trading securities versus securities available for sale, and
- Expenditures for research and development activities and advertising expenditures.
 Requirement 7:
Are the performance targets in these plans reasonable? The answer to this question is highly subjective when based solely on the information contained in the case. However, one way to answer this question is to see how often the company achieved the minimum performance level in the past and by how much. If the performance target was exceeded each year and by a substantial amount, the target is probably too low.

Some instructors may find it helpful to focus student attention on the second question: What information do you need in order to determine if the performance targets are reasonable? Here’s some information that might be useful:

- Past values of the performance measure (i.e., return on assets, return on stockholders’ equity, the ratio of pre-tax income to sales) for the company. These values provide a natural starting point for assessing reasonableness.

- Past values of the performance measure for other companies in the industry. If the company has underperformed others in the industry, it may make sense to tie a portion of the bonus to absolute performance and the rest to performance relative to the industry. For instance, managers could receive some bonus when RONA exceeds a minimum level (say 8%) and another bonus determined by how much RONA exceeds the industry average.

C7-3. Sunny Day Stores Inc. (CW): Debt covenants and financial distress

 Note to instructors: This is a challenging case based on a real company, Sunshine Junior Stores, Inc. As a result, some instructors find that it is best suited for class discussion of the issues surrounding loan renegotiations than as a graded homework assignment. A useful feature of the case is that the revised loan terms are included in the solution. This allows students to see what lenders actually did.

 Requirement 1:
With regard to the amount of collateral, given that Sunny Day violated its earlier lending agreements, lenders are likely to demand collateral in an amount equal to face value of the debt.

With regard to the type of collateral, lenders prefer assets that are extremely marketable and, thus, can be sold quickly if Sunny Day defaults. Receivables and Inventories are usually good candidates. Less desirable, but still useful are company-owned stores, furnishing, and fixtures.
The revised lending agreement stated that: The Company will pledge as collateral its interest in approximately 95 stores which are located outside of its primary market areas and which it is planning to offer for sale.

Requirement 2:
The fact that Sunny Day defaulted on the earlier lending agreement is a clear indication that the company’s credit risk has increased. To compensate for the added risk, lenders often require a higher interest rate.

The actual revised lending agreement stated the following: The interest rates on the loan agreements will be increased to 9.43% and prime plus 1.5% for Prudential and First Florida, respectively.

Requirement 3:
As stated in the revised lending agreement, lenders could require the company to use the proceeds from any asset sale to reduce outstanding debt. In addition to limitations on cash dividends, this requirement prevents the management from selling valuable assets and distributing the proceeds to shareholders, an action that would make the lenders worse off.

The actual revised lending agreement stated the following: Additional principal reductions in the amount of $1,000,000 are required on both the note payable to Prudential and the revolving note payable to First Florida on April 1, 2003.

The proceeds from any sales of assets (20% through September 30, 2002; 30% through March 31, 2003; 40% from April 1, 2003 through June 30, 2003; and 75% thereafter) must be applied toward additional principal reductions.

Requirement 4:
This will be a difficult question for students to answer in a precise fashion. We recommend making the following point before sharing the actual revisions with them. Lenders are likely to ask for future profit and cash flow projections as part of the renegotiations. These projections provide a natural starting point for determining revised covenant limits. Students should also recognize that the final outcome here is negotiated.
The actual revised lending agreement stated the following: The new financial covenants, all calculated based on inventories accounted for on a FIFO basis, are as follows:

<table>
<thead>
<tr>
<th>Period ending</th>
<th>Net Worth</th>
<th>Working Capital (deficit)</th>
<th>Fixed Coverage Ratio, as defined</th>
</tr>
</thead>
<tbody>
<tr>
<td>March 2002</td>
<td>$20,000,000</td>
<td>($5,500,000)</td>
<td>1.30:1.0</td>
</tr>
<tr>
<td>June 2002</td>
<td>$20,500,000</td>
<td>($6,000,000)</td>
<td>1.25:1.0</td>
</tr>
<tr>
<td>September 2002</td>
<td>$21,000,000</td>
<td>($5,500,000)</td>
<td>1.35:1.0</td>
</tr>
<tr>
<td>December 2002</td>
<td>$21,000,000</td>
<td>($5,500,000)</td>
<td>1.40:1.0</td>
</tr>
<tr>
<td>March 2003</td>
<td>$20,500,000</td>
<td>($5,000,000)</td>
<td>1.40:1.0</td>
</tr>
<tr>
<td>June 2003</td>
<td>$21,500,000</td>
<td>($4,000,000)</td>
<td>1.20:1.0</td>
</tr>
<tr>
<td>September 2003</td>
<td>$22,500,000</td>
<td>($4,000,000)</td>
<td>1.30:1.0</td>
</tr>
<tr>
<td>December 2003</td>
<td>$22,500,000</td>
<td>($3,500,000)</td>
<td>1.40:1.0</td>
</tr>
<tr>
<td>March 2004 and thereafter</td>
<td>$22,500,000</td>
<td>($3,000,000)</td>
<td>1.40:1.0</td>
</tr>
</tbody>
</table>

Note that the revised covenants are based on FIFO inventory values even though Sunny Day uses LIFO for financial reporting purposes (see the balance sheet). One interpretation of this feature is that lenders believe that FIFO values provide a more accurate indication of the company’s credit risk than do LIFO values.

**Requirement 5:**
Sunny Day defaulted on the earlier loan and is clearly experiencing some financial difficulty. Allowing the company to pay dividends gives management an opportunity to reorder the claims of bondholders and shareholders. Payment of cash dividends decreases the likelihood of debt repayment because there is less cash in the company. The company should not be allowed to resume the dividend.

The actual revised lending agreement stated the following: Negative covenants in the Company’s debt agreements prohibit the payment of dividends.

C7-4. Maxcor Manufacturing: Compensation and earnings quality

**Requirement:**
There are several reasons why Ms. Magee should feel uneasy about Maxcor’s computation of 2000 operating profits:
- Some research and development (R&D) expenses are shown above the operating profit line (in cost of goods sold) and some are below the line (as research and development expense). The classification decision may allow considerable discretion. For example, about 72% of total R&D was
charged to cost of goods sold in 1999 when operating profits were still above the level required to earn a 200% bonus. But in 2000, only about 34% of total R&D was charged to cost of goods sold. Operating profits that year were barely above the bonus threshold of $4.0 million.

- Plant closing costs lowered net income for the year. The issue here is whether management should be penalized (or rewarded) for this business decision. As a practical matter, many companies excluded such costs from the bonus calculation.

Should the 100% bonus payout for 2000 be approved? Probably not! Sales are down nearly 12%. Operating costs fell by a similar percentage, but much of that decrease can be traced to the smaller R&D charge to cost of goods sold. The degree to which management should be held accountable for the sales decline, and the extent to which R&D classification is discretionary would also influence the committee’s decision.

Here are some possible changes to the bonus formula:

- Eliminate discretion in R&D classification but encourage productive investment of R&D dollars.
- Set performance goals relative to competitor performance.
- Eliminate the step-up feature of the bonus hurdles in favor of a smooth payout function.
- Use a “bonus bank” that spans several years to guard against the tendency to shift earnings from one year to another. The bank would accumulate bonuses over a three-year period, paying out one-third of the bank balance each year.
- Charge for the capital used in the company so that bonus payments reflect value creation, not just earnings performance.
- Use stock options, phantom shares, or stock purchases to make managers into owners.

C7-5. Relative performance and stock options

Requirement 1:
On January 1, 2003 the exercise price of the Level 3 stock options is $80 ($50 X 1.60). Employees have benefited from the plan because the stock is selling for $90 per share but they can buy it for only $80. Although the S&P index rose by 60 percent the company’s stock price rose by 80 percent.

Requirement 2:
The option exercise price is still $80 based on the 60% increase in the S&P index. Employees seem to have lost here because the options are now
"under water"—the market price of $70 is below the $80 exercise price. The reason is that the company’s stock price performance (40%) has been below that of the S&P index (60%). Employees can still benefit from the options grant, but only if they take actions that increase the company’s share price. Shareholders have done well (the stock is up 40%) but not as well as they would have done by investing in the S&P.

**Requirement 3:**
When interest rates decline banks tend to borrow more freely and lend money to their clients at attractive rates. The result is that when interest rates decline, it has a ripple effect on the economy and on the stock market. By raising the exercise price, Level 3 does not reward employees for stock price increases that are due to macroeconomic factors. Employees are rewarded (in good economic times and in bad) only when the company’s stock price performance is better than that of the S&P index. Examples of macroeconomic factors that could influence a company’s stock price are economic recessions, tax rate changes, political and sovereign issues, and restrictive legislation.

**Requirement 4:**
There are many possible explanations, including the following management beliefs:
- The plan will not allow us to attract talented employees because our competitors do not “index” their stock option grants.
- The plan imposes too much risk on employees who cannot diversify like stockholders can by investing in a broad portfolio of companies.
- It’s too complicated for our people to understand.
- If the stock’s up 40 percent, management and employees should still share in the wealth created by our performance even though the broad market is up 60 percent.
- Our company’s true worth is not reflected in its stock price.