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FIFTH EDITION

# FINANCIAL STATEMENT ANALYSIS WORKBOOK

## A Practitioner's Guide

MARTIN S. FRIDSON
FERNANDO ALVAREZ

WILEY

# Financial Statement Analysis Workbook

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*In memory of my father, Harry Yale Fridson, who introduced me to accounting, economics, and logic, as well as the fourth discipline essential to the creation of this book—hard work!*

*M. F.*

*For Shari, Virginia, and Armando.*

*F. A.*

# Contents

# Preface to the Fifth Edition Workbook

This fifth edition of *Financial Statement Analysis,* like its predecessors, seeks to equip its readers for the practical challenges of contemporary business. Once again, the intention is to acquaint readers who have already acquired basic accounting skills with the complications that arise in applying textbook-derived knowledge to the real world of extending credit and investing in securities. Just as a swiftly changing environment necessitated extensive revisions and additions in the second through fourth editions, new concerns and challenges for users of financial statements have emerged as the third decade of the twenty-first century unfolds.

A fundamental change reflected in the third edition was the shift of corporations' executive compensation plans from a focus on reported earnings toward enhancing shareholder value. Stock options became a major component of corporate leaders' pay. In theory, this new approach aligned the interests of management and shareholders, but the concept had a dark side. Chief executive officers who were under growing pressure to boost their corporations' share prices could no longer increase their bonuses by goosing reported earnings through financial reporting tricks that were transparent to the stock market. Instead, they had to devise more opaque methods that gulled investors into believing that the reported earnings gains were real.

To adapt to the new environment, corporate managers became far more aggressive in misrepresenting their performance. They moved beyond exaggeration to outright fabrication of earnings through the use of derivatives and special-purpose vehicles that never showed up in financial statements and had little to do with the production and sale of goods and services. This insidious trend culminated in colossal accounting scandals involving companies such as Enron and WorldCom, which shook confidence not only in financial reporting but also in the securities markets. Government responded to the outrage over financial frauds by enacting the Sarbanes-Oxley Act of 2002. Under its provisions, a company's chief executive officer (CEO) and chief financial officer (CFO) were required to attest to the integrity of the financial statements. They were thereby exposed to greater risk than

formerly of prosecution and conviction for misrepresentation. Prior to enactment of this legislation, it was not unheard of for a CEO who stood to profit massively from share price appreciation to escape prosecution by implausibly disavowing knowledge of the fraud and shifting the consequences to an underling whose compensation was not tied in any way to the company's stock price. Sarbanes-Oxley has had a profound effect.

True, the fourth edition of *Financial Statement Analysis* examined several major financial reporting frauds that came to light later than 2002. Upon close examination, however, those scams turned out to have originated prior to Sarbanes-Oxley's passage but were exposed sometime later. By the 2010s, outright, large-scale financial reporting fraud was rare in the United States. Compiling this new edition was not hampered, however, by any shortage of case studies involving accounting that deceived investors without breaking the law. In addition, flat-out financial reporting fraud continued to flourish outside the United States.

Curiously, there have been cases since the enactment of Sarbanes-Oxley in which corporate executives have gone to prison for faking the financials, yet the CEO managed to escape prosecution. This is an outcome that Congress clearly sought to prevent. Financial writer Alison Frankel explained this outcome in a July 27, 2012, Reuters article entitled, "Sarbanes-Oxley's Lost Promise: Why CEOs Haven't Been Prosecuted." According to the legislation, a top corporate executive who knowingly signs off on a false financial report is subject to a 10-year prison term and a fine of up to $1 million. The penalties rise to 20 years and $5 million if the misconduct is willful. In practice, few executives were convicted or even charged with false certification in the first decade after passage of Sarbanes-Oxley. Federal prosecutors attributed this to the fact that most major corporations responded to the new law by instituting multiple layers of subcertification. They required lower-level officials to affirm the financial statements' accuracy. The subcertifications insulated CEOs and CFOs from charges of false certification, making it difficult to impossible for prosecutors to prove that they signed financial reports they knew to be false. Frankel noted that the subcertification process has forced corporations to be more vigilant at all levels about financial reporting. That likely accounted for the paucity of major accounting scandals subsequent to 2002. In short, Sarbanes-Oxley has succeeded in deterring untruthful reporting that rises to the level of a felony.

As case studies presented in this fifth edition of *Financial Statement Analysis* demonstrate, however, legal subterfuges continue to expose investors and creditors to highly unpleasant surprises. Sometimes, too, corporate executives still cross the line into criminality. Therefore, users of

financial statements still cannot breathe easy. In a somewhat more favorable development, corporations' passion for granting stock options to senior managers cooled somewhat after the Financial Accounting Standards Board (FASB) instituted FAS 123R, a 2006 financial accounting standard requiring annual expensing of equity-based employee compensation amounts. The result was some shift from stock option to restricted stock units (RSUs). Unlike options, which can lose all their value if the company's stock price falls, RSUs retain part of their value if that happens. Emphasizing RSUs rather than options somewhat reduces management's incentive to raise the share price by artificial means. To help readers avoid being misled by deceptive financial statements, we continue to prescribe a combination of solid understanding of accounting principles with a corporate finance perspective.

We facilitate such integration of disciplines throughout the book, making excursions into economics and business management as well. In addition, we encourage analysts to consider the institutional context in which financial reporting occurs. Organizational pressures result in divergences from elegant theories, both in the conduct of financial statement analysis and in auditors' interpretations of accounting principles. The issuers of financial statements also exert a strong influence over the creation of the accounting principles, with powerful politicians sometimes carrying their water. As in previous editions, we highlight success stories in the critical examination of financial statements. Wherever we can find the necessary documentation, we show not only how a corporate debacle could have been foreseen through application of basic analytical techniques but also how practicing analysts did detect the problem before it became widely recognized.

Readers will be encouraged by these examples, we hope, to undertake genuine, goal-oriented analysis instead of simply going through the motions of calculating standard financial ratios. Moreover, the case studies should persuade analysts to stick to their guns when they spot trouble, despite management's predictable litany. ("Our financial statements are consistent with generally accepted accounting principles. They have been certified by one of the world's premier auditing firms. We will not allow a band of greedy short sellers to destroy the value created by our outstanding employees.") Typically, as the vehemence of management's protests increases, conditions deteriorate further, culminating in revelations that suddenly wipe out substantial shareholder value.

As for the plan of *Financial Statement Analysis,* readers should not feel compelled to tackle its chapters in the order we have assigned to them. To aid those who want to jump in somewhere in the middle of the book, we provide cross-referencing and a glossary. Words that are defined in the glossary are

shown in bold-faced type in the text. Although skipping around will be the most efficient approach for many readers, a logical flow does underlie the sequencing of the material.

The principles and theories put forth in the *Financial Statement Analysis,* Fifth Edition, are reinforced through the questions and exercises in this workbook. Part One, Questions, provides chapter-by-chapter, fill-in-the-blank questions, financial statement exercises, and computational exercises. They are designed to be thought-provoking exercises requiring analysis and synthesis of the concepts covered in the book. In short, these are not "regurgitation of information" type questions.

The answers to all questions can be found in Part Two. Answers are provided in boldfaced, italic type to facilitate the checking of answers and comprehension of the material.

Financial markets continue to evolve, but certain phenomena appear again and again in new guises. In this vein, companies never lose their resourcefulness in finding new ways to skew perceptions of their performance. By studying their methods closely, analysts can potentially anticipate the variations on old themes that will materialize in years to come.

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PART

# One

# Questions

# Fill in the Blanks on Each Chapter

## CHAPTER 1: THE ADVERSARIAL NATURE OF FINANCIAL REPORTING

1. The following are three ways that corporations can use financial reporting to enhance their value:
   a. _____
   b. _____
   c. _____
2. The true purpose of financial reporting is _____.
3. Corporations routinely _____ because the appearance of _____ receives a higher _____ multiple.
4. According to the _____, reversals of the excess write-offs offer an artificial means of _____ in subsequent periods.
5. The following are some of the powerful limitations to continued growth faced by companies:
   a. _____
   b. _____
   c. _____
6. Some of the commonly heard rationalizations for declining growth are:
   a. _____
   b. _____
   c. _____
7. _____ reached its zenith of popularity during the _____ movement of the 1960s. However, by the 1980s, the stock market had converted the _____ into a(n) _____.
8. _____ is one of the ways that the notion of diversification as a means of maintaining _____ is revived from time to time.

9. Some of the stories used to sell stocks to individual investors are:
   a. _____
   b. _____
      i. _____
      ii. _____
   c. _____
10. When the story used to sell stocks to individual investors originates among stockbrokers or even _____, the zeal with which the story is disseminated may depend more on _____ than the _____.
11. The ostensible purpose of financial reporting is _____ of a corporation's earnings.
12. Mattel's internal investigation _____ that management engaged _____, instead blaming mishandling of the discovery of the accounting error on:
    a. _____
    b. _____
    c. _____
13. The outside auditor's stamp of approval is no guarantee that _____ accurately reflect _____.
14. When deliberate financial reporting violations come to light, the real scandal involves _____.
15. By 2015, however, _____ of S&P 500 companies were reporting _____, up from about _____ in 2009.
16. Between 2010 and _____, Under Armour's stock rose at an astounding compound annual growth rate of _____ percent. The manufacturer of sports and fitness apparel, shoes, and accessories was in the midst of a _____ streak of _____ or _____ year-over-year _____.
17. Concurrent with the slowdown in _____, Under Armour's _____ was slipping. Management delivered the disheartening news that _____ that investors were counting on would require _____.
18. The stock of another high-flier, _____, rose at a(n) _____ compound annual rate in the 15 years through _____. Over the next two years, shareholders of suffered a(n) _____ decline.

19. The problem for Boston Beer is that craft beer appears to have reached _____.
20. Analysts should view the issuers _____ in the same manner that they temporarily _____ in a friendly _____.
21. Viewing the production of financial statements _____ between _____ may suit a(n) _____, but financial analysts need not join _____ to do their job well.
22. Aside from _____, _____, and definitions of _____, analysts must consider the motivations of _____, as well as the dynamics of _____ in which they work.

## CHAPTER 2: THE BALANCE SHEET

1. A study conducted on behalf of Big Five accounting firm Arthur Andersen showed that between _____ and _____, book value fell from ___ percent to ___ percent of the stock market value of public companies in the United States.
2. As noted by Baruch Lev of New York University, two examples of how traditional accounting systems are at a loss to capture most of what is going on today are:
   a. _____
   b. _____
3. In the examples in Question 2, there is no accounting event because _____.
4. Some of the distinct approaches that have evolved for assessing real property are:
   a. _____
   b. _____
   c. _____
5. Some financial assets are unaffected by the difficulties of evaluating physical assets because _____ in _____.
6. Under the compromise embodied in SFAS 115, financial instruments are valued according to _____ by the _____ issuing _____.

7. If a company wrote off a billion dollars worth of goodwill, its ratio of assets to liabilities would _____. Its ratio of _____ to _____ would not change, however.
8. Through stock-for-stock acquisitions, the sharp rise in equity prices during the late 1990s was transformed into _____ values, despite the usual assumption that _____ in a company's _____ do not alter _____.
9. Unlike _____ or _____, goodwill is not an asset that can be readily ____ or _____ to raise cash. Neither can a company enter into a(n) _____ of its goodwill as it can with its plant and equipment. In short, goodwill is not _____ that management can either convert into _____ or use to _____ to extricate itself from a financial tight spot.
10. A reasonable estimate of a low-profit company's true equity value would be _____ that produces _____ on equity _____ to the going rate.
11. Determining the cost of capital is a notoriously controversial subject in the financial field, complicated by thorny _____ and _____.
12. Among the advantages of market capitalization as a measure of equity are:
    a. _____
    b. _____
    c. _____
13. A limitation of the peer-group approach to valuation is that it fails to capture _____ and therefore _____ one major benefit of using _____ as a gauge of actual equity value.
14. Instead of striving for theoretical purity on the matter, analysts should adopt a(n) _____, using the measure of equity value most useful _____.
15. Historical-cost-based balance sheet figures are the ones that matter in _____ that a company will violate _____ requiring _____ of a minimum ____ of debt to _____.
16. Users of financial statements can process only the information ____ ____, and they do not always have the information _____.
17. Deterioration in a company's financial position may catch investors by surprise because it occurs _____ and is reported _____.

## CHAPTER 3: THE INCOME STATEMENT

1. Students of financial statements must keep up with _____ of the past few years in transforming _____ into _____ of _____.
2. In the _____, each income statement item is expressed as _____ (sales or revenues), which is represented as _____ percent.
3. Besides facilitating comparisons between a company's present and past results, the _____ can highlight important facts about a company's _____.
4. Even within an industry, the breakdown of expenses can vary from company to company as a function of differing _____ and _____.
5. Percentage breakdowns are also helpful for comparing a single company's performance with _____ and for comparing _____ on the basis of their _____.
6. Costs as percentages of sales also vary among companies within an industry for _____ than differences in _____.
7. The more widely diversified pharmaceutical manufacturers can be expected to have _____ percentage _____, as well as _____ percentage _____ expenses, than industry peers that focus exclusively on _____.
8. Analysts must take care not to mistake difference that is actually a(n) _____ of business strategy as evidence of _____ or _____ managerial skills. A subtler explanation may be available at the modest cost of contacting some _____.
9. Executives whose bonuses rise in tandem with _____ have a strong incentive not only to generate _____ but also to use every lawful means of _____ through accounting _____.
10. On a retrospective basis, a surge _____ or an unexpected _____ may indicate that _____ were inflated in a(n) _____.
11. Along with _____, another major expense category that can be controlled through assumptions is _____.

12. An unusually low ratio of _____ to _____ with the ratios of its industry peers may indicate that management is being unrealistic in acknowledging the pace of wear and tear on fixed assets. Understatement of _____ and overstatement of _____ would result.
13. A company knows that creating _____ expectations about the future can raise _____ and lower _____.
14. In recent years, "_____" has become a catchall for charges that companies wish analysts to consider _____ but that do not qualify for _____
15. Corporate managers commonly perceive that _____ to their stock price will be _____ if they take (for sake of argument) a $1.5 billion write-off than if _____. The benefit of exaggerating the damage is that in subsequent years, the overcharges can be _____ in small amounts that do not generate any requirement for _____.
16. The most dangerous trap that users of financial statements must avoid walking into, however, is inferring that the term "restructuring" connotes _____.
17. The purpose of providing pro forma results was to help analysts to project _____ accurately when some event outside _____ caused the _____ historical results to convey a misleading impression.
18. Computer software producers got into the act by omitting _____ of _____ research and development from the expenses considered in calculating _____.
19. Unlike operating income, a concept addressed by FASB standards, _____ is a number that subjectively _____ many _____ "one-time events" that lack any standing under GAAP.
20. In fact, analysts who hope to forecast future financial results accurately must apply _____ and set aside genuinely _____ course-of-business events.
21. Analysts must exercise judgment when considering pro forma earnings; however, they must make sure to examine the actual _____ rather than _____ by relying solely on _____.
22. An older, but not obsolete, device for beefing up reported income is _____ of selected _____.

23. A comparatively ____ ratio of PP&E to ____ or _____ is another sign of potential trouble.
24. Management can _____ through techniques that more properly fall into the category of _____.
25. One way to increase profitability through _____ involves economies _____.
26. A corporation can easily accelerate its sales growth by buying ____ _____ and adding _____ to its own. Creating genuine value for shareholders through _____ is more difficult, although unwary investors sometimes fail to recognize the distinction.
27. Analysts need to distinguish between _____ growth and _____ growth. _____ growth consists of sales increases generated from a company's existing operations, and _____ growth represents incremental sales brought in through _____.
28. If Company A generates external growth by acquiring Company B and neither company nor its new subsidiary increases its profitability, then _____ the merged companies is _____ than the sum of the two companies' values.
29. In general, the less _____ the combining businesses are, the less _____ it is that the hoped-for economies of scope _____.
30. As synergies go, projections of economies of scale in combinations of companies _____ the same business tend to be more plausible than economies of scope purportedly available to companies in _____ businesses.
31. A company with relatively large, fixed _____ has a(n) _____ breakeven level. Even a modest economic downturn will reduce its capacity _____ below the rate required to keep the company profitable.
32. Deals that work on paper have often foundered on:
    a. _____
    b. _____
    c. _____
    d. _____
33. Financial statements cannot capture certain _____ factors that may be essential to _____. These include:
    a. _____
    b. _____
    c. _____

## CHAPTER 4: THE STATEMENT OF CASH

1. The present version of the statement that traces the flow of funds in and out of the firm, the statement of cash flows, became mandatory under _____ for issuers with fiscal years ending after _____.
2. For financial-reporting (as opposed to _____) purposes, a publicly owned company generally seeks to maximize _____, which investors use as a basis for valuing its shares.
3. A privately held company, unlike a(n) _____, which shows one set of statements to the public and another to the Internal Revenue Service, a private company typically prepares _____ of statements, with the _____ foremost in its thinking. Its incentive is not _____ but to _____ the income it reports, thereby _____ its tax bill as well.
4. In a classic LBO, a group of investors acquires a business by putting up a(n) _____ and _____ the balance.
5. The amount attributable to depreciation does not represent _____ in the current year. Rather, it is a bookkeeping entry intended to represent the _____, through use, _____.
6. Viewed in terms of cash inflows and outflows, rather than earnings, the _____ begins to look like _____.
7. Analysts evaluating the investment merits of the LBO proposal would miss the point if they focused on _____ rather than _____.
8. In an LBO, the equity investors do not reap spectacular gains without incurring significant _____. There is a danger that everything will not go _____ and that they will lose _____. Specifically, there is a risk that _____ will fall short of expectations, perhaps as a result of _____ or because the investors' expectations were unrealistically _____.
9. The _____ statement, rather than the _____ statement, provides the best information about a highly leveraged firm's financial health.
10. Among the applications and uses of the Statement of Cash Flows are:
    a. _____
    b. _____
    c. _____

11. When a company is _____ bankruptcy, its balance sheet may _____ its asset value as a result of _____ having lagged the _____ in profitability of the company's operations.
12. Revenues build gradually during the _____ phase, during which time the company is just _____ and _____.
13. Growth and profits accelerate rapidly during the _____ growth phase, as the company's products begin to penetrate the market and the production reaches a(n) _____.
14. During the _____ growth period, growth in sales and earnings decelerates as the market nears _____. In the _____ phase, sales opportunities are limited to the replacement of products previously sold, plus ____ sales derived from _____.
15. Price competition often intensifies at this stage, as companies seek _____ through increased _____. The _____ industry stage does not automatically follow maturity, but over long periods some industries do get swept away by _____.
16. Sharply declining sales and earnings, ultimately resulting in _____ _____, characterize industries in decline.
17. _____ companies are typically voracious cash users.
18. _____ companies are start-ups that survive long enough to reach the stage of entering the public market.
19. For a company at the _____ stage, it may take several years for sales to reach a level _____ sizable fixed costs that are _____ to its operations.
20. _____ companies are in a less precarious state in terms of cash flow than their emerging growth counterparts.
21. Reflecting the _____ of its business, Kimberly-Clark generates a(n) _____ level of cash from _____.
22. Far from depending on _____, this mature company _____ to investors, giving them the opportunity to _____ it in higher-growth, _____ businesses.
23. Some _____ companies choose instead to _____ their _____ cash flow internally. They either launch or acquire businesses with _____ potential than their original, _____. The older businesses become _____ to be milked for funding the newer activities.

24. _____ companies are past the cash strain faced by growth companies that must fund large _____ programs.
25. _____ companies struggle to generate sufficient cash as a consequence of meager earnings.
26. By studying the cash flow statement, an analyst can make informed judgments on such questions as:
    a. _____
    b. _____
    c. _____
27. In difficult times, when a company must cut back on various expenditures to _____, management faces many difficult choices. A key objective is to _____ damage to the company's _____.
28. At times, _____ becomes _____ expensive, as a function of ____ interest rates or _____ stock prices. During the "_____ crunches" that occasionally befall the business world, _____ financing is unavailable at any price.
29. If a corporation's financial strain becomes acute, the board of directors may take the comparatively extreme step of cutting or _____ _____.
30. Reducing _____ is a step that corporations try very hard to avoid for fear of _____ with investors and consequently suffering an increase in _____.
31. A final factor in assessing financial flexibility is the change in adjusted working capital. Unlike conventional working capital (_____ minus _____), this figure excludes _____ as well as _____ and _____.
32. A company with a strong balance sheet can fund much of that cash need by increasing its _____ (credit extended by vendors). External financing may be needed, however, if accumulation of unsold goods causes _____ to rise disproportionately to _____. Similarly, if customers begin paying more slowly than formerly, _____ can widen the gap between working capital _____ and _____ availability.
33. One typical consequence of violating _____ or striving to head off _____ is that management reduces discretionary expenditures to avoid _____.

34. Overinvestment has unquestionably led, in many industries, to prolonged periods of _____, producing in turn chronically poor _____. In retrospect, the firms involved would have served their shareholders better if they had increased _____ or _____ stock, instead of _____ new plants.
35. Keeping cash "trapped" in marketable securities can enable a firm to _____ over "lean-and-mean" competitors when tight _____ make it difficult to finance _____ needs.
36. Another less obvious risk of eschewing financial flexibility is the danger of permanently losing _____ workers through _____ occasioned by recessions.
37. The income statement is a dubious measure of the success of a highly _____ company that is being managed to _____ rather than _____ reported profits.
38. The cash flow statement is the best tool for measuring _____, which, contrary to a widely held view, is not merely a security blanket for _____ investors.
39. In the hands of an aggressive but prudent management, a cash flow cushion can enable a company to _____ essential long-term _____ when competitors are forced to cut back.

## CHAPTER 5: WHAT IS PROFIT?

1. Profitability is a yardstick by which businesspeople can measure their _____ and justify their claims to _____.
2. When calculating _____ profits, the analyst must take care to consider only genuine revenues and deduct all relevant costs.
3. There can be no bona fide profit without an increase in _____. Bona fide profits are the only kind of profits _____ in financial analysis.
4. Merely _____ funds, it is clear, does not increase wealth.
5. An essential element of genuinely useful financial statement analysis is the willingness to take _____ profits at something other than _____.
6. The issuer of the statements can _____ or _____ its reported earnings simply by using its latitude to assume shorter or longer _____ lives for its _____ assets.

7. The rate at which the tax code allows owners to write off property overstates actual _____.
8. In the _____ business, companies typically record depreciation and amortization expense that far exceeds physical wear-and-tear on assets.
9. In many industries, fixed assets consist mainly of _____ or _____ that really _____ in value through use. The major risk of analytical error does not arise from the possibility that _____ depreciation _____ will substantially _____ economic depreciation, but the reverse.
10. Corporations have vastly increased their promulgation of non-GAAP numbers in this century. By 2017, the independent research provider Audit Analytics found that fully _____ of S&P 500 companies self-produced some measures in their earnings releases, up from a little _____ two decades earlier. Between 1996 and 2016, the average number of non-GAAP items in in those statements rose from just over ____ to more than _____.

## CHAPTER 6: REVENUE RECOGNITION

1. Many corporations employ highly _____ recognition practices that comply with GAAP yet _____ the underlying _____.
2. Under intense pressure to maintain their stock prices, companies characterized by _____ sales growth seem particularly prone to _____.
3. To seasoned investors, a(n) _____ departure by a senior manager represents a(n) _____ of trouble.
4. Bonus-seeking managers may initially veer off the straight-and-narrow by "_____" a small amount from _____ revenue, intending to "_____" the following year, but they instead fall further and further behind. Eventually, the gap between _____ revenues and economic _____ grows too large to sustain.
5. Even when an independent accounting firm certifies that a company's financials have been prepared _____ with generally accepted accounting principles, the analyst must stay alert for evidence that the numbers _____ the economic _____.
6. Staying alert to evidence of flawed, or possibly _____, reporting is essential, even when the auditors put their _____ on the numbers.

7. As a rule, distorting one section of the financial statements throws the numbers _____ in some _____. Assiduous tracking of a variety of _____ should raise serious questions about a company's reporting, at a minimum.
8. The explanation for the sudden drop in projected earnings was that, in 2001, Bristol Myers gave _____ to induce them to buy its _____ at a much faster rate than necessary to _____ at pharmacies.
9. "_____" is a security analysts' term for the financial reporting gimmick that Bristol Myers employed to _____ future _____ to the _____.
10. Along with other pharmaceutical producers, Bristol Myers was feeling profit pressures due to difficulties in _____ to replace sales of products on which _____ was expiring.
11. Haydon was known for speaking candidly about Bristol Myers's declining sales prospects. Consequently, his reassignment was taken _____ that executives _____ at all costs.
12. Also suspect was Bristol Myers's repeated practice of establishing _____ that exactly equaled gains _____ sales.
13. The Bristol Myers Squibb case study nevertheless illustrates the value of testing a company's _____ against _____ provided information.
14. According to Take-Two management, the adjustment arose because the company _____ on some games it sold to "certain independent _____ distributors" but which were later _____ or _____ by Take-Two.
15. _____ to the lesson taught by many other cases of financial misreporting, it paid to accept the Take-Two _____ management's assurances that the company's business prospects _____.
16. Take-Two shipped hundreds of thousands of video games to distributors who were under no _____ for them, _____ booked the shipments as if they were sales, then _____ of the products in later periods.
17. Encouragingly for users of financial statements, managers who _____ recognize _____ are often betrayed by the _____ they create.

18. In layaway sales, customers reserve goods _____, and then make additional payments over a specified period, _____ when they have paid in full.
19. Prior to the change in accounting practice, which FAS 101 made mandatory, Walmart booked layaway sales as soon as it _____. Under the new and more conservative method, the company began to recognize the sales only when customers _____ and took _____ of the goods.
20. On the whole, Bally's reported profit margins benefited from the increase in _____ memberships as a percentage of total revenues. The reported earnings, however, rested on assumptions regarding the percentage of customers who would _____ to make all of the _____.
21. As in any sales situation, aggressive pursuit of new business could result in acceptance of more _____ customers. On average, the newer members might prove to be less _____ or less committed to physical fitness than the previous _____ of financed _____.
22. There was no change in the accounting principle, namely, _____. In the case of a health club, members' upfront fees represent payments for _____ over the terms of their _____. Club operators should therefore recognize the revenue over the period in which _____.
23. Under GAAP, the general requirement was to spread membership fees over the _____. If a company offered refunds, it could not book _____ until the refund period expired, unless there was _____ long history to enable management to estimate _____ with reasonable confidence.
24. Under certain circumstances, a company engaged in long-term contract work can book _____ before _____ its customer. This result arises from GAAP's solution to a mismatch commonly observed at _____ firms.
25. GAAP addresses the problem through the _____ method, which permits the company to recognize revenue in _____ to the amount of work _____ rather than in line with its billing.

26. As is generally the case with artificial _____, taking liberties with the percentage-of-completion borrows _____, making a surprise shortfall _____ at some point.
27. The SEC claimed that management at Sequoia Systems inflated revenue and profits by:
    a. _____
    b. _____
    c. _____
28. The SEC also claimed that management at Sequoia Systems profited from the scheme by _____ before a(n) _____ of the company's _____ emerged.
29. Loading the distribution channels consists of inducing _____ or _____ to accept larger shipments of goods than their _____ sales _____ warrant.
30. Loading does not boost physical _____ but merely shifts the timing of its _____ as _____ revenues.
31. Inevitably, the underlying trend of final sales to consumers slows down, at least temporarily. At that point, the manufacturer's growth in reported revenue will maintain its trend only if its _____ take on even _____, relative to their sales. If the distributors balk, the _____ will unravel, forcing a sizable _____ of previously recorded profits.
32. Krispy Kreme revised its senior executive compensation plan. Henceforth, officers would receive _____ unless the company _____ earnings in each quarter that _____ its earnings per share guidance by _____.
33. In essence, according to the *Wall Street Journal*'s story, Krispy Kreme manufactured _____ by taking money _____ and putting it _____.
34. Had Krispy Kreme instead _____ the franchises and then _____, it would have incurred _____. The catch is that an asset is supposed to be something that creates _____. Terminated stores would not seem to _____ that definition.
35. Most, if not all, of the _____ on Krispy Kreme's _____ appeared to have come from a(n) _____ transaction rather than from _____.

36. Krispy Kreme increased the size of the corrections to its fiscal 2004 results. The previously undisclosed problems involved _____, _____ and improvements related to leases, and reversal of income related _____ a franchisee before _____ bought that operation.
37. Krispy Kreme was not a case of _____ fictitious earnings. Rather, the SEC complaint depicted a process of _____, through a wide range of financial statement _____, to beat earnings _____ by $0.01 in every _____.
38. An exceptionally long record of beating _____ or posting _____ gains in _____ is a reason to suspect earnings _____.
39. A second lesson of the Krispy Kreme case is that _____ transactions and _____ financial reporting often go hand in hand.
40. It is impossible to assess the quality of an internal investigation without information on the _____ and the basis for its _____.
41. Users of financial statements should not be intimidated by corporate _____ that denounce allegedly irresponsible _____ and _____.
42. In 2001, Halliburton adopted an even more aggressive approach to _____. For some projects, Halliburton began reporting sales months before _____ for the work. Previously, the policy was to book revenues only if the company _____ within one month. In addition, the company began keeping some disputed bills on the books for over _____ instead of _____ and _____. The previous policy was to refrain from a write-off only if it believed it would _____ most of the claim _____.
43. Halliburton became more aggressive about _____ before _____, a classic technique for pumping up _____.
44. If earnings look suspiciously _____ during a(n) _____ for the company's industry, users of financial statements should never automatically _____ the possibility that _____ explains the disparity.
45. A stock's value is a function of expected _____, which partly depend on the _____ of the company's _____ vis-à-vis its competitors'.
46. Generally, the initial response of corporate executives caught in a lie is to ___ themselves _____, but gratifyingly often, the _____ ultimately _____.

47. Analysts who strive to go beyond routine _____ can profit by seeking independent _____ of corporate disclosure, even when the auditors have already placed their _____ on it.
48. Sometimes, management _____ revenue recognition in order to _____ short-run profits. The motive for this paradoxical behavior is a desire to report the sort of smooth _____ earnings _____ that equity investors reward with _____ price-earnings _____
49. Grace executives reckoned that with earnings already meeting Wall Street analysts' forecasts, a windfall _____ the company's _____. Such an inference would have been consistent with investors' customary _____ of profits and losses that they perceive to be generated by _____.
50. Grace's 1998 statement that its auditors had raised no objections to its accounting for the Medicare _____ was true only in the _____ that Price Waterhouse issued clean financials, based on materiality considerations. As a spokeswoman for the auditing firm pointed out, such an opinion does not imply _____ with _____ in the statements.
51. According to Michael Jensen, "Tell a manager that he will get a bonus when targets are realized and two things will happen":
    a. _____
    b. _____
52. All too often, companies wouldn't be able to accomplish the frauds without the assistance of _____.
53. According to Jensen, almost every company uses a budget system that _____ employees for _____ and punishes them for _____ the _____. He proposes reforming the system by severing the link between _____ and _____.
54. Even in the case of the bluest of the blue chips, watching for rising levels of _____ or _____, relative to sales, should be standard operating procedure.
55. When the revenues derived from _____ fail to materialize, the managers may resort to _____ to maintain the _____. The positive mental attitude that overstates revenues in the early stage is no _____, however, than the _____ responsible at a later point.
56. Clues to the fraudulent accounting responsible for Gowex's downfall were detectable by astute _____. In fact, it was a report alleging a(n) _____ overstatement of _____, published on July 1, 2014, by _____ LLC, that precipitated the stock price collapse.

57. In a classic response, Garcia initially _____ the research report's _____, calling it "_____" and "_____."
58. In 2003, Garcia stated that the company cleared a large profit on turnover (revenue) of _____ million in 2002. According to Gowex's IPO offering circular in _____, however, revenues totaled only _____ million in 2003.
59. Formerly, the company recognized revenue when the _____ sold M/A-Com's products to end users. Under the newly instituted procedure, M/A-Com recognized revenue _____ to distributors and established a(n) _____ against future _____.
60. Worryingly, M/A-Com's days sales outstanding (_____) increased to ____ days in the fiscal second quarter ending April 3, 2015, from ___ days one year earlier. This kind of rise, coinciding with a shift to "_____," could be a sign of _____, which is otherwise difficult to detect. Companies are not required to disclose the amount of their products _____ distributor _____.
61. Strong margins in a business in which _____ were losing money justified skepticism about the _____ of the profits Globo was reporting.
62. Long before October 2015, however, there were numerous clues that something was amiss. To begin with, in 2014's first quarter Globo _____.
63. Further evidence that Globo's sales were inflated appeared in the form of its _____ days sales outstanding (____) of trade receivables. That was almost _____ the level reported by industry leader Good Technology.
64. As a result of its high ____ and low _____, Globo required substantial _____ of its _____. Its peers, on the other hand, generated sizable funds from _____.

## CHAPTER 7: EXPENSE RECOGNITION

1. Corporate managers are just as creative in _____ and _____ the recognition of _____ as they are in maximizing and speeding up the _____ of revenues.
2. Investors attach little significance to _____ profits and losses in valuing stocks. Therefore, a public company has a strong incentive to _____ cumulative _____ into a one-time event and to break up a(n) _____, nonrecurring _____ into smaller pieces and _____ it over _____.

3. Nortel Networks illustrated the _____ power of _____, one of the most _____ features of financial reporting.
4. Between September 2000 and August ____, Nortel's market capitalization sank by ____ percent, devastating Canadian _____ that were heavily invested in its shares.
5. The company had to wave a classic _____ with respect to the _____ of its financial _____ by _____ the filing of its _____ financial reports.
6. In addition to dashing hopes that the _____ of accounting _____ would be _____, Nortel rattled the market by _____ CEO Dunn, CFO Beatty, and controller Gollogly.
7. Nortel's management's credibility continued to _____ as the company kept _____ back its _____ for producing definitive earnings _____.
8. Nortel's investigation, which previously had focused on _____ and _____, had turned to _____.
9. Incorrect recognition of that amount resulted from a combination of:
   a. _____
   b. _____
   c. _____
   d. _____
10. Nortel followed a strategy of _____ in its money-losing period of 2001–2002. Overstating _____ created "_____" reserves that could be taken into _____ in _____.
11. Nortel's experience shows that if a company uses _____ to _____ profits, it will have no compunction about _____ profits through _____ revenue _____.
12. An important takeaway from the Nortel case is that seemingly _____ items can prove _____ significant.
13. _____ are another frequently abused element of _____ recognition. General Motors' fiddling with this device shows the important role of _____ in the _____ of financial reporting.
14. At issue in GM's restatement was the recording of _____ and other _____ from _____.
15. GM said that some cash flows from its _____ that should have been classified among its _____ activities were instead booked as _____ activities.

16. This revelation puzzled accounting experts because the applicable rules were unambiguous. _____ a loan or _____ repayment fell into investing _____; interest _____ were included in _____ cash flow.
17. GM management said it had _____ increased the _____ of vehicles it was leasing to car-rental companies, assuming they would be _____ more after those companies were through _____ them.
18. Ordinarily, a company's stock price _____ when its reported earnings _____ increase.
19. Freddie Mac steadfastly _____ that its handling of _____ was aimed at _____ its earnings.
20. Even if it was true that intentional _____ represented the _____ part of the earnings _____, Freddie Mac's _____ had a huge impact that even _____ analysts could not detect from _____.
21. Freddie Mac's manipulation did not end there. Another ploy to _____ earnings consisted of ceasing to use _____ for certain _____.
22. Companies can follow a variety of approaches in downplaying expenses such as:
    a. _____
    b. _____
    c. _____
    d. _____
23. On February 8, 2012, Diamond Foods announced that it would restate its earnings for the _____. CEO Michael J. Mendes and CFO Steven M. Neill were placed on _____ and _____ the following day. The company's planned earnings restatement involved _____ to walnut growers of $20 million in August _____ and $60 million in September _____ that were booked in the wrong periods.
24. Notably, Diamond Foods's earnings manipulation commenced after the passage of the _____ Act that is appropriately credited with _____ the incidence of financial _____ in the United States. Diamond did not even go public until _____ after _____ became the law of the land in ____.
25. On November 15, _____, Bill Alpert presciently wrote in *Barron's Online,* "After Diamond's walnut accounting _____, the stock could _____ again." In short, the stock plunge that was triggered by the _____ three months later was by no means _____.

## CHAPTER 8: THE APPLICATIONS AND LIMITATIONS OF EBITDA

1. The impetus for trying to redirect investors' focus to _____ income or other variants has been the minimal _____ recorded by many "new economy" companies.
2. Users of financial statements had discovered certain limitations in net income as a(n) _____. They observed that two companies in the same industry could report similar _____, yet have substantially different _____ values.
3. Net income is not, to the disappointment of analysts, a standard by which every company's _____ can be compared.
4. The accounting standards leave companies considerable discretion regarding the depreciable _____ they assign to their _____, _____, and _____. The same applies to amortization schedules for _____ assets.
5. For some companies, the sum of net income, income taxes, and interest expense is not equivalent to EBIT, reflecting the presence of such factors as _____ items and _____ interest below the _____ income ____.
6. Shifting investors' attention away from traditional fixed-charge coverage and toward _____ coverage of _____ was particularly beneficial during the 1980s, when some buyouts were so highly _____ that projected _____ would not cover pro forma interest expense even in a good year.
7. Capital spending is likely to exceed depreciation over time as the company _____ its productive _____ to accommodate _____ _____. Another reason that capital spending may run higher than depreciation is that newly acquired equipment may be _____ than the old equipment being written off, as a function of _____.
8. Delaying equipment purchases and repairs that are needed but not _____ should inflict no lasting damage on the company's _____ provided the profit _____ lasts for only a few quarters.
9. Depreciation is not available as a long-run source of cash for _____. This was a lesson applicable not only to extremely _____ deals of the 1980s but also to the more _____ capitalized transactions of later years.
10. Beaver's definition of cash flow was more stringent than _____ since he did not add back either _____ or _____ to net income.

11. Beaver did not conclude that analysts should rely solely on the ____-____-to-_____, but merely that it was the single best _____.
12. Some investment managers consider that the single ratio of _____ (as they define it) to _____ predicts bankruptcy better than all of the _____' quantitative and qualitative considerations combined.
13. Aside from _____ variations, the amount of working capital needed to run a business represents a fairly constant _____ of a company's sales. Therefore, if inventories or receivables _____ materially as a percentage of sales, analysts should strongly suspect that the earnings are _____, even though management will invariably offer a(n) _____ explanation.
14. If a company resorts to stretching out its payables, two other ratios that will send out warning signals are:
    a. _____
    b. _____
15. Merrill Lynch investment strategist Richard Bernstein points out that _____ earnings tend to be more stable than _____ earnings, EBIT tends to be more stable than _____ earnings, and _____ tends to be more stable than EBIT.
16. Strategist Bernstein found that by attempting to filter out the _____ inherent in companies' earnings, investors reduced the _____ of their stock selection.

## CHAPTER 9: THE RELIABILITY OF DISCLOSURE AND AUDITS

1. Fear of the consequences of breaking the law keeps corporate managers in line. _____ the law is another matter, though, in the minds of many executives. If their bonuses depend on _____ in an unfairly _____ light, they can usually see their way clear to adopting that course.
2. Technically, the _____ appoints the auditing firm, but _____ is the point of contact in hashing out the details of presenting financial events for _____.
3. At some point, _____ becomes a moral imperative, but in the real world, accounting firms must be _____ to reach that point.

4. It is common for front-line auditors to balk at a(n) _____ treatment proposed by a company's management, only to be overruled by their _____.
5. _____ is an unambiguous violation of accounting standards, but audits do not _____ catch it.
6. Extremely clever scamsters may even succeed in undermining the auditors' efforts to select _____, a procedure designed to foil concealment of fraud.
7. When challenged on inconsistencies in their numbers, companies sometimes _____ rather than any intention to _____ the users of _____.
8. Seasoned followers of the corporate scene realize that companies are not always as _____ as investors might _____.
9. Abundant evidence has emerged over the years of corporate managers _____ to paint as rosy a picture as possible.
10. To say that no _____ can be _____, however, is quite different from saying that:
    a. _____,
    b. _____, and
    c. _____ are as good as real-world conditions permit.
11. Popular outrage over the post–_____ accounting scandals created political _____ to eliminate the _____ conflict.
12. Systematic problems in the audit process arise not only from the _____ but also from the _____ of _____ accounting firms.
13. In the 1990s, "_____" emerged as a means of keeping a lid on costs. Instead of focusing on _____ of _____ transactions, they identified the areas that in their _____ presented the greatest risk of error or fraud, such as _____. Incredibly, these judgments in some cases were based on _____.
14. In WorldCom's early days, Arthur Andersen audited the company in a meticulous, _____ way. As the company grew, however, Andersen migrated toward a(n) _____. If a question arose about controls or procedures, Andersen relied on the _____ provided by _____.
15. Congress's unwillingness to give the SEC the _____ to do its job reflected more than _____ claims on the _____.

16. One final line of defense for users of a company's financial statements is the _____ of its board of directors. This protection has _____ infallible over the years.
17. In one of the few encouraging notes of recent years, the SEC has imposed a(n) "_____" requirement on audit committee members.
18. Many companies are either _____ with _____ or _____ about the way they _____. Rather than laying down the law (or GAAP), the auditors typically wind up _____ with management to arrive at a point where they can convince themselves that the _____ requirements of _____ have been satisfied.
19. Given the observed gap between _____ and _____ in financial reporting, users of financial statements must provide themselves a(n) _____ of protection through tough _____ of the numbers.
20. Even if a company's management is inclined to _____, investors have a second line of defense in the form of _____ annual _____ of the financials by _____ trained _____. The Securities and Exchange Commission's (___) Corporation Finance and Enforcement divisions provide an additional line of defense.
21. At the extreme, executives may falsify their results. _____ is an unambiguous violation of accounting standards, but _____ do not invariably catch it.
22. Following the standard script in such situations, Wirecard _____ any _____, charging that the FT story was not only ____, _____, _____, and _____, but that it lacked any substance and was completely _____.
23. According to KPMG, _____ from three third-party processors of payments for Wirecard customers made it impossible to _____ any _____ transactions for 2016–2018. Consequently, KPMG was _____ to state one way or the other whether the _____ sales _____ existed or was _____.
24. Auditors are _____ and ____ by the companies they audit. The corporate clients want audits completed swiftly and inexpensively, enabling them to release their results and move on. Failing to satisfy management's desire for quick, no-hassle audits _____ business because the clients are also _____ for _____ consulting and tax services.

25. Zatarra Research & Investigations found evidence of _____ as far back as 2009. This scam consists of one company _____ to another company, while concurrently agreeing to _____ the same or similar assets. Scams associated with round-tripping include _____ the buyer/seller's _____, _____, _____, and _____.
26. ARCP's 2014 experiences upholds the "_____." The name derives from the popular belief that seeing one of these pests _____ many more are _____. This bit of market wisdom holds that when a company _____ on the financial _____, other, _____ news is likely to follow.
27. Auditing firms are _____ businesses that face _____ between upholding professional standards, on the one hand, and _____ clients and _____, on the other.

## CHAPTER 10: MERGERS-AND-ACQUISITIONS ACCOUNTING

1. The acquiring company's shareholders can benefit when an M&A deal _____, but they must be on guard against corporate managers' efforts to produce the _____ of _____ through financial reporting _____.
2. In 2019, MarketWatch reported that the SEC had stepped up its efforts to discourage _____ adjustments for _____ that was written off under GAAP. Some acquisitive companies were adding back this "_____" in calculating _____ numbers commonly used by analysts.
3. Under the old standard, the more _____ that was created in an acquisition, the greater was the _____ to earnings from mandatory goodwill amortization. Now, companies could _____ earnings through acquisitions at rich prices with _____.
4. Between the November 2, 2015, close of the _____ deal and the October 1, 2018, _____ of the former Alstom businesses and other _____ division _____, GE's stock plunged by __ percent while the S&P 500 climbed by __ percent. In short, the market imposed a large penalty on shareholders well before the company _____ that the goodwill it recorded in the Alstom deal was _____.

5. On November 20, 2012, Hewlett-Packard announced that it would take a(n) $___ billion _____ on the UK software company Autonomy Corp. that it acquired on October 3, ____. HP's share price dropped by __ percent on the day of the announcement while the S&P 500 edged ___ percent higher.
6. Autonomy co-founder Mike Lynch denied the claims of _____ _____. He blamed the _____ on post-acquisition _____ by Hewlett-Packard. The stock market's _____ of HP management lent some _____. In the five years preceding the Autonomy write-down, HP's stock price declined by ___ percent.
7. More important for analysts than the _____ for the $23 billion write-down are _____ that can be _____.
8. Leaving aside issues of quality of _____, which require study of corporate _____ and _____, the lessons to derive from this case study fall into two categories—_____ matters and _____ of _____ targets.
9. Software companies ordinarily have very few _____ because they sell their products _____ and for _____. At the same time, they have obligations to _____ their _____ for a long period after they _____ it. Consequently, software companies' _____ is typically a multiple of _____. Autonomy's balance sheet, on the other hand, showed _____ receivables.
10. The length of Autonomy's _____ "should ring alarm bells for investors." One implication of this _____ from the _____ was that the company was generating growth through _____ rather than _____ growth.
11. HP was proposing to pay _____ times _____ while similar companies were trading at _____ times _____.
12. The financial reporting red flags spied by critics of Autonomy and of its acquisition by HP included Autonomy's _____ with ____ on the level of _____ and the length of the _____. Similarly pointing to trouble were valuation metrics that were out of line with those of _____ companies.

## CHAPTER 11: IS FRAUD DETECTABLE?

1. Beneish defines manipulation to include both actual _____ and the management of _____ or _____ within ____.

2. Beneish finds, by statistical analysis, that the presence of any of the following five factors increases the probability of earnings manipulation:
   a. _____
   b. _____
   c. _____
   d. _____
   e. _____
3. The evidence of criminal misrepresentation often _____ obvious after _____, but not even the most _____ definitively identified some of the most famous frauds until the _____ became _____ and the companies _____.
4. In studying these notorious frauds, readers should pay close attention not only to the _____ financial statement _____ but also to the _____ of senior _____ as the validity of their stated profits is challenged.
5. Unexpected _____ in _____ is a classic warning sign of financial misrepresentation.
6. When Enron at long last conceded that it was overly indebted, management tried to:
   a. _____
   b. _____
   c. _____
   d. _____
7. Enron also misled investors by aggressively exploiting wiggle room in the accounting rules. The company booked revenue from its energy-related derivatives contracts on the basis of _____ value, rather than ___ value, as is the norm for other _____.
8. Excessive liberties with _____ accounting rules constituted yet one more element of Enron's misrepresentation.
9. On a conference call dealing with Enron's earnings, analyst Richard Grubman complained that the company was _____ in refusing to include a(n) _____ in its earnings release.
10. Still, the _____ vehicles, combined with _____, enabled Enron to make itself look less _____ than it really was.
11. Although Enron grossly misled investors by _____, a large part of its deception consisted of _____ of basic accounting standards, with the _____ of its auditor.

12. Equally crude was a scheme in which Enron reportedly borrowed $500 million from a bank and bought _____. A few days later it sold the _____ and repaid the bank, reporting the proceeds from the meaningless transaction as _____.
13. The _____ of Enron's _____ assumptions was a major concern. "Ultimately they're telling you what _____ the _____ is, but they're not telling you how they got to _____," Business Valuation Services analyst Stephen Campbell complained. "That is essentially saying '_____.'"
14. Off Wall Street, a consulting group, recommended a short sale of Enron based on two factors identifiable from the financial statements, namely, the _____ on non-traded assets and _____ transactions with private _____.
15. Analysts should be especially wary when a strong likelihood of _____, as indicated by tools such as the _____ model, coincides with _____ financial reporting.
16. According to the SEC's complaint, HealthSouth's falsification began _____ the company _____ in ____.
17. Flat denial by Scrushy, regardless of the _____ that _____, was a consistent theme as the _____ story unfolded.
18. The complaint stated that when HealthSouth officials and accountants urged Scrushy to cease _____, he replied, in effect, "not until _____."
19. The "Sarbox" provision requiring CFOs and CEOs to attest to the accuracy of financial statements gave prosecutors a powerful weapon to wield against falsifiers, but _____ dispelled any notion that the tough new law would end _____ misreporting altogether.
20. HealthSouth exaggerated its earnings by understating the gap between the _____ and the amount that the _____ would cover.
21. If the auditors did question an accounting entry, HealthSouth executives reportedly _____ to validate the item.
22. HealthSouth also propped up profits by failing to _____ with _____. In addition, the company did not _____ when it sold assets that had _____ in value.

23. Compounding Scushy's legal problems, federal prosecutors disclosed in July 2003 that they had uncovered evidence of:
    a. _____
    b. _____
    c. _____
    d. _____
    e. _____
24. The most dismaying aspect of the performance of HealthSouth's auditor, EY LLP, was its _____ to challenge a _____, large _____ in cash.
25. In the view of experts in the field, internal checks and balances also broke down at HealthSouth. The board's audit committee met only ____ during 2001, _____ than the minimum recommended by the SEC.
26. Investors had little official warning of trouble until the _____ before Parmalat's collapse. As late as October 2003, Deutsche Bank's equity research group rated the company's stock a(n) _____, highlighting its strong _____, and Citibank put out a(n) _____ report in November. Furthermore, the company's debt carried a(n) _____ grade rating up until _____ before the bankruptcy filing.
27. A major red flag was Parmalat's _____, despite claiming to have a huge _____.
28. Merrill Lynch analysts downgraded Parmalat to SELL, saying that the company's _____ to the _____, while reporting _____, threw into question its _____.
29. Another hazard signal emerged on February 26, 2003, when Parmalat suddenly canceled its plan to sell _____ bonds. The company said it would instead issue bonds with maturities of just _____, suggesting the market had less confidence in Parmalat's _____ than management had thought.
30. Oddly, the person who achieved the greatest renown for early recognition of the Parmalat's house of cards was not a(n) _____, but a(n) _____.
31. Public market investors probably should have been _____ that some of Luckin's _____ cashed out their holdings _____.

32. Luckin's share price did not collapse completely without warning. On January 31, 2020, Muddy Waters announced that it _____ Luckin after receiving a(n) _____ 89-page report alleging _____ and a broken _____ at Luckin. The shares promptly dropped by ____ percent.
33. On cue, Luckin _____ the allegations against it, labeling the report's methodology _____, its evidence _____, and its interpretation of events _____.
34. Scrutiny of financial statements _____ a role in the report's claim that management _____ its 3Q 2019 _____ expenses by more than 150 percent. According to the author(s), the discrepancy was uncovered by comparing the _____ expenditures with media revenues tracked by a(n) _____. The report speculated that Luckin _____ its _____ outlays in order to recycle the amounts into _____ of _____ and _____.
35. Luckin escalated its _____ of revenues following the IPO by selling _____ for tens of millions of cups of coffee to companies linked to _____ and _____ shareholder Charles Lu.
36. Two lessons emerge from this incident. One is that nearly two decades after Sarbanes-Oxley reduced (_____) outright fraud in financial reporting by _____, securities of certain other countries continued to pose _____ to users of financial statements. The second takeaway is that in some instances, even a _____ of the issuer's financial statements will not bring the _____ to light. In such cases, exposing the _____ depends on some combination of _____, access to _____, and large-scale _____.

## CHAPTER 12: FORECASTING FINANCIAL STATEMENTS

1. It is future _____ and _____ that determine the value of a company's stock and the relative likelihood of future _____ payments of _____ that determines credit quality.
2. The process of financial projections is an extension of _____ patterns and _____, based on assumptions about future _____, market _____, and managerial _____.

3. Sales projections for the company's business can be developed with the help of such sources as trade _____, trade _____, and firms that sell econometric _____ models.
4. Basic industries such as _____, _____, and _____ tend to lend themselves best to the _____ approach described here. In technology-driven industries and "hits-driven" businesses such as _____ and ____, the connection between _____ and the general _____ trend will tend to be looser.
5. The expected intensity of industry competition, which affects a company's _____ to pass _____ on to customers or to retain _____, influences the _____ forecast.
6. Since the segment information may show only operating income, and not _____, the analyst must add _____ depreciation to operating income, then make assumptions about the allocation of _____, _____, and _____ expense and _____ and _____ expense by segment.
7. The R&D percentage may change if, for example, the company makes a(n) _____ in an industry that is either significantly more, or significantly less, _____ than its existing operations.
8. The key to the forecasting interest expense method employed here is to estimate the firm's embedded cost of debt, that is, the _____ interest rate on the company's existing _____.
9. Accurately projecting interest expense for _____ companies is important because their _____ may depend on the size of the interest _____ "___" they must cover each quarter.
10. The completed income statement projection supplies the _____ lines of the projected statement of cash flows.
11. Before assuming a constant-percentage relationship, the analyst must verify that the _____ year's ratios are _____ of experience over _____.
12. A sizable _____ might be presumed to be directed toward share repurchase, reducing _____, if management has indicated a desire to _____ and is _____ to do so by its board of directors.
13. Typically, the analyst must modify the underlying _____ assumptions, and therefore the projections, several times during the year as _____ diverges from _____.
14. A firm may have considerable room to cut its _____ in the short run if it suffers a decline in funds provided by _____. A projection that ignored this _____ could prove overly pessimistic.

15. An interest rate decline will have limited impact on a company for which interest costs represent a(n) _____ of expenses. The impact will be greater on a company with a large interest cost component and with much of its debt at _____. This assumes the return on the company's assets is _____.
16. Analysts are generally not arrogant enough to try to forecast the figures accurately to the first decimal place, that is, to the _____ for a company with revenues in the _____.
17. It is generally inappropriate to compare a(n) _____ income statement item (EBITDA) with a balance sheet figure, especially in the case of a(n) _____ company.
18. It is unwise to base an investment decision on historical statements that antedate a major financial change such as:
    a. _____
    b. _____
    c. _____
    d. _____
19. A pro forma income statement for a single year provides no information about the _____ growth in sales and earnings of the _____ that is being spun off.
20. Pro forma adjustments for a divestment do not capture the potential benefits of increased _____ on the company's _____.
21. The earnings shown in a merger-related pro forma income statement may be higher than the company can sustain because:
    a. The acquired company's owners may be shrewdly selling out at dollar, anticipating a(n) _____ in _____ growth that is foreseeable by _____, but not to the acquiring corporation's management.
    b. Mergers of companies in the same industry often work out poorly due to _____ of _____.
    c. Inappropriately applying its _____ to an industry with very different requirements.
22. A(n) _____ investor buying a 30-year bond is certainly interested in the issuer's financial prospects beyond a(n) _____ horizon. Similarly, a substantial percentage of the present value of future dividends represented by a stock's price lies in _____ beyond the _____.
23. Radical financial restructurings such as _____, _____ massive stock, and _____ necessitate _____ projections.

24. Of the various types of analysis of financial statements, projecting _____ and _____ requires the greatest skill and produces the most _____.
25. The lack of _____ _____ is what makes financial forecasting so _____. When betting huge sums in the face of _____, it is essential that investors understand the _____ as fully as they possibly can.

## CHAPTER 13: CREDIT ANALYSIS

1. Financial statements tell much about a borrower's _____ to repay a loan, but disclose little about the equally important _____ to repay.
2. If a company depends on raw materials provided by a subsidiary, there may be a(n) _____ presumption that it will stand behind the subsidiary's ____, even in the _____ of a(n) _____.
3. Illiquidity manifests itself as an excess of current _____, over _____. The _____ ratio gauges the risk of this occurring by comparing the claims against the company that will become payable during the current _____ (_____) with the assets that are already in the form of cash or that will be converted to cash during the current _____ (_____).
4. The greater the amount by which asset values could deteriorate, the greater the "_____," and the greater the creditor's sense of _____. Equity is by definition _____ minus _____.
5. Aggressive _____ frequently try to satisfy the letter of a(n) _____ leverage limit imposed by lenders, without fulfilling the _____ spirit behind it.
6. A firm that "zeros out" its _____ at some point in each operating cycle can legitimately argue that its "true" leverage is represented by the permanent (_____) _____ on its balance sheet.
7. Current maturities of long-term debt should enter into the calculation of _____, based on a conservative assumption that the company will replace maturing debt with new _____ borrowings.
8. Exposure to interest rate fluctuations can also arise from long-term _____. Companies can limit this risk by using _____.

9. Public financial statements typically provide _____ information about the extent to which the issuer has _____ its exposure to interest rate fluctuations through _____.
10. Analysts should remember that the ultimate objective is not to _____ but to _____.
11. In general, the credit analyst must recognize the heightened level of risk implied by the presence of preferred stock in the _____. One formal way to take this risk into account is to calculate the ratio of _____ obligations to _____.
12. In addition to including capital leases in the total debt calculation, analysts should also take into account the _____ liabilities represented by contractual payments on _____, which are reported as _____ in the _____ to Financial Statements.
13. A corporation can employ leverage yet avoid showing debt on its consolidated balance sheet by entering _____ or forming _____ subsidiaries.
14. Under SFAS _____, balance sheet recognition is now given to pension liabilities related to employees' service to date. Similarly, SFAS _____ requires recognition of postretirement healthcare benefits as an on-balance sheet liability.
15. The precise formula for _____ a ratio is less important than the assurance that it is _____ for all companies being evaluated.
16. In general, credit analysts should assume that the achievement of _____ bond ratings is a(n) _____ goal of corporate management.
17. The contemporary view is that profits are ultimately what sustain _____ and _____. High profits keep plenty of cash flowing through the system and confirm the value of productive assets such as _____ and _____.
18. The cumulative effect of a change in accounting procedures will appear "_____," or after _____ have already been deducted. The sum of net income and provision for income taxes will then differ from the _____ that appears in the income statement.
19. Operating margin shows how well management has run the business _____ and _____ wisely, controlling _____ and _____ before taking into account financial policies, which largely determine _____, and the _____, which is outside management's control.

20. Fixed-charge coverage is a(n) _____ ratio of major interest to credit analysts. It measures the ability of a company's _____ to meet the _____ on its debt, the lender's most direct concern. In its simplest form, the fixed-charge coverage ratio indicates the _____ by which _____ suffice to pay _____.
21. Regardless of whether it is _____ or _____, all interest accrued must be covered by _____ and should therefore appear in the _____ of the fixed-charge coverage calculation.
22. The two complications that arise in connection with incorporating operating lease payments into the fixed-charge coverage calculation are:
    a. _____
    b. _____
23. Companies sometimes argue that the denominator of the fixed-charge coverage ratio should include only _____ expense, that is, the difference between _____ and income derived from _____, generally consisting of marketable securities.
24. Ratios related to sources and uses of funds measure credit quality at the most elemental level—a company's ability to _____ to ___ its _____.
25. Given corporations' general reluctance to sell new equity, a recurrent cash shortfall is likely to be made up with _____ financing, leading to a rise in the _____-to-_____ ratio.
26. A company that suffers a prolonged downtrend in its ratio of _____ to _____ is likely to get more deeply into debt, and therefore become _____ with each succeeding year.
27. Unlike earnings, _____ is essentially a programmed item, a cash flow ensured by the accounting rules. The higher the percentage of cash flow derived from _____, the higher is the _____ of a company's cash flow, and the _____ its financial flexibility on the vagaries of the marketplace.
28. Analysts cannot necessarily assume that all is well simply because capital expenditures consistently exceed depreciation. Among the issues to consider are:
    a. _____
    b. _____
    c. _____
    d. _____

29. A limitation of combination ratios that incorporate balance-sheet figures is that they have little meaning if _____ for _____ of years.
30. The underlying notion of a turnover ratio is that a company requires a certain level of _____ and _____ to support a given volume of sales.
31. A(n) _____ is a possible explanation of declining inventory turnover. In this case, the inventory may not have suffered a severe reduction in value, but there are nevertheless unfavorable implications for _____. Until the inventory glut can be worked off by _____ to match the lower _____, the company may have to borrow to finance its unusually high working capital, thereby increasing its _____.
32. Fixed-charge coverage, too, has a weakness, for it is based on _____, which are subject to considerable manipulation.
33. Built from two comparatively hard numbers, the ratio of _____ to _____ provides one of the best single measures of _____.
34. Expected _____ have an important bearing on the decision to _____ or _____ credit, as well as on the _____ of debt securities.
35. Line of business is another basis for defining a(n) _____.
36. Beyond a certain point, calculating and comparing companies on the basis of _____ financial ratios contributes little _____.
37. _____ or _____ financial ratios can have different implications for different companies.
38. Quantitative models such as Zeta, as well as others that have been devised using various mathematical techniques, have several distinct benefits, such as:
    a. _____
    b. _____
    c. _____
39. Similar to the quantitative models consisting of _____, the default risk models based on stock prices provide useful, but _____, signals.

## CHAPTER 14: EQUITY ANALYSIS

1. In this chapter, the discussion focuses primarily on the use of financial statements in _____ analysis.

2. Of the methods of fundamental common stock analysis, no other approach matches the intuitive appeal of regarding the stock price as the _____ of expected _____ dividends. This approach is analogous to the _____ calculation for a bond and therefore facilitates the comparison of different _____ of a single _____.
3. By thinking through the logic of the _____ method, the analyst will find that value always comes back to _____.
4. The company's earnings growth rate may diverge from its sales growth due to changes in its _____.
5. As a rule, a(n) _____ company will not increase its dividend on a regular, annual basis.
6. Many analysts argue that _____, rather than _____, is the true determinant of dividend-paying capability.
7. Cash generated from _____, which is generally more difficult for companies to manipulate than _____, can legitimately be viewed as the preferred measure of future _____ capability.
8. The ability to vary the _____, and therefore to assign a(n) _____ or _____ multiple to a company's earnings, is the equity analyst's defense against earnings _____ by management.
9. It is appropriate to assign a(n) _____ discount factor to the earnings of a company that competes against larger, better-capitalized firms. A small company may also suffer the _____ of _____ of depth in management and concentration of its _____ in _____ or _____.
10. A building-materials manufacturer may claim to be cushioned against fluctuations in housing starts because of a strong emphasis in its product line on the _____ and _____ markets.
11. Analysts should be especially wary of companies that have tended to jump on the bandwagon of "_____" associated with the _____ of the moment.
12. Earnings per share will not grow merely because _____.
13. Leverage reaches a limit, since lenders will not continue advancing funds beyond a certain point as _____.
14. One way to increase earnings per share is to _____ the _____ of _____ outstanding.
15. To the extent that the company funds share buybacks with idle cash, the increase in _____ is offset by a reduction arising from _____ income on _____.

16. Similar to most ratio analysis, the DuPont Formula is valuable not only for the _____ it _____ but also for the ___ ones it _____.
17. Besides introducing greater volatility into the _____, adding debt to the balance sheet demonstrates no _____ skill in _____ operations.
18. Some companies have the potential to raise their share prices by _____ their assets _____, while others can increase their value by _____ their _____.
19. Management's main adversaries in battles over "_____" were aggressive _____.
20. At least in the early stages, before some raiders became overly aggressive in their financial forecast assumptions, it was feasible to extract value without creating undue bankruptcy risk, simply by _____ the ratio of ____ to _____.
21. In future bear markets, when stocks again sell at depressed price-earnings multiples, investors will probably renew their focus on companies' _____ as _____.
22. A leveraged buyout can bring about improved profitability for either of two reasons:
    a. _____
    b. _____
23. Today's _____ may be a precursor of tomorrow's bankruptcy by a company that has economized its way to a(n) _____ state.
24. A focus on _____ multiples, the best-known form of fundamental analysis, is not the investor's _____ to relying on technicians' stock charts.
25. For the investor who takes a longer view, _____ provides an invaluable reference point for valuation.

# Financial Statements Exercises

## FINANCIAL STATEMENT ITEMS

Indicate in which of the principal financial statements each item appears.

Question 1

**Please indicate in which of the Financial Statements the following items belong.**

| Item | Balance Sheet | Income Statement | Statement of Cash Flows |
|---|---|---|---|
| Accounts Payable | | | |
| Accumulated Depreciation | | | |
| Adjusted Net Income | | | |
| Capital Expenditures | | | |
| Cash and Equivalents—Change | | | |
| Common Shares Outstanding | | | |
| Current Debt—Changes | | | |
| DIRECT OPERATING ACTIVITIES | | | |
| Earnings per Share (Fully Diluted) | | | |
| Earnings per Share (Primary) | | | |
| Equity in Net Loss (Earnings) | | | |
| Extraordinary Items | | | |
| Financing Activities—Net Cash Flow | | | |
| Gross Plant, Property, & Equipment | | | |
| Income before Extraordinary Items | | | |
| INDIRECT OPERATING ACTIVITIES | | | |
| Interest Paid—Net | | | |

*(Continued)*

| Item | Balance Sheet | Income Statement | Statement of Cash Flows |
|---|---|---|---|
| **INVESTING ACTIVITIES** | | | |
| **Investment Tax Credit** | | | |
| **Long-Term Debt Due in One Year** | | | |
| **Minority Interest** | | | |
| **Net Receivables** | | | |
| **Operating Activities—Net Cash Flow** | | | |
| **Other Assets and Liabilities—Net Change** | | | |
| **Other Investments** | | | |
| **Preferred Stock—Nonredeemable** | | | |
| **Pretax Income** | | | |
| **Retained Earnings** | | | |
| **Sale of Property, Plant, and Equipment** | | | |
| **Selling, General, & Administrative Expense** | | | |
| **Stock Equivalents** | | | |
| **Total Current Assets** | | | |
| **Total Income Taxes** | | | |
| **Total Preferred Stock** | | | |

Question 2

**Please indicate in which of the Financial Statements the following items belong.**

| Item | Balance Sheet | Income Statement | Statement of Cash Flows |
|---|---|---|---|
| **Accrued Expenses** | | | |
| **Adjusted Available for Common** | | | |
| **Available for Common** | | | |
| **Cash & Equivalents** | | | |
| **Common Equity** | | | |
| **Cost of Goods Sold** | | | |
| **Deferred Taxes** | | | |

| Item | Balance Sheet | Income Statement | Statement of Cash Flows |
|---|---|---|---|
| Dividends per Share | | | |
| Earnings per Share (Primary) | | | |
| EQUITY | | | |
| FINANCING ACTIVITIES | | | |
| Funds from Operations—Other | | | |
| Income Taxes Paid | | | |
| Interest Expense | | | |
| Inventory—Decrease (Increase) | | | |
| Investing Activities—Other | | | |
| Investments at Equity | | | |
| Long-Term Debt | | | |
| Long-Term Debt—Reduction | | | |
| Net Plant, Property, & Equipment | | | |
| Notes Payable | | | |
| Other Assets | | | |
| Other Current Liabilities | | | |
| Preferred Dividends | | | |
| Prepaid Expenses | | | |
| Receivables—Decrease (Increase) | | | |
| Sale of Investments | | | |
| Savings Due to Common | | | |
| Special Items | | | |
| Total Assets | | | |
| Total Equity | | | |
| Total Liabilities & Equity | | | |

Question 3

**Please indicate in which of the Financial Statements the following items belong.**

| Item | Balance Sheet | Income Statement | Statement of Cash Flows |
|---|---|---|---|
| Accounts Payable and Accrued Liabs—Inc (Dec) | | | |
| Acquisitions | | | |
| ASSETS | | | |
| Capital Surplus | | | |

*(Continued)*

| Item | Balance Sheet | Income Statement | Statement of Cash Flows |
|---|---|---|---|
| Cash Dividends | | | |
| Common Stock | | | |
| Deferred Charges | | | |
| Discontinued Operations | | | |
| Earnings per Share (Fully Diluted) | | | |
| EPS from Operations | | | |
| Exchange Rate Effect | | | |
| Financing Activities—Other | | | |
| Gross Profit | | | |
| Income Taxes—Accrued—Increase (Decrease) | | | |
| Intangibles | | | |
| Inventories | | | |
| Investing Activities—Net Cash Flow | | | |
| Investments—Increase | | | |
| LIABILITIES | | | |
| Long-Term Debt—Issuance | | | |
| Minority Interest | | | |
| Non-Operating Income/Expense | | | |
| Operating Profit | | | |
| Other Current Assets | | | |
| Other Liabilities | | | |
| Preferred Stock—Redeemable | | | |
| Purchase of Common and Preferred Stock | | | |
| Sale of Common and Preferred Stock | | | |
| Sales | | | |
| Short-Term Investments—Change | | | |
| Taxes Payable | | | |
| Total Current Liabilities | | | |
| Total Liabilities | | | |
| Treasury Stock | | | |

## COMMON SIZE AND OPERATING STRATEGY

Construct a Common Income Statement, Common Balance Sheet, and Common Statement of Cash Flows for the following firms. Determine their operating strategy and discuss the implications.

Please note that each file has three (3) Worksheets: IS, BS, SCF

### Cracker Barrel Old Country Store Inc. CBRL (U.S.: Nasdaq)

| CONSOLIDATED STATEMENTS OF INCOME—USD ($) $ in Thousands | 12 Months Ended | | |
|---|---|---|---|
| | Jul. 28, 2017 | Aug. 03, 2018 | Aug. 02, 2019 |
| **CONSOLIDATED STATEMENTS OF INCOME [Abstract]** | | | |
| Total revenue | $ 2,926,289 | $ 3,030,445 | $ 3,071,951 |
| Cost of goods sold (exclusive of depreciation and rent) | 891,293 | 935,397 | 931,077 |
| Labor and other related expenses | 1,017,124 | 1,055,811 | 1,078,751 |
| Other store operating expenses | 563,300 | 601,889 | 626,453 |
| Store operating income | 454,572 | 437,348 | 435,670 |
| General and administrative expenses | 141,414 | 143,756 | 152,826 |
| Operating income | 313,158 | 293,592 | 282,844 |
| Interest expense | 14,271 | 15,169 | 16,488 |
| Income before income taxes | 298,887 | 278,423 | 266,356 |
| Provision for income taxes | 96,988 | 30,803 | 42,955 |
| Net income | $ 201,899 | $ 247,620 | $ 223,401 |
| Net income per share—basic (in dollars per share) | $ 8.40 | $ 10.31 | $ 9.29 |
| Net income per share—diluted (in dollars per share) | $ 8.37 | $ 10.29 | $ 9.27 |
| Basic weighted average shares outstanding (in shares) | 24,031,810 | 24,011,161 | 24,037,272 |
| Diluted weighted average shares outstanding (in shares) | 24,118,288 | 24,075,614 | 24,096,396 |

| CONSOLIDATED BALANCE SHEETS—USD ($) $ in Thousands | Aug. 03, 2018 | Aug. 02, 2019 |
|---|---|---|
| **Current Assets:** | | |
| Cash and cash equivalents | $ 114,656 | $ 36,884 |
| Accounts receivable | 19,496 | 22,757 |
| Income taxes receivable | 0 | 9,449 |
| Inventories | 156,253 | 154,958 |
| Prepaid expenses and other current assets | 16,347 | 18,332 |
| Total current assets | 306,752 | 242,380 |
| **Property and Equipment:** | | |
| Land | 307,207 | 307,238 |
| Buildings and improvements | 861,949 | 881,705 |
| Buildings under capital leases | 3,289 | 3,289 |
| Restaurant and other equipment | 658,978 | 723,851 |
| Leasehold improvements | 353,329 | 385,340 |
| Construction in progress | 27,849 | 11,392 |
| Total | 2,212,601 | 2,312,815 |
| Less: Accumulated depreciation and amortization of capital leases | 1,063,466 | 1,143,850 |
| Property and equipment—net | 1,149,135 | 1,168,965 |
| Investment in unconsolidated subsidiary | 0 | 89,100 |
| Other assets | 71,468 | 80,780 |
| Total | 1,527,355 | 1,581,225 |
| **Current Liabilities:** | | |
| Accounts payable | 122,332 | 132,221 |
| Taxes withheld and accrued | 37,069 | 38,196 |
| Accrued employee compensation | 60,562 | 67,879 |
| Accrued employee benefits | 25,416 | 24,927 |
| Deferred revenue | 76,292 | 81,734 |
| Dividend payable | 31,117 | 32,144 |
| Other current liabilities | 11,831 | 15,373 |
| Total current liabilities | 364,619 | 392,474 |
| Long-term debt | 400,000 | 400,000 |
| Long-term interest rate swap liability | 0 | 10,483 |
| Other long-term obligations | 128,794 | 129,439 |
| Deferred income taxes | 52,161 | 44,119 |
| Commitments and Contingencies (Notes 10 and 16) | | |

| CONSOLIDATED BALANCE SHEETS—USD ($) $ in Thousands | Aug. 03, 2018 | Aug. 02, 2019 |
|---|---|---|
| **Shareholders' Equity:** | | |
| Preferred stock—100,000,000 shares of $0.01 par value authorized; 300,000 shares designated as Series A Junior Participating Preferred Stock; no shares issued | 0 | 0 |
| Common stock—400,000,000 shares of $0.01 par value authorized; 2019—24,049,240 shares issued and outstanding; 2018—24,011,550 shares issued and outstanding | 240 | 241 |
| Additional paid-in capital | 44,049 | 49,732 |
| Accumulated other comprehensive income (loss) | 4,685 | (6,913) |
| Retained earnings | 532,807 | 561,650 |
| Total shareholders' equity | 581,781 | 604,710 |
| Total | $ 1,527,355 | $ 1,581,225 |

| CONSOLIDATED STATEMENTS OF CASH FLOWS USD ($) in Thousands | 12 Months Ended | | |
|---|---|---|---|
| | Jul. 28, 2017 | Aug. 03, 2018 | Aug. 02, 2019 |
| **Cash flows from operating activities:** | | | |
| Net income | $ 201,899 | $ 247,620 | $ 223,401 |
| **Adjustments to reconcile net income to net cash provided by operating activities:** | | | |
| Depreciation and amortization | 86,319 | 93,692 | 107,537 |
| Loss on disposition of property and equipment | 5,585 | 7,119 | 10,265 |
| Share-based compensation | 8,458 | 6,977 | 8,181 |
| Excess tax benefit from share-based compensation | (2,636) | 0 | 0 |

*(Continued)*

| CONSOLIDATED STATEMENTS OF CASH FLOWS USD ($) in Thousands | 12 Months Ended | | |
|---|---|---|---|
| | Jul. 28, 2017 | Aug. 03, 2018 | Aug. 02, 2019 |
| **Changes in assets and liabilities:** | | | |
| Accounts receivable | 1,273 | (1,380) | (3,261) |
| Income taxes receivable | 14,555 | 4,265 | (9,449) |
| Inventories | (4,059) | 114 | 1,295 |
| Prepaid expenses and other current assets | (1,274) | (500) | (1,985) |
| Other assets | (4,344) | (1,400) | 2,852 |
| Accounts payable | (14,098) | 3,937 | 9,889 |
| Taxes withheld and accrued | (836) | 344 | 1,127 |
| Accrued employee compensation | 9,752 | (10,389) | 7,311 |
| Accrued employee benefits | (1,169) | (1,343) | (489) |
| Deferred revenues | 8,348 | 3,916 | 5,442 |
| Other current liabilities | 4,470 | (8,121) | 3,492 |
| Other long-term obligations | 3,461 | 157 | 1,362 |
| Deferred income taxes | 5,063 | (14,388) | (4,174) |
| Net cash provided by operating activities | 320,767 | 330,620 | 362,796 |
| **Cash flows from investing activities:** | | | |
| Purchase of property and equipment | (110,591) | (152,249) | (138,293) |
| Proceeds from insurance recoveries of property and equipment | 483 | 616 | 753 |
| Proceeds from sale of property and equipment | 503 | 411 | 151 |
| Purchase of investment in unconsolidated subsidiary | 0 | 0 | (89,100) |
| Notes receivable from unconsolidated subsidiary | 0 | 0 | (15,085) |
| Net cash used in investing activities | (109,605) | (151,222) | (241,574) |
| **Cash flows from financing activities:** | | | |
| Proceeds from issuance of long-term debt | 0 | 0 | 400,000 |

| CONSOLIDATED STATEMENTS OF CASH FLOWS USD ($) in Thousands | 12 Months Ended | | |
|---|---|---|---|
| | Jul. 28, 2017 | Aug. 03, 2018 | Aug. 02, 2019 |
| (Taxes withheld) and proceeds from issuance of share-based compensation awards, net | (6,896) | (3,816) | (2,497) |
| Principal payments under long-term debt | 0 | 0 | (400,000) |
| Purchases and retirement of common stock | 0 | (14,772) | 0 |
| Deferred financing costs | 0 | 0 | (3,022) |
| Dividends on common stock | (196,867) | (207,155) | (193,475) |
| Excess tax benefit from share-based compensation | 2,636 | 0 | 0 |
| Net cash used in financing activities | (201,127) | (225,743) | (198,994) |
| Net (decrease) increase in cash and cash equivalents | 10,035 | (46,345) | (77,772) |
| Cash and cash equivalents, beginning of year | 150,966 | 161,001 | 114,656 |
| Cash and cash equivalents, end of year | 161,001 | 114,656 | 36,884 |
| **Cash paid during the year for:** | | | |
| Interest, net of amounts capitalized | 12,847 | 17,272 | 12,100 |
| Income taxes | 78,092 | 43,471 | 56,450 |
| **Supplemental schedule of non-cash investing and financing activities:** | | | |
| Capital expenditures accrued in accounts payable | 6,743 | 8,183 | 9,508 |
| Change in fair value of interest rate swaps | 15,402 | 13,103 | (15,466) |
| Change in deferred tax asset for interest rate swaps | (5,891) | (4,189) | 3,868 |
| Dividends declared but not yet paid | $ 31,296 | $ 31,784 | $ 32,859 |

**Denny's Corp. DENN (U.S.: Nasdaq)**

| CONSOLIDATED STATEMENTS OF INCOME—USD ($) shares in Thousands, $ in Thousands | 12 Months Ended | | |
|---|---|---|---|
| | Dec. 27, 2017 | Dec. 26, 2018 | Dec. 25, 2019 |
| **Revenue:** | | | |
| Revenue | $ 529,169 | $ 630,179 | $ 541,389 |
| **Costs of company restaurant sales:** | | | |
| Product costs | 97,825 | 100,532 | 74,720 |
| Payroll and benefits | 153,037 | 164,314 | 118,806 |
| Occupancy | 20,802 | 23,228 | 18,613 |
| Other operating expenses | 53,049 | 60,708 | 46,257 |
| Total costs of company restaurant sales | 324,713 | 348,782 | 258,396 |
| Costs of franchise and license revenue | 39,294 | 114,296 | 120,326 |
| General and administrative expenses | 66,415 | 63,828 | 69,018 |
| Depreciation and amortization | 23,720 | 27,039 | 19,846 |
| Operating (gains), losses, and other charges, net | 4,329 | 2,620 | (91,180) |
| Total operating costs and expenses, net | 458,471 | 556,565 | 376,406 |
| Operating income | 70,698 | 73,614 | 164,983 |
| Interest expense, net | 15,640 | 20,745 | 18,547 |
| Other nonoperating (income) expense, net | (1,743) | 619 | (2,763) |
| Net income before income taxes | 56,801 | 52,250 | 149,199 |
| Provision for income taxes | 17,207 | 8,557 | 31,789 |
| Net income | $ 39,594 | $ 43,693 | $ 117,410 |
| Basic net income per share (in dollars per share) | $ 0.58 | $ 0.69 | $ 1.96 |
| Diluted net income per share (in dollars per share) | $ 0.56 | $ 0.67 | $ 1.90 |
| Basic weighted average shares outstanding | 68,077 | 63,364 | 59,944 |
| Diluted weighted average shares outstanding | 70,403 | 65,562 | 61,833 |
| Company restaurant sales | | | |
| **Revenue:** | | | |
| Revenue | $ 390,352 | $ 411,932 | $ 306,377 |
| Franchise and license revenue | | | |
| **Revenue:** | | | |
| Revenue | $ 138,817 | $ 218,247 | $ 235,012 |

| CONSOLIDATED BALANCE SHEETS—USD ($)<br>$ in Thousands | Dec. 26, 2018 | Dec. 25, 2019 |
|---|---|---|
| **Current assets:** | | |
| Cash and cash equivalents | $ 5,026 | $ 3,372 |
| Investments | 1,709 | 3,649 |
| Receivables, net | 26,283 | 27,488 |
| Inventories | 2,993 | 1,325 |
| Assets held for sale | 723 | 1,925 |
| Prepaid and other current assets | 10,866 | 14,974 |
| Total current assets | 47,600 | 52,733 |
| Property, net of accumulated depreciation of $147,445 and $226,620, respectively | 117,251 | 97,626 |
| Financing lease right-of-use assets, net of accumulated amortization of $8,468 and $15,526, respectively | | 11,720 |
| Financing lease right-of-use assets, net of accumulated amortization of $8,468 and $15,526, respectively | 22,753 | |
| Operating lease right-of-use assets, net | | 158,550 |
| Goodwill | 39,781 | 36,832 |
| Intangible assets, net | 59,067 | 53,956 |
| Deferred financing costs, net | 2,335 | 1,727 |
| Deferred income taxes, net | 17,333 | 14,718 |
| Other noncurrent assets | 29,229 | 32,525 |
| Total assets | 335,349 | 460,387 |
| **Current liabilities:** | | |
| Current finance lease liabilities | | 1,674 |
| Current finance lease liabilities | 3,410 | |
| Current operating lease liabilities | | 16,344 |
| Accounts payable | 29,527 | 20,256 |
| Other current liabilities | 61,790 | 57,307 |
| Total current liabilities | 94,727 | 95,581 |
| **Long-term liabilities:** | | |
| Long-term debt | 286,500 | 240,000 |
| Noncurrent finance lease liabilities | | 14,779 |
| Noncurrent finance lease liabilities | 27,181 | |
| Noncurrent operating lease liabilities | | 152,750 |

*(Continued)*

| CONSOLIDATED BALANCE SHEETS—USD ($) $ in Thousands | Dec. 26, 2018 | Dec. 25, 2019 |
|---|---|---|
| Liability for insurance claims, less current portion | 12,199 | 11,454 |
| Other noncurrent liabilities | 48,087 | 83,887 |
| Total long-term liabilities | 373,967 | 502,870 |
| Total liabilities | 468,694 | 598,451 |
| Commitments and contingencies | | |
| **Shareholders' deficit** | | |
| Common stock $0.01 par value; shares authorized—135,000; December 25, 2019: 109,415 shares issued and 57,095 shares outstanding; December 26, 2018: 108,585 shares issued and 61,533 shares outstanding | 1,086 | 1,094 |
| Paid-in capital | 592,944 | 603,980 |
| Deficit | (306,414) | (189,398) |
| Accumulated other comprehensive loss, net of tax | (4,146) | (33,960) |
| Treasury stock, at cost, 52,320 and 47,052 shares, respectively | (416,815) | (519,780) |
| Total shareholders' deficit | (133,345) | (138,064) |
| Total liabilities and shareholders' deficit | $ 335,349 | $ 460,387 |

| CONSOLIDATED STATEMENTS OF CASH FLOWS—USD ($) $ in Thousands | 12 Months Ended | | |
|---|---|---|---|
| | Dec. 27, 2017 | Dec. 26, 2018 | Dec. 25, 2019 |
| **Cash flows from operating activities:** | | | |
| Net income | $ 39,594 | $ 43,693 | $ 117,410 |
| **Adjustments to reconcile net income to cash flows provided by operating activities:** | | | |
| Depreciation and amortization | 23,720 | 27,039 | 19,846 |
| Operating (gains), losses, and other charges, net | 4,329 | 2,620 | (91,180) |
| Amortization of deferred financing costs | 596 | 607 | 608 |
| Gains on investments | 0 | (9) | (180) |
| (Gains) losses on early extinguishments of debt and leases | 130 | (171) | (4) |
| Deferred income tax expense | 10,271 | 6,193 | 16,005 |

| CONSOLIDATED STATEMENTS OF CASH FLOWS—USD ($) $ in Thousands | 12 Months Ended | | |
|---|---|---|---|
| | Dec. 27, 2017 | Dec. 26, 2018 | Dec. 25, 2019 |
| (Decrease) increase of tax valuation allowance | 216 | 121 | (2,935) |
| Share-based compensation | 8,541 | 6,038 | 6,694 |
| **Changes in assets and liabilities:** | | | |
| Receivables | (807) | (4,722) | (2,030) |
| Inventories | (192) | 141 | 1,668 |
| Other current assets | (2,380) | 921 | (4,108) |
| Other assets | (6,327) | 2 | (4,581) |
| Operating lease assets/liabilities | | | (601) |
| Accounts payable | 10,025 | (5,147) | (5,170) |
| Accrued salaries and vacations | (6,446) | 2,175 | (3,826) |
| Accrued taxes | (23) | 283 | (2,043) |
| Other accrued liabilities | 135 | (1,676) | (4,144) |
| Other noncurrent liabilities | (3,113) | (4,418) | 1,898 |
| Net cash flows provided by operating activities | 78,269 | 73,690 | 43,327 |
| **Cash flows from investing activities:** | | | |
| Capital expenditures | (18,811) | (22,025) | (13,975) |
| Acquisition of restaurants and real estate | (12,353) | (10,416) | (11,320) |
| Proceeds from disposition of property | 2,318 | 3,052 | 129,721 |
| Investment purchases | 0 | (1,700) | (1,760) |
| Collections on notes receivable | 4,405 | 2,740 | 3,654 |
| Issuance of notes receivable | (2,706) | (3,668) | (1,351) |
| Net cash flows provided by (used in) investing activities | (27,147) | (32,017) | 104,969 |
| **Cash flows from financing activities:** | | | |
| Revolver borrowings | 391,900 | 136,000 | 164,400 |
| Revolver payments | (351,400) | (108,500) | (210,900) |
| Long-term debt payments | (3,322) | (3,181) | (2,464) |
| Tax withholding on share-based payments | 0 | (1,714) | (3,206) |
| Deferred financing costs | (1,602) | 0 | 0 |
| Purchase of treasury stock | (83,050) | (61,237) | (94,459) |
| Purchase of equity forward contract | 0 | (6,763) | 0 |
| Proceeds from exercise of stock options | 655 | 1,225 | 971 |

*(Continued)*

| CONSOLIDATED STATEMENTS OF CASH FLOWS—USD ($) $ in Thousands | 12 Months Ended | | |
|---|---|---|---|
| | Dec. 27, 2017 | Dec. 26, 2018 | Dec. 25, 2019 |
| Net bank overdrafts | (1,912) | 2,540 | (4,292) |
| Net cash flows used in financing activities | (48,731) | (41,630) | (149,950) |
| (Decrease) increase in cash and cash equivalents | 2,391 | 43 | (1,654) |
| Cash and cash equivalents at beginning of period | 2,592 | 4,983 | 5,026 |
| Cash and cash equivalents at end of period | $ 4,983 | $ 5,026 | $ 3,372 |

**Red Robin Gourmet Burgers Inc. RRGB (U.S.: Nasdaq)**

| CONSOLIDATED STATEMENTS OF OPERATIONS AND COMPREHENSIVE (LOSS) INCOME—USD ($) shares in Thousands, $ in Thousands | 12 Months Ended | | |
|---|---|---|---|
| | Dec. 31, 2017 | Dec. 30, 2018 | Dec. 29, 2019 |
| **Revenues:** | | | |
| Revenues | $ 1,387,566 | $ 1,338,563 | $ 1,315,014 |
| **Restaurant operating costs (excluding depreciation and amortization shown separately below):** | | | |
| Cost of sales | 320,355 | 313,504 | 303,404 |
| Labor (includes $161, $245, and $346 of stock-based compensation) | 475,432 | 456,262 | 456,778 |
| Other operating | 178,309 | 182,084 | 186,476 |
| Occupancy | 112,753 | 114,146 | 111,798 |
| Depreciation and amortization | 92,545 | 95,371 | 91,790 |
| Selling, general, and administrative expenses (includes $3,103, $3,803, and $4,442 of stock-based compensation) | 156,656 | 146,458 | 155,978 |
| Pre-opening costs | 5,570 | 2,092 | 319 |
| Other charges | 6,914 | 39,131 | 21,598 |

| CONSOLIDATED STATEMENTS OF OPERATIONS AND COMPREHENSIVE (LOSS) INCOME—USD ($) shares in Thousands, $ in Thousands | 12 Months Ended | | |
|---|---|---|---|
| | Dec. 31, 2017 | Dec. 30, 2018 | Dec. 29, 2019 |
| Total costs and expenses | 1,348,534 | 1,349,048 | 1,328,141 |
| (Loss) income from operations | 39,032 | (10,485) | (13,127) |
| **Other expense (income):** | | | |
| Interest expense and other | 10,955 | 10,704 | 10,178 |
| Interest (income) and other, net | (943) | 221 | (1,068) |
| Total other expenses | 10,012 | 10,925 | 9,110 |
| (Loss) income before income taxes | 29,020 | (21,410) | (22,237) |
| Income tax benefit | (999) | (14,991) | (14,334) |
| Net (loss) income | $ 30,019 | $ (6,419) | $ (7,903) |
| **(Loss) earnings per share:** | | | |
| Basic (in dollars per share) | $ 2.33 | $ (0.49) | $ (0.61) |
| Diluted (in dollars per share) | $ 2.31 | $ (0.49) | $ (0.61) |
| **Weighted average shares outstanding:** | | | |
| Basic (in shares) | 12,899 | 12,976 | 12,959 |
| Diluted (in shares) | 12,998 | 12,976 | 12,959 |
| **Other comprehensive income (loss):** | | | |
| Foreign currency translation adjustment | $ 1,442 | $ (1,235) | $ 428 |
| Other comprehensive income (loss), net of tax | 1,442 | (1,235) | 428 |
| Total comprehensive (loss) income | 31,461 | (7,654) | (7,475) |
| Restaurant revenue | | | |
| **Revenues:** | | | |
| Revenues | 1,365,060 | 1,316,209 | 1,289,521 |
| Franchise revenue | | | |
| **Revenues:** | | | |
| Revenues | 17,681 | 17,409 | 17,497 |
| Other revenue | | | |
| **Revenues:** | | | |
| Revenues | $ 4,825 | $ 4,945 | $ 7,996 |

| CONSOLIDATED BALANCE SHEETS—USD ($) $ in Thousands | Dec. 30, 2018 | Dec. 29, 2019 |
|---|---|---|
| **Current assets:** | | |
| Cash and cash equivalents | $ 18,569 | $ 30,045 |
| Accounts receivable, net | 25,034 | 22,372 |
| Inventories | 27,370 | 26,424 |
| Prepaid expenses and other current assets | 27,576 | 26,646 |
| Total current assets | 98,549 | 105,487 |
| Property and equipment, net | 565,142 | 518,013 |
| Right of use assets, net | 0 | 426,248 |
| Goodwill | 95,838 | 96,397 |
| Intangible assets, net | 34,609 | 29,975 |
| Other assets, net | 49,803 | 61,460 |
| Total assets | 843,941 | 1,237,580 |
| **Current liabilities:** | | |
| Accounts payable | 39,024 | 33,040 |
| Accrued payroll and payroll-related liabilities | 37,922 | 35,221 |
| Unearned revenue | 55,360 | 54,223 |
| Short-term portion of lease obligations | 786 | 42,699 |
| Accrued liabilities and other current liabilities | 38,057 | 29,403 |
| Total current liabilities | 171,149 | 194,586 |
| Deferred rent | 75,675 | 0 |
| Long-term debt | 193,375 | 206,875 |
| Long-term portion of lease obligations | 9,414 | 465,435 |
| Other non-current liabilities | 11,523 | 10,164 |
| Total liabilities | 461,136 | 877,060 |
| **Stockholders' equity:** | | |
| Common stock; $0.001 par value: 45,000 shares authorized; 17,851 shares issued; 12,923 and 12,971 shares outstanding | 18 | 18 |
| Preferred stock, $0.001 par value: 3,000 shares authorized; no shares issued and outstanding | 0 | 0 |
| Treasury stock 4,928 and 4,880 shares, at cost | (201,505) | (202,313) |
| Paid-in capital | 212,752 | 213,922 |
| Accumulated other comprehensive loss, net of tax | (4,801) | (4,373) |
| Retained earnings | 376,341 | 353,266 |
| Total stockholders' equity | 382,805 | 360,520 |
| Total liabilities and stockholders' equity | $ 843,941 | $ 1,237,580 |

| | 1 | 2 | 3 |
|---|---|---|---|
| **CONSOLIDATED STATEMENTS OF CASH FLOWS—USD ($)** **$ in Thousands** | **12 Months Ended** | | |
| | **Dec. 31, 2017** | **Dec. 30, 2018** | **Dec. 29, 2019** |
| Cash Flows from Operating Activities: | | | |
| Net income | $ 30,019 | $ (6,419) | $ (7,903) |
| **Adjustments to reconcile net income to net cash provided by operating activities:** | | | |
| Depreciation and amortization | 92,545 | 95,371 | 91,790 |
| Gift card breakage | (4,026) | (3,898) | (6,776) |
| Other charges—asset impairment and unpaid other charges | 6,914 | 35,715 | 1,473 |
| Deferred income tax benefit | (6,478) | (18,613) | (9,640) |
| Stock-based compensation expense | 4,788 | 4,048 | 3,344 |
| Other, net | 1,043 | 1,052 | 678 |
| **Changes in operating assets and liabilities:** | | | |
| Accounts receivable | (609) | 2,922 | 2,766 |
| Prepaid expenses and other current assets | (4,105) | 5,918 | (8,240) |
| Trade accounts payable and accrued liabilities | 21,022 | 5,685 | (15,490) |
| Unearned revenue | 9,701 | 3,397 | 5,632 |
| Other operating assets and liabilities, net | 5,793 | 1,117 | 281 |
| Net cash provided by operating activities | 156,607 | 126,295 | 57,915 |
| **Cash Flows from Investing Activities:** | | | |
| Purchases of property, equipment, and intangible assets | (83,531) | (50,271) | (57,309) |
| Proceeds from sales of real estate and property, plant, and equipment and other | 241 | 435 | 279 |
| Net cash used in investing activities | (83,290) | (49,836) | (57,030) |
| **Cash Flows from Financing Activities:** | | | |
| Borrowings of long-term debt | 186,550 | 215,500 | 273,500 |
| Repayment of long-term debt and finance lease obligations | | | (261,063) |
| Payments of long-term debt and finance leases | (257,215) | (289,238) | |
| Purchase of treasury stock | 0 | (1,474) | (3,450) |

*(Continued)*

| CONSOLIDATED STATEMENTS OF CASH FLOWS—USD ($) $ in Thousands | 12 Months Ended | | |
|---|---|---|---|
| | Dec. 31, 2017 | Dec. 30, 2018 | Dec. 29, 2019 |
| Debt issuance costs | (664) | 0 | (33) |
| Proceeds from exercise of stock options and employee stock purchase plan | 3,405 | 914 | 724 |
| Net cash provided by (used in) financing activities | (67,924) | (74,298) | 9,678 |
| Effect of currency translation on cash | 589 | (1,306) | 913 |
| Net increase in cash and cash equivalents | 5,982 | 855 | 11,476 |
| Cash and cash equivalents, beginning of period | 11,732 | 17,714 | 18,569 |
| Cash and cash equivalents, end of period | 17,714 | 18,569 | 30,045 |
| **Supplemental disclosure of cash flow information:** | | | |
| Income taxes paid | 3,999 | 2,486 | 3,237 |
| Interest paid, net of amounts capitalized | 10,372 | 10,013 | 9,750 |
| Change in accrued capital expenditures | $ (5,951) | $ (507) | (3,910) |
| Right of use assets obtained in exchange for finance lease obligations following the adoption of Topic 842 (Leases) | | | $ 1,606 |

**Texas Roadhouse Inc. TXRH (U.S.: Nasdaq)**

| CONSOLIDATED STATEMENTS OF INCOME AND COMPREHENSIVE INCOME—USD ($) shares in Thousands, $ in Thousands | 12 Months Ended | | |
|---|---|---|---|
| | Dec. 26, 2017 | Dec. 25, 2018 | Dec. 31, 2019 |
| **Revenue:** | | | |
| Revenue | $ 2,219,531 | $ 2,457,449 | $ 2,756,163 |
| **Restaurant operating costs (excluding depreciation and amortization shown separately below):** | | | |
| Cost of sales | 721,550 | 795,300 | 883,357 |
| Labor | 687,545 | 793,384 | 905,614 |
| Rent | 44,807 | 48,791 | 52,531 |
| Other operating | 342,702 | 375,477 | 418,448 |
| Pre-opening | 19,274 | 19,051 | 20,156 |
| Depreciation and amortization | 93,499 | 101,216 | 115,544 |

| CONSOLIDATED STATEMENTS OF INCOME AND COMPREHENSIVE INCOME—USD ($) shares in Thousands, $ in Thousands | 12 Months Ended | | |
|---|---|---|---|
| | Dec. 26, 2017 | Dec. 25, 2018 | Dec. 31, 2019 |
| Impairment and closure, net | 654 | 278 | (899) |
| General and administrative | 123,294 | 136,163 | 149,389 |
| Total costs and expenses | 2,033,325 | 2,269,660 | 2,544,140 |
| Income from operations | 186,206 | 187,789 | 212,023 |
| Interest income (expense), net | (1,577) | (591) | 1,514 |
| Equity income from investments in unconsolidated affiliates | 1,488 | 1,353 | 378 |
| Income before taxes | 186,117 | 188,551 | 213,915 |
| Provision for income taxes | 48,581 | 24,257 | 32,397 |
| Net income including noncontrolling interests | 137,536 | 164,294 | 181,518 |
| Less: Net income attributable to noncontrolling interests | 6,010 | 6,069 | 7,066 |
| Net income attributable to Texas Roadhouse, Inc. and subsidiaries | 131,526 | 158,225 | 174,452 |
| **Other comprehensive income (loss), net of tax:** | | | |
| Foreign currency translation adjustment, net of tax of ($1), $53 and ($97), respectively | 155 | (189) | 3 |
| Total comprehensive income | $ 131,681 | $ 158,036 | $ 174,455 |
| **Net income per common share attributable to Texas Roadhouse, Inc. and subsidiaries:** | | | |
| Basic | $ 1.85 | $ 2.21 | $ 2.47 |
| Diluted | $ 1.84 | $ 2.20 | $ 2.46 |
| **Weighted average shares outstanding:** | | | |
| Basic | 70,989 | 71,467 | 70,509 |
| Diluted | 71,527 | 71,964 | 70,916 |
| Cash dividends declared per share | $ 0.84 | $ 1 | $ 1.20 |
| Restaurant and other sales | | | |
| **Revenue:** | | | |
| Revenue | $ 2,203,017 | $ 2,437,115 | $ 2,734,177 |
| Franchise royalties and fees | | | |
| **Revenue:** | | | |
| Revenue | $ 16,514 | $ 20,334 | $ 21,986 |

| CONSOLIDATED BALANCE SHEETS—USD ($)<br>$ in Thousands | Dec. 25, 2018 | Dec. 31, 2019 |
|---|---|---|
| **Current assets:** | | |
| Cash and cash equivalents | $ 210,125 | $ 107,879 |
| Receivables, net of allowance for doubtful accounts of $12 at December 31, 2019 and $34 at December 25, 2018 | 92,114 | 99,305 |
| Inventories, net | 18,827 | 20,267 |
| Prepaid income taxes | 7,569 | 2,015 |
| Prepaid expenses | 16,384 | 18,433 |
| Total current assets | 345,019 | 247,899 |
| Property and equipment, net of accumulated depreciation of $678,988 at December 31, 2019 and $602,451 at December 25, 2018 | 956,676 | 1,056,563 |
| Operating lease right-of-use assets | | 499,801 |
| Goodwill | 123,220 | 124,748 |
| Intangible assets, net of accumulated amortization of $14,141 at December 31, 2019 and $13,416 at December 25, 2018 | 1,959 | 1,234 |
| Other assets | 42,402 | 53,320 |
| Total assets | 1,469,276 | 1,983,565 |
| **Current liabilities:** | | |
| Current portion of operating lease liabilities | | 17,263 |
| Accounts payable | 62,060 | 61,653 |
| Deferred revenue-gift cards | 192,242 | 209,258 |
| Accrued wages | 34,159 | 39,699 |
| Accrued taxes and licenses | 24,631 | 30,433 |
| Dividends payable | 17,904 | |
| Other accrued liabilities | 54,146 | 58,914 |
| Total current liabilities | 385,142 | 417,220 |
| Operating lease liabilities, net of current portion | | 538,710 |
| Restricted stock and other deposits | 7,703 | 8,249 |
| Deferred rent | 48,079 | |
| Deferred tax liabilities, net | 17,268 | 22,695 |
| Other liabilities | 50,376 | 65,522 |
| Total liabilities | 508,568 | 1,052,396 |

| CONSOLIDATED BALANCE SHEETS—USD ($) $ in Thousands | Dec. 25, 2018 | Dec. 31, 2019 |
|---|---|---|
| **Texas Roadhouse, Inc. and subsidiaries stockholders' equity:** | | |
| Preferred stock ($0.001 par value, 1,000,000 shares authorized; no shares issued or outstanding) | | |
| Common stock ($0.001 par value, 100,000,000 shares authorized, 69,400,252 and 71,617,510 shares issued and outstanding at December 31, 2019 and December 25, 2018, respectively) | 72 | 69 |
| Additional paid-in-capital | 257,388 | 140,501 |
| Retained earnings | 688,337 | 775,649 |
| Accumulated other comprehensive loss | (228) | (225) |
| Total Texas Roadhouse, Inc. and subsidiaries stockholders' equity | 945,569 | 915,994 |
| Noncontrolling interests | 15,139 | 15,175 |
| Total equity | 960,708 | 931,169 |
| Total liabilities and equity | $ 1,469,276 | $ 1,983,565 |

| CONSOLIDATED STATEMENTS OF CASH FLOWS—USD ($) $ in Thousands | 12 Months Ended | | |
|---|---|---|---|
| | Dec. 26, 2017 | Dec. 25, 2018 | Dec. 31, 2019 |
| **Cash flows from operating activities:** | | | |
| Net income including noncontrolling interests | $ 137,536 | $ 164,294 | $ 181,518 |
| **Adjustments to reconcile net income to net cash provided by operating activities:** | | | |
| Depreciation and amortization | 93,499 | 101,216 | 115,544 |
| Deferred income taxes | (5,069) | 12,319 | 6,335 |
| Loss on disposition of assets | 4,961 | 6,008 | 5,885 |
| Impairment and closure costs | 600 | 105 | (1,283) |
| Contribution from executive officer | | 1,000 | |
| Equity income from investments in unconsolidated affiliates | (1,488) | (1,353) | (378) |

*(Continued)*

| CONSOLIDATED STATEMENTS OF CASH FLOWS—USD ($) $ in Thousands | 12 Months Ended | | |
|---|---|---|---|
| | Dec. 26, 2017 | Dec. 25, 2018 | Dec. 31, 2019 |
| Distributions of income received from investments in unconsolidated affiliates | 1,424 | 656 | 1,837 |
| Provision for doubtful accounts | 10 | (9) | (22) |
| Share-based compensation expense | 26,934 | 33,983 | 35,500 |
| **Changes in operating working capital:** | | | |
| Receivables | (20,379) | (15,597) | (5,774) |
| Inventories | (48) | (2,495) | (1,414) |
| Prepaid expenses | (1,211) | (3,023) | (2,049) |
| Other assets | (7,401) | (4,290) | (12,823) |
| Accounts payable | 1,601 | 8,882 | 407 |
| Deferred revenue-gift cards | 26,678 | 35,519 | 16,991 |
| Accrued wages | 3,639 | 4,481 | 5,540 |
| Prepaid income taxes and income taxes payable | 3,448 | (8,581) | 5,554 |
| Accrued taxes and licenses | 2,299 | 2,634 | 5,802 |
| Other accrued liabilities | 5,148 | 7,569 | (3,773) |
| Operating lease right-of-use assets and lease liabilities | | | 5,826 |
| Deferred rent | 6,038 | 5,938 | |
| Other liabilities | 8,154 | 3,612 | 15,075 |
| Net cash provided by operating activities | 286,373 | 352,868 | 374,298 |
| **Cash flows from investing activities:** | | | |
| Capital expenditures-property and equipment | (161,628) | (155,980) | (214,340) |
| Acquisition of franchise restaurants, net of cash acquired | (16,528) | (2,165) | (1,536) |
| Proceeds from sale of property and equipment | | | 1,056 |
| Net cash used in investing activities | (178,156) | (158,145) | (214,820) |
| **Cash flows from financing activities:** | | | |
| Debt issuance costs | (476) | | |
| Proceeds from noncontrolling interest contribution | 3,457 | 2,551 | |

| CONSOLIDATED STATEMENTS OF CASH FLOWS—USD ($) $ in Thousands | 12 Months Ended | | |
|---|---|---|---|
| | Dec. 26, 2017 | Dec. 25, 2018 | Dec. 31, 2019 |
| Distributions to noncontrolling interest holders | (5,171) | (5,746) | (6,357) |
| Acquisition of noncontrolling interest | | (122) | (743) |
| Proceeds from restricted stock and other deposits, net | 740 | 418 | 62 |
| Indirect repurchase of shares for minimum tax withholdings | (11,639) | (14,067) | (12,471) |
| Principal payments on long-term debt and finance lease obligation | (558) | (50,000) | |
| Proceeds from exercise of stock options | 1,558 | | |
| Repurchase of shares of common stock | | | (139,849) |
| Dividends paid to shareholders | (58,154) | (68,550) | (102,366) |
| Net cash used in financing activities | (70,243) | (135,516) | (261,724) |
| Net (decrease) increase in cash and cash equivalents | 37,974 | 59,207 | (102,246) |
| Cash and cash equivalents—beginning of period | 112,944 | 150,918 | 210,125 |
| Cash and cash equivalents—end of period | 150,918 | 210,125 | 107,879 |
| **Supplemental disclosures of cash flow information:** | | | |
| Interest paid, net of amounts capitalized | 1,216 | 896 | 738 |
| Income taxes paid | 50,201 | 20,519 | 20,440 |
| Capital expenditures included in current liabilities | $ 12,156 | $ 7,332 | $ 15,416 |

## CASH FLOWS AND LIFE CYCLE

Analyze the Statement of Cash Flows for the following companies and establish their growth stage.

SWKS: CONSOLIDATED STATEMENTS OF CASH FLOWS—USD ($) $ in Millions

| | 12 Months Ended | | | | | |
|---|---|---|---|---|---|---|
| | Oct. 3, 2014 | Oct. 2, 2015 | Sep. 30, 2016 | Sep. 29, 2017 | Sep. 28, 2018 | Sep. 27, 2019 |
| Net revenue | $ 2,292 | $ 3,258 | $ 3,289 | $ 3,651 | $ 3,868 | $ 3,377 |
| **Cash flows from operating activities:** | | | | | | |
| Net Income | $ 457.7 | $ 798.3 | $ 995.2 | $ 1,010.2 | $ 918.4 | $ 853.6 |
| **Adjustments to reconcile net income to net cash provided by operating activities:** | | | | | | |
| Share-based compensation | 86 | 99.8 | 78 | 88.5 | 107.8 | 80.1 |
| **Depreciation** | **96.8** | **162.3** | **214.4** | **227.2** | **272.5** | **314.9** |
| Amortization of intangible assets | 25.9 | 33.5 | 33.4 | 27.6 | 26.7 | 56.7 |
| Contribution of common shares to savings and retirement plans | 17.1 | 20.9 | 18 | 0.0 | 0.0 | 0.0 |
| Deferred income taxes | 3.3 | (3.9) | 0 | 2.2 | 27.3 | (6.1) |
| Excess tax benefit from share-based compensation | (40.8) | (57.3) | (43.7) | (40.8) | 0 | 0 |
| Business combination, contingent consideration arrangements, change in amount of contingent consideration, liability | 0.0 | 0.0 | 0 | (1.3) | (11.9) | (3.1) |
| Other | 1 | 0.5 | 0.3 | 0.3 | (0.7) | 16.8 |
| **Changes in assets and liabilities net of acquired balances:** | | | | | | |
| Receivables, net | (12.4) | (222.2) | 121.4 | (37.1) | (193.8) | 190.5 |
| Inventory | (6.1) | 3.6 | (147.3) | (69.2) | 11.9 | (119.6) |
| Other current and long-term assets | 7.3 | (39.2) | (20.4) | 3.3 | (12.2) | (16.7) |
| Accounts payable | 74.2 | 90.5 | (181.5) | 147.8 | (126) | (33) |
| Other current and long-term liabilities | 62.4 | 106 | 27.9 | 97.6 | 240.6 | 33.3 |

| | 12 Months Ended | | | | | |
|---|---|---|---|---|---|---|
| | Oct. 3, 2014 | Oct. 2, 2015 | Sep. 30, 2016 | Sep. 29, 2017 | Sep. 28, 2018 | Sep. 27, 2019 |
| **Net cash provided by operating activities** | **772.4** | **992.8** | **1,095.7** | **1,456.3** | **1,260.6** | **1,367.4** |
| **Cash flows from investing activities:** | | | | | | |
| **Capital expenditures** | **(208.6)** | **(430.1)** | **(189.3)** | **(303.3)** | **(422.3)** | **(398.4)** |
| Payments for acquisitions, net of cash acquired | (148.5) | (24.6) | (55.6) | (13.7) | (404) | 0 |
| Purchased intangibles | 0 | 0 | (6) | (12.1) | (8.6) | (25) |
| Payments to acquire marketable securities | 0 | 0 | 0 | 0 | (683.7) | (360.5) |
| Maturity of investments | 0 | 0 | 0 | 3.2 | 368.2 | 447 |
| **Net cash used in investing activities** | **(357.1)** | **(454.7)** | **(250.9)** | **(325.9)** | **(1,150.4)** | **(336.9)** |
| **Cash flows from financing activities:** | | | | | | |
| Payment for obligations recorded for business combinations | 0 | 0 | (76.5) | 0 | 0.0 | 0 |
| Excess tax benefit from share-based compensation | 40.8 | 57.3 | 43.7 | 40.8 | 0 | 0 |
| Repurchase of common stock—payroll tax withholdings on equity awards | (22.1) | (54.2) | (73.3) | (49.2) | (48) | (22.8) |
| **Repurchase of common stock—share repurchase program** | **(165.7)** | **(237.3)** | **(525.6)** | **(432.3)** | **(759.5)** | **(657.6)** |
| Dividends paid | (41.4) | (123.1) | (201) | (214.6) | (243.2) | (273.9) |
| Proceeds from issuance of common stock | 0.0 | 0.0 | 0.0 | 15 | 18.2 | 19.7 |
| Net proceeds from exercise of stock options | 67.8 | 57 | 28.1 | 53.8 | 38.8 | 22.1 |
| Deferred payments for intangible assets | 0.0 | 0.0 | 0.0 | (5.5) | 0 | 0 |
| Payment for obligations recorded for business combinations | 0.0 | 0.0 | 0.0 | (5.4) | 0 | 0 |
| **Net cash used in financing activities** | **(120.6)** | **(300.3)** | **(804.6)** | **(597.4)** | **(993.7)** | **(912.5)** |
| Net increase in cash and cash equivalents | 294.7 | 237.8 | 40.2 | 533 | (883.5) | 118 |
| Cash and cash equivalents at beginning of period | 511.1 | 805.8 | 1,043.6 | | 1,616.8 | 733.3 |
| Cash and cash equivalents at end of period | 805.8 | 1,043.6 | 1,083.8 | 1,616.8 | 733.3 | 851.3 |
| **Supplemental cash flow disclosures:** | | | | | | |
| Income taxes paid | $ 63.2 | $ 126.1 | $ 165.9 | $ 163.2 | $ 135.9 | $ 124.4 |

ViaSat (VSAT): CONSOLIDATED STATEMENTS OF CASH FLOWS—USD ($) $ in Thousands

| | 12 Months Ended | | | | | |
|---|---|---|---|---|---|---|
| | Apr. 3, 2015 | Mar. 31, 2016 | Mar. 31, 2017 | Mar. 31, 2018 | Mar. 31, 2019 | Mar. 31, 2020 |
| Total revenues | $ 1,382,535 | $ 1,417,431 | $ 1,559,337 | $ 1,594,625 | $ 2,068,258 | $ 2,309,238 |
| **Cash flows from operating activities:** | | | | | | |
| Net income | $ 39,891 | $ 21,770 | $ 21,767 | $ (68,275) | $ (66,469) | $ 13,813 |
| **Adjustments to reconcile net income to net cash provided by operating activities:** | | | | | | |
| Depreciation | 179,542 | 193,086 | 200,686 | 210,441 | 262,289 | 279,733 |
| Amortization of intangible assets | 41,891 | 48,990 | 45,236 | 45,211 | 56,324 | 62,445 |
| Deferred income taxes | 12,420 | (5,003) | (218) | 0 | 0 | 0 |
| Stock-based compensation expense | 39,353 | 47,510 | 55,775 | 68,545 | 79,599 | 86,553 |
| Loss on disposition of fixed assets | 31,997 | 33,960 | 35,431 | 32,978 | 41,957 | 45,622 |
| Loss on extinguishment of debt | 0 | 0 | 0 | 10,217 | | |
| Other non-cash adjustments | 4,778 | 8,957 | 10,018 | (29,675) | (25,330) | (3,154) |
| **Increase (decrease) in cash resulting from changes in operating assets and liabilities, net of effects of acquisitions:** | | | | | | |
| Accounts receivable | 3,745 | (26,342) | 16,071 | (12,439) | (46,108) | (44,807) |
| Inventories | (1,217) | (26,749) | (12,386) | (37,562) | (36,593) | (58,997) |
| Other assets | (16,328) | (3,335) | (15,259) | (25,975) | (2,349) | (3,313) |
| Accounts payable | 862 | 5,250 | 972 | 32,503 | (5,714) | 28,175 |
| Accrued liabilities | 20,017 | (337) | 48,039 | 60,042 | 71,478 | 55,126 |
| Other liabilities | (7,435) | (820) | 5,166 | 72,622 | (1,533) | (24,260) |
| **Net cash provided by operating activities** | **349,516** | **296,937** | **411,298** | **358,633** | **327,551** | **436,936** |

| | 12 Months Ended | | | | | |
|---|---|---|---|---|---|---|
| | Apr. 3, 2015 | Mar. 31, 2016 | Mar. 31, 2017 | Mar. 31, 2018 | Mar. 31, 2019 | Mar. 31, 2020 |
| **Cash flows from investing activities:** | | | | | | |
| Purchase of property, equipment and satellites | (366,492) | (377,894) | (514,692) | (511,634) | (636,855) | (693,966) |
| Investment in unconsolidated affiliate | | (1,258) | (140,378) | | | |
| Cash paid for patents, licenses, and other assets | (52,686) | (72,731) | (70,966) | (72,853) | (49,965) | (67,112) |
| Proceeds from insurance claims on ViaSat-2 satellite | 0 | 0 | 0 | | 185,706 | 2,277 |
| Proceeds from sale of real property | | | 27,559 | | 14,034 | |
| Payments related to acquisition of businesses, net of cash acquired | (57,376) | (4,402) | (16,528) | | (2,339) | |
| **Net cash used in investing activities** | **(476,554)** | **(456,285)** | **(715,005)** | **(584,487)** | **(489,419)** | **(758,801)** |
| **Cash flows from financing activities:** | | | | | | |
| Proceeds from debt borrowings | 0 | 0 | 0 | 752,503 | 1,110,000 | 420,000 |
| Payments of debt borrowings | 0 | 0 | 0 | (575,000) | (732,840) | (59,691) |
| Payment of debt issuance costs | (2,757) | (840) | (6,677) | (9,759) | (9,767) | (2,479) |
| Proceeds from issuance of common stock under equity plans | 23,202 | 22,309 | 22,403 | 26,165 | 26,330 | 38,410 |
| Purchase of common stock in treasury (immediately retired) related to tax withholdings for stock-based compensation | (14,788) | (16,397) | (21,670) | (24,206) | (28,826) | (28,802) |
| **Proceeds from common stock issued in public offering, net of issuance costs** | **0** | **0** | **503,061** | **0** | **0** | **0** |
| Proceeds from noncontrolling interest capital contribution | 0 | 0 | 0 | 8,491 | | |
| Other financing activities | (3,107) | (1,784) | (1,802) | (1,816) | (10,280) | (2,253) |
| **Net cash provided by financing activities** | **121,464** | **149,122** | **392,784** | **165,776** | **354,617** | **365,185** |
| Effect of exchange rate changes on cash | (510) | 51 | (1,067) | 1,426 | (2,494) | (712) |
| Net increase (decrease) in cash and cash equivalents | (6,084) | (10,175) | 88,010 | (58,652) | 190,255 | 42,608 |

*(Continued)*

| | 12 Months Ended | | | | | |
|---|---|---|---|---|---|---|
| | Apr. 3, 2015 | Mar. 31, 2016 | Mar. 31, 2017 | Mar. 31, 2018 | Mar. 31, 2019 | Mar. 31, 2020 |
| Cash and cash equivalents at beginning of fiscal year | 58,347 | 52,263 | 42,088 | 130,098 | 71,446 | 261,701 |
| Cash and cash equivalents at end of fiscal year | 52,263 | 42,088 | 130,098 | 71,446 | 261,701 | 304,309 |
| **Supplemental information:** | | | | | | |
| Cash paid for interest (net of amounts capitalized) | 29,645 | 21,787 | 10,094 | 3,722 | 35,119 | 27,805 |
| Cash paid for income taxes, net | 494 | 1,380 | 1,468 | 4,021 | 1,758 | 10,950 |
| **Non-cash investing and financing activities:** | | | | | | |
| Issuance of stock in satisfaction of certain accrued employee compensation liabilities | 10,194 | 11,609 | 13,080 | 16,409 | 32,129 | 22,829 |
| Capital expenditures not paid for | 6,584 | 60,796 | 29,813 | 41,149 | 40,619 | $ 43,606 |
| Issuance of common stock in connection with acquisition | 0 | 0 | 4,988 | 0 | 0 | 0 |
| Debt issuance costs not paid for | 0 | 0 | 0 | | $ 2,479 | |
| **Cash flows from financing activities:** | | | | | | |
| Payment of debt extinguishment costs | 0 | 0 | 0 | (10,602) | | |
| Proceeds from credit facility borrowings | 350,000 | 175,000 | 90,000 | | | |
| Payments of revolving credit facility borrowings | (245,000) | (205,000) | (270,000) | 0 | 0 | 0 |
| Ex-Im Credit Facility [Member] | | | | | | |
| **Cash flows from financing activities:** | | | | | | |
| Proceeds from credit facility borrowings | $ 13,914 | 175,834 | 77,469 | | | |
| **Non-cash investing and financing activities:** | | | | | | |
| Exposure fees on Ex-Im credit facility financed through Ex-Im credit facility | | $ 20,992 | $ 8,505 | $ 5,764 | | |
| Exposure fees on Ex-Im credit facility expected to be financed through Ex-Im credit facility | | | | | | |

## DUPONT ANALYSIS

When performing comparative analysis of annual financial statements, it is important to be aware that not all companies have the same fiscal year. For example, in 2020 the COVID-19 crises would have affected companies whose fiscal year goes from January to December differently from companies whose fiscal year goes from July to June. This was not a factor in the exercises in this workbook because we selected fiscal year 2019.

Question 1

**DuPont Analysis of Biotechnology & Medical Research 2019**

**US$ in millions**

| Company name | Ticker | Market Cap | Equity (common) | Gross income | Net income | Sales | Total Assets |
|---|---|---|---|---|---|---|---|
| BIO-TECHNE Corp | TECH | 8,293.3 | 1,165.6 | 473.5 | 96 | 714.0 | 1,884.4 |
| Charles River Laboratories Int. | CRL | 7,444.0 | 1,634.6 | 958.3 | 252 | 2,621.2 | 4,692.8 |
| Exelixis, Inc. | EXEL | 5,331.5 | 1,686 | 934.7 | 321 | 967.8 | 1,885.7 |
| Halozyme Therapeutics, Inc. | HALO | 2,559.0 | 91.8 | 150.4 | (72) | 196.0 | 565.9 |
| Ligand Pharmaceuticals, Inc. | LGND | 1,981.0 | 767.2 | 108.9 | 629.3 | 120.3 | 1,494.9 |
| Medpace Holdings, Inc. | MEDP | 3,016.2 | 726.3 | 245.7 | 100.2 | 861.0 | 1,143.1 |
| Nektar Therapeutics | NKTR | 3,777.2 | 1,405.4 | 93.2 | (441) | 114.6 | 1,977.4 |
| Neurocrine Biosciences, Inc. | NBIX | 9,849.0 | 636.9 | 780.7 | 37 | 788.1 | 1,306.0 |
| PRA Health Sciences, Inc. | PRAH | 7,169.8 | 1090 | 876.6 | 243 | 3,066.3 | 3,544.4 |
| Syneos Health, Inc. | SYNH | 6,162.7 | 3,029.7 | 1037.7 | 131.3 | 4,675.8 | 7,453.8 |
| United Therapeutics Corporation | UTHR | 3,857.9 | 2,780.4 | 1331.2 | (105) | 1,448.8 | 3,913.4 |

## Question 2

**DuPont Analysis of Brewers 2019**

**US$ in millions**

| Company name | Ticker | Market Cap | Equity (common) | Gross income | Net income | Sales | Total assets |
|---|---|---|---|---|---|---|---|
| Anheuser Busch Inbev SA (ADR) | BUD | 162,767.4 | 75,722.0 | 31,967.0 | 9,171.0 | 52,329.0 | 236,648.0 |
| Big Rock Brewery, Inc. (USA) | BRBMF | 26.9 | 28.7 | 9.9 | (2.3) | 34.1 | 39.8 |
| Boston Beer Company, Inc. | SAM | 4,451.5 | 735.6 | 614.2 | 109.1 | 1,249.8 | 1,054.1 |
| Compania Cervecerias Unidas S. | CCU | 3,504.7 | 1,885.8 | 1,298.2 | 184.8 | 2,588.0 | 3,342.2 |
| Constellation Brands, Inc. | STZ | 36,364.1 | 12,551.0 | 4,080.3 | 3,435.9 | 8,116.0 | 29,231.5 |
| Heineken N.V. (ADR) | HEINY | 61,299.6 | 19,348.8 | 14,438.2 | 2,595.5 | 28,721.8 | 55,725.3 |
| Kirin Holdings Co. Ltd. (ADR) | KNBWY | 19,137.0 | 8,331.4 | 7,789.1 | 548.1 | 17,840.6 | 22,174.3 |
| Molson Coors Beverage Co. | TAP | 11,674.7 | 13,419.4 | 4,201.2 | 241.7 | 10,579.4 | 28,859.8 |

## Question 3

**DuPont Analysis of Consumer Goods Conglomerates 2019**

**US$ in millions**

| Company name | Ticker | Market Cap | Equity (common) | Gross income | Net income | Sales | Total assets |
|---|---|---|---|---|---|---|---|
| 3M Co, | MMM | 101,794.3 | 10,063.0 | 14,976.0 | 4,570.0 | 32,136.0 | 44,659.0 |
| Berkshire Hathaway, Inc. | BRK.A | 554,890.1 | 424,791.0 | 56,198.0 | 81,417.0 | 254,616.0 | 817,729.0 |
| Brookfield Infrastructure Part | BIP | 14,277.1 | 5,983.0 | 3,202.0 | 30.0 | 6,597.0 | 56,308.0 |
| Carlisle Companies, Inc. | CSL | 9,210.8 | 2,642.8 | 1,371.7 | 471.5 | 4,811.6 | 5,496.0 |
| General Electric Company | GE | 97,359.8 | 28,310.0 | 23,055.0 | (5,440.0) | 95,215.0 | 265,177.0 |
| HC2 Holdings, Inc. | HCHC | 97.1 | 349.8 | 481.0 | (31.5) | 1,077.0 | 6,958.3 |
| Honeywell International, Inc. | HON | 127,617.0 | 18,494.0 | 12,370.0 | 6,143.0 | 36,709.0 | 58,679.0 |
| Illinois Tool Works, Inc. | ITW | 58,182.2 | 3,026.0 | 5,922.0 | 2,521.0 | 14,109.0 | 15,068.0 |
| Raven Industries, Inc. | RAVN | 1,240.0 | 314.6 | 123.7 | 35.2 | 382.5 | 403.3 |

# Computational Exercises

## THE ARITHMETIC OF GROWTH VALUATIONS

Using a simple framework we call "the arithmetic of growth valuations," we explore the consequences for the owner's wealth of changing in expectations regarding the corporation's earnings growth. We provide four numerical examples to illustrate this point. The reader will be well served by coming back to these simple examples and working through the consequences of the strategies and schemes presented throughout the book.

**Q1**. A corporation is currently reporting annual net earnings of $30.0 million. Assume that five years from now, when its growth has leveled off somewhat, the corporation will be valued at 15 times earnings.

Further assume that the company will pay no dividends over the next five years and that investors in growth stocks currently seek returns of 25 percent (before considering capital gains taxes). Suppose the corporation's earnings have been growing at a 15 percent annual rate and appear likely to continue increasing at the same rate over the next five years.

At the end of that period, earnings (rounded) will be $_____ million annually. Applying a multiple of 15 times to that figure produces a valuation at the end of the fifth year of $____ million. Investors seeking a 25 percent rate of return will pay $_____ million today for that future value.

Say the founder still owns 20 percent of the shares outstanding, which means she is worth $_____ million. Suppose investors conclude for some reason that the corporation's potential for increasing its earnings has changed from 15 percent to 25 percent per annum.

The value of corporation's shares will change from $_____ million to $_____ million, keeping previous assumptions intact. Now the founder's shares are worth $_____ million, a difference of $ _____.

**Q2**. A corporation is currently reporting annual net earnings of $20.0 million. Assume that five years from now, when its growth has leveled off somewhat, the corporation will be valued at 20 times earnings.

Further assume that the company will pay no dividends over the next five years and that investors in growth stocks currently seek returns of 22 percent (before considering capital gains taxes). Suppose the corporation's earnings have been growing at a 20 percent annual rate and appear likely to continue increasing at the same rate over the next five years.

At the end of that period, earnings (rounded) will be $_____ million annually. Applying a multiple of 20 times to that figure produces a valuation at the end of the fifth year of $_____ million. Investors seeking a 22 percent rate of return will pay $_____ million today for that future value.

Say the founder still owns 40 percent of the shares outstanding, which means she is worth $_____ million. Suppose investors conclude for some reason that the corporation's potential for increasing its earnings has changed from 20 percent to 18 percent per annum.

The value of corporation's shares will change from $_____ million to $_____ million, keeping previous assumptions intact. Now the founder's shares are worth _____ million, a difference of $_____.

**Q3.** A corporation is currently reporting annual net earnings of $20.0 million. Assume that five years from now, when its growth has leveled off somewhat, the corporation will be valued at 12 times earnings.

Further assume that the company will pay no dividends over the next five years and that investors in growth stocks currently seek returns of 25 percent (before considering capital gains taxes). Suppose the corporation's earnings have been growing at a 10 percent annual rate and appear likely to continue increasing at the same rate over the next five years.

At the end of that period, earnings (rounded) will be $_____ million annually. Applying a multiple of 12 times to that figure produces a valuation at the end of the fifth year of $_____ million. Investors seeking a 25 percent rate of return will pay $_____ million today for that future value.

Say the founder still owns 20 percent of the shares outstanding, which means she is worth $_____ million. Suppose investors conclude for some reason that the corporation's potential for increasing its earnings has changed from 10 percent to 20 percent per annum.

The value of corporation's shares will change from $_____ million to $_____ million, keeping previous assumptions intact. Now the founder's shares are worth $_____ million, a difference of $_____.

**Q4.** A corporation is currently reporting annual net earnings of $20.0 million. Assume that five years from now, when its growth has leveled off somewhat, the corporation will be valued at 20 times earnings.

Further assume that the company will pay no dividends over the next five years and that investors in growth stocks currently seek returns of 22 percent (before considering capital gains taxes). Suppose the corporation's earnings have been growing at a 12 percent annual rate and appear likely to continue increasing at the same rate over the next five years.

At the end of that period, earnings (rounded) will be $____ million annually. Applying a multiple of 20 times to that figure produces a valuation at the end of the fifth year of $_____ million. Investors seeking a 22 percent rate of return will pay $_____ million today for that future value.

Say the founder still owns 40 percent of the shares outstanding, which means she is worth $_____ million. Suppose investors conclude for some reason that the corporation's potential for increasing its earnings has changed from 12 percent to 18 percent per annum.

The value of corporation's shares will change from $_____ million to $_____million, keeping previous assumptions intact. Now the founder's shares are worth $_____ million, a difference of $_____.

## MARKET VALUE VERSUS BOOK VALUE OF DEBT

This is an example of how a liability can be an asset. Long-term bonds that are carried in the books at face value in the Liability side of the balance sheet are in fact an asset when their market value is below their face value. That is because the firm's current interest expense is lower than it would be if the bonds were issued at the prevailing rate.

**Case 1.** A firm shows in its books bonds with a face value of $20.0 million. The bonds were issued at par, with a semi-annual coupon rate of 4.125 percent, and now have eight years to maturity. However, the bonds are now priced to yield 6.730 percent. The market value of this long-term obligation is **$ _____ million,** and the difference between the market value and the book value of the bond is **$ _____ million**.

**Case 2.** A firm shows in its books bonds with a face value of $50.0 million. The bonds were issued at par, with a semi-annual coupon rate of 5.750 percent, and now have eight years to maturity. However, the bonds are now priced to yield 7.250 percent. The market value of this long-term obligation is **$ _____ million,** and the difference between the market value and the book value of the bond is **$ _____ million**.

**Case 3.** A firm shows in its books bonds with a face value of $35.0 million. The bonds were issued at par, with a semi-annual

coupon rate of 3.750 percent and now have eight years to maturity. However, the bonds are now priced to yield 7.250 percent. The market value of this long-term obligation is **$_____ million,** and the difference between the market value and the book value of the bond is **$ _____ million**.

## ACQUISITION DRIVEN BY SALES GROWTH ACCELERATION WITHOUT PROFIT INCREASE

### Case 1 (Issue Equity) Question

Big Time Corp.'s sales increase by 10.0 percent between Year 1 and Year 2. Small Change, a smaller, privately owned company in the same industry, also achieves 10.0 percent year-over-year sales growth. Suppose now that at the end of Year 1, Big Time acquires Small Change with shares of its own stock. The Big Time income statements under this assumption ("Acquisition Scenario") show a(n) ____ sales increase between Year 1 and Year 2.

On the face of it, a company growing at ____ a year is sexier than one growing at only 10.0 percent a year. Observe, however, that Big Time's profitability, measured by net income as a percentage of sales, does not improve because of the acquisition. Combining two companies with equivalent profit margins of ____ produces a larger company that also earns ____on sales. Shareholders do not gain anything in the process, as the following figures demonstrate.

If Big Time decides not to acquire Small Change, its number of shares outstanding remains at 75.0 million. The earnings increase from $150.0 million in Year 1 to $____ million in Year 2 raises earnings-per-share from ____ to ____. With the price-earnings multiple at 14 times, equivalent to the average of the company's industry peers, Big Time's stock price rises from ____ to ____a share.

In the Acquisition Scenario, on the other hand, Big Time pays its industry-average earnings multiple of 14 times for Small Change, for a total acquisition price of $____ million. At Big Time's Year 1 share price of ____, the purchase therefore requires the issuance of ____ million shares.

With the addition of Small Change's net income, Big Time earns $____ million in Year 2. Dividing that figure by the increased number of shares outstanding (____ million) produces earnings per share of ____. At a price-earnings multiple of 14 times, Big Time is worth $____ a share, precisely the price calculated in the Non-Acquisition Scenario.

The mere increase in annual sales growth from 10.0 percent to ____ has not benefited shareholders, whose shares increase in value by 10 percent whether Big Time acquires Small Change or not.

## Case 1 (Issue Equity) Question

| | Non-Acquisition Scenario | | | | Acquisition Scenario | |
|---|---|---|---|---|---|---|
| | Big Time | | Small Change | | Big Time Corp | |
| | Year 1 | Year 2 | Year 1 | Year 2 | Year 1 | Year 2 |
| Sales | $ 5,000.0 | $ 5,500.0 | $ 238.1 | $ 261.9 | $ 5,000.0 | $ 5,761.9 |
| Cost and Expenses | | | | | | |
| Cost of goods sold | 3,500.1 | 3,847.5 | 162.4 | 181.2 | 3,500.1 | 4,028.7 |
| Selling, general, and administrative expenses | 1,250.0 | 1,377.6 | 61.9 | 65.5 | 1,250.0 | 1,443.1 |
| Interest expense | 60.0 | 63.0 | 4.8 | 5.0 | 60.0 | |
| Total costs and expenses | $ 4,810.1 | $ 5,288.1 | $ 229.1 | $ 251.7 | $ 4,810.1 | $ 5,539.8 |
| Income before income taxes | 189.9 | 211.9 | 9.0 | 10.2 | 189.9 | 222.1 |
| Income taxes | 39.9 | 44.5 | 1.9 | 2.1 | 39.9 | 46.6 |
| Net income | $ 150.0 | | $ 7.1 | $ 8.1 | $ 150.0 | |
| Year-over-year sales increase | | 10% | | 10% | | |
| Net income as a percentage of sales | | | | | | |
| Shares outstanding (million) | 75.0 | 75.0 | | | 75.0 | |
| Earnings per share | | | | | | |
| Price-earnings multiple (times) | 14 | 14 | | | 14 | 14 |
| Price per share | | | | | | |
| | | Acquisition Price<br>New Shares | | | | |

## Case 1 (Issue Debt) Question

Analysts should note that this analysis is sensitive to the assumptions underlying the scenarios. Suppose, for instance, that instead of issuing stock, Big Time finances the acquisition of Small Change with borrowed money. Let us suppose that Big Time must pay interest at a rate of 4 percent on the $99.5 million of new borrowings. Interest expense in Year 2 of the Acquisition Scenario is now $____ million, rather than $68.0 million. Pretax income therefore falls from $222.1 million to $____ million, reducing net income from $175.4 million to $____ million at the company's effective tax rate of 21 percent. Only ____ million shares are outstanding at the conclusion of the transaction, however, rather than the ____ million observed in the acquisition-for-stock case. As a result, Big Time's earnings per share rise to $____ million ÷ ____ million = **$_____.**

Assuming the market continues to assign a multiple of 14 times to Big Time's earnings, the stock is now worth $32.16, a 3 percent increase over the Non-Acquisition Scenario. In practice, though, the investors may reduce Big Time's price-earnings multiple slightly to reflect the heightened risk represented by its decreased interest coverage. (Following the formulas laid out in Chapter 13, income before interest and taxes declines from $_____ million ÷ $_____ million = ____ times in the stock acquisition case to $____ million ÷ $____ million = ____ times in the debt-financed acquisition case.) If the price-earnings multiple falls only from 14 to ____ times as a result of this decline in debt protection, Big Time's stock price in this variant again comes to ____, equivalent to the Year 2 price in the Non-Acquisition Scenario. As in the case of Big Time paying with stock for the acquisition of Small Change, shareholders do not benefit if Big Time instead borrows the requisite funds, assuming investors are sensitive to the impact of the company's increased debt load on its credit quality.

## Case 1 (Issue Debt) Question

| | Non-Acquisition Scenario | | | | Acquisition Scenario | |
|---|---|---|---|---|---|---|
| | Big Time | | Small Change | | Big Time Corp | |
| | Year 1 | Year 2 | Year 1 | Year 2 | Year 1 | Year 2 |
| Sales | $ 5,000.0 | $ 5,500.0 | $ 238.1 | $ 261.9 | $ 5,000.0 | $ 5,761.9 |
| Cost and Expenses | | | | | | |
| Cost of goods sold | 3,500.1 | 3,847.5 | 162.4 | 181.2 | 3,500.1 | 4,028.7 |
| Selling, general, and administrative expenses | 1,250.0 | 1,377.6 | 61.9 | 65.5 | 1,250.0 | 1,443.1 |
| Interest expense | 60.0 | 63.0 | 4.8 | 5.0 | 60.0 | |
| Total costs and expenses | $ 4,810.1 | $ 5,288.1 | $ 229.1 | $ 251.7 | $ 4,810.1 | $ 5,543.8 |
| Income before income taxes | 189.9 | 211.9 | 9.0 | 10.2 | 189.9 | |
| Income taxes | 39.9 | 44.5 | 1.9 | 2.1 | 39.9 | 45.8 |
| Net income | $ 150.0 | $ 167.4 | $ 7.1 | $ 8.1 | $ 150.0 | |
| Year-over-year sales increase | | 10% | | 10% | | |
| Net income as a percentage of sales | | 3% | | 3% | | 3% |
| Shares outstanding (million) | 75.0 | 75.0 | | | 75.0 | |

| | Non-Acquisition Scenario | | | | Acquisition Scenario | |
|---|---|---|---|---|---|---|
| | Big Time | | Small Change | | Big Time Corp | |
| | Year 1 | Year 2 | Year 1 | Year 2 | Year 1 | Year 2 |
| **Earnings per share** | $2.0 | $ 2.2 | | | $ 2.0 | |
| **Price-earnings multiple (times)** | 14 | 14 | | | 14 | 13.61 |
| **Price per share** | $ 28.0 | $ 31.3 | | | $ 28.0 | $ 31.3 |
| **Borrowing rate** | 4% | | | Acquisition Price | | $ 99.5 |
| **Interest expense to buy shares** | | | | New Shares | | 0 |
| **Previous interest expense** | $ 68.0 | | | | | |
| New Interest expense | | | | | Equity | Debt |
| | | | | EBIT | | |
| | | | | Int exp | $ 68.0 | $ 72.0 |
| | | | | Coverage | | |

## Case 2 (Issue Equity) Question

Big Time Corp.'s sales increase by 8 percent between Year 1 and Year 2. Small Change, a smaller, privately owned company in the same industry, also achieves 8 percent year-over-year sales growth. Suppose now that at the end of Year 1, Big Time acquires Small Change with shares of its own stock. The Big Time income statements under this assumption ("Acquisition Scenario") show a(n) ____ percent sales increase between Year 1 and Year 2.

On the face of it, a company growing at ____ percent a year is sexier than one growing at only 10.0 percent a year. Observe, however, that Big Time's profitability, measured by net income as a percentage of sales, does not improve because of the acquisition. Combining two companies with equivalent profit margins of ___ percent produces a larger company that also earns ___ percent on sales. Shareholders do not gain anything in the process, as the following figures demonstrate.

If Big Time decides not to acquire Small Change, its number of shares outstanding remains at 75.0 million. The earnings increase from $150.0 million in Year 1 to **$**____ million in Year 2 raises earnings per share from **$**____ to **$**____. With the price-earnings multiple at 14 times, equivalent to the average of the company's industry peers, Big Time's stock price rises from **$**____ to $____ a share.

In the Acquisition Scenario, on the other hand, Big Time pays its industry-average earnings multiple of 14 times for Small Change, for a

total acquisition price of $____ million. At Big Time's Year 1 share price of $2.00, the purchase therefore requires the issuance of ____ million shares.

With the addition of Small Change's net income, Big Time earns $____ million in Year 2. Dividing that figure by the increased number of shares outstanding (____million) produces earnings per share of ____. At a price-earnings multiple of 14 times, Big Time is worth ____ a share, precisely the price calculated in the Non-Acquisition Scenario.

The mere increase in annual sales growth from 10.0 percent to ____ has not benefited shareholders, whose shares increase in value by 10 percent whether Big Time acquires Small Change or not.

## Case 2 (Issue Equity) Question

| | Non-Acquisition Scenario | | | | Acquisition Scenario | |
|---|---|---|---|---|---|---|
| | Big Time | | Small Change | | Big Time Corp | |
| | Year 1 | Year 2 | Year 1 | Year 2 | Year 1 | Year 2 |
| Sales | $ 5,000.0 | $ 5,400.0 | $ 238.1 | $ 257.1 | $ 5,000.0 | $ 5,657.1 |
| Cost and Expenses | | | | | | |
| Cost of goods sold | 3,500.1 | 3,777.5 | 162.4 | 177.9 | 3,500.1 | 3,955.5 |
| Selling, general, and administrative expenses | 1,250.0 | 1,352.6 | 61.9 | 64.3 | 1,250.0 | 1,416.9 |
| Interest expense | 60.0 | 63.0 | 4.8 | 5.0 | 60.0 | 68.0 |
| Total costs and expenses | $ 4,810.1 | $ 5,193.1 | $ 229.1 | $ 247.2 | $ 4,810.1 | $ 5,440.3 |
| Income before income taxes | 189.9 | 206.9 | 9.0 | 9.9 | 189.9 | 216.8 |
| Income taxes | 39.9 | 43.4 | 1.9 | 2.1 | 39.9 | 45.5 |
| Net income | $ 150.0 | | $ 7.1 | $ 7.8 | $ 150.0 | |
| Year-over-year sales increase | | 8% | | 8% | | |
| Net income as a percentage of sales | 3% | 3% | 3% | 3% | 3% | |
| Shares outstanding (million) | 75.0 | 75.0 | | | 75.0 | |
| Earnings per share | | | | | $ 2.00 | |
| Price-earnings multiple (times) | 14 | 14 | | | 14 | 14 |
| Price per share | $ 28.00 | | | | $ 28.00 | |

Acquisition Price
New Shares

### Case 2 (Issue Debt) Question

Analysts should note that this analysis is sensitive to the assumptions underlying the scenarios. Suppose, for instance, that instead of issuing stock, Big Time finances the acquisition of Small Change with borrowed money. Let us suppose that Big Time must pay interest at a rate of 6 percent on the $99.5 million of new borrowings. Interest expense in Year 2 of the Acquisition Scenario is now $____ million, rather than $____ million. Pretax income therefore falls from $216.8 million to $____ million, reducing net income from $171.3 million to $____ million at the company's effective tax rate of 21 percent. Only ____million shares are outstanding at the conclusion of the transaction, however, rather than the ____million observed in the acquisition-for-stock case. As a result, Big Time's earnings per share rise to $____ million ÷ ____ million = $____.

Assuming the market continues to assign a multiple of 14 times to Big Time's earnings, the stock is now worth $31.09, a 2 percent increase over the Non-Acquisition Scenario. In practice, though, the investors may reduce Big Time's price-earnings multiple slightly to reflect the heightened risk represented by its decreased interest coverage. (Following the formulas laid out in Chapter 13, income before interest and taxes declines from $_____ million ÷ $_____ million = ____ times in the stock acquisition case to $_____ million ÷ $_____ million = ____ times in the debt-financed acquisition case.) If the price-earnings multiple falls only from 14 to 13.74 times as a result of this decline in debt protection, Big Time's stock price in this variant again comes to $____, equivalent to the Year 2 price in the Non-Acquisition Scenario. As in the case of Big Time paying with stock for the acquisition of Small Change, shareholders do not benefit if Big Time instead borrows the requisite funds, assuming investors are sensitive to the impact of the company's increased debt load on its credit quality.

### Case 2 (Issue Debt) Question

| | Non-Acquisition Scenario | | | | Acquisition Scenario | |
|---|---|---|---|---|---|---|
| | Big Time | | Small Change | | Big Time Corp | |
| | Year 1 | Year 2 | Year 1 | Year 2 | Year 1 | Year 2 |
| Sales | $ 5,000.0 | $ 5,400.0 | $ 238.1 | $ 257.1 | $ 5,000.0 | $ 5,657.1 |
| Cost and Expenses | | | | | | |
| Cost of goods sold | 3,500.1 | 3,777.5 | 162.4 | 177.9 | 3,500.1 | 3,955.5 |
| Selling, general, and administrative expenses | 1,250.0 | 1,352.6 | 61.9 | 64.3 | 1,250.0 | 1,416.9 |
| Interest expense | 60.0 | 63.0 | 4.8 | 5.0 | 60.0 | |
| Total costs and expenses | $ 4,810.1 | $ 5,193.1 | $ 229.1 | $ 247.2 | $ 4,810.1 | $ 5,446.3 |
| Income before income taxes | 189.9 | 206.9 | 9.0 | 9.9 | 189.9 | |
| Income taxes | 39.9 | 43.4 | 1.9 | 2.1 | 39.9 | 44.3 |
| Net income | $ 150.0 | $ 163.4 | $ 7.1 | $ 7.8 | $ 150.0 | |
| Year-over-year sales increase | | 8% | | 8% | | 13.1% |
| Net income as a percentage of sales | 3% | 3% | 3% | 3% | 3% | 3% |
| Shares outstanding (million) | 75.0 | 75.0 | | | 75.0 | |
| Earnings per share | $ 2.00 | $ 2.18 | | | $ 2.00 | |
| Price-earnings multiple (times) | 14 | 14 | | | 14 | 13.74 |
| Price per share | $ 28.00 | $ 30.51 | | | $ 28.00 | |
| | | | Acquisition Price | | $ 99.5 | |
| Borrowing rate | 6% | | | | | |
| Interest expense to buy shares | | | Equity | | Debt | |
| Previous interest expense | | | EBIT | | | |
| New Interest expense | | | Int exp Coverage | | | |

## STOCK PRICES AND GOODWILL

Exhibit 2.1 in the fifth edition of the text provides the analytical framework for what follows

**Q Scenario I.** The shares of Associated Amalgamator Corporation ("Amalgamator") and United Consolidator Inc. ("Consolidator") are both trading at multiples of 1.25 times book value per share. Shareholders' equity is $200 million at Amalgamator and $60 million at Consolidator, equivalent to the companies' respective

market capitalizations. Amalgamator uses stock held in its treasury to acquire Consolidator for **$**___ million. The purchase price represents a premium of 12 percent above the prevailing market price.

Prior to the acquisition, Amalgamator's ratio of total assets to total liabilities is ____times, while the comparable figure for Consolidator is ____ times. The stock-for-stock acquisition introduces no new hard assets (e.g., cash, inventories, or factories). Neither does the transaction eliminate any existing liabilities. Logically, then, Consolidator's ____ times ratio should drag down Amalgamator's ____times ratio, resulting in a figure somewhere in between for the combined companies.

In fact, though, the total-assets-to-total-liabilities ratio after the deal is ____ times. By paying a premium to Consolidator's tangible asset value, Amalgamator creates ____ millions of goodwill. This intangible asset represents just ____ percent of the combined companies' total assets, but that suffices to enable Amalgamator to acquire a company with a weaker debt-quality ratio without showing any deterioration on that measure.

Amalgamator's ratio of *tangible* assets to total liabilities following its acquisition of Consolidator is ____times.

**Pro Forma Balance Sheets, December 31, 20XX ($000,000 omitted)**

| | Associated Amalgamator Corporation | United Consolidator Inc. | Purchase Price | Combined Companies Pro Forma |
|---|---|---|---|---|
| *Scenario I* | | | | |
| Tangible assets | $1,000 | $400 | | $1,400 |
| Intangible assets | 0 | 0 | | |
| Total assets | 1,000 | 400 | | |
| Liabilities | 800 | 340 | | 1,140 |
| Shareholders' equity (SE) | 200 | 60 | | |
| Total liabilities and SE | $1,000 | $400 | | |
| Intangible assets/total assets | | | | |
| Tangible assets/total liabilities | | | | |
| Total assets/total liabilities | | | | |
| Market capitalization | | | | * |

* Ignores possible impact of earnings per share dilution.

| | | |
|---|---|---|
| Premium | 40.0% | over book value |
| Premium | 12% | over stock price |
| Multiple | 125% | of book value |

**Q Scenario II.** As the scene opens, a stock market rally has driven up both companies' shares to 150 percent of book value. The ratio of total assets to total liabilities, however, remains at ____ times for Amalgamator and ____ times for Consolidator. Conservative bond buyers take comfort from the fact that the assets remain on the books at historical cost less depreciation, unaffected by euphoria on the stock exchange that may dissipate at any time without notice.

In this scenario, Amalgamator pays a premium of 17 percent above the prevailing market price to acquire Consolidator. The premium is calculated on a higher market capitalization, however. Consequently, the purchase price rises from $____million to $____ million. Instead of creating $____ million of goodwill, the acquisition gives rise to a(n) $____ million intangible assets.

Somehow, putting together a company boasting a 1.25 times ratio with another sporting a 1.18 times ratio has produced an entity with a ratio of ____ times.

Amalgamator's ratio of *tangible* assets to total liabilities following its acquisition of Consolidator is ____ times.

**Pro Forma Balance Sheets, December 31, 20XX ($000,000 omitted)**

| | Associated Amalgamator Corporation | United Consolidator Inc. | Purchase Price | Combined Companies Pro Forma |
|---|---|---|---|---|
| *Scenario I* | | | | |
| Tangible assets | $1,000 | $400 | | $1,400 |
| Intangible assets | 0 | 0 | | |
| Total assets | 1,000 | 400 | | |
| Liabilities | 800 | 340 | | 1,140 |
| Shareholders' equity (SE) | 200 | 60 | | |
| Total liabilities and SE | $1,000 | $400 | | |
| Intangible assets/total assets | | | | |
| Tangible assets/total liabilities | | | | |
| Total assets/total liabilities | | | | |
| Market capitalization | | | | * |

*Ignores possible impact of earnings per share dilution.

| | | |
|---|---|---|
| Premium | 75.0% | over book value |
| Premium | 17% | over stock price |
| Multiple | 150% | of book value |

## PROJECTING INTEREST EXPENSE

Following the procedure detailed in Exhibits 12.6a and 12.6b in the text, calculate the embedded cost of long-term debt for the following cases.

### Case 1 Question

| | | Colossal Chemical Corporation ($000,000 omitted) | |
|---|---|---|---|
| **Long-Term Debt (Excluding Current Maturities)** | | **2020** | **2021** |
| Notes Payable due dates | Rate | | |
| 2022 | 3.35% | 200 | 175 |
| 2023 | 3.75% | 700 | 730 |
| Debentures due dates | | | |
| 2026 | 7.50% | 90 | 90 |
| 2026 | 7.375% | 75 | 75 |
| Industrial Development Bonds | | | |
| 2030 | 4.90% | 80 | 80 |

### Case 2 Question

| | | Colossal Chemical Corporation ($000,000 omitted) | |
|---|---|---|---|
| **Long-Term Debt (Excluding Current Maturities)** | | **2020** | **2021** |
| Notes Payable due dates | Rate | | |
| 2022 | 3.45% | 190 | 165 |
| 2023 | 3.90% | 750 | 730 |
| Debentures due dates | | | |
| 2026 | 7.25% | 85 | 90 |
| 2026 | 7.565% | 80 | 75 |
| Industrial Development Bonds | | | |
| 2030 | 5.25% | 90 | 90 |
| | | $1,195 | $1,150 |

### Case 3 Question

| | | Colossal Chemical Corporation ($000,000 omitted) | |
|---|---|---|---|
| **Long-Term Debt (Excluding Current Maturities)** | | **2020** | **2021** |
| Notes Payable due dates | Rate | | |
| 2022 | 3.55% | 200 | 175 |
| 2023 | 3.90% | 700 | 730 |
| Debentures due dates | | | |
| 2026 | 7.65% | 90 | 90 |
| 2026 | 7.750% | 75 | 75 |
| Industrial Development Bonds | | | |
| 2030 | 5.25% | 80 | 80 |
| | | $1,145 | $1,150 |

### Case 4 Question

| | | Colossal Chemical Corporation ($000,000 omitted) | |
|---|---|---|---|
| **Long-Term Debt (Excluding Current Maturities)** | | **2020** | **2021** |
| Notes Payable due dates | Rate | | |
| 2022 | 3.35% | 225 | 190 |
| 2023 | 3.75% | 750 | 775 |
| Debentures due dates | | | |
| 2026 | 7.50% | 110 | 125 |
| 2026 | 7.375% | 95 | 85 |
| Industrial Development Bonds | | | |
| 2030 | 4.90% | 90 | 95 |
| | | $1,270 | $1,270 |

## SENSITIVITY ANALYSIS IN FORECASTING FINANCIAL STATEMENTS

For the base case in this section, as a percentage of sales, COGS = 69 percent, SGA = 15 percent, R&D = 2.5 percent. Depreciation, Interest expense are fixed as stated. Tax Rate is 21 percent.

**1.a** Given the following case, calculate the independent effects of a 1 percent increase in Gross Margin, a 1 percent decrease in the Tax Rate, and a 5 percent increase in Sales.

**Colossal Chemical Corporation**
**Year Ended December 31, 2021**
**($000,000 omitted)**

| | Base Case | 1% Increase in Gross Margin | 1% Decrease in Tax Rate | 5% Increase in Sales |
|---|---|---|---|---|
| Sales | $ 2,110 | | | |
| Cost of goods sold | 1,456 | | | |
| Selling, general, and administrative expense | 317 | | | |
| Depreciation | 160 | | | |
| Research and development | 53 | | | |
| Total costs and expenses | $ 1,986 | | | |
| Operating Income | 124 | | | |
| Interest expense | 39 | | | |
| Earnings before Income Taxes | $ 85 | | | |
| Provision for Income Taxes | 18 | | | |
| Net Income | $ 67 | | | |

**1.b** Using the same base case, calculate the independent effects of a 2 percent increase in Gross Margin, a 2 percent decrease in the Tax Rate, and a 5 percent decrease in Sales.

| | Base Case | 2% Increase in Gross Margin | 2% Decrease in Tax Rate | 5% Decrease in Sales |
|---|---|---|---|---|
| Sales | $ 2,110 | | | |
| Cost of goods sold | 1,456 | | | |
| Selling, general, and administrative expense | 317 | | | |
| Depreciation | 160 | | | |
| Research and development | 53 | | | |
| Total costs and expenses | $ 1,986 | | | |
| Operating Income | 124 | | | |
| Interest expense | 39 | | | |
| Earnings before Income Taxes | $ 85 | | | |
| Provision for Income Taxes | 18 | | | |
| Net Income | $ 67 | | | |

**1.c** Using the same base case, calculate the composite effects of a 5 percent increase in Sales, a 2 percent decrease in Gross Margin, and a 5 percent increase is SG&A as percent of Sales.

**Colossal Chemical Corporation**
**Year Ended December 31, 2021**
**($000,000 omitted)**

| | Base Case | 2% Decrease in Gross Margin | 5% Increase in SG&A | 5% Increase in Sales |
|---|---|---|---|---|
| Sales | $ 2,110 | | | |
| Cost of goods sold | 1,456 | | | |
| Selling, general, and administrative expense | 317 | | | |
| Depreciation | 160 | | | |
| Research and development | 53 | | | |
| Total costs and expenses | $ 1,986 | | | |
| Operating Income | 124 | | | |
| Interest expense | 39 | | | |
| Earnings before Income Taxes | $ 85 | | | |
| Provision for Income Taxes | 18 | | | |
| Net Income | $ 67 | | | |

For the base case in this section, as a percentage of sales, COGS = 58 percent, SGA = 20 percent, R&D = 5.0 percent. Depreciation, Interest expense are fixed as stated. Tax Rate is 21 percent.

**2.a** Given the following case, calculate the independent effects of a 1 percent increase in Gross Margin, a 1 percent decline in the Tax Rate, and a 5 percent increase in Sales.

**Colossal Chemical Corporation**
**Year Ended December 31 2021**
**($000,000 omitted)**

| | Base Case | 1% Increase in Gross Margin | 1% Decrease in Tax Rate | 5% Increase in Sales |
|---|---|---|---|---|
| Sales | $ 4,550 | | | |
| Cost of goods sold | 2,639 | | | |
| Selling, general, and administrative expense | 910 | | | |
| Depreciation | 346 | | | |
| Research and development | 228 | | | |
| Total costs and expenses | $ 4,122 | | | |
| Operating Income | 428 | | | |
| Interest expense | 84 | | | |
| Earnings before Income Taxes | $ 343 | | | |
| Provision for Income Taxes | 72 | | | |
| Net Income | $ 271 | | | |

**2.b** Using the same base case, calculate the composite effects of a 5 percent decrease in Sales, a 2 percent decrease in Gross Margin, and a 2 percent decrease in the Tax Rate.

**Colossal Chemical Corporation**
**Year Ended December 31, 2021**
**($000,000 omitted)**

| | Base Case | 2% Decrease in Gross Margin | 2% Decrease in Tax Rate | 5% Decrease in Sales |
|---|---|---|---|---|
| Sales | $ 4,550 | | | |
| Cost of goods sold | 2,639 | | | |
| Selling, general, and administrative expense | 910 | | | |
| Depreciation | 346 | | | |
| Research and development | 228 | | | |
| Total costs and expenses | $ 4,122 | | | |
| Operating Income | 428 | | | |
| Interest expense | 84 | | | |
| Earnings before Income Taxes | $ 343 | | | |
| Provision for Income Taxes | 72 | | | |
| Net Income | $ 271 | | | |

PART

# Two

# Answers

# Fill in the Blanks on Each Chapter (Answers)

## CHAPTER 1: THE ADVERSARIAL NATURE OF FINANCIAL REPORTING

1. The following are three ways that corporations can use financial reporting to enhance their value:
   a. ***Reduce their cost of capital***
   b. ***Improve their credit ratings***
   c. ***Increase their price-earnings multiple***
2. The true purpose of financial reporting is ***to obtain cheap capital.***
3. Corporations routinely ***smooth their earnings*** because the appearance of ***smooth growth*** receives a higher ***price-earnings*** multiple.
4. According to the ***"big bath" hypothesis***, reversals of the excess write-offs offer an artificial means of ***stabilizing earnings*** in subsequent periods.
5. The following are some of the powerful limitations to continued growth faced by companies:
   a. ***Entry of competition***
   b. ***Increasing base***
   c. ***Markets share constraints***
6. Some of the commonly heard rationalizations for declining growth are:
   a. ***Our year-over-year comparisons were distorted.***
   b. ***New products will get growth back on track.***
   c. ***We're diversifying away from mature markets.***
7. ***Diversification*** reached its zenith of popularity during the ***"conglomerate"*** movement of the 1960s. However, by the 1980s, the stock market had converted the ***diversification premium*** into a(n) ***conglomerate discount***.

8. ***Cross-selling*** is one of the ways that the notion of diversification as a means of maintaining ***high earnings growth*** is revived from time to time.
9. Some of the stories used to sell stocks to individual investors are:
   a. ***A new product with unlimited sales potential***
   b. ***A "play" in some current economic trend such as***
      i. ***Declining interest rates***
      ii. ***Step-up in defense spending***
   c. ***Possible corporate takeovers***
10. When the story used to sell stocks to individual investors originates among stockbrokers or even ***in the executive offices of the issuer itself***, the zeal with which the story is disseminated may depend more on ***its narrative appeal*** than the ***solidity of the supporting analysis***.
11. The ostensible purpose of financial reporting is ***the accurate portrayal*** of a corporation's earnings.
12. Mattel's internal investigation ***did not find*** that management engaged ***in fraud***, instead blaming mishandling of the discovery of the accounting error on:
    a. "***a confluence***" ***of one-time events***
    b. ***management's reliance on the accounting advice sought and received on the error from the lead audit engagement partner***
    c. ***lapses in judgment by management***
13. The outside auditor's stamp of approval is no guarantee ***that reported earnings*** accurately reflect ***actual results.***
14. When deliberate financial reporting violations come to light, the real scandal involves ***what is not forbidden.***
15. By 2015, however**,** ***90 percent*** of S&P 500 companies were reporting ***non-GAAP,*** up from about ***70 percent*** in 2009**.**
16. Between 2010 and ***2015***, Under Armour's stock rose at an astounding compound annual growth rate of ***42.5*** percent. The manufacturer of sports and fitness apparel, shoes, and accessories was in the midst of a ***26-quarter*** streak of ***20 percent*** or ***greater*** year-over-year ***sales*** **increases**.
17. Concurrent with the slowdown in ***sales growth,*** Under Armour's ***gross margin*** was slipping. Management delivered the disheartening news that ***sustaining the high growth*** that investors were counting on would require ***heavy investment.***

18. The stock of another high-flier, ***Boston Beer,*** rose at a(n) ***26 percent*** compound annual rate in the 15 years through ***2014.*** Over the next two years, shareholders of suffered a(n) ***41 percent decline.***
19. The problem for Boston Beer, is that craft beer appears to have reached ***the saturation point.***
20. **Analysts should view the issuers** ***as adversaries*** in the same manner that they temporarily ***demonize their opponents*** in a friendly ***pickup basketball game.***
21. Viewing the production of financial statements ***as an epic struggle*** between ***good and evil*** may suit a(n) ***crusading journalist,*** but financial analysts need not join ***the ethics police*** to do their job well.
22. Aside from ***accounting rules***, ***cash flows***, and definitions of ***standard ratios***, analysts must consider the motivations of ***corporate managers***, as well as the dynamics of ***the organizations*** in which they work.

## CHAPTER 2: THE BALANCE SHEET

1. A study conducted on behalf of Big Five accounting firm Arthur Andersen showed that between ***1978*** and ***1999***, book value fell from ***95*** percent to ***71*** percent of the stock market value of public companies in the United States.
2. As noted by Baruch Lev of New York University, two examples of how traditional accounting systems are at a loss to capture most of what is going on today are:
   a. ***The rise in value resulting from a drug passing a key clinical test***
   b. ***A computer software program being successfully beta-tested***
3. In the examples in Question 2, there is no accounting event because ***no money changes hands.***
4. Some of the distinct approaches that have evolved for assessing real property are:
   a. ***Capitalization of rents***
   b. ***Inferring a value based on sales of comparable properties***
   c. ***Estimating the value a property would have if put to its highest and best use***

5. Some financial assets are unaffected by the difficulties of evaluating physical assets because ***they trade daily*** in ***well-organized markets***.
6. Under the compromise embodied in SFAS 115, financial instruments are valued according to ***their intended use*** by the ***company*** issuing ***the financial statements***.
7. If a company wrote off a billion dollars worth of goodwill, its ratio of assets to liabilities would ***decline***. Its ratio of ***tangible assets*** to ***liabilities*** would not change, however.
8. Through stock-for-stock acquisitions, the sharp rise in equity prices during the late 1990s was transformed into ***increased balance sheet*** values, despite the usual assumption that ***fluctuations*** in a company's ***stock price*** do not alter ***its stated net worth.***
9. Unlike ***inventories*** or ***accounts receivable,*** goodwill is not an asset that can be readily ***sold*** or ***factored*** to raise cash. Neither can a company enter into a(n) ***sale-leaseback*** of its goodwill as it can with its plant and equipment. In short, goodwill is not ***a separable asset*** that management can either convert into ***cash*** or use to ***raise cash*** to extricate itself from a financial tight spot.
10. A reasonable estimate of a low-profit company's true equity value would be ***the amount*** that produces ***a return*** on equity ***equivalent*** to the going rate.
11. Determining the cost of capital is a notoriously controversial subject in the financial field, complicated by ***thorny tax considerations*** and ***risk adjustments***.
12. Among the advantages of market capitalization as a measure of equity are:
    a. ***It represents the consensus of investors and analysts who monitor companies' future earnings prospects.***
    b. ***It can be calculated any day that the stock exchange is open.***
    c. ***It adjusts instantaneously to news.***
13. A limitation of the peer-group approach to valuation is that it fails to capture ***company-specific factors*** and therefore ***does not reap*** one major benefit of using ***market capitalization*** as a gauge of actual equity value.
14. Instead of striving for theoretical purity on the matter, analysts should adopt a(n) ***flexible attitude***, using the measure of equity value ***most useful to a particular application.***

15. Historical-cost-based balance sheet figures are the ones that matter in ***estimating the risk*** that a company will violate ***a loan covenant*** requiring ***maintenance*** of a minimum ***ratio*** of debt to ***net worth***.
16. Users of financial statements can process only the information ***they have***, and they do not always have the information ***they need.***
17. Deterioration in a company's financial position may catch investors by surprise because it occurs ***gradually*** and is reported ***suddenly.***

## CHAPTER 3: THE INCOME STATEMENT

1. Students of financial statements must keep up with ***the innovations*** of the past few years in transforming ***rising stock values*** into ***revenues*** of ***dubious quality***.
2. In the ***percentage income statement***, each income statement item is expressed as ***a percentage of the "top line"*** (sales or revenues), which is represented as ***100*** percent**.**
3. Besides facilitating comparisons between a company's present and past results, the ***percentage income statement*** can highlight important facts about a company's ***competitive standing***.
4. Even within an industry, the breakdown of expenses can vary from company to company as a function of differing ***business models*** and ***financial policies.***
5. Percentage breakdowns are also helpful for comparing a single company's performance with ***its results in previous years*** and for comparing ***two different companies*** on the basis of their ***effectiveness in controlling costs.***
6. Costs as percentages of sales also vary among companies within an industry for ***reasons other*** than differences in ***business models***.
7. The more widely diversified pharmaceutical manufacturers can be expected to have ***higher*** percentage ***product costs***, as well as ***lower*** percentage ***research and development*** expenses, than industry peers that focus exclusively on ***prescription drugs.***
8. Analysts must take care not to mistake difference that is actually a(n) ***function*** of business strategy as evidence of ***inferior*** or ***superior*** managerial skills. A subtler explanation may be available at the modest cost of contacting some ***long-established industry watchers.***

9. Executives whose bonuses rise in tandem with ***earnings per share*** have a strong incentive not only to generate ***bona fide earnings*** but also to use every lawful means of ***inflating the figures*** through accounting ***sleight of hand***.
10. On a retrospective basis, a surge ***in credit losses*** or an unexpected ***shortfall in revenues*** may indicate that ***revenues*** were inflated in a(n) ***earlier period.***
11. Along with ***employee retirement costs***, another major expense category that can be controlled through assumptions is ***depreciation***.
12. An unusually low ratio of ***depreciation*** to ***property, plant, and equipment*** with the ratios of its industry peers may indicate that management is being unrealistic in acknowledging the pace of wear and tear on fixed assets. Understatement of ***expenses*** and overstatement of ***earnings*** would result.
13. A company knows that creating ***more favorable*** expectations about the future can raise ***its stock price*** and lower ***its borrowing cost***.
14. In recent years, ***"restructuring"*** has become a catchall for charges that companies wish analysts to consider ***outside the normal course of business*** but that do not qualify for ***below-the-line treatment.***
15. Corporate managers commonly perceive that ***the damage*** to their stock price will be ***no greater*** if they take (for sake of argument) a $1.5 billion write-off than if ***they write-off $1.0 billion***. The benefit of exaggerating the damage is that in subsequent years, the overcharges can be ***reversed*** in small amounts that do not generate any requirement for ***specific disclosure***.
16. The most dangerous trap that users of financial statements must avoid walking into, however, is inferring that the term "restructuring" connotes ***finality.***
17. The purpose of providing pro forma results was to help analysts to project ***future financial results*** accurately when some event outside ***the ordinary course of business*** caused ***the unadjusted*** historical results to convey a misleading impression.
18. Computer software producers got into the act by omitting ***amortization*** of ***purchased*** research and development from the expenses considered in calculating ***pro forma earnings***.
19. Unlike operating income, a concept addressed by FASB standards, ***operating earnings*** is a number that subjectively ***excludes*** many ***above-the-line*** "one-time events" that lack any standing under GAAP.

20. In fact, analysts who hope to forecast future financial results accurately must apply ***common sense*** and set aside genuinely ***out-of-the-ordinary*** course-of-business events.
21. Analysts must exercise judgment when considering pro forma earnings; however, they must make sure to examine the actual ***SEC filings***, rather than ***saving time*** by relying solely on ***company communications***.
22. An older, but not obsolete, device for beefing up reported income is ***capitalization*** of selected ***expenditures***.
23. A comparatively ***high*** ratio of PP&E to ***sales*** or ***cost of goods sold*** is another sign of potential trouble.
24. Management can ***boost sales*** through techniques that more properly fall into the category of ***corporate finance***.
25. One way to increase profitability through ***external growth*** involves economies ***of scope***.
26. A corporation can easily accelerate its sales growth by buying ***other companies*** and adding ***their sales*** to its own. Creating genuine value for shareholders through ***acquisitions*** is more difficult, although unwary investors sometimes fail to recognize the distinction.
27. Analysts need to distinguish between ***internal*** growth and ***external*** growth. ***Internal*** growth consists of sales increases generated from a company's existing operations, and ***external*** growth represents incremental sales brought in through ***acquisitions***.
28. If Company A generates external growth by acquiring Company B and neither company nor its new subsidiary increases its profitability, then ***the intrinsic value of*** the merged companies is ***no greater*** than the sum of the two companies' values.
29. In general, the less ***closely related*** the combining businesses are, the less ***certain*** it is that the hoped-for economies of scope ***will be realized***.
30. As synergies go, projections of economies of scale in combinations of companies ***within*** the same business tend to be more plausible than economies of scope purportedly available to companies in ***tangentially connected*** businesses.
31. A company with relatively large fixed ***costs*** has a(n) ***high*** breakeven level. Even a modest economic downturn will reduce ***its capacity utilization*** below the rate required to keep the company profitable.

32. Deals that work on paper have often foundered on:
    a. ***Incompatible information systems***
    b. ***Disparate distribution channels***
    c. ***Clashes of personality among senior executives***
    d. ***Contrasting corporate culture***
33. Financial statements cannot capture certain ***nonquantitative*** factors that may be essential to ***an evaluation***. These include:
    a. ***Industry conditions***
    b. ***Corporate culture***
    c. ***Management's ability to anticipate and respond effectively to change***

## CHAPTER 4: THE STATEMENT OF CASH

1. The present version of the statement that traces the flow of funds in and out of the firm, the statement of cash flows, became mandatory, under ***SFAS 95,*** for issuers with fiscal years ending after ***July 15, 1988***.
2. For financial-reporting (as opposed to ***tax-accounting***) purposes, a publicly owned company generally seeks to maximize ***its reported net income***, which investors use as a basis for valuing its shares.
3. A privately held company, unlike a(n) ***public company***, which shows one set of statements to the public and another to the Internal Revenue Service, a private company typically prepares ***one set*** of statements, with ***the tax authorities*** foremost in its thinking. Its incentive is not ***to maximize*** but to ***minimize*** the income it reports, thereby ***minimizing*** its tax bill as well.
4. In a classic LBO, a group of investors acquires a business by putting up a(n) ***small amount of equity*** and ***borrowing*** the balance.
5. The amount attributable to depreciation does not represent ***an outlay of cash*** in the current year. Rather, it is a bookkeeping entry intended to represent the ***gradual reduction in value***, through use, ***of physical assets***.
6. Viewed in terms of cash inflows and outflows, rather than earnings, the ***leveraged buyout*** begins to look like ***a sound venture.***
7. Analysts evaluating the investment merits of the LBO proposal would miss the point if they focused on ***earnings*** rather than ***cash flow.***

8. In an LBO, the equity investors do not reap spectacular gains without incurring significant ***risk***. There is a danger that everything will not go ***according to plan*** and that they will lose ***their entire investment***. Specifically, there is a risk that ***sales and operating earnings*** will fall short of expectations, perhaps as a result of ***a recession*** or because the investors' expectations were unrealistically ***high at the outset.***
9. The ***cash flow*** statement, rather than the ***income*** statement, provides the best information about a highly leveraged firm's financial health.
10. Among the applications and uses of the Statement of Cash Flows are:
    a. ***Determining where a company is in its life cycle***
    b. ***Assessing a company's financial flexibility***
    c. ***Analyzing a troubled company***
11. When a company is ***verging on*** bankruptcy, its balance sheet may ***overstate*** its asset value, as a result of ***write-offs*** having lagged the ***deterioration*** in profitability of the company's operations.
12. Revenues build gradually during the ***start-up*** phase, during which time the company is just ***organizing itself*** and ***launching its products***.
13. Growth and profits accelerate rapidly during the ***emerging*** growth phase, as the company's products begin to penetrate the market and the production reaches a(n) ***profitable scale***.
14. During the ***established*** growth period, growth in sales and earnings decelerates as the market nears ***saturation***. In the ***mature industry*** phase, sales opportunities are limited to the replacement of products previously sold, plus ***new*** sales derived from ***growth in the population***.
15. Price competition often intensifies at this stage, as companies seek ***sales growth*** through increased ***market share***. The ***declining*** industry stage does not automatically follow maturity, but over long periods some industries do get swept away by ***technological change***.
16. Sharply declining sales and earnings, ultimately resulting in ***corporate bankruptcies***, characterize industries in decline.
17. ***Start-up companies*** are typically voracious cash users.
18. ***Emerging growth*** companies are start-ups that survive long enough to reach the stage of entering the public market.
19. For a company at the ***introductory*** stage, it may take several years for sales to reach a level ***sufficient to cover*** sizable fixed costs that are ***essential*** to its operations.

20. ***Established growth*** companies are in a less precarious state in terms of cash flow than their emerging growth counterparts.
21. Reflecting the ***mature state*** of its business, Kimberly-Clark generates a(n) ***high and steady*** level of cash from ***operations.***
22. Far from depending on ***external capital***, this mature company ***returned capital*** to investors, giving them the opportunity to ***reinvest*** it in higher-growth, ***cash-hungry*** businesses.
23. Some ***mature*** companies choose instead to ***reinvest*** their ***positive*** cash flow internally. They either launch or acquire businesses with ***higher growth*** potential than their original, ***core operations***. The older businesses become ***"cash cows"*** to be milked for funding the newer activities.
24. ***Mature industry*** companies are past the cash strain faced by growth companies that must fund large ***construction*** programs.
25. ***Declining industry*** companies struggle to generate sufficient cash as a consequence of meager earnings.
26. By studying the cash flow statement, an analyst can make informed judgments on such questions as:
    a. ***How safe (that is, likely to continue being paid) is the company's dividend?***
    b. ***Could the company fund its needs internally if external sources of capital suddenly become scarce or prohibitively expensive?***
    c. ***Would the company be able to continue meeting its obligations if its business turned down sharply?***
27. In difficult times, when a company must cut back on various expenditures ***to*** conserve cash, management faces many difficult choices. A key objective is to ***avoid*** damage to the company's ***long-term health***.
28. At times, ***new financing*** becomes ***painfully expensive***, as a function of ***high*** interest rates or ***depressed*** stock prices. During the ***"credit crunches"*** that occasionally befall the business world, ***external*** financing is unavailable at any price.
29. If a corporation's financial strain becomes acute, the board of directors may take the comparatively extreme step of cutting or ***eliminating the dividend.***
30. Reducing ***the dividend*** is a step that corporations try very hard to avoid, for fear of ***losing favor*** with investors and consequently suffering an increase in ***cost of capital***.

31. A final factor in assessing financial flexibility is the change in adjusted working capital. Unlike conventional working capital *(**current assets*** minus ***current liabilities)***, this figure excludes ***notes payable***, as well as ***cash*** and ***short-term investments.***
32. A company with a strong balance sheet can fund much of that cash need by increasing its ***trade payables*** (credit extended by vendors). External financing may be needed, however, if accumulation of unsold goods causes ***inventories*** to rise disproportionately to ***sales***. Similarly, if customers begin paying more slowly than formerly, ***receivables*** can widen the gap between working capital ***requirements*** and ***trade credit*** availability.
33. One typical consequence of violating ***debt covenants*** or striving to head off ***bankruptcy*** is that management reduces discretionary expenditures to avoid ***losing control***.
34. Overinvestment has unquestionably led, in many industries, to prolonged periods of ***excess capacity***, producing in turn chronically ***poor profitability***. In retrospect, the firms involved would have served their shareholders better if they had increased ***their dividend payouts*** or ***repurchased*** stock, instead of ***constructing*** new plants.
35. Keeping cash "trapped" in marketable securities can enable a firm to ***gain an edge*** over "lean-and-mean" competitors when tight ***credit conditions*** make it difficult to finance ***working capital*** needs.
36. Another less obvious risk of eschewing financial flexibility is the danger of permanently losing ***experienced skilled*** workers through ***temporary layoffs*** occasioned by recessions.
37. The income statement is a dubious measure of the success of a highly ***leveraged*** company that is being managed to ***minimize***, rather than ***maximize***, reported profits.
38. The cash flow statement is the best tool for measuring ***flexibility***, which, contrary to a widely held view, is not merely a security blanket for ***squeamish*** investors.
39. In the hands of an aggressive but prudent management, a cash flow cushion can enable a company to ***sustain*** essential long-term ***investment spending*** when competitors are forced to cut back.

## CHAPTER 5: WHAT IS PROFIT?

1. Profitability is a yardstick by which businesspeople can measure their ***achievements*** and justify their claims to ***compensation.***

2. When calculating ***bona fide*** profits, the analyst must take care to consider only genuine revenues and deduct all relevant costs.
3. There can be no bona fide profit without an increase in ***wealth***. Bona fide profits are the only kind of profits ***that truly matter*** in financial analysis.
4. Merely ***circulating*** funds, it is clear, does not increase wealth.
5. An essential element of genuinely useful financial statement analysis is: the willingness to take ***accounting*** profits at something other than ***face value***.
6. The issuer of the statements can ***raise*** or ***lower*** its reported earnings simply by using its latitude to assume shorter or longer ***average*** lives for its ***depreciable*** assets.
7. The rate at which the tax code allows owners to write off property overstates actual ***wear-and-tear***.
8. In the ***broadcasting*** business, companies typically record depreciation and amortization expense that far exceeds physical wear-and-tear on assets.
9. In many industries, fixed assets consist mainly of ***machines*** or ***vehicles*** that really ***do diminish*** in value through use. The major risk of analytical error does not arise from the possibility that ***reported*** depreciation ***expense*** will substantially ***exceed*** economic depreciation, but the reverse.
10. Corporations have vastly increased their promulgation of non-GAAP numbers in this century. By 2017, the independent research provider Audit Analytics found that fully ***97 percent*** of S&P 500 companies self-produced some measures in their earnings releases, up from a little ***over half*** two decades earlier. Between 1996 and 2016, the average number of non-GAAP items in in those statements rose from just over ***two*** to more than ***seven***.

## CHAPTER 6: REVENUE RECOGNITION

1. Many corporations employ highly ***aggressive*** recognition practices that comply with GAAP yet ***distort*** the underlying ***economic reality***.
2. Under intense pressure to maintain their stock prices, companies characterized by ***extremely rapid*** sales growth seem particularly prone to ***take liberties***.
3. To seasoned investors, a(n) ***abrupt*** departure by a senior manager represents a(n) ***telltale sign*** of trouble.

4. Bonus-seeking managers may initially veer off the straight-and-narrow by "***borrowing***" a small amount from ***future*** revenue, intending to "***pay it back***" the following year, but they instead fall further and further behind. Eventually, the gap between ***reported*** revenues and economic ***reality*** grows too large to sustain.
5. Even when an independent accounting firm certifies that a company's financials have been prepared ***in accordance*** with generally accepted accounting principles, the analyst must stay alert for evidence that the numbers ***misrepresent*** the economic ***reality.***
6. Staying alert to evidence of flawed, or possibly ***fraudulent***, reporting is essential, even when the auditors put their ***blessing*** on the numbers.
7. As a rule, distorting one section of the financial statements throws the numbers ***out of whack*** in some ***other section***. Assiduous tracking of a variety of ***financial ratios*** should raise serious questions about a company's reporting, at a minimum.
8. The explanation for the sudden drop in projected earnings was that, in 2001, Bristol Myers gave ***wholesalers discounts*** to induce them to buy its ***products*** at a much faster rate than necessary to ***fill prescriptions*** at pharmacies.
9. "***Channel-stuffing***" is a security analysts' term for the financial reporting gimmick that Bristol Myers employed to ***accelerate*** future ***revenues*** to the ***current period.***
10. Along with other pharmaceutical producers, Bristol Myers was feeling profit pressures due to difficulties in ***developing new drugs*** to replace sales of products on which ***patent protection*** was expiring.
11. Haydon was known for speaking candidly about Bristol Myers's declining sales prospects. Consequently, his reassignment was taken ***as a message*** that executives ***must meet their sales quotas*** at all costs.
12. Also suspect was Bristol Myers's repeated practice of establishing ***restructuring reserves*** that exactly equaled ***gains*** on asset ***sales.***
13. The Bristol Myers Squibb case study nevertheless illustrates the value of testing a company's ***reported earnings*** against ***independently*** provided information.
14. According to Take-Two management, the adjustment arose because the company ***recorded revenue*** on some games it sold to "certain independent ***third-party*** distributors" but which were later ***returned to*** or ***repurchased*** by Take-Two.

15. ***Contrary*** to the lesson taught by many other cases of financial misreporting, it paid to accept the Take-Two ***discredited*** management's assurances that the company's business prospects ***looked bright***.
16. Take-Two shipped hundreds of thousands of video games to distributors who were under no ***obligation to pay*** for them, ***fraudulently*** booked the shipments as if they were sales, then ***accepted returns*** of the products in later periods.
17. Encouragingly for users of financial statements, managers who ***improperly*** recognize ***revenues*** are often betrayed by the ***number trails*** they create.
18. In layaway sales, customers reserve goods ***with down payments***, and then make additional payments over a specified period, ***receiving their merchandise*** when they have paid in full.
19. Prior to the change in accounting practice, which FAS 101 made mandatory, Walmart booked layaway sales as soon as it ***placed the merchandise on layaway***. Under the new and more conservative method, the company began to recognize the sales only when customers ***completed the required payments*** and took ***possession*** of the goods.
20. On the whole, Bally's reported profit margins benefited from the increase in ***financed*** memberships as a percentage of total revenues. The reported earnings, however, rested on assumptions regarding the percentage of customers who would ***ultimately fail*** to make all of the ***scheduled installments***.
21. As in any sales situation, aggressive pursuit of new business could result in acceptance of more ***marginally qualified*** customers. On average, the newer members might prove to be less ***financially capable*** or less committed to physical fitness than the previous ***purchasers*** of financed ***memberships***.
22. There was no change in the accounting principle, namely, ***the matching concept***. In the case of a health club, members' upfront fees represent payments for ***services received*** over the terms of their ***membership***. Club operators should therefore recognize the revenue over the period in which ***they render the service***.
23. Under GAAP, the general requirement was to spread membership fees over the ***full membership period***. If a company offered refunds, it could not book ***any of the revenue*** until the refund period expired, unless there was ***a sufficiently*** long history to enable management to estimate ***future experience*** with reasonable confidence.

24. Under certain circumstances, a company engaged in long-term contract work can book ***revenue*** before ***billing*** its customer. This result arises from GAAP's solution to a mismatch commonly observed at ***construction*** firms.
25. GAAP addresses the problem through the ***percentage-of-completion*** method, which permits the company to recognize revenue in ***proportion*** to the amount of work ***completed*** rather than in line with its billing.
26. As is generally the case with ***artificial acceleration***, taking liberties with the percentage-of-completion borrows ***future revenues***, making a surprise shortfall ***inevitable*** at some point.
27. The SEC claimed that management at Sequoia Systems inflated revenue and profits by:
    a. ***Booking letters of intent as revenue***
    b. ***Backdating some purchase orders***
    c. ***Granting customers special terms that Sequoia never disclosed***
28. The SEC also claimed that management at Sequoia Systems profited from the scheme by ***selling stock*** before a(n) ***true picture*** of the company's ***financial condition*** emerged.
29. Loading the distribution channels consists of inducing ***distributors*** or ***retailer***s to accept larger shipments of goods than their ***near-term*** sales ***expectations*** warrant**.**
30. Loading does not boost physical ***sales volume*** but merely shifts the timing of its ***recognition*** as ***reported revenues***.
31. Inevitably, the underlying trend of final sales to consumers slows down, at least temporarily. At that point, the manufacturer's growth in reported revenue will maintain its trend only if its ***distributors*** take on even ***bigger inventories***, relative to their sales. If the distributors balk, the ***loading scheme*** will unravel, forcing a sizable ***write-off*** of previously recorded profits.
32. Krispy Kreme revised its senior executive compensation plan. Henceforth, officers would receive ***no bonuses*** unless the company ***reported*** earnings in each quarter that ***exceeded*** its earnings per share guidance by ***at least $0.01***.
33. In essence, according to the *Wall Street Journal*'s story, Krispy Kreme manufactured ***earnings*** by taking money ***out of one pocket*** and putting it ***into another.***

34. Had Krispy Kreme instead ***repurchased*** the franchises and then ***closed the stores,*** it would have incurred ***an expense***. The catch is that an asset is supposed to be something that creates ***future economic value***. Terminated stores would not seem to ***satisfy*** that definition.
35. Most, if not all, of the ***cash*** on Krispy Kreme's ***balance sheet*** appeared to have come from a(n) ***sale-and-leaseback*** transaction rather than from ***operations***.
36. Krispy Kreme increased the size of the corrections to its fiscal 2004 results. The previously undisclosed problems involved ***derivatives transactions***, ***errors in accounting for leases*** and improvements related to leases, and reversal of income related ***to equipment sold to*** a franchisee before ***Krispy Kreme*** bought that operation.
37. Krispy Kreme was not a case of ***massively*** fictitious earnings. Rather, the SEC complaint depicted a process of ***nickel-and-diming***, through a wide range of financial statement ***items***, to beat earnings ***guidance*** by $0.01 in every ***single quarter***.
38. An exceptionally long record of beating ***guidance*** or posting ***year-over-year*** gains in ***quarterly earnings*** is a reason to suspect earnings ***management***.
39. A second lesson of the Krispy Kreme case is that ***related-party*** transactions and ***deceptive*** financial reporting often go hand in hand.
40. It is impossible to assess the quality of an internal investigation without information on the ***methods employed*** and the basis for its ***conclusions***.
41. Users of financial statements should not be intimidated by corporate ***press releases*** that denounce allegedly irresponsible ***securities analysts*** and ***journalists***.
42. In 2001, Halliburton adopted an even more aggressive approach to ***recognizing revenue***. For some projects, Halliburton began reporting sales months before ***billing customers*** for the work. Previously, the policy was to book revenues only if the company ***expected to bill clients*** within one month. In addition, the company began keeping some disputed bills on the books for over ***a year*** instead of ***writing them off*** and ***reporting losses***. The previous policy was to refrain from a write-off only if it believed it would ***collect*** most of the claim ***within one year***.
43. Halliburton became more aggressive about ***booking revenues*** before ***getting paid***, a classic technique for pumping up ***reported earnings***.

44. If earnings look suspiciously ***strong*** during a(n) ***rough patch*** for the company's industry, users of financial statements should never automatically ***rule out*** the possibility that ***manipulative accounting*** explains the disparity.
45. A stock's value is a function of expected ***future earnings***, which partly depend on the ***popularity*** of the company's ***products*** vis-à-vis its competitors'.
46. Generally, the initial response of corporate executives caught in a lie is to ***dig*** themselves ***a deeper hole***, but gratifyingly often, the ***truth*** ultimately ***emerges.***
47. Analysts who strive to go beyond routine ***number-crunching*** can profit by seeking independent ***verification*** of corporate disclosure, even when the auditors have already placed their ***stamp of approval*** on it.
48. Sometimes, management ***delays*** revenue recognition in order to ***understate*** short-run profits. The motive for this paradoxical behavior is a desire to report the sort of smooth ***year-to-year*** earnings ***growth*** that equity investors reward with ***high*** price-earnings ***multiples.***
49. Grace executives reckoned that with earnings already meeting Wall Street analysts' forecasts, a windfall ***would not help*** the company's stock price. Such an inference would have been consistent with investors' customary ***downplaying*** of profits and losses that they perceive to be generated by ***one-time events***.
50. Grace's 1998 statement that its auditors had raised no objections to its accounting for the Medicare ***reimbursement windfall*** was true only in the ***technical sense*** that Price Waterhouse issued clean financials, based on materiality considerations. As a spokeswoman for the auditing firm pointed out, such an opinion does not imply ***agreement*** with ***everything*** in the statements.
51. According to Michael Jensen, "Tell a manager that he will get a bonus when targets are realized and two things will happen":
    a. ***Managers will attempt to set easy targets.***
    b. ***Once these are set, they will do their best to see that they are met even if it damages the company.***
52. All too often, companies wouldn't be able to accomplish the frauds without the assistance of ***their customers***.
53. According to Jensen, almost every company uses a budget system that ***rewards*** employees for ***lying*** and punishes them for ***telling*** the ***truth***. He proposes reforming the system by severing the link between ***budget targets*** and ***compensation.***

54. Even in the case of the bluest of the blue chips, watching for rising levels of ***accounts receivable*** or ***inventory***, relative to sales, should be standard operating procedure.
55. When the revenues derived from ***wishful thinking*** fail to materialize, the managers may resort to ***fraud*** to maintain the ***illusion***. The positive mental attitude that overstates revenues in the early stage is no ***less damaging***, however, than the ***fraud*** responsible at a later point.
56. Clues to the fraudulent accounting responsible for Gowex's downfall were detectable by astute ***financial analysts.*** In fact, it was a report alleging a(n) ***tenfold*** overstatement of ***revenues,*** published on July 1, 2014, by ***Gotham City Research*** LLC, that precipitated the stock price collapse.
57. In a classic response, Garcia initially ***denied*** the research report's ***accusations,*** calling it "***categorically false***" and "***defamatory***."
58. In 2003, Garcia stated that the company cleared a large profit on turnover (revenue) of ***€42.0 million*** in 2002. According to Gowex's IPO offering circular in ***2010***, however, revenues totaled only ***€2.7 million*** in 2003.
59. Formerly, the company recognized revenue when the ***distributors sold*** M/A-Com's products to end users. Under the newly instituted procedure, M/A-Com recognized revenue ***upon selling*** to ***distributors*** and established a(n) ***reserve*** against future ***returns.***
60. Worryingly, M/A-Com's days sales outstanding (***DSO***) increased to ***65*** days in the fiscal second quarter ending April 3, 2015, from ***57*** days one year earlier. This kind of rise, coinciding with a shift to "***sell-in***," could be a sign of ***channel stuffing,*** which is otherwise difficult to detect. Companies are not required to disclose the amount of their products ***sitting in*** distributor ***inventories***.
61. Strong margins in a business in which ***direct competitors*** were losing money justified skepticism about the ***validity*** of the profits Globo was reporting.
62. Long before October 2015, however, there were numerous clues that something was amiss. To begin with, in 2014's first quarter Globo ***fired its auditor.***
63. Further evidence that Globo's sales were inflated appeared in the form of its ***164*** days sales outstanding (***DSO***) of trade receivables. That was almost ***double*** the level reported by industry leader Good Technology

64. As a result of its high ***DSO*** and low ***unearned income***, Globo required substantial ***outside funding*** of its ***working capital***. Its peers, on the other hand, generated sizable funds from ***working capital***.

## CHAPTER 7: EXPENSE RECOGNITION

1. Corporate managers are just as creative in ***minimizing*** and ***slowing down*** the recognition of ***expenses*** as they are in maximizing and speeding up the ***recognition*** of revenues.
2. Investors attach little significance to ***nonrecurring*** profits and losses in valuing stocks. Therefore, a public company has a strong incentive to ***aggregate*** cumulative ***losses*** into a one-time event and to break up a(n) ***unique***, nonrecurring ***gain*** into smaller pieces and ***recognize*** it over ***several years***.
3. Nortel Networks illustrated the ***distorting*** power of ***accruals***, one of the most ***abused*** features of financial reporting.
4. Between September 2000 and ***August 2002***, Nortel's market capitalization sank by ***99*** percent, devastating Canadian ***pension plans*** that were heavily invested in its shares.
5. The company had to wave a classic ***red flag*** with respect to the ***credibility*** of its financial ***statements*** by ***delaying*** the filing of its ***2003*** financial reports.
6. In addition to dashing hopes that the ***new round*** of accounting ***statements*** would be ***minor***, Nortel rattled the market by ***firing*** CEO Dunn, CFO Beatty, and controller Gollogly.
7. Nortel's management's credibility continued to ***shrink*** as the company kept ***pushing*** back its ***target date*** for producing definitive earnings ***restatements***.
8. Nortel's investigation, which previously had focused on ***accruals*** and ***provisions***, had turned to ***revenue recognition***.
9. Incorrect recognition of that amount resulted from a combination of:
   a. ***Non-transfer of legal title to customers***
   b. ***Failure to meet criteria for recognizing revenue prior to shipment***
   c. ***The collectibility questions***
   d. ***Other incorrect steps***
10. Nortel followed a strategy of ***taking a "big bath"*** in its money-losing period of 2001–2002. Overstating ***losses*** created "***cookie cutter***" reserves that could be taken into ***profits*** in ***later years***.

11. Nortel's experience shows that if a company uses ***accruals*** to ***understate*** profits, it will have no compunction about overstating ***profits*** through ***aggressive*** revenue ***recognition***.
12. An important takeaway from the Nortel case is that seemingly ***small*** items can prove ***highly*** significant.
13. ***Rebates*** are another frequently abused element of ***expense*** recognition. General Motors' fiddling with this device shows the important role of ***corporate culture*** in the ***integrity*** of financial reporting.
14. At issue in GM's restatement was the recording of ***rebates*** and other ***credits*** from ***suppliers***.
15. GM said that some cash flows from its ***mortgage subsidiary*** that should have been classified among its ***investing*** activities were instead booked as ***operating*** activities.
16. This revelation puzzled accounting experts because the applicable rules were unambiguous. ***Extending*** a loan or ***receiving*** repayment fell into investing ***activities***; ***interest*** payments were included in operating cash ***flow***.
17. GM management said it had ***prematurely*** increased the ***value*** of vehicles it was leasing to car rental companies, assuming they would be ***worth*** more after those companie***s*** were through ***with*** them.
18. Ordinarily, a company's stock price ***rises*** when its reported earnings ***unexpectedly*** increase.
19. Freddie Mac steadfastly ***denied*** that its handling of ***derivatives*** was aimed at ***smoothing*** its earnings.
20. Even if it was true that intentional ***misrepresentations*** represented the ***lesser*** part of the earnings ***understatemen***t, Freddie Mac's ***questionable practices*** had a huge impact that even ***conscientious*** analysts could not detect from ***the outside***.
21. Freddie Mac's manipulation did not end there. Another ploy to ***hide*** earnings consisted of ceasing to use ***market prices*** for certain ***derivatives***.
22. Companies can follow a variety of approaches in downplaying expenses such as:
    a. ***Making liberal assumptions about costs that may be capitalized***
    b. ***Diluting expenses with one-time gains***
    c. ***Jumping the gun in booking rebates from suppliers***
    d. ***Understating expenses through sheer sloppiness in their bookkeeping***

23. On February 8, 2012, Diamond Foods announced that it would restate its earnings for the ***previous two years.*** CEO Michael J. Mendes and CFO Steven M. Neill were placed on ***administrative leave*** and ***fired*** the following day. The company's planned earnings restatement involved ***payments*** to walnut growers of $20 million in August ***2010*** and $60 million in September ***2011*** that were booked in the wrong periods.
24. Notably, Diamond Foods's earnings manipulation commenced after the passage of the ***Sarbanes-Oxley*** Act that is appropriately credited with ***substantially reducing*** the incidence of financial ***reporting fraud*** in the United States. Diamond did not even go public until ***three years*** after ***Sarbox*** became the law of the land in ***2002.***
25. On November 15, ***2011***, Bill Alpert presciently wrote in *Barron's Online*, "After Diamond's walnut accounting ***gets scrutiny***, the stock could ***get crushed*** again." In short, the stock plunge that was triggered by the ***restatement announcement*** three months later was by no means ***a bolt from the blue.***

## CHAPTER 8: THE APPLICATIONS AND LIMITATIONS OF EBITDA

1. The impetus for trying to redirect investors' focus to ***operating*** income or other variants has been the minimal ***net profits*** recorded by many "new economy" companies.
2. Users of financial statements had discovered certain limitations in net income as a(n) ***valuation tool.*** They observed that two companies in the same industry could report similar ***income***, yet have substantially different ***total enterprise*** values.
3. Net income is not, to the disappointment of analysts, a standard by which every company's ***value*** can be compared.
4. The accounting standards leave companies considerable discretion regarding the depreciable ***lives*** they assign to their ***property, plant,*** and ***equipment***. The same applies to amortization schedules for ***intangible*** assets.
5. For some companies, the sum of net income, income taxes, and interest expense is not equivalent to EBIT, reflecting the presence of such factors as ***extraordinary*** items and ***minority*** interest below the ***pretax*** income ***line***.

6. Shifting investors' attention away from traditional fixed-charge coverage and toward ***EBITDA*** coverage of ***interest*** was particularly beneficial during the 1980s, when some buyouts were so ***highly leveraged*** that ***projected EBIT*** would not cover pro forma interest expense even in a good year.
7. Capital spending is likely to exceed depreciation over time as the company ***expands*** its productive ***capacity*** to accommodate ***rising demand***. Another reason that capital spending may run higher than depreciation is that newly acquired equipment may be ***costlier*** than the old equipment being written off, as a function of ***inflation***.
8. Delaying equipment purchases and repairs that are needed but not ***urgent***, should inflict no lasting damage on the company's ***operations*** provided the profit ***slump*** lasts for only a few quarters.
9. Depreciation is not available as a long-run source of cash for ***interest payments***. This was a lesson applicable not only to extremely ***leveraged*** deals of the 1980s, but also to the more ***conservatively*** capitalized transactions of later years.
10. Beaver's definition of cash flow was more stringent than ***EBITDA*** since he did not add back either ***taxes*** or ***interest*** to net income.
11. Beaver did not conclude that analysts should rely solely on the ***cash-flow***-to-***debt ratio***, but merely that it was the single best ***bankruptcy predictor***.
12. Some investment managers consider that the single ratio of ***cash flow*** (as they define it) to ***fixed charges*** predicts bankruptcy better than all of the ***rating agencies'*** quantitative and qualitative considerations combined.
13. Aside from ***seasonal*** variations, the amount of working capital needed to run a business represents a fairly constant ***percentage*** of a company's sales. Therefore, if inventories or receivables ***increase*** materially as a percentage of sales, analysts should strongly suspect that the earnings are ***overstated***, even though management will invariably offer a ***more benign*** explanation.
14. If a company resorts to stretching out its payables, two other ratios that will send out warning signals are:
    a. ***Receivables to sales***
    b. ***Inventories to cost of goods sold***
15. Merrill Lynch investment strategist Richard Bernstein points out that ***operating*** earnings tend to be more stable than ***reported*** earnings, EBIT tends to be more stable than ***operating*** earnings, and ***EBITDA*** tends to be more stable than EBIT.

16. Strategist Bernstein found that by attempting to filter out the ***volatility*** inherent in companies' earnings, investors reduced the ***effectiveness*** of their stock selection.

## CHAPTER 9: THE RELIABILITY OF DISCLOSURE AND AUDITS

1. Fear of the consequences of breaking the law keeps corporate managers in line. ***Bending*** the law is another matter, though, in the minds of many executives. If their bonuses depend on ***presenting results*** in an unfairly ***favorable*** light, they can usually see their way clear to adopting that course.
2. Technically, the ***board of directors*** appoints the auditing firm, but ***management*** is the point of contact in hashing out the details of presenting financial events for ***external consumption.***
3. At some point, ***resigning the account*** becomes a moral imperative, but in the real world, accounting firms must be ***pushed rather far*** to reach that point.
4. It is common for front-line auditors to balk at a(n) ***aggressive accounting*** treatment proposed by a company's management, only to be overruled by their ***senior colleagues.***
5. ***Fraud*** is an unambiguous violation of accounting standards, but audits do not ***invariably*** catch it.
6. Extremely clever scamsters may even succeed in undermining the auditors' efforts to select ***their samples at random***, a procedure designed to foil concealment of fraud.
7. When challenged on inconsistencies in their numbers, companies sometimes ***blame error*** rather than any intention to ***mislead*** the users of ***financial statements.***
8. Seasoned followers of the corporate scene realize that companies are not always as ***forthcoming*** as investors might ***reasonably expect.***
9. Abundant evidence has emerged over the years of corporate managers ***leaning on auditors*** to paint as rosy a picture as possible.
10. To say that no ***perfect system*** can be ***designed***, however, is quite different from saying that:
    a. ***Existing provisions for issuing financial accounting standards,***
    b. ***Conducting audits*****, and**
    c. ***Policing fraud*** are as good as real-world conditions permit.

11. Popular outrage over the post–***Tech Wreck*** accounting scandals created political ***momentum*** to eliminate the ***auditing-consulting*** conflict.
12. Systematic problems in the audit process arise not only from the ***regulatory structure*** but also from the ***business strategies*** of ***profit-maximizing*** accounting firms.
13. In the 1990s, "***risk-based audits***" emerged as a means of keeping a lid on costs. Instead of focusing on ***details*** of ***individual*** transactions, they identified the areas that in their ***judgment*** presented the greatest risk of error or fraud, such as ***complex derivatives***. Incredibly, these judgments in some cases were based on ***management's advice***.
14. In WorldCom's early days, Arthur Andersen audited the company in ***a*** meticulous, ***bottom-up*** way. As the company grew, however, Andersen migrated toward a(n) ***risk-based process***. If a question arose about controls or procedures, Andersen relied on the ***answers*** provided by ***management***.
15. Congress's unwillingness to give the SEC the ***resources it needed*** to do its job reflected more than ***competing*** claims on the ***federal budget***.
16. One final line of defense for users of a company's financial statements is the ***audit committee*** of its board of directors. This protection has ***not proven*** infallible over the years.
17. In one of the few encouraging notes of recent years, the SEC has imposed a(n) "***financial literacy***" requirement on audit committee members.
18. Many companies are either ***stingy*** with ***information*** or ***slippery*** about the way they ***present it***. Rather than laying down the law (or GAAP), the auditors typically wind up ***negotiating*** with management to arrive at a point where they can convince themselves that the ***bare minimum*** requirements of ***good practice*** have been satisfied.
19. Given the observed gap between ***theory*** and ***practice*** in financial reporting, users of financial statements must provide themselves a(n) ***additional layer*** of protection through tough ***scrutiny*** of the numbers.
20. Even if a company's management is inclined **to** ***finagle***, investors have a second line of defense in the form of ***mandatory*** annual ***certification*** of the financials by ***highly*** trained ***auditors***. The Securities and Exchange Commission's (***SEC's***) Corporation Finance and Enforcement divisions provide an additional line of defense.
21. At the extreme, executives may falsify their results. ***Fraud*** is an unambiguous violation of accounting standards, but ***audits*** do not invariably catch it.

22. Following the standard script in such situations, Wirecard ***denied*** any ***wrongdoing***, charging that the FT story was not only ***false***, ***inaccurate***, ***misleading***, and ***defamatory***, but that it lacked any substance and was completely ***meaningless***.
23. According to KPMG, **lack of cooperation** from three third-party processors of payments for Wirecard customers made it impossible to ***validate*** any ***underlying*** transactions for 2016–2018. Consequently, KPMG was ***unable*** to state one way or the other whether the ***reported*** sales ***revenue*** existed or was ***correct***.
24. Auditors are ***selected*** and ***paid*** by the companies they audit. The corporate clients want audits completed swiftly and inexpensively, enabling them to release their results and move on. Failing to satisfy management's desire for quick, no-hassle audits ***would be bad for*** business because the clients are also ***prospects*** for ***highly profitable*** consulting and tax services.
25. Zatarra Research & Investigations found evidence of ***round-tripping*** as far back as 2009. This scam consists of one company ***selling an asset*** to another company, while concurrently agreeing to ***buy back*** the same or similar assets. Scams associated with round-tripping include ***inflating*** the buyer/seller's ***market capitalization***, ***overstating its profits***, ***evading taxes***, and ***laundering money***.
26. ARCP's 2014 experiences upholds the "***cockroach theory***." The name derives from the popular belief that seeing one of these pests ***means*** many more are ***present***. This bit of market wisdom holds that when a company ***discloses bad news*** on the financial ***reporting front***, other, ***potentially worse*** news is likely to follow.
27. Auditing firms are ***profit-maximizing*** businesses that face ***unavoidable conflicts*** between upholding professional standards, on the one hand, and ***retaining*** clients and **controlling costs**, on the other.

## CHAPTER 10: MERGERS-AND-ACQUISITIONS ACCOUNTING

1. The acquiring company's shareholders can benefit when an M&A deal ***genuinely creates synergy***, but they must be on guard against corporate managers' efforts to produce the ***illusion*** of ***value creation*** through financial reporting gimmickry.
2. In 2019, *MarketWatch* reported that the SEC had stepped up its efforts to discourage ***acquisition-related*** adjustments for ***deferred revenue*** that was written off under GAAP. Some acquisitive companies were adding

back this "*ghost revenue*" in calculating *adjusted revenue* numbers commonly used by analysts.

3. Under the old standard, the more *goodwill* that was created in an acquisition, the greater was the *annual hit* to earnings from mandatory goodwill amortization. Now, companies could *buy* earnings through acquisitions at rich prices with *relative impunity*.
4. Between the November 2, 2015, close of the *Alstom* deal and the October 1, 2018, *write-down* of the former Alstom businesses and other *power* division *assets*, GE's stock plunged by *36* percent while the S&P 500 climbed by *39* percent. In short, the market imposed a large penalty on shareholders well before the company *officially conceded* that the goodwill it recorded in the Alstom deal was *illusory*.
5. On November 20, 2012, Hewlett-Packard announced that it would take a(n) $*8.8* billion *write-down* on the UK software company Autonomy Corp. that it acquired on October 3, *2011*. HP's share price dropped by *12* percent on the day of the announcement while the S&P 500 edged *0.7* percent higher.
6. Autonomy co-founder Mike Lynch denied the claims of *improper accounting*. He blamed the *loss of value* on post-acquisition *mismanagement* by Hewlett-Packard. The stock market's *previous assessment* of HP management lent some *support to that notion*. In the five years preceding the Autonomy write-down, HP's stock price declined by *67* percent.
7. More important for analysts than the *apportionment of blame* for the $23 billion write-down are *lessons* that can be *drawn from the debacle*.
8. Leaving aside issues of quality of *management*, which require study of corporate *strategy* and *execution*, the lessons to derive from this case study fall into two categories—*financial reporting* matters and *valuation* of *acquisition* targets.
9. Software companies ordinarily have very few *receivables* because they sell their products *upfront* and for *cash*. At the same time, they have obligations to *service* their *software* for a long period after they *sell* it. Consequently, software companies' *unearned income* is typically a multiple of *receivables*. Autonomy's balance sheet, on the other hand, showed *large* receivables.
10. The length of Autonomy's *cash conversion cycle* "should ring alarm bells for investors." One implication of this *divergence* from the *industry norm* was that the company was generating growth through *acquisitions* rather than *organic* growth.

11. HP was proposing to pay ***11*** times ***revenue*** while similar companies were trading at ***three*** times revenue.
12. The financial reporting red flags spied by critics of Autonomy and of its acquisition by HP included Autonomy's ***unfavorable comparisons*** with ***peers*** on the level of ***receivables*** and the length of the ***cash conversion cycle***. Similarly pointing to trouble were valuation metrics that were out of line with those of ***comparable*** companies.

## CHAPTER 11: IS FRAUD DETECTABLE?

1. Beneish defines manipulation to include both ***actual fraud*** and ***the management of earnings*** or ***disclosure*** within ***GAAP.***
2. Beneish finds, by statistical analysis, that the presence of any of the following five factors increases the probability of earnings manipulation:
   a. ***Increasing days sales in receivables***
   b. ***Deteriorating gross margins***
   c. ***Decreasing rates of depreciation***
   d. ***Decreasing asset quality (defined as the ratio of noncurrent assets other than property, plant, and equipment to total assets)***
   e. ***Growing sales***
3. The evidence of criminal misrepresentation often ***appears*** obvious after ***the fact***, but not even the most ***skilled analysts*** definitively identified some of the most famous frauds until the ***schemes*** became ***unsustainable*** and the companies ***collapsed.***
4. In studying these notorious frauds, readers should pay close attention not only to the ***suspicious*** financial statement ***items,*** but also to the ***behavior*** of senior ***managers*** as the validity of their stated profits is challenged.
5. Unexpected ***turnover*** in ***senior management*** is a classic warning sign of financial misrepresentation.
6. When Enron at long last conceded that it was overly indebted, management tried to:
   a. ***Restructure existing debt***
   b. ***Arrange additional borrowings***
   c. ***Obtain equity infusions***
   d. ***Raise cash by selling overseas assets***

7. Enron also misled investors by aggressively exploiting wiggle room in the accounting rules. The company booked revenue from its energy-related derivatives contracts on the basis of ***gross*** value, rather than ***net*** value, as is the norm for other ***securities transactions.***
8. Excessive liberties with ***mark-to-market*** accounting rules constituted yet one more element of Enron's misrepresentation.
9. On a conference call dealing with Enron's earnings, analyst Richard Grubman complained that the company was ***unique*** in refusing to include a(n) ***balance sheet*** in its earnings release.
10. Still, the ***off-balance-sheet*** vehicles, combined with ***non-transparent disclosures***, enabled Enron to make itself look less ***debt-laden*** than it really was.
11. Although Enron grossly misled investors by ***stretching the rules,*** a large part of its deception consisted of ***outright violation*** of basic accounting standards, with the ***acquiescence*** of its auditor.
12. Equally crude was a scheme in which Enron reportedly borrowed $500 million from a bank and bought ***Treasury bills***. A few days later it sold the ***Treasury bills*** and repaid the bank, reporting the proceeds from the meaningless transaction as ***operating cash flow***.
13. The ***opacity*** of Enron's ***fair value*** assumptions was a major concern. "Ultimately they're telling you what ***they think*** the ***answer*** is, but they're not telling you how they got to ***that answer***," Business Valuation Services analyst Stephen Campbell complained. "That is essentially saying '***trust me.***'"
14. Off Wall Street, a consulting group, recommended a short sale of Enron based on two factors identifiable from the financial statements, namely, the ***mark-to-market*** on non-traded assets and ***related-party*** transactions with private ***partnerships***.
15. Analysts should be especially wary when a strong likelihood of ***financial manipulation***, as indicated by tools such as the ***Beneish*** model, coincides with ***non-transparent*** financial reporting.
16. According to the SEC's complaint, HealthSouth's falsification began ***shortly after*** the company ***went public*** in ***1986.***
17. Flat denial by Scrushy, regardless of the ***evidence*** that ***emerged,*** was a consistent theme as the ***HealthSouth*** story unfolded.
18. The complaint stated that when HealthSouth officials and accountants urged Scrushy to cease ***inflating profits***, he replied, in effect, "not until ***I sell my stock***."

19. The "Sarbox" provision requiring CFOs and CEOs to attest to the accuracy of financial statements gave prosecutors a powerful weapon to wield against falsifiers, but ***HealthSouth's fraud*** dispelled any notion that the tough new law would end ***financial*** misreporting altogether**.**
20. HealthSouth exaggerated its earnings by understating the gap between the ***cost of a treatment*** and the amount that the ***patient's insurance*** would cover.
21. If the auditors did question an accounting entry, HealthSouth executives reportedly ***created a phony document*** to validate the item.
22. HealthSouth also propped up profits by failing to ***write off receivables*** with ***little chance of being collected.*** In addition, the company did not ***recognize losses*** when it sold assets that had ***declined*** in value**.**
23. Compounding Scushy's legal problems, federal prosecutors disclosed in July 2003 that they had uncovered evidence of:
    a. ***Tax fraud***
    b. ***Obstruction of justice***
    c. ***Witness intimidation***
    d. ***Money laundering***
    e. ***Public corruption***
24. The most dismaying aspect of the performance of HealthSouth's auditor, EY LLP, was its ***failure*** to challenge a ***sudden,*** large ***increase*** in cash.
25. In the view of experts in the field, internal checks and balances also broke down at HealthSouth. The board's audit committee met only ***once*** during 2001, ***three times less*** than the minimum recommended by the SEC.
26. Investors had little official warning of trouble until the ***month*** before Parmalat's collapse. As late as October 2003**,** Deutsche Bank's equity research group rated the company's stock a(n) ***BUY***, highlighting its strong ***reported cash flow***, and Citibank put out a(n) ***optimistic*** report in November. Furthermore, the company's debt carried an ***investment*** grade rating up until ***nine days*** before the bankruptcy filing.
27. A major red flag was Parmalat's ***voracious appetite for debt,*** despite claiming to have a huge ***cash balance***.
28. Merrill Lynch analysts downgraded Parmalat to SELL, saying that the company's ***frequent recourse*** to the ***bond market***, while reporting ***high cash balances***, threw into question ***its cash-generating ability.***

29. Another hazard signal emerged on February 26, 2003, when Parmalat suddenly canceled its plan to sell ***30-year*** bonds. The company said it would instead issue bonds with maturities of just ***seven years,*** suggesting the market had less confidence in Parmalat's ***long-run stability*** than management had thought.
30. Oddly, the person who achieved the greatest renown for early recognition of the Parmalat's house of cards was not a(n) ***financial analyst***, but a(n) ***comedian***.
31. Public market investors probably should have been ***concerned*** that some of Luckin's ***early investors*** cashed out their holdings ***in the IPO.***
32. Luckin's share price did not collapse completely without warning. On January 31, 2020, Muddy Waters, announced that it ***had shorted*** Luckin after receiving a(n) ***anonymous*** 89-page report alleging ***accounting irregularities*** and a broken ***business model*** at Luckin. The shares promptly dropped by ***11*** percent.
33. On cue, Luckin ***categorically denied*** the allegations against it, labeling the report's methodology ***flawed***, its evidence ***unsubstantiated***, and its interpretation of events ***malicious***.
34. Scrutiny of financial statements ***did play*** a role in the report's claim that management ***overstated*** its 3Q 2019 ***advertising*** expenses by more than 150 percent. According to the author(s), the discrepancy was uncovered by comparing the ***reported*** expenditures with media revenues tracked by a(n) ***third party***. The report speculated that Luckin ***inflated*** its ***advertising*** outlays in order to recycle the amounts into ***overstatement*** of ***revenue*** and ***store-level profit***.
35. Luckin escalated its ***exaggeration*** of revenues following the IPO by selling ***vouchers redeemable*** for tens of millions of cups of coffee to companies linked to ***chairman*** and ***controlling*** shareholder Charles Lu.
36. Two lessons emerge from this incident. One is that nearly two decades after Sarbanes-Oxley reduced (***not eliminated***) outright fraud in financial reporting by ***U.S. companies***, securities of certain other countries continued to pose ***major hazards*** to users of financial statements. The second takeaway is that in some instances, even a ***meticulous examination*** of the issuer's financial statements will not bring the ***malfeasance*** to light. In such cases, exposing the ***deceptive reporting*** depends on some combination of ***whistleblowers***, access to ***non-public documents***, and large-scale ***surveillance efforts.***

## CHAPTER 12: FORECASTING FINANCIAL STATEMENTS

1. It is future ***earnings*** and ***dividends*** that determine the value of a company's stock and the relative likelihood of future ***timely*** payments of ***debt service*** that determines credit quality.
2. The process of financial projections is an extension of ***historical*** patterns and ***relationships***, based on assumptions about future ***economic conditions***, market ***behavior***, and managerial ***action.***
3. Sales projections for the company's business can be developed with the help of such sources as trade ***publications,*** trade ***associations,*** and firms that sell econometric ***forecasting*** models.
4. Basic industries such as ***chemicals, paper,*** and ***capital goods*** tend to lend themselves best to the ***macroeconomic-based*** approach described here. In technology-driven industries and "hits-driven" businesses such as ***motion pictures*** and ***toys,*** the connection between ***sales*** and the general ***economic*** trend will tend to be looser.
5. The expected intensity of industry competition, which affects a company's ***ability*** to pass ***cost increases*** on to customers or to retain ***cost decreases,*** influences the ***gross margin*** forecast.
6. Since the segment information may show only operating income, and not ***gross margin,*** the analyst must add ***segment*** depreciation to operating income, then make assumptions about the allocation of ***selling, general,*** and ***administrative*** expense and ***research*** and ***development*** expense by segment.
7. The R&D percentage may change if, for example, the company makes a(n) ***sizable acquisition*** in an industry that is either significantly more, or significantly less, ***research-intensive*** than its existing operations.
8. The key to the forecasting interest expense method employed here is to estimate the firm's embedded cost of debt, that is, the ***weighted average*** interest rate on the company's existing ***long-term debt.***
9. Accurately projecting interest expense for ***highly leveraged*** companies is important because their ***financial viability*** may depend on the size of the interest ***expense "nut"*** they must cover each quarter.
10. The completed income statement projection supplies the ***first two*** lines of the projected statement of cash flows.
11. Before assuming a constant-percentage relationship, the analyst must verify that the ***most recent*** year's ratios are ***representative*** of experience over ***several years.***

12. A sizable ***net cash provision*** might be presumed to be directed toward share repurchase, reducing ***shareholders' equity,*** if management has indicated a desire to ***buy stock*** and is ***authorized*** to do so by its board of directors.
13. Typically, the analyst must modify the underlying ***economic*** assumptions, and therefore the projections, several times during the year as ***business activity*** diverges from ***forecasted levels.***
14. A firm may have considerable room to cut its ***capital spending*** in the short run if it suffers a decline in funds provided by ***operations.*** A projection that ignored this ***financial flexibility*** could prove overly pessimistic.
15. An interest rate decline will have limited impact on a company for which interest costs represent a(n) ***small percentage*** of expenses. The impact will be greater on a company with a large interest cost component and with much of its debt at ***floating rates.*** This assumes the return on the company's assets is ***not similarly rate-sensitive.***
16. Analysts are generally not arrogant enough to try to forecast the figures accurately to the first decimal place, that is, to the ***hundred-thousands*** for a company with revenues in the ***hundreds of millions.***
17. It is generally inappropriate to compare a(n) ***quarterly*** income statement item (EBITDA) with a balance sheet figure, especially in the case of a(n) ***highly seasonal*** company.
18. It is unwise to base an investment decision on historical statements that antedate a major financial change such as:
    a. ***Stock repurchase***
    b. ***Write-off***
    c. ***Acquisition***
    d. ***Divestment***
19. A pro forma income statement for a single year provides no information about the ***historical growth*** in sales and earnings of the ***subsidiary*** that is being spun off.
20. Pro forma adjustments for a divestment do not capture the potential benefits of increased ***management focus*** on the company's ***core operations.***
21. The earnings shown in a merger-related pro forma income statement may be higher than the company can sustain because:
    a. The acquired company's owners may be shrewdly selling out at top dollar, anticipating a(n) ***deceleration*** in ***earnings*** growth that is foreseeable by ***industry insiders,*** but not to the acquiring corporation's management.

b. Mergers of companies in the same industry often work out poorly due to ***clashes*** of ***corporate culture***.

c. Inappropriately applying its ***management style*** to an industry with very different requirements.

22. A(n) ***fixed-income*** investor buying a 30-year bond is certainly interested in the issuer's financial prospects beyond a(n) ***12-month*** horizon. Similarly, a substantial percentage of the present value of future dividends represented by a stock's price lies *in* ***years*** beyond the ***coming one.***

23. Radical financial restructurings such as ***leveraged buyouts, megamergers massive stock,*** and ***buybacks*** necessitate ***multiyear*** projections.

24. Of the various types of analysis of financial statements, projecting ***future results*** and ***ratios*** requires the greatest skill and produces the most ***valuable findings.***

25. The lack of ***predictable patterns*** is what makes financial forecasting so ***valuable.*** When betting huge sums in the face of ***massive uncertainty,*** it is essential that investors understand the ***odds*** as fully as they possibly can.

## CHAPTER 13: CREDIT ANALYSIS

1. Financial statements tell much about a borrower's ***ability*** to repay a loan, but disclose little about the equally important ***willingness*** to repay.

2. If a company depends on raw materials provided by a subsidiary, there may be a(n) ***reasonable*** presumption that it will stand behind the subsidiary's ***debt,*** even in the ***absence*** of a(n) ***formal guarantee.***

3. Illiquidity manifests itself as an excess of current ***cash payments due,*** over ***cash currently available.*** The ***current*** ratio gauges the risk of this occurring by comparing the claims against the company that will become payable during the current ***operating cycle (current liabilities)*** with the assets that are already in the form of cash or that will be converted to cash during the current ***operating cycle (current assets).***

4. The greater the amount by which asset values could deteriorate, the greater the ***"equity cushion,"*** and the greater the creditor's sense of ***being protected.*** Equity is by definition ***total assets*** minus ***total liabilities.***

5. Aggressive ***borrowers*** frequently try to satisfy the letter of a(n) ***maximum*** leverage limit imposed by lenders, without fulfilling the ***conservative*** spirit behind it.

6. A firm that "zeros out" its ***short-term debt*** at some point in each operating cycle can legitimately argue that its "true" leverage is represented by the ***permanent (long-term) debt*** on its balance sheet.
7. Current maturities of long-term debt should enter into the calculation of ***total debt,*** based on a conservative assumption that the company will replace maturing debt with new ***long-term*** borrowings.
8. Exposure to interest rate fluctuations can also arise from long-term ***floating-rate debt.*** Companies can limit this risk by using ***financial derivatives.***
9. Public financial statements typically provide ***only general*** information about the extent to which the issuer has ***limited*** its exposure to interest rate fluctuations through ***derivatives.***
10. Analysts should remember that the ultimate objective is not to ***calculate ratios*** but to ***assess credit risk.***
11. In general, the credit analyst must recognize the heightened level of risk implied by the presence of preferred stock in the ***capital structure.*** One formal way to take this risk into account is to calculate the ratio of ***total fixed*** obligations to ***total capital.***
12. In addition to including capital leases in the total debt calculation, analysts should also take into account the ***off-balance-sheet*** liabilities represented by contractual payments on ***operating leases,*** which are reported as ***rental expense*** in the ***Notes*** to Financial Statements.
13. A corporation can employ leverage yet avoid showing debt on its consolidated balance sheet by entering ***joint ventures*** or forming ***partially owned*** subsidiaries.
14. Under SFAS *87,* balance sheet recognition is now given to pension liabilities related to employees' service to date. Similarly, SFAS *87* requires recognition of postretirement health care benefits as an on-balance sheet liability.
15. The precise formula for ***calculating*** a ratio is less important than the assurance that it is ***calculated consistently*** for all companies being evaluated.
16. In general, credit analysts should assume that the achievement of ***higher*** bond ratings is a(n) ***secondary*** goal of corporate management.
17. The contemporary view is that profits are ultimately what sustain ***liquidity*** and ***asset values.*** High profits keep plenty of cash flowing through the system and confirm the value of productive assets such as ***plant*** and ***equipment.***

18. The cumulative effect of a change in accounting procedures will appear ***"below the line,"*** or after ***income taxes*** have already been deducted. The sum of net income and provision for income taxes will then differ from the ***pretax income figure*** that appears in the income statement.
19. Operating margin shows how well management has run the business ***buying*** and ***selling*** wisely, controlling ***selling*** and ***administrative expenses*** before taking into account financial policies, which largely determine ***interest expense,*** and the ***tax rate,*** which is outside management's control.
20. Fixed-charge coverage is a(n) ***income-statement*** ratio of major interest to credit analysts. It measures the ability of a company's ***earnings*** to meet the ***interest payments*** on its debt, the lender's most direct concern. In its simplest form, the fixed-charge coverage ratio indicates the ***multiple*** by which ***operating earnings*** suffice to pay ***interest charges.***
21. Regardless of whether it is ***expensed*** or ***capitalized,*** however, all interest accrued must be covered by ***earnings*** and should therefore appear in the ***denominator*** of the fixed-charge coverage calculation.
22. The two complications that arise in connection with incorporating operating lease payments into the fixed-charge coverage calculation are:
    a. ***The SEC does not require companies to report rental expense in quarterly statements.***
    b. ***Retailers in particular often negotiate leases with rents that are semi-fixed, tied in part to revenues of the leased stores.***
23. Companies sometimes argue that the denominator of the fixed-charge coverage ratio should include only ***net interest*** expense, that is, the difference between ***interest expense*** and income derived from ***interest-bearing assets,*** generally consisting of marketable securities.
24. Ratios related to sources and uses of funds measure credit quality at the most elemental level—a company's ability to ***generate sufficient cash*** to ***pay*** its ***bills.***
25. Given corporations' general reluctance to sell new equity, a recurrent cash shortfall is likely to be made up with ***debt*** financing, leading to a rise in ***the total-debt***-to-***total-capital*** ratio.
26. A company that suffers a prolonged downtrend in its ratio of ***cash flow*** to ***capital expenditures*** is likely to get more deeply into debt, and therefore become ***financially riskier*** with each succeeding year.

27. Unlike earnings, ***depreciation*** is essentially a programmed item, a cash flow ensured by the accounting rules. The higher the percentage of cash flow derived from ***depreciation,*** the higher is the ***predictability*** of a company's cash flow, and the ***less dependent*** its financial flexibility on the vagaries of the marketplace.
28. Analysts cannot necessarily assume that all is well simply because capital expenditures consistently exceed depreciation. Among the issues to consider are:
    a. ***Persistent inflation means that a nominal dollar spent on plant and equipment today will not buy as much capacity as it did when the depreciating asset was acquired.***
    b. ***Technological advances in production processes may mean that the cost in real terms of producing one unit may have declined since the company purchased the equipment now being replaced.***
    c. ***Depreciation may be understated, with respect either to wear-and-tear or to obsolescence.***
    d. ***In a growth industry, a company that fails to expand its capacity at roughly the same rate as its competitors may lose essential economies of scale and fall victim to a shakeout.***
29. A limitation of combination ratios that incorporate balance-sheet figures is that they have little meaning if ***calculated*** for ***portions*** of years.
30. The underlying notion of a turnover ratio is that a company requires a certain level of ***receivables*** and ***inventory*** to support a given volume of sales.
31. A(n) ***drop in sales*** is a possible explanation of declining inventory turnover. In this case, the inventory may not have suffered a severe reduction in value, but there are nevertheless unfavorable implications for ***credit quality.*** Until the inventory glut can be worked off by ***cutting back production*** to match the lower ***sales volume,*** the company may have to borrow to finance its unusually high working capital, thereby increasing its ***financial leverage.***
32. Fixed-charge coverage, too, has a weakness, for it is based on ***earnings,*** which are subject to considerable manipulation.
33. Built from two comparatively hard numbers, the ratio of ***total debt*** to ***cash flow*** provides one of the best single measures of ***credit quality.***
34. Expected ***recoveries*** have an important bearing on the decision to ***extend*** or ***deny*** credit, as well as on the ***valuation*** of debt securities.
35. Line of business is another basis for defining a(n) ***peer group.***

36. Beyond a certain point, calculating and comparing companies on the basis of ***additional*** financial ratios contributes little ***incremental insight.***
37. ***Improving*** or ***deteriorating*** financial ratios can have different implications for different companies.
38. Quantitative models such as Zeta, as well as others that have been devised using various mathematical techniques, have several distinct benefits, such as:
    a. ***They are developed by objectively correlating financial variables with defaults.***
    b. ***The record of quantitative models is excellent from the standpoint of classifying as troubled credits most companies that subsequently defaulted.***
    c. ***The scores assigned to nondefaulted companies by these models correlate fairly well with bond ratings.***
39. Similar to the quantitative models consisting of ***financial ratios,*** the default risk models based on stock prices provide useful, but ***not infallible,*** signals.

## CHAPTER 14: EQUITY ANALYSIS

1. In this chapter, the discussion focuses primarily on the use of financial statements in ***fundamental*** analysis.
2. Of the methods of fundamental common stock analysis, no other approach matches the intuitive appeal of regarding the stock price as the ***discounted value*** of expected ***future*** dividends. This approach is analogous to the ***yield-to-maturity*** calculation for a bond and therefore facilitates the comparison of different ***securities*** of a single ***issuer.***
3. By thinking through the logic of the ***discounting*** method, the analyst will find that value always comes back to ***dividends.***
4. The company's earnings growth rate may diverge from its sales growth due to changes in its ***operating margins.***
5. As a rule, a(n) ***cyclical*** company will not increase its dividend on a regular, annual basis.
6. Many analysts argue that ***cash flow,*** rather than ***earnings,*** is the true determinant of dividend-paying capability.
7. Cash generated from ***operations,*** which is generally more difficult for companies to manipulate than ***earnings,*** can legitimately be viewed as the preferred measure of future ***dividend-paying*** capability.

8. The ability to vary the ***discount rate,*** and therefore to assign a(n) ***lower*** or ***higher*** multiple to a company's earnings, is the equity analyst's defense against earnings ***manipulation*** by management.
9. It is appropriate to assign a(n) ***above-average*** discount factor to the earnings of a company that competes against larger, better-capitalized firms. A small company may also suffer the ***disadvantages*** of ***lack*** of depth in management and concentration of its ***production*** in ***one*** or ***two plants.***
10. A building-materials manufacturer may claim to be cushioned against fluctuations in housing starts because of a strong emphasis in its product line on the ***remodeling*** and ***repair*** markets.
11. Analysts should be especially wary of companies that have tended to jump on the bandwagon of ***"concepts"*** associated with the ***hot stocks*** of the moment.
12. Earnings per share will not grow merely because ***sales increase.***
13. Leverage reaches a limit, since lenders will not continue advancing funds beyond a certain point as ***financial risk increases.***
14. One way to increase earnings per share is to ***reduce*** the ***number*** of ***shares*** outstanding.
15. To the extent that the company funds share buybacks with idle cash, the increase in ***earnings per share*** is offset by a reduction arising from ***forgone*** income on ***investments.***
16. Similar to most ratio analysis, the DuPont Formula is valuable not only for the ***questions*** it ***answers*** but also for the ***new*** ones it ***raises.***
17. Besides introducing greater volatility into the ***rate of return,*** adding debt to the balance sheet demonstrates no ***management skill in improving*** operations.
18. Some companies have the potential to raise their share prices by ***utilizing*** their assets ***more efficiently,*** while others can increase their value by ***increasing*** their ***financial leverage.***
19. Management's main adversaries in battles over ***"corporate governance"*** were aggressive ***financial operators.***
20. At least in the early stages, before some raiders became overly aggressive in their financial forecast assumptions, it was feasible to extract value without creating undue bankruptcy risk, simply by ***increasing*** the ratio of ***debt*** to ***equity.***
21. In future bear markets, when stocks again sell at depressed price-earnings multiples, investors will probably renew their focus on companies' ***values*** as ***LBO candidates.***

22. A leveraged buyout can bring about improved profitability for either of two reasons:
    a. ***A change in ownership results in a fresh look at the company's operations.***
    b. ***Management may obtain a significantly enlarged stake in the firm's success as the result of the buyout.***
23. Today's ***profit improvement*** may be a precursor of tomorrow's bankruptcy by a company that has economized its way to a(n) ***uncompetitive*** state**.**
24. A focus on ***price-earnings*** multiples, the best-known form of fundamental analysis, is not the investor's ***sole alternative*** to relying on technicians' stock charts.
25. For the investor who takes a longer view, ***financial statement analysis*** provides an invaluable reference point for valuation.

# Financial Statements Exercises (Answers)

## FINANCIAL STATEMENT ITEMS

Indicate in which of the principal financial statements each item appears.

Answer 1

**Please indicate in which of the Financial Statements the following items belong.**

| Item | Balance Sheet | Income Statement | Statement of Cash Flows |
|---|---|---|---|
| Accounts Payable | x | | |
| Accumulated Depreciation | x | | |
| Adjusted Net Income | | x | |
| Capital Expenditures | | | x |
| Cash and Equivalents—Change | | | x |
| Common Shares Outstanding | x | | |
| Current Debt—Changes | | | x |
| DIRECT OPERATING ACTIVITIES | | | x |
| Earnings per Share (Fully Diluted) | | x | |
| Earnings per Share (Primary) - | | x | |
| Equity in Net Loss (Earnings) | | | x |
| Extraordinary Items | | x | |
| Financing Activities—Net Cash Flow | | | x |
| Gross Plant, Property, & Equipment | x | | |
| Income before Extraordinary Items | | x | x |
| INDIRECT OPERATING ACTIVITIES | | | x |
| Interest Paid—Net | | | x |

*(Continued)*

| Item | Balance Sheet | Income Statement | Statement of Cash Flows |
|---|---|---|---|
| INVESTING ACTIVITIES | | | x |
| Investment Tax Credit | x | | |
| Long-Term Debt Due in One Year | x | | |
| Minority Interest | x | x | |
| Net Receivables | x | | |
| Operating Activities—Net Cash Flow | | | x |
| Other Assets and Liabilities—Net Change | | | x |
| Other Investments | x | | |
| Preferred Stock—Nonredeemable | x | | |
| Pretax Income | | x | |
| Retained Earnings | x | | |
| Sale of Property, Plant, and Equipment | | | x |
| Selling, General, & Administrative Expense | | x | |
| Stock Equivalents | | x | |
| Total Current Assets | x | | |
| Total Income Taxes | | x | |
| Total Preferred Stock | x | | |

Answer 2

**Please indicate in which of the Financial Statements the following items belong.**

| Item | Balance Sheet | Income Statement | Statement of Cash Flows |
|---|---|---|---|
| Accrued Expenses | x | | |
| Adjusted Available for Common | | x | |
| Available for Common | | x | |
| Cash & Equivalents | x | | |
| Common Equity | x | | |
| Cost of Goods Sold | | x | |
| Deferred Taxes | x | | x |
| Dividends per Share | | x | |
| Earnings per Share (Primary) | | x | |
| EQUITY | x | | |

| Item | Balance Sheet | Income Statement | Statement of Cash Flows |
|---|---|---|---|
| FINANCING ACTIVITIES | | | x |
| Funds from Operations—Other | | | x |
| Income Taxes Paid | | | x |
| Interest Expense | | x | |
| Inventory—Decrease (Increase) | | | x |
| Investing Activities—Other | | | x |
| Investments at Equity | x | | |
| Long-Term Debt | x | | |
| Long-Term Debt—Reduction | | | x |
| Net Plant, Property, & Equipment | x | | |
| Notes Payable | x | | |
| Other Assets | x | | |
| Other Current Liabilities | x | | |
| Preferred Dividends | | x | |
| Prepaid Expenses | x | | |
| Receivables—Decrease (Increase) | | | x |
| Sale of Investments | | | x |
| Savings Due to Common | | x | |
| Special Items | | x | |
| Total Assets | x | | |
| Total Equity | x | | |
| Total Liabilities & Equity | x | | |

Answer 3

**Please indicate in which of the Financial Statements the following items belong.**

| Item | Balance Sheet | Income Statement | Statement of Cash Flows |
|---|---|---|---|
| Accounts Payable and Accrued Liabs—Inc (Dec) | | | x |
| Acquisitions | | | x |
| ASSETS | x | | |
| Capital Surplus | x | | |

*(Continued)*

| Item | Balance Sheet | Income Statement | Statement of Cash Flows |
|---|---|---|---|
| Cash Dividends | | | x |
| Common Stock | x | | |
| Deferred Charges | x | | |
| Discontinued Operations | | x | |
| Earnings per Share (Fully Diluted) | | x | |
| EPS from Operations | | x | |
| Exchange Rate Effect | | | x |
| Financing Activities—Other | | | x |
| Gross Profit | | x | |
| Income Taxes—Accrued—Increase (Decrease) | | | x |
| Intangibles | x | | |
| Inventories | x | | |
| Investing Activities—Net Cash Flow | | | x |
| Investments—Increase | | | x |
| LIABILITIES | x | | |
| Long-Term Debt—Issuance | | | x |
| Minority Interest | | x | |
| Non-Operating Income/Expense | | x | |
| Operating Profit | | x | |
| Other Current Assets | x | | |
| Other Liabilities | x | | |
| Preferred Stock—Redeemable | x | | |
| Purchase of Common and Preferred Stock | | | x |
| Sale of Common and Preferred Stock | | | x |
| Sales | | x | |
| Short-Term Investments—Change | | | x |
| Taxes Payable | x | | |
| Total Current Liabilities | x | | |
| Total Liabilities | x | | |
| Treasury Stock | x | | |

## COMMON SIZE AND OPERATING STRATEGY

### Answers

Construct a Common Income Statement, Common Balance Sheet, and Common Statement of Cash Flows for the following firms. Determine their operating Strategy and discuss the implications.

### Cracker Barrel Old Country Store Inc. CBRL (U.S.: Nasdaq)

| CONSOLIDATED STATEMENTS OF INCOME—USD ($) $ in Thousands | 12 Months Ended | | | | | |
|---|---|---|---|---|---|---|
| | Jul. 28, 2017 | | Aug. 03, 2018 | | Aug. 02, 2019 | |
| CONSOLIDATED STATEMENTS OF INCOME [Abstract] | | | | | | |
| Total revenue | $ 2,926,289 | 100% | $ 3,030,445 | 100% | $ 3,071,951 | 100% |
| Cost of goods sold (exclusive of depreciation and rent) | 891,293 | 30% | 935,397 | 31% | 931,077 | 30% |
| **Labor and other related expenses** | **1,017,124** | **35%** | **1,055,811** | **35%** | **1,078,751** | **35%** |
| Other store operating expenses | 563,300 | 19% | 601,889 | 20% | 626,453 | 20% |
| Store operating income | 454,572 | 16% | 437,348 | 14% | 435,670 | 14% |
| **General and administrative expenses** | **141,414** | **5%** | **143,756** | **5%** | **152,826** | **5%** |
| **Operating income** | **313,158** | **11%** | **293,592** | **10%** | **282,844** | **9%** |
| **Interest expense** | **14,271** | **0%** | **15,169** | **1%** | **16,488** | **1%** |
| Income before income taxes | 298,887 | 10% | 278,423 | 9% | 266,356 | 9% |
| Provision for income taxes | 96,988 | 3% | 30,803 | 1% | 42,955 | 1% |
| **Net income** | **$ 201,899** | **7%** | **$ 247,620** | **8%** | **$ 223,401** | **7%** |
| Net income per share—basic (in dollars per share) | $ 8.40 | | $ 10.31 | | $ 9.29 | |
| Net income per share—diluted (in dollars per share) | $ 8.37 | | $ 10.29 | | $ 9.27 | |
| Basic weighted average shares outstanding (in shares) | 24,031,810 | | 24,011,161 | | 24,037,272 | |
| Diluted weighted average shares outstanding (in shares) | 24,118,288 | | 24,075,614 | | 24,096,396 | |
| Tax Rate | | 32% | | 11% | | 16% |

| CONSOLIDATED BALANCE SHEETS— USD ($) $ in Thousands | Aug. 03, 2018 | | Aug. 02, 2019 | |
|---|---|---|---|---|
| **Current Assets:** | | | | |
| **Cash and cash equivalents** | **$ 114,656** | **8%** | **$ 36,884** | **2%** |
| Accounts receivable | 19,496 | 1% | 22,757 | 1% |
| Income taxes receivable | 0 | 0% | 9,449 | 1% |
| Inventories | 156,253 | 10% | 154,958 | 10% |
| Prepaid expenses and other current assets | 16,347 | 1% | 18,332 | 1% |
| Total current assets | 306,752 | 20% | 242,380 | 15% |
| **Property and Equipment:** | | | | |
| **Land** | **307,207** | **20%** | **307,238** | **19%** |
| **Buildings and improvements** | **861,949** | **56%** | **881,705** | **56%** |
| Buildings under capital leases | 3,289 | 0.2% | 3,289 | 0.2% |
| **Restaurant and other equipment** | **658,978** | **43%** | **723,851** | **46%** |
| **Leasehold improvements** | **353,329** | **23%** | **385,340** | **24%** |
| Construction in progress | 27,849 | 2% | 11,392 | 1% |
| **Total** | **2,212,601** | **145%** | **2,312,815** | **146%** |
| Less: Accumulated depreciation and amortization of capital leases | 1,063,466 | 70% | 1,143,850 | 72% |
| **Property and equipment—net** | **1,149,135** | **75%** | **1,168,965** | **74%** |
| Investment in unconsolidated subsidiary | 0 | 0.0% | 89,100 | 6% |
| Other assets | 71,468 | 5% | 80,780 | 5% |
| **Total** | **1,527,355** | **100%** | **1,581,225** | **100%** |
| **Current Liabilities:** | | | | |
| Accounts payable | 122,332 | 8% | 132,221 | 8% |
| Taxes withheld and accrued | 37,069 | 2% | 38,196 | 2% |
| Accrued employee compensation | 60,562 | 4% | 67,879 | 4% |
| Accrued employee benefits | 25,416 | 2% | 24,927 | 2% |
| Deferred revenue | 76,292 | 5% | 81,734 | 5% |

| CONSOLIDATED BALANCE SHEETS— USD ($) $ in Thousands | Aug. 03, 2018 | | Aug. 02, 2019 | |
|---|---|---|---|---|
| Dividend payable | 31,117 | 2% | 32,144 | 2% |
| Other current liabilities | 11,831 | 1% | 15,373 | 1% |
| Total current liabilities | 364,619 | 24% | 392,474 | 25% |
| **Long-term debt** | **400,000** | **26%** | **400,000** | **25%** |
| Long-term interest rate swap liability | 0 | 0% | 10,483 | 1% |
| Other long-term obligations | 128,794 | 8% | 129,439 | 8% |
| Deferred income taxes | 52,161 | 3% | 44,119 | 3% |
| Commitments and Contingencies (Notes 10 and 16) | | | | |
| **Shareholders' Equity:** | | | | |
| Preferred stock— 100,000,000 shares of $0.01 par value authorized; 300,000 shares designated as Series A Junior Participating Preferred Stock; no shares issued | 0 | 0.00% | 0 | 0.00% |
| Common stock— 400,000,000 shares of $0.01 par value authorized; 2019— 24,049,240 shares issued and outstanding; 2018—24,011,550 shares issued and outstanding | 240 | 0.02% | 241 | 0.02% |
| Additional paid-in capital | 44,049 | 3% | 49,732 | 3% |
| Accumulated other comprehensive income (loss) | 4,685 | 0.3% | **(6,913)** | **–0.44%** |
| Retained earnings | 532,807 | 35% | 561,650 | 36% |
| **Total shareholders' equity** | **581,781** | **38%** | **604,710** | **38%** |
| **Total** | **$ 1,527,355** | **100%** | **$ 1,581,225** | 100% |

| CONSOLIDATED STATEMENTS OF CASH FLOWS ($) in Thousands | 12 Months Ended Jul. 28, 2017 | | Aug. 03, 2018 | | Aug. 02, 2019 | |
|---|---|---|---|---|---|---|
| **Cash flows from operating activities:** | | | | | | |
| Net income | $ 201,899 | 63% | $ 247,620 | 75% | $ 223,401 | 62% |
| Adjustments to reconcile net income to net cash provided by operating activities: | | | | | | |
| **Depreciation and amortization** | **86,319** | **27%** | **93,692** | **28%** | **107,537** | **30%** |
| Loss on disposition of property and equipment | 5,585 | 2% | 7,119 | 2% | 10,265 | 3% |
| Share-based compensation | 8,458 | 3% | 6,977 | 2% | 8,181 | 2% |
| Excess tax benefit from share-based compensation | (2,636) | –1% | 0 | 0% | 0 | 0% |
| **Changes in assets and liabilities:** | | | | | | |
| Accounts receivable | 1,273 | 0.4% | (1,380) | –0.4% | (3,261) | –1% |
| Income taxes receivable | 14,555 | 5% | 4,265 | 1% | (9,449) | –3% |
| Inventories | (4,059) | –1% | 114 | 0.03% | 1,295 | 0.4% |
| Prepaid expenses and other current assets | (1,274) | –0.4% | (500) | –0.15% | (1,985) | –1% |
| Other assets | (4,344) | –1% | (1,400) | –0.4% | 2,852 | 1% |
| Accounts payable | (14,098) | –4% | 3,937 | 1% | 9,889 | 3% |
| Taxes withheld and accrued | (836) | –0.3% | 344 | 0.1% | 1,127 | 0.3% |
| Accrued employee compensation | 9,752 | 3% | (10,389) | –3% | 7,311 | 2% |
| Accrued employee benefits | (1,169) | –0.4% | (1,343) | –0.4% | (489) | –0.1% |

| CONSOLIDATED STATEMENTS OF CASH FLOWS ($) in Thousands | 12 Months Ended Jul. 28, 2017 | | Aug. 03, 2018 | | Aug. 02, 2019 | |
|---|---|---|---|---|---|---|
| Deferred revenues | 8,348 | 3% | 3,916 | 1% | 5,442 | 2% |
| Other current liabilities | 4,470 | 1% | (8,121) | −2% | 3,492 | 1% |
| Other long-term obligations | 3,461 | 1% | 157 | 0.0% | 1,362 | 0% |
| Deferred income taxes | 5,063 | 2% | (14,388) | −4% | (4,174) | −1% |
| **Net cash provided by operating activities** | **320,767** | **100%** | **330,620** | **100%** | **362,796** | **100%** |
| Cash flows from investing activities: | | | | | | |
| **Purchase of property and equipment** | **(110,591)** | **101%** | **(152,249)** | 101% | **(138,293)** | 69% |
| Proceeds from insurance recoveries of property and equipment | 483 | −0.4% | 616 | −0.41% | 753 | −0.4% |
| Proceeds from sale of property and equipment | 503 | −0.5% | 411 | −0.27% | 151 | −0.1% |
| Purchase of investment in unconsolidated subsidiary | 0 | 0.0% | 0 | 0% | (89,100) | 45% |
| Notes receivable from unconsolidated subsidiary | 0 | 0.0% | 0 | 0% | (15,085) | 8% |
| **Net cash used in investing activities** | **(109,605)** | **100%** | **(151,222)** | **100%** | **(241,574)** | 121% |
| **Cash flows from financing activities:** | | | | | | |
| **Proceeds from issuance of long-term debt** | **0** | 0% | **0** | 0% | **400,000** | −201% |
| (Taxes withheld) and proceeds from issuance of share-based compensation awards, net | (6,896) | 3% | (3,816) | 2% | (2,497) | 1% |
| **Principal payments under long-term debt** | **0** | 0% | **0** | 0% | **(400,000)** | 201% |

*(Continued)*

| CONSOLIDATED STATEMENTS OF CASH FLOWS ($) in Thousands | 12 Months Ended Jul. 28, 2017 | | Aug. 03, 2018 | | Aug. 02, 2019 | |
|---|---|---|---|---|---|---|
| Purchases and retirement of common stock | 0 | 0% | (14,772) | 7% | 0 | 0% |
| Deferred financing costs | 0 | 0% | 0 | 0% | (3,022) | 2% |
| **Dividends on common stock** | **(196,867)** | **98%** | **(207,155)** | **92%** | **(193,475)** | 97% |
| Excess tax benefit from share-based compensation | 2,636 | −1% | 0 | 0% | 0 | 0% |
| **Net cash used in financing activities** | **(201,127)** | 100% | **(225,743)** | **100%** | **(198,994)** | **100%** |
| Net (decrease) increase in cash and cash equivalents | 10,035 | | (46,345) | | (77,772) | |
| Cash and cash equivalents, beginning of year | 150,966 | | 161,001 | | 114,656 | |
| Cash and cash equivalents, end of year | 161,001 | | 114,656 | | 36,884 | |
| **Cash paid during the year for:** | | | | | | |
| Interest, net of amounts capitalized | 12,847 | | 17,272 | | 12,100 | |
| **Income taxes** | **78,092** | | **43,471** | | **56,450** | |
| **Supplemental schedule of non-cash investing and financing activities:** | | | | | | |
| Capital expenditures accrued in accounts payable | 6,743 | | 8,183 | | 9,508 | |
| Change in fair value of interest rate swaps | 15,402 | | 13,103 | | (15,466) | |
| Change in deferred tax asset for interest rate swaps | (5,891) | | (4,189) | | 3,868 | |
| Dividends declared but not yet paid | $ 31,296 | | $ 31,784 | | $ 32,859 | |

## Denny's Corp. (U.S.: Nasdaq)

| CONSOLIDATED STATEMENTS OF INCOME—USD ($) shares in Thousands, $ in Thousands | 12 Months Ended | | | | | |
|---|---|---|---|---|---|---|
| | Dec. 27, 2017 | | Dec. 26, 2018 | | Dec. 25, 2019 | |
| **Revenue:** | | | | | | |
| Revenue | $ 529,169 | 100% | $ 630,179 | 100% | $ 541,389 | 100% |
| **Costs of company restaurant sales:** | | | | | | |
| **Product costs** | **97,825** | **18%** | **100,532** | **16%** | **74,720** | **14%** |
| Payroll and benefits | 153,037 | 29% | 164,314 | 26% | 118,806 | 22% |
| Occupancy | 20,802 | 4% | 23,228 | 4% | 18,613 | 3% |
| Other operating expenses | 53,049 | 10% | 60,708 | 10% | 46,257 | 9% |
| **Total costs of company restaurant sales** | **324,713** | **61%** | **348,782** | **55%** | **258,396** | **48%** |
| Costs of franchise and license revenue | 39,294 | 7% | 114,296 | 18% | 120,326 | 22% |
| **General and administrative expenses** | **66,415** | **13%** | **63,828** | **10%** | **69,018** | **13%** |
| **Depreciation and amortization** | **23,720** | **4%** | **27,039** | **4%** | **19,846** | **4%** |
| Operating (gains), losses, and other charges, net | 4,329 | 1% | 2,620 | 0% | (91,180) | −17% |
| Total operating costs and expenses, net | 458,471 | 87% | 556,565 | 88% | 376,406 | 70% |
| **Operating income** | **70,698** | **13%** | **73,614** | **12%** | **164,983** | **30%** |
| **Interest expense, net** | **15,640** | **3%** | **20,745** | **3%** | **18,547** | **3%** |
| Other nonoperating (income) expense, net | (1,743) | 0% | 619 | 0% | (2,763) | −1% |
| **Net income before income taxes** | **56,801** | **11%** | **52,250** | **8%** | **149,199** | **28%** |
| Provision for income taxes | 17,207 | 3% | 8,557 | 1% | 31,789 | 6% |
| **Net income** | **$ 39,594** | **7%** | **$ 43,693** | **7%** | **$ 117,410** | **22%** |
| Basic net income per share (in dollars per share) | $ 0.58 | 0% | $ 0.69 | 0% | $ 1.96 | 0% |
| Diluted net income per share (in dollars per share) | $ 0.56 | 0% | $ 0.67 | 0% | $ 1.90 | 0% |
| Basic weighted average shares outstanding | 68,077 | 13% | 63,364 | 10% | 59,944 | 11% |
| Diluted weighted average shares outstanding | 70,403 | 13% | 65,562 | 10% | 61,833 | 11% |
| | | | | | | |
| **Company restaurant revenue** | **$ 390,352** | **74%** | **$ 411,932** | **65%** | **$ 306,377** | **57%** |
| **Franchise and license revenue** | **$ 138,817** | **26%** | **$ 218,247** | **35%** | **$ 235,012** | **43%** |
| **Total Revenue** | $ 529,169 | 100% | $ 630,179 | 100% | $ 541,389 | 100% |

| CONSOLIDATED BALANCE SHEETS—USD ($) $ in Thousands | Dec. 26, 2018 | | Dec. 25, 2019 | |
|---|---|---|---|---|
| **Current assets:** | | | | |
| **Cash and cash equivalents** | **$ 5,026** | **1%** | **$ 3,372** | **1%** |
| Investments | 1,709 | 1% | 3,649 | 1% |
| Receivables, net | 26,283 | 8% | 27,488 | 6% |
| Inventories | 2,993 | 1% | 1,325 | 0.3% |
| Assets held for sale | 723 | 0.2% | 1,925 | 0.4% |
| Prepaid and other current assets | 10,866 | 3% | 14,974 | 3% |
| Total current assets | 47,600 | 14% | 52,733 | 11% |
| **Property, net of accumulated depreciation of $147,445 and $226,620, respectively** | **117,251** | **35%** | **97,626** | **21%** |
| Financing lease right-of-use assets, net of accumulated amortization of $8,468 and $15,526, respectively | | | 11,720 | 3% |
| Financing lease right-of-use assets, net of accumulated amortization of $8,468 and $15,526, respectively | 22,753 | 7% | | |
| Operating lease right-of-use assets, net | | | 158,550 | 34% |
| Goodwill | 39,781 | 12% | 36,832 | 8% |
| Intangible assets, net | 59,067 | 18% | 53,956 | 12% |
| Deferred financing costs, net | 2,335 | 1% | 1,727 | 0.4% |
| Deferred income taxes, net | 17,333 | 5% | 14,718 | 3% |
| Other noncurrent assets | 29,229 | 9% | 32,525 | 7% |
| **Total assets** | **335,349** | **100%** | **460,387** | **100%** |
| **Current liabilities:** | | | | |
| Current finance lease liabilities | | | 1,674 | 0.3% |
| Current finance lease liabilities | 3,410 | 1% | | |
| Current operating lease liabilities | | 0% | 16,344 | 3% |

| CONSOLIDATED BALANCE SHEETS—USD<br>($) $ in Thousands | Dec. 26, 2018 | | Dec. 25, 2019 | |
|---|---|---|---|---|
| Accounts payable | 29,527 | 6% | 20,256 | 3% |
| Other current liabilities | 61,790 | 13% | 57,307 | 10% |
| Total current liabilities | 94,727 | 20% | 95,581 | 16% |
| **Long-term liabilities:** | | | | |
| Long-term debt | 286,500 | 61% | 240,000 | 40% |
| Noncurrent finance lease liabilities | | | 14,779 | 2% |
| Noncurrent finance lease liabilities | 27,181 | 6% | | |
| Noncurrent operating lease liabilities | | | 152,750 | 26% |
| Liability for insurance claims, less current portion | 12,199 | 3% | 11,454 | 2% |
| Other noncurrent liabilities | 48,087 | 10% | 83,887 | 14% |
| Total long-term liabilities | 373,967 | 80% | 502,870 | 84% |
| **Total liabilities** | **468,694** | **100%** | **598,451** | **100%** |
| Commitments and contingencies | | | | |
| **Shareholders' deficit** | | | | |
| Common stock $0.01 par value; shares authorized—135,000; December 25, 2019: 109,415 shares issued and 57,095 shares outstanding; December 26, 2018: 108,585 shares issued and 61,533 shares outstanding | 1,086 | 0.3% | 1,094 | 0.2% |
| Paid-in capital | 592,944 | 177% | 603,980 | 131.2% |
| Deficit | (306,414) | **–91%** | (189,398) | **–41.1%** |
| Accumulated other comprehensive loss, net of tax | (4,146) | **–1%** | (33,960) | **–7.4%** |
| Treasury stock, at cost, 52,320 and 47,052 shares, respectively | (416,815) | **–124%** | (519,780) | **–112.9%** |
| **Total shareholders' deficit** | **(133,345)** | **–40%** | **(138,064)** | **–30.0%** |
| **Total liabilities and shareholders' deficit** | **335349** | **100%** | **460387** | **100%** |

| CONSOLIDATED STATEMENTS OF CASH FLOWS—USD ($) $ in Thousands | 12 Months Ended | | | | | |
|---|---|---|---|---|---|---|
| | Dec. 27, 2017 | | Dec. 26, 2018 | | Dec. 25, 2019 | |
| **Cash flows from operating activities:** | | | | | | |
| Net income | $ 39,594 | 51% | $ 43,693 | 59% | $ 117,410 | **22%** |
| **Adjustments to reconcile net income to cash flows provided by operating activities:** | | | | | | |
| **Depreciation and amortization** | **23,720** | **30%** | **27,039** | **37%** | **19,846** | **46%** |
| Operating (gains), losses, and other charges, net | 4,329 | 6% | 2,620 | 4% | (91,180) | **−210%** |
| Amortization of deferred financing costs | 596 | 1% | 607 | 1% | 608 | 1% |
| Gains on investments | 0 | 0.0% | (9) | 0.0% | (180) | −0.4% |
| (Gains) losses on early extinguishments of debt and leases | 130 | 0.2% | (171) | −0.2% | (4) | 0% |
| Deferred income tax expense | 10,271 | 13% | 6,193 | 8% | 16,005 | 37% |
| (Decrease) increase of tax valuation allowance | 216 | 0.3% | 121 | 0.2% | (2,935) | −7% |
| Share-based compensation | 8,541 | 11% | 6,038 | 8% | 6,694 | 15% |
| **Changes in assets and liabilities:** | | | | | | |
| Receivables | (807) | −1% | (4,722) | −6% | (2,030) | −5% |
| Inventories | (192) | −0.2% | 141 | 0.2% | 1,668 | 4% |
| Other current assets | (2,380) | −3% | 921 | 1% | (4,108) | −9% |
| Other assets | (6,327) | −8% | 2 | 0.0% | (4,581) | −11% |
| Operating lease assets/liabilities | | | | | (601) | −1% |
| Accounts payable | 10,025 | 13% | (5,147) | −7% | (5,170) | −12% |
| Accrued salaries and vacations | (6,446) | −8% | 2,175 | 3% | (3,826) | −9% |
| Accrued taxes | (23) | −0.03% | 283 | 0.4% | (2,043) | −5% |
| Other accrued liabilities | 135 | 0.17% | (1,676) | −2% | (4,144) | −10% |

| CONSOLIDATED STATEMENTS OF CASH FLOWS—USD ($) $ in Thousands | 12 Months Ended | | | | | |
|---|---|---|---|---|---|---|
| | Dec. 27, 2017 | | Dec. 26, 2018 | | Dec. 25, 2019 | |
| Other noncurrent liabilities | (3,113) | −4% | (4,418) | −6% | 1,898 | 4% |
| **Net cash flows provided by operating activities** | **78,269** | **100%** | **73,690** | **100%** | **43,327** | **100%** |
| **Cash flows from investing activities:** | | | | | | |
| **Capital expenditures** | **(18,811)** | **69%** | **(22,025)** | **69%** | **(13,975)** | **−13%** |
| **Acquisition of restaurants and real estate** | **(12,353)** | **46%** | **(10,416)** | **33%** | **(11,320)** | **−11%** |
| **Proceeds from disposition of property** | **2,318** | **−9%** | **3,052** | **−10%** | **129,721** | **124%** |
| Investment purchases | 0 | 0% | (1,700) | 5% | (1,760) | −2% |
| Collections on notes receivable | 4,405 | −16% | 2,740 | −9% | 3,654 | 3% |
| Issuance of notes receivable | (2,706) | 10% | (3,668) | 11% | (1,351) | −1% |
| **Net cash flows provided by (used in) investing activities** | **(27,147)** | **100%** | **(32,017)** | **100%** | **104,969** | **100%** |
| **Cash flows from financing activities:** | | | | | | |
| **Revolver borrowings** | **391,900** | **−804%** | **136,000** | **−327%** | **164,400** | **−110%** |
| **Revolver payments** | **(351,400)** | **721%** | **(108,500)** | **261%** | **(210,900)** | **141%** |
| Long-term debt payments | (3,322) | 7% | (3,181) | 8% | (2,464) | 2% |
| Tax withholding on share-based payments | 0 | 0% | (1,714) | 4% | (3,206) | 2% |
| Deferred financing costs | (1,602) | 3% | 0 | 0% | 0 | 0% |
| **Purchase of treasury stock** | **(83,050)** | **170%** | **(61,237)** | **147%** | **(94,459)** | **63%** |
| Purchase of equity forward contract | 0 | 0% | (6,763) | 16% | 0 | 0% |
| Proceeds from exercise of stock options | 655 | −1% | 1,225 | −3% | 971 | −1% |
| Net bank overdrafts | (1,912) | 4% | 2,540 | −6% | (4,292) | 3% |
| **Net cash flows used in financing activities** | **(48,731)** | **100%** | **(41,630)** | **100%** | **(149,950)** | **100%** |
| (Decrease) increase in cash and cash equivalents | 2,391 | | 43 | | (1,654) | |
| Cash and cash equivalents at beginning of period | 2,592 | | 4,983 | | 5,026 | |
| Cash and cash equivalents at end of period | $ 4,983 | | $ 5,026 | | $ 3,372 | |

## Red Robin Gourmet Burgers Inc. RRGB (U.S.: Nasdaq)

| CONSOLIDATED STATEMENTS OF OPERATIONS AND COMPREHENSIVE (LOSS) INCOME—USD ($) shares in Thousands, $ in Thousands | 12 Months Ended | | | | | |
|---|---|---|---|---|---|---|
| | Dec. 31, 2017 | | Dec. 30, 2018 | | Dec. 29, 2019 | |
| Revenues: | | | | | | |
| **Revenues** | **$ 1,387,566** | **100%** | **$ 1,338,563** | **100%** | **$ 1,315,014** | **100%** |
| **Restaurant operating costs (excluding depreciation and amortization shown separately below):** | | | | | | |
| Cost of sales | 320,355 | 23% | 313,504 | 23% | 303,404 | 23% |
| **Labor (includes $161, $245, and $346 of stock-based compensation)** | **475,432** | **34%** | **456,262** | **34%** | **456,778** | **35%** |
| Other operating | 178,309 | 13% | 182,084 | 14% | 186,476 | 14% |
| Occupancy | 112,753 | 8% | 114,146 | 9% | 111,798 | 9% |
| **Depreciation and amortization** | **92,545** | **7%** | **95,371** | **7%** | **91,790** | **7%** |
| Selling, general, and administrative expenses (includes $3,103, $3,803, and $4,442 of stock-based compensation) | 156,656 | 11% | 146,458 | 11% | 155,978 | 12% |
| Pre-opening costs | 5,570 | 0.4% | 2,092 | 0.2% | 319 | 0.0% |
| Other charges | 6,914 | 0.5% | 39,131 | 3% | 21,598 | 2% |
| Total costs and expenses | 1,348,534 | 97% | 1,349,048 | 101% | 1,328,141 | 101% |
| **(Loss) income from operations** | **39,032** | **3%** | **(10,485)** | **−1%** | **(13,127)** | **−1%** |
| **Other expense (income):** | | | | | | |
| Interest expense and other | 10,955 | 1% | 10,704 | 1% | 10,178 | 1% |
| Interest (income) and other, net | (943) | −0.1% | 221 | 0.02% | (1,068) | 0% |
| Total other expenses | 10,012 | 1% | 10,925 | 1% | 9,110 | 1% |
| (Loss) income before income taxes | 29,020 | 2% | (21,410) | −2% | (22,237) | −2% |

| CONSOLIDATED STATEMENTS OF OPERATIONS AND COMPREHENSIVE (LOSS) INCOME—USD ($) shares in Thousands, $ in Thousands | 12 Months Ended | | | | | |
|---|---|---|---|---|---|---|
| | Dec. 31, 2017 | | Dec. 30, 2018 | | Dec. 29, 2019 | |
| Income tax benefit | (999) | –0.1% | (14,991) | –1% | (14,334) | –1% |
| **Net (loss) income** | **$ 30,019** | **2.16%** | **$ (6,419)** | **–0.48%** | **$ (7,903)** | **–0.60%** |
| **(Loss) earnings per share:** | | | | | | |
| Basic (in dollars per share) | $ 2.33 | | $ (0.49) | | $ (0.61) | |
| Diluted (in dollars per share) | $ 2.31 | | $ (0.49) | | $ (0.61) | |
| **Weighted average shares outstanding:** | | | | | | |
| Basic (in shares) | 12,899 | | 12,976 | | 12,959 | |
| Diluted (in shares) | 12,998 | | 12,976 | | 12,959 | |
| **Other comprehensive income (loss):** | | | | | | |
| Foreign currency translation adjustment | $ 1,442 | | $ (1,235) | | $ 428 | |
| Other comprehensive income (loss), net of tax | 1,442 | | (1,235) | | 428 | |
| **Total comprehensive (loss) income** | **31,461** | **2%** | **(7,654)** | **–1%** | **(7,475)** | |
| Restaurant revenue | | | | | | |
| **Revenues:** | | | | | | |
| Revenues | 1,365,060 | 98% | 1,316,209 | 98% | 1,289,521 | 98% |
| Franchise revenue | | | | | | |
| **Revenues:** | | | | | | |
| Revenues | 17,681 | 1.3% | 17,409 | 1.3% | 17,497 | 1.3% |
| Other revenue | | | | | | |
| **Revenues:** | | | | | | |
| Revenues | $ 4,825 | 0.3% | $ 4,945 | 0.4% | $ 7,996 | 0.6% |
| Total Revenues | 1,387,566 | 100% | 1,338,563 | 100% | 1,315,014 | 100% |

| CONSOLIDATED BALANCE SHEETS—USD ($) $ in Thousands | Dec. 30, 2018 | | Dec. 29, 2019 | |
|---|---|---|---|---|
| **Current assets:** | | | | |
| Cash and cash equivalents | $ 18,569 | 2% | $ 30,045 | 2% |
| Accounts receivable, net | 25,034 | 3% | 22,372 | 2% |
| Inventories | 27,370 | 3% | 26,424 | 2% |
| Prepaid expenses and other current assets | 27,576 | 3% | 26,646 | 2% |
| Total current assets | 98,549 | 12% | 105,487 | 9% |
| **Property and equipment, net** | **565,142** | **67%** | **518,013** | **42%** |
| Right of use assets, net | 0 | 0% | 426,248 | 34% |
| **Goodwill** | **95,838** | **11%** | **96,397** | **8%** |
| Intangible assets, net | 34,609 | 4% | 29,975 | 2% |
| Other assets, net | 49,803 | 6% | 61,460 | 5% |
| **Total assets** | **843,941** | **100%** | **1,237,580** | **100%** |
| **Current liabilities:** | | | | |
| Accounts payable | 39,024 | 8% | 33,040 | 4% |
| Accrued payroll and payroll-related liabilities | 37,922 | 8% | 35,221 | 4% |
| Unearned revenue | 55,360 | 12% | 54,223 | 6% |
| Short-term portion of lease obligations | 786 | 0% | 42,699 | 5% |
| Accrued liabilities and other current liabilities | 38,057 | 8% | 29,403 | 3% |
| Total current liabilities | 171,149 | 37% | 194,586 | 22% |
| Deferred rent | 75,675 | 16% | 0 | 0% |
| **Long-term debt** | **193,375** | **42%** | **206,875** | **24%** |
| **Long-term portion of lease obligations** | **9,414** | **2%** | **465,435** | **53%** |
| Other non-current liabilities | 11,523 | 2% | 10,164 | 1% |
| **Total liabilities** | **461,136** | **100%** | **877,060** | 100% |
| **Stockholders' equity:** | | | | |
| Common stock; $0.001 par value: 45,000 shares authorized; 17,851 shares issued; 12,923 and 12,971 shares outstanding | 18 | | 18 | |
| Preferred stock, $0.001 par value: 3,000 shares authorized; no shares issued and outstanding | 0 | | 0 | |
| Treasury stock 4,928 and 4,880 shares, at cost | (201,505) | **−53%** | (202,313) | −56% |
| Paid-in capital | 212,752 | **56%** | 213,922 | 59% |
| Accumulated other comprehensive loss, net of tax | (4,801) | **−1%** | (4,373) | −1% |
| **Retained earnings** | **376,341** | **98%** | **353,266** | **98%** |
| **Total stockholders' equity** | **382,805** | **100%** | **360,520** | **100%** |
| **Total liabilities and stockholders' equity** | **$ 843,941** | | **$ 1,237,580** | |

| CONSOLIDATED STATEMENTS OF CASH FLOWS—USD ($) $ in Thousands | 12 Months Ended | | | | | |
|---|---|---|---|---|---|---|
| | Dec. 31, 2017 | | Dec. 30, 2018 | | Dec. 29, 2019 | |
| **Cash Flows from Operating Activities:** | | | | | | |
| Net income | $ 30,019 | 19% | $ (6,419) | −5% | $ (7,903) | −14% |
| **Adjustments to reconcile net income to net cash provided by operating activities:** | | | | | | 0% |
| **Depreciation and amortization** | **92,545** | **59%** | **95,371** | **76%** | **91,790** | 158% |
| Gift card breakage | (4,026) | −3% | (3,898) | −3% | (6,776) | −12% |
| **Other charges—asset impairment and unpaid other charges** | **6,914** | **4%** | **35,715** | **28%** | **1,473** | 3% |
| **Deferred income tax benefit** | **(6,478)** | **−4%** | **(18,613)** | **−15%** | **(9,640)** | −17% |
| Stock-based compensation expense | 4,788 | 3% | 4,048 | 3% | 3,344 | 6% |
| Other, net | 1,043 | 1% | 1,052 | 1% | 678 | 1% |
| **Changes in operating assets and liabilities:** | | | | | | |
| Accounts receivable | (609) | −0.4% | 2,922 | 2% | 2,766 | 5% |
| Prepaid expenses and other current assets | (4,105) | −3% | 5,918 | 5% | (8,240) | −14% |
| **Trade accounts payable and accrued liabilities** | **21,022** | **13%** | **5,685** | **5%** | **(15,490)** | **−27%** |
| Unearned revenue | 9,701 | 6% | 3,397 | 3% | 5,632 | 10% |
| Other operating assets and liabilities, net | 5,793 | 4% | 1,117 | 1% | 281 | 0.5% |
| **Net cash provided by operating activities** | **156,607** | **100%** | **126,295** | **100%** | **57,915** | **100%** |
| **Cash Flows from Investing Activities:** | | | | | | |
| **Purchases of property, equipment, and intangible assets** | **(83,531)** | **100.3%** | **(50,271)** | **100.9%** | **(57,309)** | **100.5%** |

*(Continued)*

| CONSOLIDATED STATEMENTS OF CASH FLOWS—USD ($) $ in Thousands | 12 Months Ended | | | | | |
|---|---|---|---|---|---|---|
| | Dec. 31, 2017 | | Dec. 30, 2018 | | Dec. 29, 2019 | |
| Proceeds from sales of real estate and property, plant, and equipment and other | 241 | −0.3% | 435 | −0.9% | 279 | −0.5% |
| **Net cash used in investing activities** | **(83,290)** | 100% | **(49,836)** | 100.0% | **(57,030)** | 100.0% |
| **Cash Flows from Financing Activities:** | | | | | | |
| **Borrowings of long-term debt** | **186,550** | **−275%** | **215,500** | **−290%** | **273,500** | 2826% |
| Repayment of long-term debt and finance lease obligations | | | | | (261,063) | −2697% |
| **Payments of long-term debt and finance leases** | **(257,215)** | **379%** | **(289,238)** | **389%** | | 0% |
| Purchase of treasury stock | 0 | 0% | (1,474) | **2%** | (3,450) | −36% |
| Debt issuance costs | (664) | 1% | 0 | **0%** | (33) | −0.3% |
| Proceeds from exercise of stock options and employee stock purchase plan | 3,405 | −5% | 914 | **−1%** | 724 | 7% |
| **Net cash provided by (used in) financing activities** | **(67,924)** | **100%** | **(74,298)** | **100%** | **9,678** | **100%** |
| Effect of currency translation on cash | 589 | | (1,306) | | 913 | |
| Net increase in cash and cash equivalents | 5,982 | | 855 | | 11,476 | |
| Cash and cash equivalents, beginning of period | 11,732 | | 17,714 | | 18,569 | |
| Cash and cash equivalents, end of period | 17,714 | | 18,569 | | 30,045 | |
| **Supplemental disclosure of cash flow information:** | | | | | | |
| Income taxes paid | 3,999 | | 2,486 | | 3,237 | |
| Interest paid, net of amounts capitalized | 10,372 | | 10,013 | | 9,750 | |
| Change in accrued capital expenditures | $ (5,951) | | $ (507) | | (3,910) | |
| Right of use assets obtained in exchange for finance lease obligations following the adoption of Topic 842 (Leases) | | | | | $ 1,606 | |

| CONSOLIDATED STATEMENTS OF INCOME AND COMPREHENSIVE INCOME—USD ($)shares in Thousands, $ in Thousands | 12 Months Ended | | | | | |
|---|---|---|---|---|---|---|
| | Dec. 26, 2017 | | Dec. 25, 2018 | | Dec. 31, 2019 | |
| **Revenue:** | | | | | | |
| Revenue | $ 2,219,531 | 100% | $ 2,457,449 | 100% | $ 2,756,163 | 100% |
| **Restaurant operating costs (excluding depreciation and amortization shown separately below):** | | | | | | |
| **Cost of sales** | **721,550** | **33%** | **795,300** | **32%** | **883,357** | **32%** |
| Labor | 687,545 | 31% | 793,384 | 32% | 905,614 | 33% |
| Rent | 44,807 | 2% | 48,791 | 2% | 52,531 | 2% |
| Other operating | 342,702 | 15% | 375,477 | 15% | 418,448 | 15% |
| Pre-opening | 19,274 | 1% | 19,051 | 1% | 20,156 | 1% |
| **Depreciation and amortization** | **93,499** | **4%** | **101,216** | **4%** | **115,544** | **4%** |
| Impairment and closure, net | 654 | 0.03% | 278 | 0% | (899) | 0% |
| **General and administrative** | **123,294** | **6%** | **136,163** | **6%** | **149,389** | **5%** |
| Total costs and expenses | 2,033,325 | 92% | 2,269,660 | 92% | 2,544,140 | 92% |
| **Income from operations** | **186,206** | **8%** | **187,789** | **8%** | **212,023** | **8%** |
| Interest income (expense), net | (1,577) | −0.1% | (591) | −0.02% | 1,514 | 0.1% |
| Equity income from investments in unconsolidated affiliates | 1,488 | 0% | 1,353 | 0.1% | 378 | 0.0% |
| Income before taxes | 186,117 | 8% | 188,551 | 8% | 213,915 | 8% |
| Provision for income taxes | 48,581 | 2% | 24,257 | 1% | 32,397 | 1% |
| Net income including noncontrolling interests | 137,536 | 6% | 164,294 | 7% | 181,518 | 7% |
| Less: Net income attributable to noncontrolling interests | 6,010 | 0.3% | 6,069 | 0.2% | 7,066 | 0.3% |

*(Continued)*

| CONSOLIDATED STATEMENTS OF INCOME AND COMPREHENSIVE INCOME—USD ($) shares in Thousands, $ in Thousands | 12 Months Ended | | | | | |
|---|---|---|---|---|---|---|
| | Dec. 26, 2017 | | Dec. 25, 2018 | | Dec. 31, 2019 | |
| Net income attributable to Texas Roadhouse, Inc. and subsidiaries | 131,526 | 6% | 158,225 | 6% | 174,452 | 6% |
| **Other comprehensive income (loss), net of tax:** | | | | | | |
| Foreign currency translation adjustment, net of tax of ($1), $53 and ($97), respectively | 155 | 0.01% | (189) | –0.01% | 3 | 0.00% |
| **Total comprehensive income** | **$ 131,681** | **6%** | **$ 158,036** | **6%** | **$ 174,455** | **6%** |
| **Net income per common share attributable to Texas Roadhouse, Inc. and subsidiaries:** | | | | | | |
| Basic | $ 1.85 | | $ 2.21 | | $ 2.47 | |
| Diluted | $ 1.84 | | $ 2.20 | | $ 2.46 | |
| **Weighted average shares outstanding:** | | | | | | |
| Basic | 70,989 | | 71,467 | | 70,509 | |
| Diluted | 71,527 | | 71,964 | | 70,916 | |
| Cash dividends declared per share | $ 0.84 | | $ 1 | | $ 1.20 | |
| Restaurant and other sales **Revenue:** | | | | | | |
| Revenue | $ 2,203,017 | 99.3% | $ 2,437,115 | 99.2% | $ 2,734,177 | 99.2% |
| Franchise royalties and fees **Revenue:** | | | | | | |
| Revenue | $ 16,514 | 0.7% | $ 20,334 | 0.8% | $ 21,986 | 0.8% |
| Total Revenue | $ 2,219,531 | 100.0% | $ 2,457,449 | 100.0% | $ 2,756,163 | 100.0% |

| CONSOLIDATED BALANCE SHEETS—USD ($)<br>$ in Thousands | Dec. 25, 2018 | | Dec. 31, 2019 | |
|---|---|---|---|---|
| **Current assets:** | | | | |
| **Cash and cash equivalents** | **$ 210,125** | **14%** | **$ 107,879** | **5%** |
| Receivables, net of allowance for doubtful accounts of $12 at December 31, 2019 and $34 at December 25, 2018 | 92,114 | 6% | 99,305 | 5% |
| Inventories, net | 18,827 | 1% | 20,267 | 1% |
| Prepaid income taxes | 7,569 | 1% | 2,015 | 0.1% |
| Prepaid expenses | 16,384 | 1% | 18,433 | 1% |
| Total current assets | 345,019 | 23% | 247,899 | 12% |
| **Property and equipment, net of accumulated depreciation of $678,988 at December 31, 2019 and $602,451 at December 25, 2018** | **956,676** | **65%** | **1,056,563** | **53%** |
| **Operating lease right-of-use assets** | | **0%** | **499,801** | **25%** |
| Goodwill | 123,220 | 8% | 124,748 | 6% |
| Intangible assets, net of accumulated amortization of $14,141 at December 31, 2019 and $13,416 at December 25, 2018 | 1,959 | 0.1% | 1,234 | 0% |
| Other assets | 42,402 | 3% | 53,320 | 3% |
| **Total assets** | **1,469,276** | **100%** | **1,983,565** | **100%** |
| **Current liabilities:** | | | | |
| Current portion of operating lease liabilities | | | 17,263 | 2% |
| Accounts payable | 62,060 | 12% | 61,653 | 6% |
| Deferred revenue-gift cards | 192,242 | 38% | 209,258 | 20% |
| Accrued wages | 34,159 | 7% | 39,699 | 4% |

*(Continued)*

| CONSOLIDATED BALANCE SHEETS—USD ($)<br>$ in Thousands | Dec. 25, 2018 | | Dec. 31, 2019 | |
|---|---|---|---|---|
| Accrued taxes and licenses | 24,631 | 5% | 30,433 | 3% |
| Dividends payable | 17,904 | 4% | | 0% |
| Other accrued liabilities | 54,146 | 11% | 58,914 | 6% |
| Total current liabilities | 385,142 | 76% | 417,220 | 40% |
| **Operating lease liabilities, net of current portion** | | | **538,710** | **51%** |
| Restricted stock and other deposits | 7,703 | 2% | 8,249 | 1% |
| Deferred rent | 48,079 | 9% | | 0% |
| Deferred tax liabilities, net | 17,268 | 3% | 22,695 | 2% |
| Other liabilities | 50,376 | 10% | 65,522 | 6% |
| **Total liabilities** | **508,568** | **100%** | **1,052,396** | **100%** |
| **Texas Roadhouse, Inc. and subsidiaries stockholders' equity:** | | | | |
| Preferred stock ($0.001 par value, 1,000,000 shares authorized; no shares issued or outstanding) | | | | |
| Common stock ($0.001 par value, 100,000,000 shares authorized, 69,400,252 and 71,617,510 shares issued and outstanding at December 31, 2019 and December 25, 2018, respectively) | 72 | | 69 | |
| Additional paid-in-capital | 257,388 | 27% | 140,501 | 15% |
| **Retained earnings** | **688,337** | **72%** | **775,649** | **83%** |
| Accumulated other comprehensive loss | (228) | 0% | (225) | 0% |
| **Total Texas Roadhouse, Inc. and subsidiaries stockholders' equity** | **945,569** | **98%** | **915,994** | **98%** |
| Noncontrolling interests | 15,139 | 2% | 15,175 | 2% |
| **Total equity** | **960,708** | **100%** | **931,169** | **100%** |
| **Total liabilities and equity** | **$ 1,469,276** | | **$ 1,983,565** | |

| CONSOLIDATED STATEMENTS OF CASH FLOWS—USD ($) $ in Thousands | 12 Months Ended | | | | | |
|---|---|---|---|---|---|---|
| | Dec. 26, 2017 | | Dec. 25, 2018 | | Dec. 31, 2019 | |
| **Cash flows from operating activities:** | | | | | | |
| Net income including noncontrolling interests | $ 137,536 | 48% | $ 164,294 | 47% | $ 181,518 | 48% |
| **Adjustments to reconcile net income to net cash provided by operating activities:** | | | | | | 0% |
| **Depreciation and amortization** | **93,499** | **33%** | **101,216** | **29%** | **115,544** | **31%** |
| Deferred income taxes | (5,069) | −2% | 12,319 | 3% | 6,335 | 2% |
| Loss on disposition of assets | 4,961 | 2% | 6,008 | 2% | 5,885 | 2% |
| Impairment and closure costs | 600 | 0.2% | 105 | 0% | (1,283) | 0% |
| Contribution from executive officer | | 0% | 1,000 | 0.3% | | 0% |
| Equity income from investments in unconsolidated affiliates | (1,488) | −1% | (1,353) | −0.4% | (378) | −0.1% |
| Distributions of income received from investments in unconsolidated affiliates | 1,424 | 0% | 656 | 0.2% | 1,837 | 0.5% |
| Provision for doubtful accounts | 10 | 0.0% | (9) | 0.0% | (22) | 0.0% |
| **Share-based compensation expense** | **26,934** | **9%** | **33,983** | **10%** | **35,500** | 9% |
| **Changes in operating working capital:** | | | | | | |
| Receivables | (20,379) | −7% | (15,597) | −4% | (5,774) | −2% |
| Inventories | (48) | −0.02% | (2,495) | −1% | (1,414) | −0.4% |
| Prepaid expenses | (1,211) | −0.42% | (3,023) | −1% | (2,049) | −1% |
| Other assets | (7,401) | −3% | (4,290) | −1% | (12,823) | −3% |
| Accounts payable | 1,601 | 1% | 8,882 | 3% | 407 | 0.1% |

*(Continued)*

| CONSOLIDATED STATEMENTS OF CASH FLOWS—USD ($) $ in Thousands | 12 Months Ended | | | | | |
|---|---|---|---|---|---|---|
| | Dec. 26, 2017 | | Dec. 25, 2018 | | Dec. 31, 2019 | |
| Deferred revenue-gift cards | 26,678 | 9% | 35,519 | 10% | 16,991 | 5% |
| Accrued wages | 3,639 | 1% | 4,481 | 1% | 5,540 | 1% |
| Prepaid income taxes and income taxes payable | 3,448 | 1% | (8,581) | −2% | 5,554 | 1% |
| Accrued taxes and licenses | 2,299 | 1% | 2,634 | 1% | 5,802 | 2% |
| Other accrued liabilities | 5,148 | 2% | 7,569 | 2% | (3,773) | −1% |
| Operating lease right-of-use assets and lease liabilities | | 0% | | | 5,826 | 2% |
| Deferred rent | 6,038 | 2% | 5,938 | 2% | | 0% |
| Other liabilities | 8,154 | 3% | 3,612 | 1% | 15,075 | 4% |
| **Net cash provided by operating activities** | **286,373** | **100%** | **352,868** | **100%** | **374,298** | **100%** |
| **Cash flows from investing activities:** | | | | | | |
| **Capital expenditures-property and equipment** | **(161,628)** | **91%** | **(155,980)** | **99%** | **(214,340)** | **100%** |
| Acquisition of franchise restaurants, net of cash acquired | (16,528) | 9% | (2,165) | 1% | (1,536) | 1% |
| Proceeds from sale of property and equipment | | 0% | | 0% | 1,056 | −0.5% |
| **Net cash used in investing activities** | **(178,156)** | **100%** | **(158,145)** | **100%** | **(214,820)** | **100%** |
| **Cash flows from financing activities:** | | | | | | |
| Debt issuance costs | (476) | 1% | | | | |
| Proceeds from noncontrolling interest contribution | 3,457 | −5% | 2,551 | −2% | | |
| Distributions to noncontrolling interest holders | (5,171) | 7% | (5,746) | 4% | (6,357) | 2% |

| CONSOLIDATED STATEMENTS OF CASH FLOWS—USD ($) $ in Thousands | 12 Months Ended | | | | | |
|---|---|---|---|---|---|---|
| | Dec. 26, 2017 | | Dec. 25, 2018 | | Dec. 31, 2019 | |
| Acquisition of noncontrolling interest | | 0% | (122) | 0% | (743) | 0% |
| Proceeds from restricted stock and other deposits, net | 740 | –1% | 418 | 0% | 62 | 0% |
| **Indirect repurchase of shares for minimum tax withholdings** | **(11,639)** | **17%** | **(14,067)** | **10%** | **(12,471)** | 5% |
| **Principal payments on long-term debt and finance lease obligation** | (558) | **1%** | **(50,000)** | **37%** | | 0% |
| Proceeds from exercise of stock options | 1,558 | –2% | | 0% | | 0% |
| **Repurchase of shares of common stock** | | 0% | | 0% | **(139,849)** | **53%** |
| **Dividends paid to shareholders** | **(58,154)** | **83%** | **(68,550)** | **51%** | **(102,366)** | **39%** |
| **Net cash used in financing activities** | **(70,243)** | **100%** | **(135,516)** | **100%** | **(261,724)** | **100%** |
| Net (decrease) increase in cash and cash equivalents | 37,974 | | 59,207 | | (102,246) | |
| Cash and cash equivalents—beginning of period | 112,944 | | 150,918 | | 210,125 | |
| Cash and cash equivalents—end of period | 150,918 | | 210,125 | | 107,879 | |
| **Supplemental disclosures of cash flow information:** | | | | | | |
| Interest paid, net of amounts capitalized | 1,216 | | 896 | | 738 | |
| Income taxes paid | 50,201 | | 20,519 | | 20,440 | |
| Capital expenditures included in current liabilities | $ 12,156 | | $ 7,332 | | $ 15,416 | |

## Discussion

Does the decision to franchise or to own and operate the stores show up in an analysis of the firm's financial decisions?

Following is a breakdown of number of franchises versus stores own and operated by the firm. This illustrates a point made in the text, namely, the need to consult the Notes to the Financial Statements as well as the fact that merely calculation of ratios and trends is the beginning, not the end, of the analysis. The statements (company 10Ks) should be consistent with the breakdown of stores ownership model (franchise versus own and operate).

**Denny's Corp. DENN (U.S.: Nasdaq).** As of December 25, 2019, the Denny's brand consisted of 1,703 restaurants, 1,635 of which were franchised/licensed restaurants and 68 of which were company restaurants.

**Texas Roadhouse Inc. TXRH (U.S.: Nasdaq).** As of December 31, 2019, we owned and operated 514 restaurants and franchised an additional 97 restaurants in 49 states and ten foreign countries. Of the 514 company restaurants that were operating at December 31, 2019, 494 were wholly owned and 20 were majority-owned. Of the 97 franchise restaurants, 69 were domestic and 28 were international restaurants.

**Red Robin Gourmet Burgers Inc. RRGB (U.S.: Nasdaq).** As of December 29, 2019, the company owned and operated 454 restaurants located in 38 states. The company also had 102 casual-dining restaurants operated by franchisees in 16 states and one Canadian province. The company operates its business as one operating and one reportable segment.

**Cracker Barrel Old Country Store Inc. CBRL (U.S.: Nasdaq).** We represent a single, integrated operation with two related and substantially integrated product lines. The operating expenses of the restaurant and retail product lines of a Cracker Barrel store are shared and are indistinguishable in many respects. Accordingly, the Company manages its business on the basis of one reportable operating segment. All the Company's operations are located within the United States.

From the common size Income Statement:

*Please note that only Denny's shows a reliance on franchise revenues, with franchise revenues growing from 26 percent in 2017 to 43 percent in 2019. The revenue breakdown for the other three firms show that their business model is that of "own and operate."*

| | 2017 | 2018 | 2019 |
|---|---|---|---|
| **Denny's** | | | |
| Company restaurant revenue | 74% | 65% | 57% |
| Franchise and license revenue | 26% | 35% | 43% |
| Total Revenue | 100% | 100% | 100% |
| | | | |
| **Cracker Barrel** | | | |
| Total revenue | 100% | 100% | 100% |
| | | | |
| **Texas Roadhouse** | | | |
| Company restaurant revenue | 99% | 99% | 99% |
| Franchise royalties and fees | 1% | 1% | 1% |
| Total Revenue | 100% | 100% | 100% |
| | | | |
| **Red Robin** | | | |
| Restaurant revenue | 98% | 98% | 98% |
| Franchise revenue | 1.3% | 1.3% | 1.3% |
| Other revenue | 0.3% | 0.4% | 0.6% |
| Total Revenues | 100% | 100% | 100% |

Looking at the Selling General and Administrative Expenses (from the common size Income Statement as well) we note that Denny's SGA is much larger than Cracker Barrel and Texas Roadhouse. Red Robin only appears to match Denny's SGA; however, this is due to its management compensation scheme.

| | General and Administrative Expenses | | |
|---|---|---|---|
| | 2017 | 2018 | 2019 |
| **Denny's** | 13% | 10% | 13% |
| **Cracker Barrel** | 5% | 5% | 5% |
| **Texas Roadhouse** | 6% | 6% | 5% |
| **Red Robin** | | | |
| Selling, general, and administrative expenses (includes $3,103, $3,803, and $4,442 of stock-based compensation) | 11% | 11% | 12% |

We can see the differences between the franchise versus own and operate business model in the common size Balance Sheet

| | Property and Equipment, Net | |
|---|---|---|
| | 2018 | 2019 |
| Denny's | 35% | 21% |
| Cracker Barrel | 75% | 74% |
| Texas Roadhouse | 65% | 53% |
| Red Robin | 67% | 42% |

## CASH FLOWS AND LIFE CYCLE

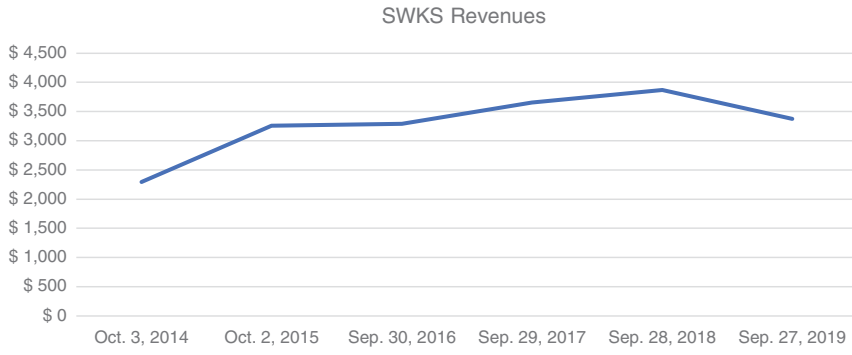
Analyze the Statement of Cash Flows for the following companies and establish their growth stage.

### SWKS Discussion

Skyworks Solutions, Inc. (SWKS) engages in the design, development, and manufacture of proprietary semiconductor products. The company was founded in 1962.

If we consider only how many years since its founding (over 60 years), SWKS should be it its declining stage. However, the Statement of Cash Flows tells a different story. Revenues are steady and Net Profits are high.

| | Oct. 3, 2014 | Oct. 2, 2015 | Sep. 30, 2016 | Sep. 29, 2017 | Sep. 28, 2018 | Sep. 27, 2019 |
|---|---|---|---|---|---|---|
| Net revenue | $ 2,292 | $ 3,258 | $ 3,289 | $ 3,651 | $ 3,868 | $ 3,377 |
| Net Income | $ 457.7 | $ 798.3 | $ 995.2 | $ 1,010.2 | $ 918.4 | $ 853.6 |
| Net Profit | 20% | 24% | 30% | 28% | 24% | 25% |

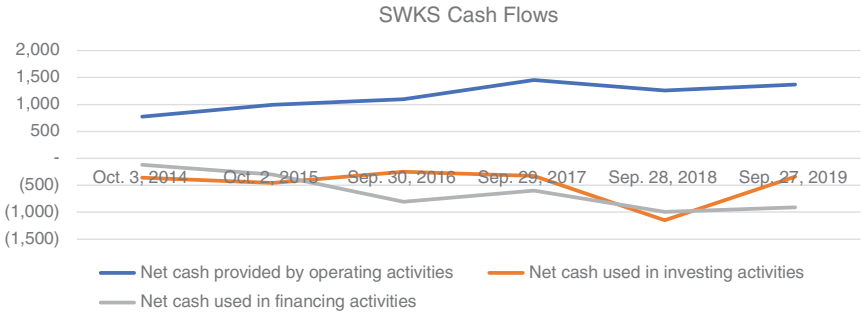



If consider only the ratio of Depreciation to Capital Expenditures, SKWS appears to be a growing company.

| | | | | | | |
|---|---|---|---|---|---|---|
| Depreciation | 96.8 | 162.3 | 214.4 | 227.2 | 272.5 | 314.9 |
| Capital Expenditures | 208.6 | 430.1 | 189.3 | 303.3 | 422.3 | 398.4 |
| Ratio | 46% | 38% | 113% | 75% | 65% | 79% |

Looking at the Cash Flows, we note that Operating Cash Flows are large, growing and cover the Investing and Financing Cash Flows, a sign that SWKS is a mature growing company, in tune with the Depreciation/Capital Expenditures ratio.

| | **Oct. 3, 2014** | **Oct. 2, 2015** | **Sep. 30, 2016** | **Sep. 29, 2017** | **Sep. 28, 2018** | **Sep. 27, 2019** |
|---|---|---|---|---|---|---|
| Net cash provided by operating activities | 772 | 993 | 1,096 | 1,456 | 1,261 | 1,367 |
| Net cash used in investing activities | (357) | (455) | (251) | (326) | (1,150) | (337) |
| Net cash used in financing activities | (121) | (300) | (805) | (597) | (994) | (913) |




Finally, digging deeper into the Financing Cash Flows, we note that SWKS is returning significant amounts of cash flows to shareholders in the form of stock repurchases and dividends, with a dividend payout exceeding 20 percent. Again, this is a sign that SWKS is a mature growing company, going strong after all those years. If SWKS were a person, it would be getting ready to retire.

| | | | | | | |
|---|---|---|---|---|---|---|
| Repurchase of common stock | (165.7) | (237.3) | (525.6) | (432.3) | (759.5) | (657.6) |
| Dividends paid | (41.4) | (123.1) | (201) | (214.6) | (243.2) | (273.9) |
| Cash payouts to shareholders | 207.1 | 360.4 | 726.6 | 646.9 | 1002.7 | 931.5 |
| Net cash used in financing activities | (121) | (300) | (805) | (597) | (994) | (913) |
| Dividends as % of Financing activities | 34% | 41% | 25% | 36% | 24% | 30% |

| | Oct. 03, 2014 | Oct. 02, 2015 | Sep. 30, 2016 | Sep. 29, 2017 | Sep. 28, 2018 | Sep. 27, 2019 |
|---|---|---|---|---|---|---|
| Net Income | $ 457.7 | $ 798.3 | $ 995.2 | $ 1,010.2 | $ 918.4 | $ 853.6 |
| Dividends paid | 41.4 | 123.1 | 201 | 214.6 | 243.2 | 273.9 |
| Dividend payout | 9% | 15% | 20% | 21% | 26% | 32% |

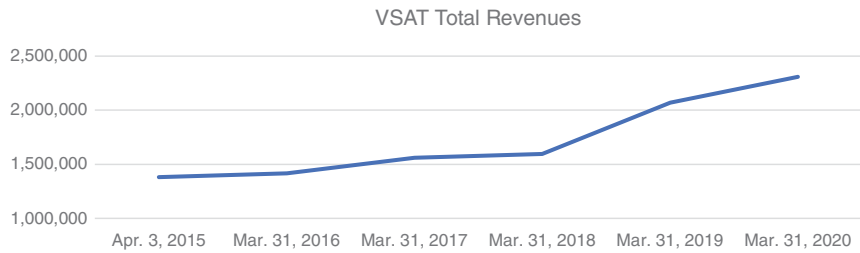
### VSAT Discussion

ViaSat, Inc. (VSAT) provides communications technologies and services. It operates through the following segments: Satellite Services, Commercial Networks, and Government Systems. The company was founded in May 1986.

Although VSAT is a mature company in terms of years in existence (over 30 years), its revenue profile does not reflect that. In fact, VSAT has the profile of a firm experiencing an inflection point (resurgence) around 2018.

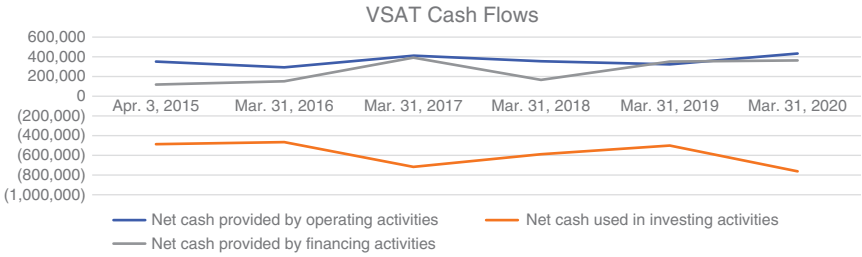
| | 12 Months Ended | | | | | |
|---|---|---|---|---|---|---|
| | **Apr. 3, 2015** | **Mar. 31, 2016** | **Mar. 31, 2017** | **Mar. 31, 2018** | **Mar. 31, 2019** | **Mar. 31, 2020** |
| Total revenues | 1,382,535 | 1,417,431 | 1,559,337 | 1,594,625 | 2,068,258 | 2,309,238 |
| Net income | 39,891 | 21,770 | 21,767 | (68,275) | (66,469) | 13,813 |
| Net Profit | 2.9% | 1.5% | 1.4% | −4.3% | −3.2% | 0.6% |

Please note the fiscal year for VSAT ends with the first calendar quarter; thus, the year 2020 figures do not reflect pandemic distortions.




VSAT shows large investing cash flows supported by operating cash flows supplemented by financing cash flows. This reflects a cash flow profile typical of mature growing companies.

| | 12 Months Ended | | | | | |
|---|---|---|---|---|---|---|
| | Apr. 3, 2015 | Mar. 31, 2016 | Mar. 31, 2017 | Mar. 31, 2018 | Mar. 31, 2019 | Mar. 31, 2020 |
| Net cash provided by operating activities | 349,516 | 296,937 | 411,298 | 358,633 | 327,551 | 436,936 |
| Net cash used in investing activities | (476,554) | (456,285) | (715,005) | (584,487) | (489,419) | (758,801) |
| Net cash provided by financing activities | 121,464 | 149,122 | 392,784 | 165,776 | 354,617 | 365,185 |




Beginning in 2017, Net Capital Spending increased significantly, further signaling an inflection point (resurgence). Cash paid for intangible assets are consistently large, while acquisitions of tangible assets slow down after 2017.

| | 12 Months Ended | | | | | |
|---|---|---|---|---|---|---|
| | Apr. 3, 2015 | Mar. 31, 2016 | Mar. 31, 2017 | Mar. 31, 2018 | Mar. 31, 2019 | Mar. 31, 2020 |
| Purchase of property, equipment and satellites | (366,492) | (377,894) | (514,692) | (511,634) | (636,855) | (693,966) |
| Depreciation | 179,542 | 193,086 | 200,686 | 210,441 | 262,289 | 279,733 |
| Net Capital Spending | (186,950) | (184,808) | (314,006) | (301,193) | (374,566) | (414,233) |
| Cash paid for patents, licenses and other assets | (52,686) | (72,731) | (70,966) | (72,853) | (49,965) | (67,112) |
| Payments related to acquisition of businesses, net of cash acquired | (57,376) | (4,402) | (16,528) | | (2,339) | |

The investments that accompanied the resurgence of VSAT in 2017 were financed in part by Net Borrowings with a large influx of cash provided by a common stock offering in 2017.

| | 12 Months Ended | | | | | |
|---|---|---|---|---|---|---|
| | **Apr. 3, 2015** | **Mar. 31, 2016** | **Mar. 31, 2017** | **Mar. 31, 2018** | **Mar. 31, 2019** | **Mar. 31, 2020** |
| Proceeds from debt borrowings | 0 | 0 | 0 | 752,503 | 1,110,000 | 420,000 |
| Payments of debt borrowings | 0 | 0 | 0 | (575,000) | (732,840) | (59,691) |
| Net Borrowing | | | | 177,503 | 377,160 | 360,309 |
| Proceeds from common stock issued in public offering, net of issuance costs | 0 | 0 | 503,061 | 0 | 0 | 0 |

The issue that remains is, "What was the impetus behind the resurgence?" As stated often in the main text, financial statement analysis is valuable not only for the answer it provides but also for the questions that it raises. To answer those questions, the analyst must look beyond the Financial Statements (and the accompanying notes). In the case of VSAT, a Google search for VSAT event around 2017, yielded (among many others) the following:

> http://interactive.satellitetoday.com/via/may-june-2017/future-investments-in-vsat-what-you-need-to-know/

"At the SATELLITE 2017 Conference & Exhibition, the ambitious nature of the satellite industry shone through. However, satellites are only as good the technology that powers them, and more expectations are now being placed on traditional Very Small Aperture Terminal (VSAT) technology providers as they look to provide the solutions that will power the next generation of satellites."

## DUPONT ANALYSIS

When performing comparative analysis of annual financial statements, it is important to be aware that not all companies have the same fiscal year. For example, in 2020 the COVID-19 crises would have affected companies whose fiscal year goes from January to December differently from companies whose fiscal year goes from July to June. This was not a factor in the exercises in this workbook because we selected fiscal year 2019.

## Answer 1

**DuPont Analysis of Biotechnology & Medical Research 2019**

**US$ in millions**

| Company name | Ticker | Market Cap | Asset Turnover (x) | X | Return on Sales (%) | = | Return on Assets (%) | X | Financial Leverage (x) | = | Return on Equity (%) |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Ligand Pharmaceuticals Inc. | LGND | 1,981 | 0.08 | | 523% | | 42% | | 1.95 | | 82% |
| Halozyme Therapeutics, Inc. | HALO | 2,559 | 0.35 | | −37% | | −13% | | 6.16 | | −79% |
| Medpace Holdings, Inc. | MEDP | 3,016 | 0.75 | | 12% | | 9% | | 1.57 | | 14% |
| Nektar Therapeutics | NKTR | 3,777 | 0.06 | | −385% | | −22% | | 1.41 | | −31% |
| United Therapeutics Corporation | UTHR | 3,858 | 0.37 | | −7% | | −3% | | 1.41 | | −4% |
| Exelixis, Inc. | EXEL | 5,332 | 0.51 | | 33% | | 17% | | 1.12 | | 19% |
| Syneos Health, Inc. | SYNH | 6,163 | 0.63 | | 3% | | 2% | | 2.46 | | 4% |
| PRA Health Sciences, Inc. | PRAH | 7,170 | 0.87 | | 8% | | 7% | | 3.25 | | 22% |
| Charles River Laboratories, Int. | CRL | 7,444 | 0.56 | | 10% | | 5% | | 2.87 | | 15% |
| BIO-TECHNE Corp | TECH | 8,293 | 0.38 | | 13% | | 5% | | 1.62 | | 8% |
| Neurocrine Biosciences, Inc. | NBIX | 9,849 | 0.60 | | 5% | | 3% | | 2.05 | | 6% |

## Answer 2

**DuPont Analysis of Brewers 2019**

**US$ in millions**

| Company name | Ticker | Market Cap | Asset Turnover (x) | X | Return on Sales (%) | = | Return on Assets (%) | X | Financial Leverage (x) | = | Return on Equity (%) |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Anheuser Busch Inbev SA (ADR) | BUD | 162,767 | 0.22 | | 17.5% | | 3.88% | | 3.13 | | 12.1% |
| Big Rock Brewery, Inc. (USA) | BRBMF | 27 | 0.86 | | −6.7% | | −5.78% | | 1.39 | | −8.0% |
| Boston Beer Company, Inc. | SAM | 4,452 | 1.19 | | 8.7% | | 10.35% | | 1.43 | | 14.8% |
| Compania Cervecerias Unidas S. | CCU | 3,505 | 0.77 | | 7.1% | | 5.53% | | 1.77 | | 9.8% |
| Constellation Brands, Inc. | STZ | 36,364 | 0.28 | | 42.3% | | 11.75% | | 2.33 | | 27.4% |
| Heineken N.V. (ADR) | HEINY | 61,300 | 0.52 | | 9.0% | | 4.66% | | 2.88 | | 13.4% |
| Kirin Holdings Co. Ltd. (ADR) | KNBWY | 19,137 | 0.80 | | 3.1% | | 2.47% | | 2.66 | | 6.6% |
| Molson Coors Beverage, Co. | TAP | 11,675 | 0.37 | | 2.3% | | 0.84% | | 2.15 | | 1.8% |

Answer 3

**DuPont analysis of Consumer Goods Conglomerates 2019**

**US$ in millions**

| Company name | Ticker | Market Cap | Asset Turnover (x) | X | Return on Sales (%) | = | Return on Assets (%) | X | Financial Leverage (x) | = | Return on Equity (%) |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 3M Co, | MMM | 101,794 | 0.72 | | 14.2% | | 10.2% | | 4.44 | | 45.4% |
| Berkshire Hathaway, Inc. | BRK.A | 554,890 | 0.31 | | 32.0% | | 10.0% | | 1.93 | | 19.2% |
| Brookfield Infrastructure Part | BIP | 14,277 | 0.12 | | 0.5% | | 0.1% | | 9.41 | | 0.5% |
| Carlisle Companies, Inc. | CSL | 9,211 | 0.88 | | 9.8% | | 8.6% | | 2.08 | | 17.8% |
| General Electric Company | GE | 97,360 | 0.36 | | –5.7% | | –2.1% | | 9.37 | | –19.2% |
| HC2 Holdings, Inc. | HCHC | 97 | 0.15 | | –2.9% | | –0.5% | | 19.89 | | –9.0% |
| Honeywell International, Inc. | HON | 127,617 | 0.63 | | 16.7% | | 10.5% | | 3.17 | | 33.2% |
| Illinois Tool Works, Inc. | ITW | 58,182 | 0.94 | | 17.9% | | 16.7% | | 4.98 | | 83.3% |
| Raven Industries, Inc. | RAVN | 1,240 | 0.95 | | 9.2% | | 8.7% | | 1.28 | | 11.2% |

# Computational Exercises (Answers)

## ARITHMETIC OF GROWTH VALUATIONS

**A1.** A corporation is currently reporting annual net earnings of $30.0 million. Assume that five years from now, when its growth has leveled off somewhat, the corporation will be valued at 15 times earnings.

Further assume that the company will pay no dividends over the next five years and that investors in growth stocks currently seek returns of 25 percent (before considering capital gains taxes). Suppose the corporation's earnings have been growing at a 15 percent annual rate and appear likely to continue increasing at the same rate over the next five years.

At the end of that period, earnings (rounded) will be **$60.3** million annually. Applying a multiple of 15 times to that figure produces a valuation at the end of the fifth year of **$905.1** million. Investors seeking a 25 percent rate of return will pay **$296.6** million today for that future value.

Say the founder still owns 20 percent of the shares outstanding, which means she is worth **$59.3** million. Suppose investors conclude for some reason that the corporation's potential for increasing its earnings has changed from 15 percent to 25 percent per annum.

The value of corporation's shares will change from **$296.6** million to **$450.0** million, keeping previous assumptions intact. Now the founder's shares are worth **$90.0** million, a difference of **$30.7 million**.

**No dividends for the next five years**

| | | Year | Earnings | Valuation | Present Value |
|---|---|---|---|---|---|
| Current net earnings | | 0 | 30 | | |
| Growth rate | 15% | 1 | 34.5 | | |
| Required rate | 25% | 2 | 39.7 | | |
| | | 3 | 45.6 | | |
| | | 4 | 52.5 | | |
| Multiple | 15 | 5 | 60.3 | 905.1107 | 296.6 |
| Owner's share | 20% | | | | 59.3 |
| Current net earnings | | 0 | 30 | | |
| Growth rate | 25% | 1 | 37.5 | | |
| Required rate | 25% | 2 | 46.9 | | |
| | | 3 | 58.6 | | |
| | | 4 | 73.2 | | |
| Multiple | 15 | 5 | 91.6 | 1,373.3 | 450 |
| Owner's share | 20% | | | | 90 |
| | | | | Difference | 30.7 |

**A2**. A corporation is currently reporting annual net earnings of $20.0 million. Assume that five years from now, when its growth has leveled off somewhat, the corporation will be valued at 20 times earnings.

Further assume that the company will pay no dividends over the next five years and that investors in growth stocks currently seek returns of 22 percent (before considering capital gains taxes). Suppose the corporation's earnings have been growing at a 20 percent annual rate and appear likely to continue increasing at the same rate over the next five years.

At the end of that period, earnings (rounded) will be **$49.8** million annually. Applying a multiple of 20 times to that figure produces a valuation at the end of the fifth year of **$995.3** million. Investors seeking a **22** percent rate of return will pay **$368.3** million today for that future value.

Say the founder still owns 40 percent of the shares outstanding, which means she is worth **$147.3** million. Suppose investors conclude for some reason that the corporation's potential for increasing its earnings has changed from 20 percent to 18 percent per annum.

The value of corporation's shares will change from **$368.3** million to **$338.6** million, keeping previous assumptions intact. Now the founder's shares are worth $135.4 million, a difference of **$(11.9) million**.

| **No dividends for the next five years** | | | | | |
|---|---|---|---|---|---|
| | | **Year** | **Earnings** | **Valuation** | **Present Value** |
| Current net earnings | | 0 | 20.0 | | |
| Growth rate | 20% | 1 | 24.0 | | |
| Required rate | 22% | 2 | 28.8 | | |
| | | 3 | 34.6 | | |
| | | 4 | 41.5 | | |
| Multiple | 20 | 5 | 49.8 | 995.3 | 368.3 |
| Owner's share | 40% | | | | 147.3 |
| Current net earnings | | 0 | 20.0 | | |
| Growth rate | 18% | 1 | 23.6 | | |
| Required rate | 22% | 2 | 27.8 | | |
| | | 3 | 32.9 | | |
| | | 4 | 38.8 | | |
| Multiple | 20 | 5 | 45.8 | 915.1 | 338.6 |
| Owner's share | 40% | | | | 135.4 |
| | | | | Difference | (11.9) |

**A3.** A corporation is currently reporting annual net earnings of $20.0 million. Assume that five years from now, when its growth has leveled off somewhat, the corporation will be valued at 12 times earnings.

Further assume that the company will pay no dividends over the next five years and that investors in growth stocks currently seek returns of 25 percent (before considering capital gains taxes). Suppose the corporation's earnings have been growing at a 10 percent annual rate and appear likely to continue increasing at the same rate over the next five years.

At the end of that period, earnings (rounded) will be **$32.2** million annually. Applying a multiple of 12 times to that figure produces a valuation at the end of the fifth year of **$386.5** million. Investors seeking a 25 percent rate of return will pay **$126.7** million today for that future value.

Say the founder still owns 20 percent of the shares outstanding, which means she is worth **$25.3** million. Suppose investors conclude for some reason that the corporation's potential for increasing its earnings has changed from 10 percent to 20 percent per annum.

The value of corporation's shares will change from **$126.7** million to **$195.7** million, keeping previous assumptions intact. Now the founder's shares are worth **$39.1** million, a difference of **$13.8 million**.

| No dividends for the next five years | | | | | |
|---|---|---|---|---|---|
| | | Year | Earnings | Valuation | Present Value |
| Current net earnings | | 0 | 20.0 | | |
| Growth rate | 10% | 1 | 22.0 | | |
| Required rate | 25% | 2 | 24.2 | | |
| | | 3 | 26.6 | | |
| | | 4 | 29.3 | | |
| Multiple | 12 | 5 | 32.2 | 386.5 | 126.7 |
| Owner's share | 20% | | | | 25.3 |
| Current net earnings | | 0 | 20.0 | | |
| Growth rate | 20% | 1 | 24.0 | | |
| Required rate | 25% | 2 | 28.8 | | |
| | | 3 | 34.6 | | |
| | | 4 | 41.5 | | |
| Multiple | 12 | 5 | 49.8 | 597.2 | 195.7 |
| Owner's share | 20% | | | | 39.1 |
| | | | | Difference | 13.8 |

**A4.** A corporation is currently reporting annual net earnings of $20.0 million. Assume that five years from now, when its growth has leveled off somewhat, the corporation will be valued at 20 times earnings.

Further assume that the company will pay no dividends over the next five years and that investors in growth stocks currently seek returns of 22 percent (before considering capital gains taxes). Suppose the corporation's earnings have been growing at a 12 percent annual rate and appear likely to continue increasing at the same rate over the next five years.

At the end of that period, earnings (rounded) will be **$35.2** million annually. Applying a multiple of 20 times to that figure produces a valuation at the end of the fifth year of **$704.9** million. Investors seeking a 22 percent rate of return will pay **$260.8** million today for that future value.

Say the founder still owns 40 percent of the shares outstanding, which means she is worth **$104.3** million. Suppose investors conclude for some reason that the corporation's potential for increasing its earnings has changed from 12 percent to 18 percent per annum.

The value of corporation's shares will change from **$260.8** million to **$338.6** million, keeping previous assumptions intact. Now the founder's shares are worth **$135.4** million, a difference of **$31.1 million**.

**No dividends for the next five years**

| | | Year | Earnings | Valuation | Present Value |
|---|---|---|---|---|---|
| Current net earnings | | 0 | 20.0 | | |
| Growth rate | 12% | 1 | 22.4 | | |
| Required rate | 22% | 2 | 25.1 | | |
| | | 3 | 28.1 | | |
| | | 4 | 31.5 | | |
| Multiple | 20 | 5 | 35.2 | 704.9 | 260.8 |
| Owner's share | 40% | | | | 104.3 |
| Current net earnings | | 0 | 20.0 | | |
| Growth rate | 18% | 1 | 23.6 | | |
| Required rate | 22% | 2 | 27.8 | | |
| | | 3 | 32.9 | | |
| | | 4 | 38.8 | | |
| Multiple | 20 | 5 | 45.8 | 915.1 | 338.6 |
| Owner's share | 40% | | | | 135.4 |
| | | | | Difference | 31.10 |

## MARKET VALUE VERSUS BOOK VALUE OF DEBT

This is an example of how a liability can be an asset. Long-term bonds, which are carried in the books at face value on the Liability side of the balance sheet, are in fact an asset when their market value is below their face value. That is because the firm's current interest expense is lower than it would be if the bonds were issued at the prevailing rate.

**Case 1.** A firm shows in its books bonds with a face value of $20,000,000. The bonds were issued at par, with a semi-annual coupon rate of 4.125 percent, and now have eight years to maturity. However, the bonds are now priced to yield 6.730 percent. The market value of this long-term obligation is **$16,817,302** and the difference between the market value and the book value of the bond is **$3,182,698**.

| | | | Period | Cash Flow | Present Value |
|---|---|---|---|---|---|
| Face Value | $ 20,000,000 | | 0 | | |
| Maturity (years) | 8 | | 1 | $ 412,500 | $ 392,857 |
| Coupon rate | 4.125% | | 2 | $ 412,500 | $ 386,080 |
| Yield | 6.730% | | 3 | $ 412,500 | $ 373,511 |
| | | | 4 | $ 412,500 | $ 361,352 |
| | | | — | — | — |
| Present Value of Coupons | | $ 5,039,782 | — | — | — |
| Present Value of Principal | | $11,777,520 | — | — | — |
| Bond Price (Market Value) | | $16,817,302 | — | — | — |
| | | | 16 | $ 412,500 | $ 242,911 |
| | | | | Total PV | |
| Difference | $ 3,182,698 | | | of coupons | $ 5,033,567 |
| | | | 16 | $20,000,000 | $11,777,520 |

**Case 2.** A firm shows in its books bonds with a face value of $50,000,000. The bonds were issued at par, with a semi-annual coupon rate of 5.750 percent, and now have eight years to maturity. However, the bonds are now priced to yield 7.250 percent. The market value of this long-term obligation is **$45,506,987,** and the difference between the market value and the book value of the bond is **$4,493,013.**

| | | | Period | Cash Flow | Present Value |
|---|---|---|---|---|---|
| Face Value | $50,000,000 | | 0 | | |
| Maturity (years) | 8 | | 1 | $ 1,437,500 | $ 1,369,048 |
| Coupon rate | 5.750% | | 2 | $ 1,437,500 | $ 1,338,686 |
| Yield | 7.250% | | 3 | $ 1,437,500 | $ 1,291,856 |
| | | | 4 | $ 1,437,500 | $ 1,246,665 |
| | | | — | — | — |
| Present Value of Coupons | | $ 17,223,216 | — | — | — |
| Present Value of Principal | | $ 28,283,771 | — | — | — |
| Bond Price (Market Value) | | **$ 45,506,987** | — | — | — |
| | | | 16 | $ 1,437,500 | $ 813,158 |
| | | | | Total PV | |
| Difference | **$ 4,493,013** | | | of coupons | $17,205,050 |
| | | | 16 | $50,000,000 | $28,283,771 |

**Case 3.** A firm shows in its books bonds with a face value of $35,000,000. The bonds were issued at par, with a semi-annual coupon rate of 3.750 percent, and now have eight years to maturity. However, the bonds are now priced to yield 7.250 percent. The market value of this long-term obligation is **$27,661,412,** and the difference between the market value and the book value of the bond is **$7,338,588.**

| | | | Period | Cash Flow | Present Value |
|---|---|---|---|---|---|
| Face Value | $ 35,000,000 | | 0 | | |
| Maturity (years) | 8 | | 1 | $656,250 | $625,000 |
| Coupon rate | 3.750% | | 2 | $656,250 | $611,139 |
| Yield | 7.250% | | 3 | $656,250 | $589,761 |
| | | | 4 | $656,250 | $569,130 |
| | | | — | — | — |
| Present Value of Coupons | | $ 7,862,773 | — | — | — |
| Present Value of Principal | | $19,798,639 | — | — | — |
| Bond Price (Market Value) | | **$ 27,661,412** | — | — | — |
| | | | 16 | $ 656,250 | $ 371,224 |
| | | | | Total PV | |
| Difference | **$ 7,338,588** | | | of coupons | $ 7,854,480 |
| | | | 16 | $35,000,000 | $19,798,639 |

## ACQUISITION DRIVEN BY SALES GROWTH ACCELERATION WITHOUT PROFIT INCREASE

### Case 1 (Issue Equity) Answer

Big Time Corp.'s sales increase by 10.0 percent between Year 1 and Year 2. Small Change, a smaller, privately owned company in the same industry, also achieves 10.0 percent year-over-year sales growth. Suppose now that at the end of Year 1, Big Time acquires Small Change with shares of its own stock. The Big Time income statements under this assumption ("Acquisition Scenario") show a(n) **15.2 percent** sales increase between Year 1 and Year 2.

On the face of it, a company growing at **15.2 percent** a year is sexier than one growing at only 10.0 percent a year. Observe, however, that Big Time's profitability, measured by net income as a percentage of sales, does not improve because of the acquisition. Combining two companies with equivalent profit margins of **3.0 percent** produces a larger company that also earns **3.0 percent** on sales. Shareholders do not gain anything in the process, as the following figures demonstrate.

If Big Time decides not to acquire Small Change, its number of shares outstanding remains at 75.0 million. The earnings increase from $150.0 million in Year 1 to **$167.4** million in Year 2 raises earnings per share from

**$2.00** to **$2.23**. With the price-earnings multiple at 14 times, equivalent to the average of the company's industry peers, Big Time's stock price rises from **$28.00** to **$31.25** a share.

In the Acquisition Scenario, on the other hand, Big Time pays its industry-average earnings multiple of 14 times for Small Change, for a total acquisition price of **$99.5** million. At Big Time's Year 1 share price of **$2.00**, the purchase therefore requires the issuance of **3.6** million shares.

With the addition of Small Change's net income, Big Time earns **$175.4** million in Year 2. Dividing that figure by the increased number of shares outstanding (**78.6** million) produces earnings per share of **$2.23**. At a price-earnings multiple of 14 times, Big Time is worth **$31.25** a share, precisely the price calculated in the Non-Acquisition Scenario.

The mere increase in annual sales growth from 10.0 percent to **15.2 percent** has not benefited shareholders, whose shares increase in value by 10 percent whether Big Time acquires Small Change or not.

### Case 1 (Issue Equity) Answer

| | Non-Acquisition Scenario | | | | Acquisition Scenario | |
|---|---|---|---|---|---|---|
| | Big Time | | Small Change | | Big Time Corp | |
| | Year 1 | Year 2 | Year 1 | Year 2 | Year 1 | Year 2 |
| Sales | $5,000.0 | $5,500.0 | $238.1 | $261.9 | $5,000.0 | $5,761.9 |
| Cost and Expenses | | | | | | |
| Cost of goods sold | 3,500.1 | 3,847.5 | 162.4 | 181.2 | 3,500.1 | 4,028.7 |
| Selling, general, and administrative expenses | 1,250.0 | 1,377.6 | 61.9 | 65.5 | 1,250.0 | 1,443.1 |
| Interest expense | 60.0 | 63.0 | 4.8 | 5.0 | 60.0 | 68.0 |
| Total costs and expenses | $4,810.1 | $5,288.1 | $229.1 | $251.7 | $4,810.1 | $5,539.8 |
| Income before income taxes | 189.9 | 211.9 | 9.0 | 10.2 | 189.9 | 222.1 |
| Income taxes | 39.9 | 44.5 | 1.9 | 2.1 | 39.9 | 46.6 |
| Net income | $ 150.0 | $ 167.4 | $ 7.1 | $ 8.1 | $ 150.0 | $ 175.4 |
| Year-over-year sales increase | | 10% | | 10% | | 15.2% |
| Net income as a percentage of sales | 3% | 3% | 3% | | 3% | 3% |
| Shares outstanding (million) | 75.0 | 75.0 | | | 75.0 | 78.6 |
| Earnings per share | $ 2.00 | $ 2.23 | | | $ 2.00 | $ 2.23 |
| Price-earnings multiple (times) | 14 | 14 | | | 14 | 14 |
| Price per share | $ 28.00 | $ 31.25 | | | $ 28.00 | $ 31.25 |
| | | | Acquisition Price | $ 99.5 | | |
| | | | New Shares | 3.6 | | |

### Case 1 (Issue Debt) Answer

Analysts should note that this analysis is sensitive to the assumptions underlying the scenarios. Suppose, for instance, that instead of issuing stock, Big Time finances the acquisition of Small Change with borrowed money. Let us suppose that Big Time must pay interest at a rate of 4 percent on the $99.5 million of new borrowings. Interest expense in Year 2 of the Acquisition Scenario is now **$72.0** million rather than $68.0 million. Pretax income therefore falls from $222.1 million to **$218.1** million, reducing net income from $175.4 million to **$172.3** million at the company's effective tax rate of 21 percent. Only **75.0** million shares are outstanding at the conclusion of the transaction, however, rather than the 78.6 million observed in the acquisition-for-stock case. As a result, Big Time's earnings per share rise to **$172.3** million ÷ **75.0** million = **$2.30.**

Assuming the market continues to assign a multiple of 14 times to Big Time's earnings, the stock is now worth $32.16, a 3 percent increase over the Non-Acquisition Scenario. In practice, though, the investors may reduce Big Time's price-earnings multiple slightly to reflect the heightened risk represented by its decreased interest coverage. (Following the formulas laid out in Chapter 13, income before interest and taxes declines from **$290.09** million ÷ **$68.0** million = **4.3** times in the stock acquisition case to **$290.09** million ÷ **$72.0** million = **4.0** times in the debt-financed acquisition case.) If the price-earnings multiple falls only from 14 to **13.61** times as a result of this decline in debt protection, Big Time's stock price in this variant again comes to **$31.27**, equivalent to the Year 2 price in the Non-Acquisition Scenario. As in the case of Big Time paying with stock for the acquisition of Small Change, shareholders do not benefit if Big Time instead borrows the requisite funds, assuming investors are sensitive to the impact of the company's increased debt load on its credit quality.

## Case 1 (Issue Debt) Answer

| | Non-Acquisition Scenario | | | | Acquisition Scenario | |
|---|---|---|---|---|---|---|
| | Big Time | | Small Change | | Big Time Corp | |
| | Year 1 | Year 2 | Year 1 | Year 2 | Year 1 | Year 2 |
| Sales | $5,000.0 | $5,500.0 | $238.1 | $261.9 | $5,000.0 | $5,761.9 |
| Cost and Expenses | | | | | | |
| Cost of goods sold | 3,500.1 | $3,847.5 | $162.4 | $181.2 | $3,500.1 | $4,028.7 |
| Selling, general, and administrative expenses | 1,250.0 | 1,377.6 | 61.9 | 65.5 | 1,250.0 | 1,443.1 |
| Interest expense | 60.0 | 63.0 | 4.8 | 5.0 | 60.0 | **72.0** |
| Total costs and expenses | $4,810.1 | $5,288.1 | $229.1 | $251.7 | $4,810.1 | **$5,543.8** |
| Income before income taxes | 189.9 | 211.9 | 9.0 | 10.2 | 189.9 | **218.1** |
| Income taxes | 39.9 | 44.5 | 1.9 | 2.1 | 39.9 | **45.8** |
| Net income | $ 150.0 | $ 167.4 | $ 7.1 | $ 8.1 | $ 150.0 | **$ 172.3** |
| Year-over-year sales increase | | 10% | | 10% | | **15.2%** |
| Net income as a percentage of sales | 3% | 3% | 3% | 3% | 3% | 3% |
| Shares outstanding (million) | 75.0 | 75.0 | | | 75.0 | **75.0** |
| Earnings per share | $ 2.0 | $ 2.2 | | | $ 2.0 | **$ 2.3** |
| Price-earnings multiple (times) | 14 | 14 | | | 14 | 13.61 |
| Price per share | $28.0 | $31.3 | | | $28.0 | $31.3 |
| Borrowing rate | 4% | | | Acquisition Price | | $99.5 |
| Interest expense to buy shares | **4.0** | | | New Shares | | 0 |
| Previous interest expense | **68.0** | | | | | |
| New Interest expense | **$72.0** | | | | Equity | Debt |
| | | | | EBIT | **290.1** | **290.1** |
| | | | | Int exp | **68.0** | 72.0 |
| | | | | Coverage | **4.3** | **4.0** |

## Case 2 (Issue Equity) Answer

Big Time Corp.'s sales increase by 8 percent between Year 1 and Year 2. Small Change, a smaller, privately owned company in the same industry, also achieves 8 percent year-over-year sales growth. Suppose now that at the end of Year 1, Big Time acquires Small Change with shares of its own stock. The Big Time income statements under this assumption ("Acquisition Scenario") show a(n) **13.1** percent sales increase between Year 1 and Year 2.

On the face of it, a company growing at **13.1** percent a year is sexier than one growing at only 10.0 percent a year. Observe, however, that Big Time's profitability, measured by net income as a percentage of sales, does not improve because of the acquisition. Combining two companies with equivalent profit margins of **3.0** percent produces a larger company that also earns **3.0** percent on sales. Shareholders do not gain anything in the process, as the following figures demonstrate.

If Big Time decides not to acquire Small Change, its number of shares outstanding remains at 75.0 million. The earnings increase from $150.0 million in Year 1 to **$163.4** million in Year 2 raises earnings per share from **$2.00** to **$2.18**. With the price-earnings multiple at 14 times, equivalent to the average of the company's industry peers, Big Time's stock price rises from **$28.00** to **$30.25** a share.

In the Acquisition Scenario, on the other hand, Big Time pays its industry-average earnings multiple of 14 times for Small Change, for a total acquisition price of **$99.5** million. At Big Time's Year 1 share price of $2.00, the purchase therefore requires the issuance of **3.6** million shares.

With the addition of Small Change's net income, Big Time earns **$171.3** million in Year 2. Dividing that figure by the increased number of shares outstanding (**78.6** million) produces earnings per share of **$2.18**. At a price-earnings multiple of 14 times, Big Time is worth **$30.51** a share, precisely the price calculated in the Non-Acquisition Scenario.

The mere increase in annual sales growth from 10.0 percent to **13.1 percent** has not benefited shareholders, whose shares increase in value by 10 percent whether Big Time acquires Small Change or not.

### Case 2 (Issue Equity) Answer

| | Non-Acquisition Scenario | | | | Acquisition Scenario | |
|---|---|---|---|---|---|---|
| | Big Time | | Small Change | | Big Time Corp | |
| | Year 1 | Year 2 | Year 1 | Year 2 | Year 1 | Year 2 |
| Sales | $5,000.0 | $5,400.0 | $238.1 | $257.1 | $5,000.0 | $5,657.1 |
| Cost and Expenses | | | | | | |
| Cost of goods sold | 3,500.1 | 3,777.5 | 162.4 | 177.9 | 3,500.1 | 3,955.5 |
| Selling, general, and administrative expenses | 1,250.0 | 1,352.6 | 61.9 | 64.3 | 1,250.0 | 1,416.9 |
| Interest expense | 60.0 | 63.0 | 4.8 | 5.0 | 60.0 | 68.0 |
| Total costs and expenses | $4,810.1 | $5,193.1 | $229.1 | $247.2 | $4,810.1 | $5,440.3 |
| Income before income taxes | 189.9 | 206.9 | 9.0 | 9.9 | 189.9 | 216.8 |
| Income taxes | 39.9 | 43.4 | 1.9 | 2.1 | 39.9 | 45.5 |
| Net income | $ 150.0 | **$ 163.4** | $ 7.1 | $ 7.8 | $ 150.0 | **$ 171.3** |
| Year-over-year sales increase | | 8% | | 8% | | **13.1%** |
| Net income as a percentage of sales | 3% | 3% | 3% | 3% | 3% | 3% |
| Shares outstanding (million) | 75.0 | 75.0 | | | 75.0 | **78.6** |
| Earnings per share | **$ 2.00** | **$ 2.18** | | | $ 2.00 | **$ 2.18** |
| Price-earnings multiple (times) | 14 | 14 | | | 14 | 14 |
| Price per share | $ 28.00 | **$ 30.51** | | | $ 28.00 | **$ 30.51** |

| | |
|---|---|
| Acquisition Price | $99.5 |
| New Shares | 3.6 |

### Case 2 (Issue Debt) Answer

Analysts should note that this analysis is sensitive to the assumptions underlying the scenarios. Suppose, for instance, that instead of issuing stock, Big Time finances the acquisition of Small Change with borrowed money. Let us suppose that Big Time must pay interest at a rate of 6 percent on the $99.5 million of new borrowings. Interest expense in Year 2 of the Acquisition Scenario is now **$74.0** million rather than **$68.0** million. Pretax income therefore falls from $216.8 million to **$210.8** million, reducing net income from $171.3 million to **$166.6** million at the company's effective tax rate of 21 percent. Only **75.0** million shares are outstanding at the conclusion of the transaction, however, rather than the **78.6** million observed in the acquisition-for-stock case. As a result, Big Time's earnings per share rise to **$166.6** million ÷ **75.0** million = **$2.22.**

Assuming the market continues to assign a multiple of 14 times to Big Time's earnings, the stock is now worth $31.09, a 2 percent increase over the Non-Acquisition Scenario. In practice, though, the investors may reduce Big Time's price-earnings multiple slightly to reflect the heightened risk represented by its decreased interest coverage. (Following the formulas laid out in Chapter 13, income before interest and taxes declines from **$284.81** million ÷ **$68.0** million = **4.3** times in the stock acquisition case to **$282.81** million ÷ **$74.0** million = **3.9** times in the debt-financed acquisition case.) If the price-earnings multiple falls only from 14 to **13.74** times as a result of this decline in debt protection, Big Time's stock price in this variant again comes to **$30.51,** equivalent to the Year 2 price in the Non-Acquisition Scenario. As in the case of Big Time paying with stock for the acquisition of Small Change, shareholders do not benefit if Big Time instead borrows the requisite funds, assuming investors are sensitive to the impact of the company's increased debt load on its credit quality.

### Case 2 (Issue Debt) Answer

| | Non-Acquisition Scenario | | | | Acquisition Scenario | |
|---|---|---|---|---|---|---|
| | Big Time | | Small Change | | Big Time Corp | |
| | Year 1 | Year 2 | Year 1 | Year 2 | Year 1 | Year 2 |
| **Sales** | $5,000.0 | $5,400.0 | $238.1 | $257.1 | $5,000.0 | $5,657.1 |
| **Cost and Expenses** | | | | | | |
| **Cost of goods sold** | 3,500.1 | 3,777.5 | 162.4 | 177.9 | 3,500.1 | 3,955.5 |
| **Selling, general, and administrative expenses** | 1,250.0 | 1,352.6 | 61.9 | 64.3 | 1,250.0 | 1,416.9 |
| **Interest expense** | 60.0 | 63.0 | 4.8 | 5.0 | 60.0 | **74.0** |
| **Total costs and expenses** | $4,810.1 | $5,193.1 | $229.1 | $247.2 | $4,810.1 | $5,446.3 |
| **Income before income taxes** | 189.9 | 206.9 | 9.0 | 9.9 | 189.9 | **210.8** |
| **Income taxes** | 39.9 | 43.4 | 1.9 | 2.1 | 39.9 | 44.3 |
| **Net income** | $ 150.0 | $ 163.4 | $ 7.1 | $ 7.8 | $ 150.0 | **$ 166.6** |
| **Year-over-year sales increase** | | 8% | | 8% | | **13.1%** |
| **Net income as a percentage of sales** | 3% | 3% | 3% | 3% | 3% | 3% |
| **Shares outstanding (million)** | 75.0 | 75.0 | | | 75.0 | **75.0** |
| **Earnings per share** | $ 2.00 | $ 2.18 | | | $ 2.00 | **$ 2.22** |
| **Price-earnings multiple (times)** | 14 | 14 | | | 14 | 13.74 |
| **Price per share** | $28.00 | $30.51 | | | $ 28.00 | **$30.51** |
| | | | **Acquisition Price** | | $ 99.5 | |
| **Borrowing rate** | 6% | | | | | |
| **Interest expense to buy shares** | **6.0** | | | Equity | Debt | |
| **Previous interest expense** | **68.0** | | EBIT | **$284.81** | **$284.81** | |
| New Interest expense | **74.0** | | Int exp | **$ 68.0** | **$ 74.0** | |
| | | | Coverage | **4.2** | **3.9** | |

## STOCK PRICES AND GOODWILL

Exhibit 2.1 in the fifth edition of the text provides the analytical framework for what follows

**A Scenario I.** The shares of Associated Amalgamator Corporation ("Amalgamator") and United Consolidator Inc. ("Consolidator") are both trading at multiples of 1.25 times book value per share. Shareholders' equity is $200 million at Amalgamators and $60 million at Consolidator, equivalent to the companies' respective

market capitalizations. Amalgamator uses stock held in its treasury to acquire Consolidator for **$84** million. The purchase price represents a premium of 12 percent above the prevailing market price.

Prior to the acquisition, Amalgamator's ratio of total assets to total liabilities is **1.25** times, while the comparable figure for Consolidator is **1.18** times. The stock-for-stock acquisition introduces no new hard assets (e.g., cash, inventories, or factories). Neither does the transaction eliminate any existing liabilities. Logically, then, Consolidator's **1.18** times ratio should drag down Amalgamator's **1.25** times ratio, resulting in a figure somewhere in between for the combined companies.

In fact, though, the total-assets-to-total-liabilities ratio after the deal is **1.25** times. By paying a premium to Consolidator's tangible asset value, Amalgamator creates **$24** million of goodwill. This intangible asset represents just **1.7** percent of the combined companies' total assets, but that suffices to enable Amalgamator to acquire a company with a weaker debt-quality ratio without showing any deterioration on that measure.

Amalgamator's ratio of *tangible* assets to total liabilities following its acquisition of Consolidator is **1.23** times.

**Pro Forma Balance Sheets, December 31, 20XX ($000,000 omitted)**

| | Associated Amalgamator Corporation | United Consolidator Inc. | Purchase Price | Combined Companies Pro Forma |
|---|---|---|---|---|
| *Scenario I* | | | | |
| Tangible assets | $1,000 | $400 | | $1,400 |
| Intangible assets | 0 | 0 | | **24** |
| Total assets | 1,000 | 400 | | **1,424** |
| Liabilities | 800 | 340 | | 1,140 |
| Shareholders' equity (SE) | 200 | 60 | **84** | **284** |
| Total liabilities and SE | $1,000 | $400 | | **$1,424** |
| Intangible assets/total assets | | | | **1.7%** |
| Tangible assets/total liabilities | **1.25** | **1.18** | | **1.23** |
| Total assets/total liabilities | **1.25** | **1.18** | | **1.25** |
| Market capitalization | **250** | **75** | | **355*** |
| | Premium | 40.0% | over book value | |
| | Premium | 12% | over stock price | |
| | Multiple | 125% | of book value | |

*Ignores possible impact of earnings per share dilution.

**A Scenario II.** As the scene opens, a stock market rally has driven up both companies' shares to 150 percent of book value. The ratio of total assets to total liabilities, however, remains at **1.25** times for Amalgamator and **1.18** times for Consolidator. Conservative bond buyers

take comfort from the fact that the assets remain on the books at historical cost less depreciation, unaffected by euphoria on the stock exchange that may dissipate at any time without notice.

In this scenario, Amalgamator pays a premium of 17 percent above the prevailing market price to acquire Consolidator. The premium is calculated on a higher market capitalization, however. Consequently, the purchase price rises from **$84** million to **$105** million. Instead of creating **$24** million of goodwill, the acquisition gives rise to a **$45** million intangible asset.

Somehow, putting together a company boasting a 1.25 times ratio with another sporting a 1.18 times ratio has produced an entity with a ratio of **1.27** times.

Amalgamator's ratio of *tangible* assets to total liabilities following its acquisition of Consolidator is **1.23** times.

**Pro Forma Balance Sheets, December 31, 20XX ($000,000 omitted)**

| | Associated Amalgamator Corporation | United Consolidator Inc. | Purchase Price | Combined Companies Pro Forma |
|---|---|---|---|---|
| *Scenario I* | | | | |
| Tangible assets | $1,000 | $400 | | $1,400 |
| Intangible assets | 0 | 0 | | **45** |
| Total assets | 1,000 | 400 | | **1,445** |
| Liabilities | 800 | 340 | | 1,140 |
| Shareholders' equity (SE) | 200 | 60 | 105 | **305** |
| Total liabilities and SE | $1,000 | $400 | | **$1,445** |
| Intangible assets/total assets | | | | **3.1%** |
| Tangible assets/total liabilities | **1.25** | **1.18** | | **1.23** |
| Total assets/total liabilities | **1.25** | **1.18** | | **1.27** |
| Market capitalization | **300** | **90** | | **458*** |
| | Premium | 75.0% | over book value | |
| | Premium | 17% | over stock price | |
| | Multiple | 150% | of book value | |

*Ignores possible impact of earnings per share dilution.

## PROJECTING INTEREST EXPENSE

Following the procedure detailed in Exhibits 12.6a and 12.6b in the text, calculate the embedded cost of long-term debt for the following cases.

## Case 1 Answer

($000,000 omitted)

| 2020 Amount | 2021 Amount | ÷2 | = | Average Amount Outstanding | @Rate | = | Estimated Interest Charges on Long-Term Debt |
|---|---|---|---|---|---|---|---|
| 200 | 175 | 2 | = | 187 | 3.350% | = | $ 6.265 |
| 700 | 730 | 2 | = | 715 | 3.750% | = | $26.813 |
| 90 | 90 | 2 | = | 90 | 7.500% | = | $ 6.750 |
| 75 | 75 | 2 | = | 75 | 7.375% | = | $ 5.531 |
| 80 | 80 | 2 | = | 80 | 4.900% | = | $ 3.920 |
| Total | | | | $ 1,147 | | | $49.278 |

| Interest Charges on Long-Term Debt | | Average Amount of Total Long-Term Debt Outstanding | | Embedded Cost of Long-Term Debt |
|---|---|---|---|---|
| $ 49.278 | ÷ | $ 1,147 | = | 4.30% |

## Case 2 Answer

($000,000 omitted)

| 2020 Amount | 2021 Amount | ÷2 | = | Average Amount Outstanding | @Rate | = | Estimated Interest Charges on Long-Term Debt |
|---|---|---|---|---|---|---|---|
| 190 | 165 | 2 | = | 187 | 3.450% | = | $ 6.452 |
| 750 | 730 | 2 | = | 740 | 3.900% | = | $28.860 |
| 85 | 90 | 2 | = | 87.5 | 7.250% | = | $ 6.344 |
| 80 | 75 | 2 | = | 77.5 | 7.565% | = | $ 5.863 |
| 90 | 90 | 2 | = | 90 | 5.250% | = | $ 4.725 |
| Total | | | | $ 1,182 | | | $52.243 |

| Interest Charges on Long-Term Debt | | Average Amount of Total Long-Term Debt Outstanding | | Embedded Cost of Long-Term Debt |
|---|---|---|---|---|
| $ 52.243 | ÷ | $ 1,182 | = | 4.42% |

### Case 3 Answer

| ($000,000 omitted) | | | | | | | |
|---|---|---|---|---|---|---|---|
| 2020 Amount | 2021 Amount | ÷2 | = | Average Amount Outstanding | @Rate | = | Estimated Interest Charges on Long-Term Debt |
| 200 | 175 | 2 | = | 187 | 3.550% | = | $ 6.639 |
| 700 | 730 | 2 | = | 715 | 3.900% | = | $27.885 |
| 90 | 90 | 2 | = | 90 | 7.650% | = | $ 6.885 |
| 75 | 75 | 2 | = | 75 | 7.750% | = | $ 5.813 |
| 80 | 80 | 2 | = | 80 | 5.250% | = | $ 4.200 |
| Total | | | | $ 1,147 | | | $51.421 |

| Interest Charges on Long-Term Debt | | Average Amount of Total Long-Term Debt Outstanding | | Embedded Cost of Long-Term Debt |
|---|---|---|---|---|
| $ 51.421 | ÷ | $ 1,147 | = | 4.48% |

### Case 4 Answer

| ($000,000 omitted) | | | | | | | |
|---|---|---|---|---|---|---|---|
| 2020 Amount | 2021 Amount | ÷2 | = | Average Amount Outstanding | @Rate | = | Estimated Interest Charges on Long-Term Debt |
| 225 | 190 | 2 | = | 187 | 3.350% | = | $ 6.265 |
| 750 | 775 | 2 | = | 762.5 | 3.750% | = | $28.594 |
| 110 | 125 | 2 | = | 117.5 | 7.500% | = | $ 8.813 |
| 95 | 85 | 2 | = | 90 | 7.375% | = | $ 6.638 |
| 90 | 95 | 2 | = | 92.5 | 4.900% | = | $ 4.533 |
| Total | | | | $ 1,250 | | | $54.841 |

| Interest Charges on Long-Term Debt | | Average Amount of Total Long-Term Debt Outstanding | | Embedded Cost of Long-Term Debt |
|---|---|---|---|---|
| $ 54.841 | ÷ | $ 1,250 | = | 4.39% |

## SENSITIVITY ANALYSIS IN FORECASTING FINANCIAL STATEMENTS

For the base case in this section, as a percentage of sales, COGS = 69 percent, SGA = 15 percent, R&D = 2.5 percent. Depreciation, Interest expense are fixed as stated. Tax Rate is 21 percent.

1.a Given the following case, calculate the independent effects of a 1 percent increase in Gross Margin, a 1 percent decrease in the Tax Rate, and a 5 percent increase in Sales.

**Colossal Chemical Corporation**
**Year Ended December 31, 2021**
**($000,000 omitted)**

| | Base Case | 1% Increase in Gross Margin | 1% Decrease in Tax Rate | 5% Increase in Sales |
|---|---|---|---|---|
| Sales | $2,110 | **$2,110** | **$2,110** | **$2,216** |
| Cost of goods sold | 1,456 | **1,435** | **1,456** | **1,529** |
| Selling, general, and administrative expense | 317 | **317** | **317** | **332** |
| Depreciation | 160 | **160** | **160** | **160** |
| Research and development | 53 | **53** | **53** | **55** |
| Total costs and expenses | $1,986 | **$1,964** | **$1,986** | **$2,077** |
| Operating Income | 124 | **146** | **124** | **139** |
| Interest expense | 39 | **39** | **39** | **39** |
| Earnings before Income Taxes | $ 85 | **$ 107** | **$ 85** | **$ 100** |
| Provision for Income Taxes | 18 | **22** | **17** | **21** |
| Net Income | $ 67 | **$ 84** | **$ 68** | **$ 79** |

1.b Using the same case, calculate the independent effects of a 2 percent increase in Gross Margin, a 2 percent decrease in the Tax Rate, and a 5 percent decrease in Sales.

**Colossal Chemical Corporation**
**Year Ended December 31, 2021**
**($000,000 omitted)**

| | Base Case | 2% Increase in Gross Margin | 2% Decrease in Tax Rate | 5% Decrease in Sales |
|---|---|---|---|---|
| Sales | $2,110 | **$2,110** | **$2,110** | **$2,005** |
| Cost of goods sold | 1,456 | **1,414** | **1,456** | **1,383** |
| Selling, general, and administrative expense | 317 | **317** | **317** | **301** |
| Depreciation | 160 | **160** | **160** | **160** |
| Research and development | 53 | **53** | **53** | **50** |
| Total costs and expenses | $1,986 | **$1,943** | **$1,986** | **$1,894** |
| Operating Income | 124 | **167** | **124** | **110** |
| Interest expense | 39 | **39** | **39** | **39** |
| Earnings before Income Taxes | $ 85 | **$ 128** | **$ 85** | **$ 71** |
| Provision for Income Taxes | 18 | **27** | **16** | **15** |
| Net Income | $ 67 | **$ 101** | **$ 69** | **$ 56** |

1.c Using the same case, calculate the composite effects of a 5 percent increase in Sales, a 2 percent decrease in Gross Margin, and a 5 percent increase is SG&A as percent of Sales.

**Colossal Chemical Corporation**
**Year Ended December 31, 2021**
**($000,000 omitted)**

| | Base Case | 2% Decrease in Gross Margin | 5% Increase in SG&A | 5% Increase in Sales |
|---|---|---|---|---|
| Sales | $2,110 | **$2,110** | **$2,110** | **$2,216** |
| Cost of goods sold | 1,456 | **1,498** | **1,456** | **1,529** |
| Selling, general, and administrative expense | 317 | **317** | **422** | **332** |
| Depreciation | 160 | **160** | **160** | **160** |
| Research and development | 53 | **53** | **53** | **55** |
| Total costs and expenses | $1,986 | **$2,028** | **$2,091** | **$2,077** |
| Operating Income | 124 | **82** | **124** | **139** |
| Interest expense | 39 | **39** | **39** | **39** |
| Earnings before Income Taxes | $ 85 | **$ 43** | **$ 85** | **$ 100** |
| Provision for Income Taxes | 18 | **9** | **17** | **21** |
| Net Income | $ 67 | **$ 34** | **$ 68** | **$ 79** |

For the base case in this section, as a percentage of sales, COGS = 58 percent, SGA = 20 percent, R&D = 5.0 percent. Depreciation, Interest expense are fixed as stated. Tax Rate is 21 percent.

2.a Given the following case, calculate the independent effects of a 1 percent increase in Gross Margin, a 1 percent decline in the Tax Rate, and a 5 percent increase in Sales.

**Colossal Chemical Corporation**
**Year Ended December 31, 2021**
**($000,000 omitted)**

| | Base Case | 1% Increase in Gross Margin | 1% Decrease in Tax Rate | 5% Increase in Sales |
|---|---|---|---|---|
| Sales | $4,550 | $4,550 | $4,550 | $4,778 |
| Cost of goods sold | 2,639 | 2,594 | 2,639 | 2,771 |
| Selling, general, and administrative expense | 910 | 910 | 910 | 956 |
| Depreciation | 346 | 346 | 346 | 346 |
| Research and development | 228 | 228 | 228 | 239 |
| Total costs and expenses | $4,122 | $4,077 | $4,122 | $4,311 |
| Operating Income | 428 | 473 | 428 | 466 |
| Interest expense | 84 | 84 | 84 | 84 |
| Earnings before Income Taxes | $ 343 | $ 389 | $ 343 | $ 382 |
| Provision for Income Taxes | 72 | 82 | 69 | 80 |
| Net Income | $ 271 | $ 307 | $ 275 | $ 302 |

2.b Using the same base case, calculate the composite effects of a 5 percent decrease in Sales, a 2 percent decrease in Gross Margin, and a 2 percent decline in the Tax Rate.

**Colossal Chemical Corporation**
**Year Ended December 31, 2021**
**($000,000 omitted)**

| | Base Case | 2% Decrease in Gross Margin | 2% Decrease in Tax Rate | 5% Decrease in Sales |
|---|---|---|---|---|
| Sales | $4,550 | **$4,550** | **$4,550** | **$4,323** |
| Cost of goods sold | 2,639 | **2,730** | **2,639** | **2,507** |
| Selling, general, and administrative expense | 910 | **910** | **910** | **865** |
| Depreciation | 346 | **346** | **346** | **346** |
| Research and development | 228 | **228** | **228** | **216** |
| Total costs and expenses | $4,122 | **$4,213** | **$4,122** | **$3,934** |
| Operating Income | 428 | **337** | **428** | **389** |
| Interest expense | 84 | **84** | **84** | **84** |
| Earnings before Income Taxes | $ 343 | **$ 252** | **$ 343** | **$ 305** |
| Provision for Income Taxes | 72 | **53** | **69** | **64** |
| Net Income | $ 271 | **$ 199** | **$ 275** | **$ 241** |

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