Chapter 4

IMPLEMENTING ACCOUNTING ANALYSIS

We learned in Chapter 3 that accounting analysis requires the analyst to adjust a firm's accounting numbers using cash flow and footnote information to "undo" any accounting distortions. This entails recasting a firm's financial statements using standard reporting nomenclature and formats. Firms frequently use somewhat different formats and terminology for presenting their financial results. Recasting the financial statements using a standard template, therefore, helps ensure that performance metrics used for financial analysis are calculated using comparable definitions across companies and over time.

Once the financial statements have been standardized, the analyst is ready to identify any distortions in financial statements. The analyst's primary focus should be on those accounting estimates and methods that the firm uses to measure its key success factors and risks. If there are differences in estimates and methods between firms or for the same firm over time, the analyst's job is to assess whether they reflect legitimate business differences or differences in managerial judgment or bias. Differences arising from managerial bias will require adjustment. In addition, even if accounting rules are adhered to consistently, accounting distortions can arise because the rules themselves do a poor job of capturing firm economics, creating opportunities for the analyst to adjust a firm's financials in a way that presents a more realistic picture of its performance.

In addition, in today's global business world, competitors frequently come from a diverse set of countries and report using different accounting standards, making it challenging for analysts to compare their financial performance. The two most widely used standards are U.S. GAAP and International Financial Reporting Standards (IFRS). In situations when these reporting differences are significant, the analyst can adjust the financials of the firms to put them on a level playing field.

This chapter begins by showing how to recast the firm's financial statements into a template that uses standard terminology and classifications. Next, we use discussion and examples to illustrate the most common types of accounting distortions that can arise and show how to make adjustments to the standardized financial statements to undo these distortions. We then identify some of the significant remaining differences between U.S. GAAP and IFRS and show how to adjust for these differences. Finally, we return to our TJX and Nordstrom comparison (first introduced in Chapter 2) in order to illustrate the adjustments we would make to more appropriately compare these two companies.

An analysis of the balance sheet is used to identify whether there have been any distortions to assets, liabilities, or owners' equity. Once an asset and liability misstatement has been identified, the analyst can make adjustments to the balance sheet at the beginning and/or end of the current year, as well as any needed adjustments to revenues and expenses in the latest income statement. This approach ensures that the financial ratios used to evaluate a firm's most recent results and forecast its future performance are based on financial data that appropriately reflect its business economics.

In some instances, information taken from a firm's footnotes and cash flow statement enables the analyst to make a precise adjustment for an accounting distortion. However, for many types of accounting adjustments, the company does not disclose all of the information needed to perfectly undo the distortion, requiring the analyst to make an approximate adjustment to the financial statements.

RECASTING FINANCIAL STATEMENTS

Firms sometimes use different nomenclature and formats to present their financial results. For example, the asset goodwill can be reported separately using such titles as Goodwill, Excess of Cost Over Net Assets of Acquired Companies, and Cost in Excess of Fair Value, or it can be included in the line item Other Intangible Assets. Interest Income can be reported either as a subcategory of Revenues, shown lower down the income statement as part of Other Income and Expenses, or sometimes as Interest Expense, Net of Interest Income.

These differences in financial statement terminology, classifications, and formats can make it difficult to compare performance across firms, and sometimes to compare performance for the same firm over time. The first task for the analyst in accounting analysis is, therefore, to recast the financial statements into a common format. This involves designing a template for the income statement, balance sheet, and cash flow statement that can be used to standardize financial statements for any company. Tables 4-1, 4-2, and 4-3 present the format used throughout the book to standardize the income statement, balance sheet, and cash flow statement, respectively.

TABLE 4-1 Standardized Income Statement Format

Standard Income Statement Accounts	Sample Line Items in Reported Accounts
Sales	Revenues
	Net sales
	Turnover
	Other non-interest income
	Other revenue
	Royalties and franchise-related fees
	Membership and service fees
	Services
	Commissions
	Licenses
Cost of Sales	Cost of goods sold
	Cost of merchandise sold
	Cost of products sold
	Cost of revenues
	Cost of services

(*continued*)

Standard Income Statement Accounts	Sample Line Items in Reported Accounts
	Financial services costs Depreciation on manufacturing facilities
SG&A	General and administrative Sales and marketing Salaries and benefits Servicing and maintenance Depreciation on selling and administrative facilities
Other Operating Expense	Amortization of intangibles Product development Research and development Provision for losses on credit sales Pre-opening costs Special charges
Investment Income	Equity income (from associates) Dividend income Rental income[1]
Other Income	Gains on sale of investments / long-term assets Foreign exchange gains Pre-tax gains from accounting changes
Other Expense	Losses on sale of investments / long-term assets Foreign exchange losses Pre-tax losses from accounting changes Restructuring charges Merger expenses Asset impairments
Interest Income	Interest income
Interest Expense	Interest on long-term debt Interest on short-term debt
Minority Interest	Minority interest
Tax Expense	Tax Expense Provision for taxes
Unusual Gains, Net of Unusual Losses	Any gains or losses reported on an after-tax basis, such as: Extraordinary items Non-recurring charges Effect of accounting changes
Preferred Dividends	Preferred dividends
Common Shares Outstanding	Common Shares Outstanding

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TABLE 4-2 Standardized Balance Sheet Format

Standard Balance Sheet Accounts	Sample Line Items in Reported Accounts	Standard Balance Sheet Accounts	Sample Line Items in Reported Accounts
Assets		**Liabilities and Equity**	
Cash and Marketable Securities	Cash Cash and cash equivalents Short-term investments Time deposits	Short-Term Debt	Short-term debt Notes payable (bank) Bank overdraft Current portion of long-term debt Current portion of capital lease obligation
Accounts Receivable	Accounts/trade receivables (net) Trade debtors	Accounts Payable	Accounts/trade payables Trade creditors Notes payable (trade)
Inventory	Inventory Finished goods Raw materials Work-in-process Stocks	Other Current Liabilities	Accrued expenses Accrued liabilities Taxes payable Dividends payable Deferred (unearned) revenue Customer advances
Other Current Assets	Prepaid expenses Taxes refundable Current assets of discontinued operations Due from affiliates Due from employees Prepaid income taxes	Long-Term Debt	Long-term debt Senior term notes Subordinated debt Capital lease obligations Convertible debt Pension/post-retirement benefit obligation

(*continued*)

Standard Balance Sheet Accounts	Sample Line Items in Reported Accounts	Standard Balance Sheet Accounts	Sample Line Items in Reported Accounts
Long-Term Tangible Assets	Plant, property, and equipment Land Non-current assets of discontinued operations	Deferred Taxes	Deferred income taxes
Long-Term Intangible Assets	Goodwill Software development costs Deferred financing costs Deferred subscriber acquisition costs Deferred charges Trademarks License rights	Other Long-Term Liabilities	Non-current deferred (unearned) revenues Other non-current liabilities
Other Long-Term Assets	Long-term investments Long-term receivables Investment in sales-type or direct-financing leases	Minority Interest	Minority interest
		Preferred Stock	Preferred stock Preferred convertible stock
		Common Shareholders' Equity	Common stock Additional paid-in capital Capital in excess of par Treasury stock Retained earnings Cumulative foreign currency gains and losses Accumulated other comprehensive income

Source: © Cengage Learning

TABLE 4-3 Standardized Cash Flow Statement Format

Standard Cash Flow Statement Accounts	Sample Line Items in Reported Accounts
Net Income	Net Income
After-tax interest expense (income)	Interest on long-term debt (calculated net of tax) Interest on short-term debt (calculated net of tax)
Non-operating Gains (Losses)	Gain (loss) on sale of investments / non-current assets Cumulative effect of accounting changes Gain (loss) on foreign exchange Extraordinary gains (losses)
Long-Term Operating Accruals — Depreciation and Amortization	Depreciation and amortization Amortization of subscriber acquisition costs Amortization of cost in excess of fair value of net assets acquired
Long-Term Operating Accruals — Other	Deferred revenues / costs Deferred income taxes Impairment of non-current assets Other non-cash charges to operations Equity earnings of affiliates / unconsolidated subs, net of cash received Minority interest Stock bonus awards
Net (Investments in) or Liquidation of Operating Working Capital	Changes in: Trade accounts receivable Other receivables Prepaid expenses Trade accounts payable Accrued expenses (liabilities) Due from affiliates Accounts payable and accrued expenses Refundable / payable income taxes Inventories Provision for doubtful accounts and bad debts Other current liabilities Other current assets
Net (Investment in) or Liquidation of Operating Long-Term Assets	Purchase / sale of non-current assets Acquisition of research and development Acquisition / sale of business Capital expenditures Equity investments Acquisition of subsidiary stock Capitalization of computer software development costs Cost in excess of the fair value of net assets acquired Investment in sales-type and direct financing leases

(*continued*)

Standard Cash Flow Statement Accounts	Sample Line Items in Reported Accounts
Net Debt (Repayment) or Issuance	Principal payments on debt Borrowings (repayments) under credit facility Issuance (repayment) of long-term debt Net increase (decrease) in short-term borrowings Notes payable
Dividend (Payments)	Cash dividends paid on common stock Cash dividends paid on preferred stock Distributions
Net Stock (Repurchase) or Issuance	Proceeds from issuance of common stock Issue of common stock for services Issue (redemption) of preferred securities Issue of subsidiary equity Purchase (issue) of treasury stock

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To create standardized financials for a particular company, the analyst classifies each line item in that firm's financial statements using the appropriate account name from the above templates. This may require using information from the footnotes to ensure that accounts are classified appropriately. An example, applying the above template to standardize the financial statements for the year ending January 2011 for The TJX Companies, Inc., is shown in Appendix A at the end of this chapter.

MAKING ACCOUNTING ADJUSTMENTS

Once the financials have been standardized, the analyst can evaluate whether accounting adjustments are needed to correct any distortions in assets, liabilities, or equity, as discussed below.

Asset Distortions

Accountants define assets as resources that a firm owns or controls as a result of past business transactions, and which are expected to produce future economic benefits that can be measured with a reasonable degree of certainty. Assets can take a variety of forms, including cash, marketable securities, receivables from customers, inventory, fixed assets, long-term investments in other companies, and intangibles.

Distortions in asset values generally arise because there is ambiguity about whether

- The firm owns or controls the economic resources in question,
- The economic resources are likely to provide future economic benefits that can be measured with reasonable certainty, or
- The fair values of assets are lower or higher than their book values.

Who Owns or Controls Resources?

For most resources used by a firm, ownership or control is relatively straightforward—the firm using the resource owns the asset. However, some types of transactions make it

difficult to assess who owns a resource. For example, does the lessor or the lessee own or control a resource that has been leased? Or consider a firm that discounts a customer receivable with a bank. If the bank has recourse against the firm should the customer default, is the real owner of the receivable the bank or the company?

Given the subjectivity of identifying when a company has control over an asset, accountants frequently use mechanical rules to define control. These rules make it easy for accountants to implement accounting standards, but they can result in differences in standards across countries. They also permit managers to "groom" transactions to satisfy their own financial reporting objectives. For example, both U.S. GAAP and IFRS currently permit lease transactions to be structured in such a way that the leased asset can be reported on the balance sheet of the lessee, the lessor, or on neither party's balance sheet.[2] Accounting analysis, therefore, involves assessing whether a firm's reported assets adequately reflect the key resources that are under its control, and whether adjustments are required to compare its performance with that of competitors.

Asset ownership issues also arise indirectly from the application of rules for revenue recognition. Firms are permitted to recognize revenues only when their product has been shipped or their service has been provided to the customer. Revenues are then considered "earned," and the customer has a legal commitment to pay for the product or service. As a result, for the seller, recognition of revenue frequently coincides with "ownership" of a receivable that is shown as an asset on its balance sheet. Therefore, accounting analysis that raises questions about whether or not revenues have been earned often affects the valuation of assets.

Ambiguity over whether a company owns an asset creates a number of opportunities for accounting analysis:

- Despite management's best intentions, financial statements sometimes do a poor job of reflecting the firm's economic assets since it is difficult for accounting rules to capture all of the subtleties associated with ownership and control.
- Because accounting rules on ownership and control permit managers to groom transactions such that essentially similar transactions are reported in very different ways, important assets may be omitted from the balance sheet even though the firm bears many of the economic risks of ownership.
- There may be legitimate differences in opinion between managers and analysts over residual ownership risks borne by the company, leading to differences in opinion over reporting for these assets.
- Aggressive revenue recognition, which boosts reported earnings, is likely to affect asset values.

Can Future Economic Benefits Be Measured with Reasonable Certainty?

It is almost always difficult to accurately forecast the future benefits associated with capital outlays because the world is uncertain. A company does not know whether a competitor will offer a new product or service that makes its own offering obsolete. It does not know whether the products manufactured at a new plant will be the type that customers want to buy. A company does not know whether changes in oil prices will make the oil drilling equipment that it manufactures less valuable.

Accounting rules deal with these challenges by stipulating the types of resources that can be recorded as assets and those that cannot. The judgment involved in creating these rules, however, can lead to reporting differences across firms and countries. For example,

consider the treatment of the economic benefits from research and development (R&D), which is generally considered highly uncertain. Research projects may never deliver promised new products, the products they generate may not be economically viable, or products may be made obsolete by competitors' research. Under U.S. GAAP, R&D outlays are expensed, except for software development costs on products that satisfy technological feasibility standards (see SFAS 86). IFRS requires all research costs to be expensed but permits firms to capitalize development costs once standards of technical and market feasibility are satisfied (IAS 38).

Rules that require the immediate expensing of outlays for some key resources may be good accounting, but they create a challenge for the analyst—they make it more difficult to infer financial performance from the financial statements. If all U.S. firms expense R&D, financial statements will reflect differences in R&D success only when new products are commercialized rather than during the development process. Differences in R&D expensing for firms using U.S. GAAP and IFRS will also make it challenging for the analyst to assess how much of any differences in reported performance are due to reporting standards rather than economic performance. One way the analyst can attempt to correct for these distortions is by capitalizing key R&D outlays and adjusting the value of the intangible asset based on R&D updates.[3]

Have Fair Values of Assets Declined Below Book Value?

An asset is impaired when its fair value falls below its book value. Of course, markets for many long-term operating assets are illiquid and incomplete, making it highly subjective to infer their fair values. As the 2008 financial crisis demonstrated, asset valuation can also be subjective in markets that are typically highly liquid but which have temporarily frozen. Consequently, considerable management judgment is involved in deciding whether an asset is impaired and determining the value of any impairment loss.

For the analyst, this raises the possibility that asset values are misstated. In most countries, accounting standards require that a loss be recorded for permanent asset impairments. Once again, however, the specific rules differ across countries. For example, U.S. rules (SFAS 144) permit a certain amount of asset overstatement since the test for asset impairment compares the asset's book value to the expected value of *undiscounted* (rather than *discounted*) future cash flows expected to be generated from future use and sale of the asset. This can create situations where no financial statement loss is reported for an asset that is economically impaired. In contrast, IFRS requires the asset impairment test to be based on discounted (rather than undiscounted) cash flows.

The task of determining whether there has been an asset impairment and valuing the impairment is delegated to management with oversight by the firm's auditors. This leaves opportunities for potential management bias in valuing assets and for legitimate differences in opinion between managers and analysts over asset valuations. In most cases, management bias will lead to overstated assets since managers will prefer not to recognize an impairment. However, managers can also bias asset values downward by overstating the current level of impairment, thereby reducing future expenses and increasing future earnings.

Opportunities for accounting adjustments can therefore arise in the situations discussed above if

- Accounting rules do not do a good job of capturing the firm's economics,
- Managers use their discretion to distort the firm's performance, or
- There are legitimate differences in opinion between managers and analysts about economic uncertainties facing the firm that are reflected in asset values.

Overstated Assets

Asset overstatements are likely to arise when managers have incentives to increase reported earnings. Thus, adjustments to assets also typically require adjustments to the income statement in the form of either increased expenses or reduced revenues. The most common forms of asset (and earnings) overstatement are the following:

1. *Delayed asset write-downs*. If assets become impaired—that is, their realizable values fall below their book values—accounting rules generally require that they be written down to their fair values. Asset impairments affect earnings since write-downs are charged directly to earnings. Asset write-downs also increase a firm's leverage, potentially limiting its ability to access capital markets. However, determining an asset's fair value involves considerable judgment, potentially providing managers with an opportunity to defer asset impairments as a way to boost reported profits and to enhance their firms' financial position.[4]

   Analysts that cover firms where management of inventories and receivables is a key success factor (e.g., the fashion retail and consumer electronics industries) need to be particularly cognizant of this form of earnings management and its impact on assets. For example, if managers over-buy or over-produce in the current period, they are likely to have to offer customers discounts or attractive credit terms to get rid of surplus inventories. Significant customer discounts negatively impact earnings, while providing customers with credit carries the risk of default. Warning signs for delays in this type of asset write-down include growing inventory and receivables, write-downs of similar products by competitors, and business downturns for a firm's major customer.

   Deteriorating industry or firm economic conditions can also affect the value of long-term non-financial assets (such as plant and equipment) or intangible assets (such as goodwill). Although firms are required to recognize impairments in the values of these assets when they arise, second-hand markets for these asset types are often illiquid, incomplete, or nonexistent, making estimates of asset valuations and impairments inherently subjective. As a result, managers can use their reporting judgment to delay write-downs on the balance sheet and avoid showing impairment charges in the income statement.[5] This issue is particularly relevant for asset-intensive firms in volatile markets (e.g., airlines) or for firms that follow a strategy of aggressive growth through acquisitions (and thus have large amounts of goodwill on their balance sheet).[6] Warning signs for delays in impairments in long-term non-financial assets include declining long-term asset turnover, declines in return on assets to below the cost of capital for the firm, write-downs by other firms in the same industry that have also suffered deteriorating asset use, and overpayment for or unsuccessful integration of key acquisitions.
2. *Underestimated reserves (e.g., allowances for bad debts or loan losses)*. Managers make estimates of expected customer defaults on accounts receivable and loans and create reserves to cover these anticipated costs. If managers underestimate the value of these reserves, assets and earnings will be overstated. Warning signs of inadequate allowances include growing receivables, business downturns for a firm's major clients, and growing loan delinquencies.
3. *Accelerated recognition of revenues (increasing receivables)*. Managers typically have the best information on the uncertainties governing revenue recognition—whether a product or service has been provided to customers and whether cash collection is

reasonably likely. However, managers may also have incentives to accelerate the recognition of revenues, boosting reported earnings for the period. Accounts receivable and earnings will then be overstated. Aggressive revenue recognition is one of the most popular forms of earnings management cited by the SEC. Warning signs include receivables growth outpacing sales growth, and increasing days' receivable.

4. *Understated depreciation/amortization on long-term assets*. Managers make estimates of asset lives, salvage values, and amortization schedules for depreciable long-term assets. If these estimates are optimistic, long-term assets and earnings will be overstated. This issue is likely to be most pertinent for firms in asset-intensive businesses (e.g., airlines, utilities). A comparison of the firm's policies to those of its industry competitors with a similar asset base and strategy will help an analyst identify potential overstatements.

EXAMPLES OF HOW TO CORRECT FOR ASSET OVERSTATEMENT

The following examples illustrate some of the distortions that lead to overstated assets and the types of corrections that an analyst can make to reduce bias in the financial statements.

Delayed Write-Downs of Assets

In recent years, the portable MP3 player dominated the music delivery industry, influencing everything from format to record label strategy to how artists market and release their music. Apple has dominated the market with its iPod player—building a U.S. market share of over 75 percent since its introduction in 2001. Rivals such as Creative Technology, Sony, Microsoft, and Samsung have competed aggressively in an attempt to grab a share of this rapidly growing market. Key risks facing these firms include rapid changes in MP3 player technology and inventory management in the face of both relentless competition and potential technological obsolescence.

Singapore-based Creative Technology posted impressive revenue growth from the second half of 2003 through the first quarter of 2005, with predictable spikes in holiday season sales in both 2003 and 2004. However, gross margins steadily declined from 35 percent to 23 percent over this period. A more worrying trend was the firm's inventory management. Growth in inventory far outpaced growth in sales, leading to a 58 percent increase in days' inventory, from 100 days for the quarter ending September 30, 2003, to 158 days for the quarter ending March 31, 2005. Inventory at the end of March 2006 was valued at $451.2 million, up from $183.9 million nine months prior. This increase raises questions for analysts about Creative Technology's inventory value and potential obsolescence.

An analyst can assess whether inventory is impaired by talking with suppliers and customers, observing the speed of new product launches for MP3 players, benchmarking against the performance of other firms in the industry, and understanding the general sentiment about expected market growth. Based on this research, an analyst can judge whether Creative Technology's slowdown in inventory turnover is likely to persist, whether there are serious technological risks for the current inventory, and, if so, whether and how large an impairment charge is appropriate. Prior to the release of earnings for the June 31, 2005, quarter, several analysts raised questions about the growth in Creative Technology's inventory and anticipated that the company would be forced to record future inventory impairment charges.

Once an analyst concludes that inventory is overstated, the challenge is to estimate the magnitude of the write-down. For Creative Technology, this depends on the price discounts that are required to move slow-moving products. The after-tax cost of the impairment will reduce current and retained earnings. In addition, the tax effect of the impairment will lower the Tax Expense and reduce the Deferred Tax Liability since the inventory write-down is not recorded for tax purposes until the inventory is subsequently sold. Creative Technology enjoys a special status in Singapore that exempts certain elements of revenues from income tax. However, for illustrative purposes, using the local statutory tax rate of 20 percent, the financial statements could be modified as follows for an assumed inventory overstatement of $25 million:

	Adjustment	
($ Millions)	**Assets**	**Liabilities & Equity**
Balance Sheet		
Inventory	−25.0	
Deferred Tax Liability		−8.8
Common Shareholders' Equity		−16.2
Income Statement		
Cost of Sales		+25.0
Tax Expense		−8.8
Net Income		−16.2

In August 2005, Creative Technology announced that it would take a $20 million charge against inventory to reflect a decline in prices of certain components used to manufacture MP3 players. In the quarter ending March 31, 2006, the company took another inventory write-down due to a steep drop in the price of components such as flash memory and hard drives. Not surprisingly, Creative Technology's share price tumbled in response to news of the write-downs—from a high of close to $17 per share in early 2005, the stock traded at less than $5 per share in mid-2006.

Underestimated Reserves

In late 2006, Community Health Systems (CHS) was the leading operator of general and acute care hospitals in non-urban communities in the United States. The company owned 77 hospitals in 22 states, had a dominant market share in more than 85 percent of the markets it served, and in fiscal 2005 generated $3.7 billion in revenues.

CHS received payments for its services from governmental agencies, private insurers, and directly from the patients it served. Medicare was the single largest revenue provider, accounting for approximately 33 percent of net operating revenue in the quarter ended June 30, 2006. Managed care provided a further 25 percent of revenues, 10 percent came from Medicaid, and 13 percent was from self-pay sources (uninsured patients, patient deductibles, co-insurance payments not covered by the insurer, and patients whose insurance providers had failed to pay).

Prior to 2006, CHS estimated its allowance for doubtful accounts by reserving an amount equal to all receivables aged over 150 days, regardless of patient class. Based on this approach, CHS's quarterly filing for the quarter ended June 30, 2006, showed allowance for doubtful accounts at 32.5 percent of gross receivables. However, this approach did not differentiate among the risk characteristics of different classes of patients. In particular, it failed to recognize that collection rates were lowest for self-pay accounts and

that there had been an increase in the proportion of revenues and receivables from these patients during the quarter.

An analyst who recognized the importance of the increase in the proportion of receivables from self-pay customers might decide that the June 2006 receivable allowances were understated, and that balance sheet adjustments needed to be made to Accounts Receivable (for the gross change in reserve), to the Deferred Tax Liability (for the tax impact of the increased expense), and to Retained Earnings (for the net effect). For example, if the analyst decided that allowances for doubtful accounts for CHS should be 36 percent rather than 32.5 percent of Accounts Receivable, to reflect the change in patient mix, Accounts Receivable would have to be reduced by $37.8 million (given the June 2006 Accounts Receivable balance of $1.08 billion and allowance for doubtful accounts of $351 million). Given the company's effective tax rate of 39 percent, this would reduce earnings and equity by $23.1 million and the Deferred Tax Liability by $14.7 million. The adjustment to the June 30, 2006, financial statements would, therefore, be as follows:

	Adjustment	
($ Millions)	**Assets**	**Liabilities & Equity**
Balance Sheet		
Accounts Receivable	−37.8	
Deferred Tax Liability		−14.7
Common Shareholders' Equity		−23.1
Income Statement		
Provision for Doubtful Accounts		+37.8
Tax Expense		−14.7
Net Income		−23.1

At the end of October 2006, CHS announced that it would change its methodology for estimating the allowance for doubtful accounts for the quarter ending September 30. Under the new method, the company estimated separate default rates for self-pay and other accounts receivable to reflect the differences in collection history. As a result, an incremental $65 million bad debt expense was recorded for the quarter and the estimate increased to 38 percent of gross receivables. Further allowance increases occurred in 2008 and 2009, to 40 percent and 42 percent of receivables respectively. CHS explained that the decline in collectability was primarily the result of the weak economy that had increased the number of patients qualifying for charity care, reduced enrollment in certain state Medicaid programs, and increased the number of non-resident aliens seeking indigent care.

Accelerated Recognition of Revenues

In 2006, the SEC announced an informal inquiry into the financials of Diebold Inc., a U.S. maker of voting equipment, automated teller machines, and bank security systems. In May 2007, Diebold announced that it had received a subpoena from the SEC seeking documents related to its revenue recognition practices. At issue was the recognition of certain North American revenues on "bill and hold" transactions, where the company billed its customers for sales and held the merchandise until later delivery. Under U.S. GAAP, these transactions could be recorded as revenue provided the customer requested that the seller hold the merchandise for legitimate business purposes, there was an agreed delivery schedule, the products were ready for shipment, and the seller did not have any future performance obligations.

From 2002 to 2003, Diebold's days' receivable had increased from 76 to 97 days—an increase of 28 percent. Upon investigation, the SEC detected a number of improper revenue transactions, including shipments from the factory to the warehouse that had been recorded as "bill and hold" sales. An analyst who had observed the increased days' receivable and the SEC interest in Diebold, and wanted to adjust the company's revenues could estimate the impact of the increase on sales and profits. To reduce days' receivable by 21 days, revenues and accounts receivable for 2003 would have to decline by $150 million, requiring the following changes to Diebold's 2003 financial reports:

1. Sales and Accounts Receivable would both decline by $150 million.
2. Cost of Sales would decline and Inventory would increase to reflect the reduction in sales. The value of the Cost of Sales / Inventory adjustment can be estimated by multiplying the sales adjustment by the ratio of cost of sales to sales (67 percent for Diebold in 2003), or $100.5 million (67 percent of $150 million).
3. The decline in pretax income would result in a lower Tax Expense in the company's financial reporting books (but presumably not in its tax books). Consequently, the Deferred Tax Liability would have to be reduced. Diebold's marginal tax rate was 35 percent, implying that the decline in the Tax Expense and Deferred Tax Liability would be $17.3 million [($150 − $100.5) × .35].

The full effect of the adjustment on the 2003 financial statements would therefore be as follows:

	Adjustment	
($ Millions)	**Assets**	**Liabilities & Equity**
Balance Sheet		
Accounts Receivable	−150.0	
Inventory	+100.5	
Deferred Tax Liability		−17.3
Common Shareholders' Equity		−32.2
Income Statement		
Sales		−150.0
Cost of Sales		−100.5
Tax Expense		−17.3
Net Income		−32.2

As a result of the SEC inquiry, Diebold launched an internal review of its accounting practices and in September of 2008 announced that it was restating its financial statements for the fiscal years 2003–2006 as well as the quarter ended March 31, 2007. In June 2010 the company agreed to pay a $25 million civil penalty to settle an SEC suit.

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Understated Assets

Asset understatements typically arise when managers have incentives to deflate reported earnings. This may occur when the firm is performing exceptionally well and managers decide to store away some of the current strong earnings for a rainy day. Income smoothing, as it has come to be known, can be implemented by over-stating current

period expenses (and understating the value of assets) during good times. Asset (and expense) understatements can also arise in a particularly bad year, when managers decide to "take a bath" by understating current period earnings to create the appearance of a turnaround in following years. Accounting analysis involves judging whether managers have understated assets (and also income) and, if necessary, adjusting the balance sheet and income statement accordingly.

Asset understatements can also arise because of accounting rules themselves. In many countries, accounting standards require firms to expense outlays for R&D and advertising because, even though they may create future value for owners, their outcomes are highly uncertain. Asset understatements can also arise when managers have incentives to understate liabilities. For example, if a firm records lease transactions as operating leases or if it discounts receivables with recourse, neither the assets nor the accompanying obligations are shown on its balance sheet. Yet, in some instances, this accounting treatment does not reflect the underlying economics of the transactions—the lessee may effectively own the leased assets, and the firm that sells receivables may still bear all of the risks associated with ownership. The analyst will then want to adjust the balance sheet (and also the income statement) for these effects.

The most common forms of asset (and earnings) understatement arise when there are the following:

1. *Overstated asset write-downs*. Managers potentially have an incentive to overstate asset write-downs either during years of exceptionally strong performance, or when the firm is financially distressed. By overstating asset impairments and overstating expenses in the current period, managers can show lower future expenses, boosting earnings in years of sub-par performance or when a turnaround is needed. Overstated asset write-downs can also arise when managers are less optimistic about the firm's future prospects than the analyst.
2. *Overestimated reserves (e.g., allowances for bad debts or loan losses)*. If managers overestimate reserves for bad debts or loan losses, accounts receivable and loans will be understated.
3. *Overstated depreciation/amortization on long-term assets*. Firms that use tax depreciation estimates of asset lives, salvage values, or amortization rates are likely to amortize assets more rapidly than justifiable given the assets' economic usefulness, leading to long-term asset understatements.
4. *Lease assets off balance sheet*. Assessing whether a lease arrangement should be considered a rental contract (and hence recorded using the operating method) or equivalent to a purchase (and hence shown as a capital lease) is subjective. It depends on whether the lessee has effectively accepted most of the risks of ownership, such as obsolescence and physical deterioration. To standardize the reporting of lease transactions, accounting standards have created criteria for distinguishing between the two types. In the United States, SFAS 13 requires a lease transaction to be equivalent to an asset purchase if any of the following conditions hold: (1) ownership of the asset is transferred to the lessee at the end of the lease term, (2) the lessee has the option to purchase the asset for a bargain price at the end of the lease term, (3) the lease term is 75 percent or more of the asset's expected useful life, and (4) the present value of the lease payments is 90 percent or more of the fair value of the asset. Given these objective criteria, managers reporting under U.S. GAAP can structure lease contracts to circumvent the spirit of the distinction between capital and operating leases, potentially leading to the understatement of lease assets.[7] This is likely to be an important issue for the analysis of asset-intensive industries where there are options for leasing

(e.g., airlines and retail chains).[8] In contrast, IFRS standard IAS 17 focuses on transfer of risk and reward to indicate transfer of ownership rather than mandated numerical thresholds.

5. *Key intangible assets, such as R&D and trademarked brands, not reported on the balance sheet.* Some firms' most important assets are excluded from the balance sheet. Examples include investments in R&D, software development outlays, and brands and membership bases that are created through advertising and promotions. U.S. GAAP prohibits the capitalization of R&D outlays and membership acquisition costs (with an exception for certain software development costs), while countries reporting under IFRS are generally required to expense these costs as well (with some additional limited latitude in the area of development costs)—primarily because it is believed that the benefits associated with such outlays are too uncertain. New products may never reach the market due to technological infeasibility or to the introduction of superior products by competitors; and new members that sign up for a service as a result of a promotions campaign may subsequently quit. Expensing the cost of intangibles has two implications for analysts. First, the omission of intangible assets from the balance sheet inflates measured rates of return on capital (either return on assets or return on equity).[9] For firms with key omitted intangible assets, this omission has important implications for forecasting long-term performance; unlike firms with no intangibles, competitive forces will not cause their rates of return to fully revert to the cost of capital over time. For example, pharmaceutical firms have shown very high rates of return over many decades in part because of the impact of R&D accounting. A second effect of expensing outlays for intangibles is that it makes it more difficult for the analyst to assess whether the firm's business model works. Under the matching concept, operating profit is a meaningful indicator of the success of a firm's business model since it compares revenues and the expenses required to generate them. Immediately expensing outlays for intangible assets runs counter to matching and, therefore, makes it more difficult to judge a firm's operating performance. Consistent with this, research shows that investors view R&D and advertising outlays as assets rather than expenses.[10] Understated intangible assets are likely to be important for firms in pharmaceutical, software, branded consumer products, and subscription businesses.

EXAMPLES OF HOW TO CORRECT FOR ASSET UNDERSTATEMENT

The following examples illustrate some of the types of distortions that understate assets and show corrections that an analyst can make to ensure that assets are reflected appropriately.

Overstated Depreciation for Long-Term Assets

In 2009 Lufthansa, the German national airline, reported that it depreciated its aircraft over 12 years on a straight-line basis, with an estimated residual value of 15 percent of initial cost. Air France-KLM, an airline formed in 2004 by the merger of the French airline Air France and the Dutch airline KLM, is one of Lufthansa's main competitors. In contrast to Lufthansa, Air France-KLM reported that its aircraft depreciation was also estimated using the straight-line method but assuming an average life of 20 years and no residual value.[11]

For the analyst, these differences raise several questions. Do Lufthansa and Air France-KLM fly different types of routes, potentially explaining the differences in their

depreciation policies? Alternatively, do they have different asset management strategies? For example, does Lufthansa use newer planes to attract more business travellers, to lower maintenance costs, or to lower fuel costs? If there do not appear to be operating differences that explain the differences in the two firms' depreciation rates, the analyst may well decide that it is necessary to adjust the depreciation rates for one or both firms to ensure that their performance is comparable.

To adjust for this effect, the analyst could choose to decrease Lufthansa's depreciation rates to match those of Air France-KLM. The following financial statement adjustments would then be required in Lufthansa's financial statements:

1. Increase the book value of the fleet at the beginning of the year to adjust for the relatively high depreciation rates that had been used in the past. This will also require an offsetting increase in equity (retained earnings) and in the deferred tax liability.
2. Reduce the depreciation expense (and increase the book value of the fleet) to reflect the lower depreciation for the current year, and increase the tax expense (in 2009, Lufthansa's tax rate was 25 percent). On the balance sheet, show an increase in equity and deferred tax liability.

Note that these changes are designed to show Lufthansa's results as if it had always used the same depreciation assumptions as Air France-KLM rather than to reflect a change in the assumptions for the current year going forward. This enables the analyst to compare ratios that use assets (e.g., return on assets) for the two companies.

Lufthansa reported in its 2009 Annual Report the total cost of its aircraft at the beginning of 2009 as €17,918 m, and that accumulated depreciation was €10,547 m. This implies that the average life of Lufthansa's fleet was 8.32 years, calculated as follows:

€ Millions (unless otherwise noted)		
Aircraft cost, 01/01/09	17,918	Reported
Depreciable cost	15,230	Cost × (1 − .15)
Accumulated depreciation, 01/01/09	10,547	Reported
Accumulated depreciation / Depreciable cost	69.3%	
Depreciable life	12 years	Reported
Average age of aircraft	8.32	12 × .693 years

If Lufthansa used the same useful life and salvage estimates as Air France-KLM, Accumulated Depreciation would have been only €7,454 m, thereby increasing the company's Long-term Tangible Assets by €3,093 m and Common Shareholders' Equity by €2,320 m, while also increasing the Deferred Tax Liability by €773 m:

€ Millions (unless otherwise noted)		
Aircraft cost at 01/01/09	17,918	Reported
Depreciable cost	17,918	No residual value
Depreciable life	20 years	Air France-KLM
Accumulated depreciation, 01/01/09	7,454	Over 8.32 years
Increase in Long-Term Tangible Assets	3,093	
Marginal Tax Rate	25.0%	Reported
Increase in Deferred Tax Liability	773	
Increase in Common Shareholders Equity	2,320	

Given its net investment in new aircraft of €2,055 m in 2009, Lufthansa's depreciation expense for 2009 (included in Cost of Sales) using the same useful life and salvage estimates as Air France-KLM, would have been €947 m [(17,918 + 2,055/2)/20] versus the €1,185 m reported by the company.[12] Thus, Cost of Sales would decline by €238 m, increasing the Tax Expense for the year by €60 m. On the balance sheet, these changes would increase Long-Term Tangible Assets by €238 m, increase Deferred Tax Liability by €60 m, and increase Common Shareholders' Equity by €178 m.

In summary, if Lufthansa were using the same depreciation method as Air France-KLM, its financial statements for the years ended December 31, 2009 and 2008, would have to be modified as follows:

	Adjustment December 31, 2009		Adjustment December 31, 2008	
(€ Millions)	**Assets**	**Liabilities & Equity**	**Assets**	**Liabilities & Equity**
Balance Sheet				
Long-Term Tangible Assets	+3,093 +238		+3,093	
Deferred Tax Liability		+773 + 60		+773
Shareholders' Equity		+2,320 + 178		+2,320
Total Impact	+3,331	+3,331	+3,093	+3,093
Income Statement				
Cost of Sales		−238		
Tax Expense		+60		
Net Income		+178		

Sales turnover (sales to average assets) comparisons for the two companies using reported data show that Lufthansa has higher turnover than Air France-KLM (0.91 versus 0.81). However, analysts that make the above adjustment would observe that the full amount of this difference is attributable to the different depreciation assumptions. After adjustment, Lufthansa's sales turnover declines to 0.81, identical to that of Air France-KLM.

Key Intangible Assets Off Balance Sheet

How should the analyst approach the omission of intangibles? One way is to leave the accounting as is but to recognize that forecasts of long-term rates of return will have to reflect the inherent biases that arise from this accounting method. A second approach is to capitalize intangibles and amortize them over their expected lives.

For example, consider the case of Microsoft, the largest software company in the world. Microsoft expenses its software R&D costs, arguing that all material research and development costs are incurred before technological feasibility is reached (U.S. GAAP allows capitalization of development costs once technical feasibility is established until the product is released to the market). What adjustment would be required if the analyst decided to capitalize Microsoft's software R&D and to amortize the intangible asset using the straight-line method over the expected life of software (approximately three years)? Assume that R&D spending occurs evenly throughout the year and that only half a year's amortization is taken on the latest year's spending. Given R&D outlays

for the years 2007 to 2010, the R&D asset at the end of the 2010 fiscal year (06/30/10) is $13.2 billion, calculated as follows:

Year	R&D Outlay ($billions)	Proportion Capitalized 06/30/10 ($ billions)	Asset 06/30/10 ($ billions)	Proportion Capitalized 06/30/09 ($ billions)	Asset 06/30/09 ($ billions)
2010	$8.7	(1 − .33/2)	$7.3		
2009	9.0	(1 − .33/2 − .33)	4.5	(1 − .33/2)	$7.5
2008	8.2	(1 − .33/2 − .67)	1.4	(1 − .33/2 − .33)	4.1
2007	7.1			(1 − .33/2 − .67)	1.2
Total			$13.2		$12.8

The R&D amortization expenses (included in Other Operating Expenses) for 2009 and 2010 are $7.6 billion and $8.3 billion, respectively, and are calculated as follows:

Year	R&D Outlay ($billions)	Proportion Capitalized 06/30/10 ($ billions)	Expense 06/30/10 ($ billions)	Proportion Capitalized 06/30/09 ($ billions)	Expense 06/30/09 ($ billions)
2010	$8.7	.33/2	$1.4		
2009	9.0	.33	3.0	.33/2	$1.5
2008	8.2	.33	2.7	.33	2.7
2007	7.1	.33/2	1.2	.33	2.3
2006	6.6			.33/2	1.1
Total			$8.3		$7.6

Since Microsoft will continue to expense software R&D immediately for tax purposes, the change in reporting method will give rise to a Deferred Tax Liability. Given a marginal tax rate of 35 percent, this liability will equal 35 percent of the value of the Long-Term Intangible Assets reported, with the balance increasing Common Shareholders' Equity.

In summary, the adjustments required to capitalize software R&D for Microsoft for the years 2010 and 2009 are as follows:

	Adjustment June 30, 2010		Adjustment June 30, 2009	
($ Billions)	Assets	Liabilities & Equity	Assets	Liabilities & Equity
Balance Sheet				
Long-Term Intangible Assets	+13.2		+12.8	
Deferred Tax Liability		+4.6		+4.5
Common Shareholders' Equity		+8.6		+8.3
Income Statement				
Research and Development		−8.7		−9.0
		+8.3		+7.6
Tax Expense		+0.1		+0.5
Total Expenses		−0.3		−0.9
Net Income		+0.3		+0.9

Adjusting R&D in this way increases Microsoft's assets by 15 percent and lowers its return on average assets in 2010 from 18.8 percent to 16.4 percent, enabling analysts to understand the impact of the economic resources required to generate its earnings. Such adjustments can also allow analysts to compare the performance of companies that follow different R&D reporting standards or make different judgements on the treatment of these costs.

Source: © Cengage Learning

Liability Distortions

Liabilities are defined as economic obligations arising from benefits received in the past, and for which the amount and timing is known with reasonable certainty. Liabilities include obligations to customers that have paid in advance for products or services; commitments to public and private providers of debt financing; obligations to federal and local governments for taxes; commitments to employees for unpaid wages, pensions, and other retirement benefits; and obligations from court or government fines or environmental cleanup orders.

Distortions in liabilities generally arise because there is ambiguity about whether (1) an obligation has really been incurred and/or (2) the obligation can be measured.

Has an Obligation Been Incurred?

For most liabilities there is little ambiguity about whether an obligation has been incurred. For example, when a firm buys supplies on credit, it has incurred an obligation to the supplier. However, for some transactions it is more difficult to decide whether there is any such obligation. For example, if a firm announces a plan to restructure its business by laying off employees, has it made a commitment that would justify recording a liability? Or, if a software firm receives cash from its customers for a five-year software license, should the firm report the full cash inflow as revenues, or should some of it represent the ongoing commitment to the customer for servicing and supporting the license agreement?

Can the Obligation be Measured?

Many liabilities specify the amount and timing of obligations precisely. For example, a 20-year, $100 million bond issue with an 8 percent coupon payable semi-annually specifies that the issuer will pay the holders $100 million in 20 years, and it will pay out interest of $4 million every six months for the duration of the loan. However, for some liabilities it is difficult to estimate the amount of the obligation. For example, a firm that is responsible for an environmental cleanup clearly has incurred an obligation, but the amount is highly uncertain.[13] Similarly, firms that provide pension and post-retirement benefits for employees have incurred commitments that depend on uncertain future events, such as employee mortality rates and future inflation rates, making valuation of the obligation subjective. Future warranty and insurance claim obligations fall into the same category—the commitment is clear but the amount depends on uncertain future events.

Accounting rules frequently specify when a commitment has been incurred and how to measure the amount of the commitment. However, as discussed earlier, accounting rules are imperfect—they cannot cover all contractual possibilities and reflect all of the complexities of a firm's business relationships. They also require managers to make subjective estimates of future events to value the firm's commitments. Thus the analyst may decide that some important obligations are omitted from the financial statements or, if included, are understated, either because of management bias or because there are legitimate differences

in opinion between managers and analysts over future risks and commitments. As a result, analysis of liabilities is usually with an eye to assessing whether the firm's financial commitments and risks are understated and/or its earnings overstated.

Understated Liabilities

Liabilities are likely to be understated when the firm has key commitments that are difficult to value and therefore not considered liabilities for financial reporting purposes. Understatements are also likely to occur when managers have strong incentives to overstate the soundness of the firm's financial position or to boost reported earnings. By understating leverage, managers present investors with a rosy picture of the firm's financial risks. Earnings management also understates liabilities (namely deferred or unearned revenues) when revenues are recognized upon receipt of cash, even though not all services have been provided.

The most common forms of liabilities understatements arise when the following conditions exist:

1. *Unearned revenues are understated through aggressive revenue recognition*. If cash has already been received but the product or service has yet to be provided, unearned or deferred revenues are created. This liability reflects the company's commitment to provide the service or product to the customer and is extinguished once that is accomplished. Firms that recognize revenues prematurely—after the receipt of cash but prior to fulfilling their product or service commitments to customers—understate deferred revenue liabilities and overstate earnings. Firms that bundle service contracts with the sale of a product are particularly prone to deferred revenue liability understatement since separating the price of the product from the price of the service is subjective.
2. *Loans from discounted receivables are off balance sheet*. As discussed earlier, receivables that are discounted with a financial institution are considered "sold" if the "seller" cedes control over the receivables to the financier. Yet if the sale permits the buyer to have recourse against the seller in the event of default, the seller continues to face collection risk. Given the management judgment involved in forecasting default and refinancing costs, as well as the incentives faced by managers to keep debt off the balance sheet, it is important for the analyst to evaluate the firm's estimates for default as well as the inherent commitments that it has for discounted receivables. Are the firm's estimates reasonable? Is it straightforward to forecast the costs of the default and prepayment risks? If not, does the analyst need to increase the value of the recourse liability? Or, in the extreme, does the analyst need to undo the sale and recognize a loan from the financial institution for the discounted value of the receivables?
3. *Long-term liabilities for leases are off balance sheet*. As discussed earlier in the chapter, key lease assets and liabilities can be excluded from the balance sheet if the company structures lease transactions to fit the accounting definition of an operating lease. Firms that groom transactions to avoid showing lease assets and obligations will have very different balance sheets from firms with virtually identical economics but which either use capital leases or borrow from the bank to actually purchase the equivalent resources. For firms that choose to structure lease transactions to fit the definition of an operating lease, the analyst can restate the leases as capital leases, as discussed in the Asset Understatement section. This will ensure that the firm's true financial commitments and risks will be reflected on its balance sheet, enabling comparison with peer firms.

EXAMPLES OF HOW TO CORRECT FOR LIABILITY UNDERSTATEMENT

The following examples illustrate some of these types of liability understatements and the corrections that an analyst can make to reduce bias in the financial statements.

Unearned Revenues Understated

Hansen Medical, Inc., is a U.S. provider of advanced medical robotics. Its Sensei Robotic Catheter System was designed to allow physicians to accurately position, manipulate, and control catheters, and had gained acceptance in hospitals globally. Typically, ownership of the Sensei system passed to customers upon shipment, at which point revenues were recognized. However, a large percentage of the sales contracts for systems included installation and training. In such instances, since these services were significant, Hansen deferred all system revenues until training and installation were completed.

The company went public in 2006 and raised funds through subsequent public offerings in 2008, 2009, and 2010. During this period it also formed key partnership agreements with larger medical device companies such as Philips Healthcare and GE Healthcare. However, following its IPO, Hansen consistently missed analyst expectations and generated losses.

In October 2009, a whistleblower alleged that Hansen had recognized revenues from the sale of some of its Sensei systems upon shipment, prior to completion of the system installation, setup, and training. After an investigation, the company determined that it would have to restate its financial results for 2007, 2008, and the first part of 2009, reducing revenues for these periods by $7.4 million, $6.8 million for 2008 alone. The adjustment required to correct Hansen's 2008 financials (as reported in its 10-K) would be as follows:

1. Sales would decline and unearned revenues (included in Other Current Liabilities) would increase by $6.8 million.
2. Cost of Sales would decline and Deferred Cost of Sales (included in Other Current Assets) would increase by $2.4 million to reflect the lower sales.
3. Since Hansen had reported losses since its inception, the restatement would not affect its tax position, requiring no adjustment to Tax Expense or to Deferred Taxes.

The full effect of the adjustment on the 2008 financial statements would therefore be as follows:

	Adjustment	
($ millions)	**Assets**	**Liabilities & Equity**
Balance Sheet		
Other Current Assets	+2.4	
Other Current Liabilities		+6.8
Common Shareholders' Equity		−4.4
Income Statement		
Sales	−6.8	
Cost of Sales	−2.4	
Net Income	−4.4	

The restatement reduced Hansen's previously reported revenues for 2008 by 22 percent and was accompanied by a drop in the firm's stock price of 9 percent on the announcement date, and 22 percent for the month (versus a 1 percent increase for the S&P 500 during that same period).

Source: © Cengage Learning

Equity Distortions

Accounting treats stockholders' equity as a residual claim on the firm's assets after paying off the other claimholders. Consequently, equity distortions arise primarily from distortions in assets and liabilities. For example, distortions in assets or liabilities that affect earnings also lead to distortions in equity. However, equity distortions can also arise that are not captured in an asset and liability analysis. One such distortion is for hybrid securities.

Hybrid securities include convertible debt and debt with warrants attached. These securities are partially pure debt and partially equity. Current U.S. accounting rules do not separate these components, typically implying that the balance sheet overstates firm debt and understates its equity. Without adjusting for this distortion, it can be difficult to understand the real financial risks and returns for firms with different types of hybrids. New accounting rules being considered in a joint FASB/IASB project are likely to address this issue by requiring securities such as convertible debt to be separated into two components on the balance sheet, a debt component and an equity component. Each would be valued at its fair value at the date of issue. This approach could be adopted by the analyst.

EXAMPLE OF HOW TO CORRECT FOR EQUITY DISTORTIONS

We illustrate the equity distortion arising from the issuance of hybrid securities and the corrections that the analyst can make to reduce bias in the financial statements.

Hybrid Securities

On October 27, 2009, Navistar International Corp. completed an offering of $550 million of 3.0 percent Convertible Senior Subordinated Notes due in 2014. At the same time, the company also issued $1.0 billion in Senior Unsecured Notes with an annual interest rate of 8.25 percent. The premium for conversion rights was therefore significant. The net present value of the $550 million convertible issue at an 8.25 percent discount rate is $434 million, implying that the convertibility premium was worth roughly $116 million. One way to adjust for this effect is to record the debt component at $434 million and to show the $116 million conversion premium as part of Common Shareholders' Equity. Interest on the debt would then be based on the 8.25 percent coupon rate of the straight note rather than the 3.0 percent (which reflects the conversion premium).

The effect of this adjustment on Navistar's financial statements at December 31, 2009, would be as follows:

	Adjustment for December 31, 2009	
($ millions)	**Assets**	**Liabilities & Equity**
Balance Sheet		
Long-Term Debt		−116
Common Shareholders' Equity		+116

Given Navistar's high leverage, this change generates only a modest increase in its long-term debt to total capital ratio, from 107 percent to 110 percent.

Source: © Cengage Learning

COMPARING COMPANIES USING U.S. GAAP AND IFRS

In Chapter 3 we discussed the joint convergence project being undertaken by FASB and the IASB that has succeeded in reducing many of the differences between U.S. GAAP and IFRS. Many of the remaining differences are likely to have relatively minor effects on financial statement comparability, making it easier for analysts to compare the performance of companies using different standards.

Nonetheless, a few important differences remain. Some of these arise from differences in the way that U.S. and international standard setters have opted to trade-off the relevance and reliability of financial information. For example, in an effort to increase the relevance of financial information, IFRS permits companies to revalue long-term nonfinancial assets that have appreciated in value. In contrast, U.S. GAAP places a stronger weight on the reliability of financial information and precludes such upward revaluations. Differences can also reflect tax factors. For example, U.S. GAAP requires that firms that use the LIFO inventory valuation method for tax purposes follow the same method for financial reporting. LIFO is not used widely for tax purposes outside the United States and is not permitted under IFRS.

Table 4-4 shows some of the remaining important differences between U.S. GAAP and IFRS. The table also discusses the types of adjustments that analysts could make to ensure that performance comparisons of companies using the two standards are meaningful. This adjustment exercise can be challenging, particularly if information on the accounting effects is not disclosed. The adjustments we recommend take

TABLE 4-4 Adjusting for Key Differences between U.S. GAAP and IFRS

Financial Statement Topic	Reporting Difference	Adjustment
Revenue Recognition		
Contracts with contingent payments (e.g., research contracts where payments are contingent on reaching milestones)	Under U.S. GAAP revenue cannot be recognized until the contingency is resolved; IFRS allows recognition when resolution of contingency is probable.	For IFRS firm, eliminate revenues and receivables recognized prior to the resolution of the contingency. Also adjust cost of sales/inventory and tax expense / deferred taxes.
Extraordinary Items	Can be reported separately under U.S. GAAP but not under IFRS, potentially affecting operating income.	Either (a) separate extraordinary items from operating income for IFRS firms, or (b) include extraordinary items in operating expenses for U.S. firms.
Receivables		
Factored (discounted) receivables with recourse	Under U.S. GAAP, factored receivables with recourse are recorded as a sale provided control over the receivables has been ceded to the financier and the seller has experience estimating the value of the recourse liability. IFRS typically does not permit factored receivables with recourse to be reported as a sale.	Either: (a) eliminate the gross value of factored receivables and loans on the balance sheet of IFRS firm and show the bad debt allowance as a recourse liability; or (b) add back the receivables and loans to the U.S. firm's balance sheet.

(*continued*)

Financial Statement Topic	Reporting Difference	Adjustment
Contracts where cash receipts are deferred	IFRS requires deferred receipts to be discounted to their present value; U.S. GAAP typically does not require deferred receipts to be discounted.	For short-term receivables, this effect should be modest. For long-term receivables, adjust financials of IFRS firm by (a) adding back discount to receivables and to revenues in year of sale; and (b) eliminating subsequent interest income and reducing receivables.
Inventory		
Inventory valuation method	IFRS does not permit use of LIFO as an inventory valuation method, which is permitted under U.S. GAAP.	Adjust U.S. company inventory balance to FIFO using LIFO reserve data. Adjust COGS for change in LIFO reserve. Also adjust for tax impact (tax expense and deferred taxes).
Reversal of impairments	Reversals of inventory impairments are allowed under IFRS, but are not permitted under U.S. GAAP.	Eliminate inventory reversal effect for IFRS company by deducting gain and reducing value of inventory.
Long-Lived Assets		
Plant, Property, and Equipment (PPE) Valuation	IFRS allows PPE to be valued at either historical cost or fair value; U.S. GAAP requires measurement at historical cost.	Eliminate asset revaluations for IFRS firms using revaluation reserve.
Impairment of long-lived tangible & finite lived intangible assets	Under U.S. GAAP, an impairment charge for the excess of carrying value over fair value is recorded when carrying value is greater than the value of *undiscounted* cash flows. IFRS records the impairment charge when the excess of carrying value exceeds the fair or realizable value.	Difficult to adjust.
Reversal of long-lived asset impairments	U.S. GAAP does not allow reversal of impairment; IFRS allows impairment reversals for assets other than goodwill.	Eliminate asset reversal effect for IFRS firms.
Capitalization of development costs	U.S. GAAP requires development costs to be expensed (except for software development costs); IFRS allows development costs to be capitalized if they meet specific criteria.	Either (a) expense development costs capitalized for IFRS firm, or (b) capitalize all R&D costs, with amortization over useful life for both U.S. and IFRS firms as illustrated earlier in this chapter.
Capitalization of direct response advertising costs	U.S. GAAP requires certain direct response advertising costs to be capitalized and amortized; all such costs are expensed immediately under IFRS.	Either (a) expense direct response advertising costs for U.S. firm, or (b) capitalize costs for IFRS firm with amortization over useful life.

(*continued*)

Financial Statement Topic	Reporting Difference	Adjustment
Debt and Equity		
Classification of compound instruments	U.S. GAAP generally requires compound instruments such as convertible bonds to be classified as liabilities. IFRS requires such instruments to be separated into debt and equity components.	Either (a) reclassify entire instrument as equity for IFRS firm, or (b) separate out the two components for U.S. firm.

Source: © Cengage Learning 2013

advantage of information that is likely to be publicly available, such as the asset revaluation reserve or the LIFO reserve, so that the financials of IFRS and U.S. GAAP firms are comparable.

EXAMPLES OF ADJUSTING FOR DIFFERENCES IN U.S. GAAP AND IFRS

The following illustrates some of the differences and the adjustments that an analyst can make to enhance the comparability of financial statements for firms using the competing standards.

Long-Term Asset Impairment Reversals

Consider the case of OZ Minerals, the third largest diversified mining company in Australia, the world's second largest producer of zinc, and a significant producer of copper, lead, gold, and silver. OZ Minerals reports under Australian Accounting Standards, which closely follow IFRS. In 2010 the firm announced that as a result of an improved outlook for the global economy, record copper prices, and the strong production of its Prominent Hill mine, it would increase pretax earnings by 201.1 million Australian dollars (approximately 172 million U.S. dollars) with the reversal of a 2008 impairment of the Prominent Hill PP&E asset. This impairment reversal increased pre-tax earnings for OZ Minerals by 44 percent for the year.

As shown in Table 4-4, reversals of impairments are permitted by IFRS but not by U.S. GAAP. An analyst comparing OZ Minerals' performance with that of U.S.-based mining companies such as Freeport-McMoRan Copper & Gold Inc., a major copper producer that also took a significant impairment charge in 2008, could therefore add back the reversal to OZ Minerals' earnings (with an adjustment for tax effects) as follows:

Millions of Australian Dollars	Assets	Liabilities & Equity
Balance sheet		
Long-Term Tangible Assets	−201.1	
Deferred Tax Liability		−60.0
Common Shareholders' Equity		−141.1
Income Statement		
Impairment reversal		−201.1
Tax Expense (reported by OZ)		−60.0
Net Income		−141.1

The add back of the impairment reversal reduces OZ Minerals' return on equity (ROE) from 18.4 percent to 13.9 percent.

LIFO Inventory Valuation

Caterpillar, Inc., is the world's leading manufacturer of construction and mining machines and related equipment. In 2010, Caterpillar used the last-in, first-out (LIFO) valuation method for approximately 70 percent of its inventories. An analyst wanting to compare Caterpillar with the European competitor CNH Global N.V. (which reports using IFRS) could adjust Caterpillar's inventory to approximate cost using the first-in, first-out (FIFO) method, since IFRS does not permit the use of LIFO. Caterpillar reports its LIFO reserve (the excess of estimated current costs over LIFO carrying value) as $2,575 million in 2010 and $3,022 million in 2009. The following adjustments to Caterpillar's financials reflect the cumulative effect of using LIFO at the end of FY 2009 and the incremental impact for FY 2010:

1) Add Caterpillar's LIFO reserve at the end of FY 2009, $3,022 million, to its inventory balance at the end of 2009, to revalue inventory to FIFO.
2) The cumulative inventory adjustment also increases equity at the end of FY 2009 and will require an adjustment to the Deferred Tax Liability. Given Caterpillar's tax rate of 35 percent, this effect is $1,058 million.
3) To make the incremental adjustment for FY 2010, the analyst will lower inventory by $447 million to reflect the decline in the LIFO reserve for the year ($2,575 million − $3,022 million) and increase cost of goods sold. This increase in expenses will be offset by a decline in the tax expense for $156 million ($447 million × the tax rate of 35 percent) and a decline in Deferred Tax Liability. The impact on net income and equity is therefore −$291 million (−$447 million + $156 million).

A summary of these entries is as follows:

	December 31, 2010		December 31, 2009	
Fiscal Year Ending ($ in millions)	**Assets**	**Liabilities & Equity**	**Assets**	**Liabilities & Equity**
Balance Sheet				
Inventory	−447		+3,022	
Deferred Tax Liability		−156		+1,058
Common Shareholders' Equity		−291		+1,964
Income Statement				
Cost of Goods Sold	+447			
Tax Expense	−156			
Total expense	+291			
Net Income	−291			

Caterpillar reports inventory turnover (cost of goods sold to average inventory) of 3.8 for 2010, the same as reported by its competitor CNH. However, after restating Caterpillar's financials to FIFO, its turnover declines to 2.9, indicating that it actually underperforms its rival.

Off Balance Sheet Discounted Receivables with Recourse

Tecumseh Products Company is a global manufacturer of compressors for residential and commercial air conditioning and refrigeration applications. It has manufacturing

and assembly plants in the United States, Brazil, France, India, Canada, Mexico, Malaysia, and China. The company's Brazilian and Indian subsidiaries periodically factor their accounts receivables to financial institutions, both with and without recourse. The sale of receivables with recourse creates a contingent liability. Tecumseh reported that in 2010 receivables sold with "limited recourse liability" amounted to $19.4 million, 15 percent of reported receivables.

Since Tecumseh is a U.S. company, it will show the receivables factored with recourse as sold. The financing will therefore not appear on its balance sheet as a loan, and its receivables will be excluded from current assets. In contrast, other firms in the industry that use IFRS, such as Ingersoll-Rand PLC, a company headquartered in Ireland, and Sandvik AB from Sweden, show factored receivables and loans on their balance sheets. An analyst comparing Tecumseh with either of these competitors could therefore decide to restate Tecumseh's financials to add back the recourse receivables sold to Tecumseh's balance sheet as follows:

	Adjustment for December 31, 2010	
($ millions)	**Assets**	**Liabilities & Equity**
Balance Sheet		
Other Current Assets	+19.4	
Short-Term Debt		+19.4

On an unadjusted basis, Tecumseh appears to manage its receivables more closely than its European competitors, with days' receivable of 50.0, compared to 56.3 for Sandvik and 60.8 for Ingersoll-Rand. However, when factored receivables are added back to Tecumseh's ending 2010 accounts receivables, days' receivable increase to 57.5, comparable to its peers.

Source: © Cengage Learning 2013

APPLICATION TO TJX AND NORDSTROM

Let us return to the TJX and Nordstrom comparison discussed in Chapter 2. Are any of the accounting adjustments discussed in this chapter relevant to understanding the relative performance of TJX and Nordstrom? Would it make sense for an analyst covering the two companies to make any of the adjustments?

One potentially important accounting difference is that TJX Companies, Inc. leases virtually all of its stores using operating leases, whereas a significant portion of Nordstrom's stores are owned or leased under capital leases. As a result, TJX omits many more of its critical assets and lease obligations from its balance sheet than Nordstrom, making it challenging to compare the two firms asset intensity and financial leverage.

To evaluate how the difference in store ownership/leasing affects the financial performance of TJX and Nordstrom, the analyst can use information on lease commitments presented in the financial statement footnotes to estimate the value of the assets and liabilities that are omitted from the balance sheet. The leased property is subsequently depreciated over the life of the lease, and the lease payments are treated as interest and debt repayment. We show these computations for TJX below and present comparable adjustments for Nordstrom's operating leases in Appendix B.

To estimate the value of the operating lease assets and liabilities, we use information on the future minimum operating lease payments provided by TJX in its financial

statement footnotes. For the years ending January 29, 2011, and January 30, 2010, these amounts were as follows:

Year Ended (in thousands)	January 29, 2011	January 30, 2010
Less than 1 year	$1,092,709	$1,005,366
1-3 years	1,938,020	1,771,055
3-5 years	1,464,690	1,307,773
More than 5 years	2,304,674	1,610,867
Total	$6,800,093	$5,695,061

TJX estimated the net present value of its minimum future lease obligations was $5,572.6 million on January 29, 2011, and $4,450.2 million on January 30, 2010. In addition, it reported that the average interest rate on its long-term debt was 5.5 percent. Based on the data on general lease terms given in the financial statements, we assume that the average lease term is 15 years. Given this information, the analyst can make the following adjustments to TJX's beginning and ending balance sheets, and to its income statement for the year ended January 29, 2011:

1. Capitalize the net present value of the minimum lease obligations as of January 30, 2010, increasing Long-Term Tangible Assets and Long-Term Debt by $4,450.2 million.[14]
2. Calculate the value of any change in lease assets and lease liabilities during the year from new lease transactions or terminations. On January 30, 2010, TJX's liability for operating lease commitments in 2011 and beyond was $4,450.2 million. During 2010, the company expected to repay $1,005.4 million (as per the schedule above), comprising $244.8 million of interest (5.5 percent of $4,450.2 million) and the remaining $760.6 million as retirement of the lease liability. If there had been no new lease commitments added during the year, the operating lease liability on January 29, 2011, would therefore have been $3,689.6 million ($4,450.2 million − $760.6 million). Yet TJX's actual lease commitment on January 29, 2011, was $5,572.6 million, indicating that it increased its leased store capacity by $1,883.0 million. TJX's Long-Term Tangible Assets and Long-Term Debt therefore increased by $1,883.0 million during 2010 as a result of net new lease commitments.
3. Record the change in lease asset value and expense from depreciation during the year. Using a fifteen-year life and straight-line depreciation, the depreciation expense for 2010 (included in Cost of Sales) is $359.4 m {[$4450.2 m + ($1,883.0 m/2)]/15}.
4. Add back the lease expense in the income statement, included in Cost of Sales, and apportion the payment between Interest Expense and repayment of Long-Term Debt. As previously mentioned, the lease expense is $1,005.4 million. As noted above, this reflects $244.8 million ($4,450.2 m × 5.5 percent) that is shown as Interest Expense and the remaining $760.6 million is allocated toward retiring the total operating lease liability.
5. Make changes to the Deferred Tax Liability to reflect differences in earnings under the capital and operating methods. If it capitalizes operating leases, TJX's expenses are $604.2 million ($359.4 million depreciation expense plus $244.8 million interest expense) versus $1,005.4 million under the operating method, a difference of $401.2 million. TJX will not change its tax books, but for financial reporting purposes it will show higher earnings before tax and thus a higher Tax Expense through deferred taxes. Given a corporate tax rate of 35 percent, Tax Expense will increase by $140.4 million ($401.2 million x .35) and the Deferred Tax Liability will increase by the same amount for the year ended January 29, 2011.

In summary, the adjustments to TJX's financial statements on January 30, 2010, and January 29, 2011, are as follows:

	Adjustment January 29, 2011		Adjustment January 30, 2010	
($ Billions)	**Assets**	**Liabilities & Equity**	**Assets**	**Liabilities & Equity**
Balance Sheet				
Long-term tangible assets	(1) +4,450.2 (2) +1,883.0 (3) −359.4		(1) +4,450.2	
Long-term debt		(1) +4,450.2 (2) +1,883.0 (4) −760.6		(1) +4,450.2
Deferred taxes		(5) +140.4		
Shareholders' equity		+260.8		
Income Statement				
Cost of sales		(3) +359.4 (4) −1005.4		
Net interest expense		(4) +244.8		
Tax expense		(5) +140.4		
Total increase in expense		−260.8		
Net Income		+260.8		

The increase in both TJX's long term asset and liability balances and related income statement impact resulting from the above adjustment significantly alters many of the financial ratios that an analyst uses to understand and categorize a firm's performance. In the next chapter we will look at these ratios in detail, comparing TJX and Nordstrom on both an unadjusted and adjusted basis.

SUMMARY

To implement accounting analysis, the analyst must first recast the financial statements into a common format so that financial statement terminology and formatting is comparable between firms and across time. A standard template for recasting the financials, presented in this chapter, is used throughout the remainder of the book.

Once the financial statements are standardized, the analyst can determine what accounting distortions exist in the firm's assets, liabilities, and equity. Common distortions that overstate assets include delays in recognizing asset impairments, underestimated reserves, aggressive revenue recognition leading to overstated receivables, and optimistic assumptions on long-term asset depreciation. Asset understatements can arise if managers overstate asset write-offs, use operating leases to keep assets off the balance sheet, or make conservative assumptions for asset depreciation. They can also arise because accounting rules require outlays for key assets (e.g., R&D and brands) to be immediately expensed. For liabilities, the primary concern for the analyst is whether the firm understates its real commitments. This can arise from off-balance liabilities (e.g., operating lease obligations), and from aggressive revenue recognition that understates unearned revenue obligations. Equity distortions frequently arise when there are distortions in assets and liabilities. However, they can also arise if firms issue hybrid securities.

Adjustments for distortions can, therefore, arise because accounting standards, although applied appropriately, do not reflect a firm's economic reality. They can also arise if the analyst has a different point of view from management about the estimates and assumptions made in preparing the financial statements. Finally, adjustments may be necessary for the analyst seeking to compare companies reporting under different accounting standards (broadly represented as U.S. GAAP and IFRS) in order to ensure that the data to be analyzed are comparable.

Once distortions have been identified, the analyst can use footnote and cash flow statement information to make adjustments to the balance sheet at the beginning and/or end of the current year, as well as any needed adjustments to revenues and expenses in the latest income statement. This ensures that the most recent financial ratios used to evaluate a firm's performance and to forecast its future results are based on financial data that appropriately reflect its business economics.

Several points are worth remembering when doing accounting analysis. First, the bulk of the analyst's time and energy should be focused on evaluating and adjusting accounting policies and estimates that describe the firm's key strategic value drivers. Of course, this does not mean that management bias is not reflected in other accounting estimates and policies, and the analyst should certainly examine these. But given the importance of evaluating how the firm is managing its key success factors and risks, the bulk of the accounting analysis should be spent examining those policies that represent these key factors and risks.

It is also important to recognize that many accounting adjustments can only be approximations rather than precise calculations since much of the information necessary for making precise adjustments is not disclosed. The analyst should therefore try to avoid worrying about being overly precise in making accounting adjustments. By making even crude adjustments, it is usually possible to mitigate some of the limitations of accounting standards and problems of management bias in financial reporting.

DISCUSSION QUESTIONS

1. Use the templates shown in Tables 4-1, 4-2, and 4-3 to recast the following financial statements for Nordstrom, Inc.

Nordstrom, Inc. Consolidated Balance Sheets
(in millions)

	January 29, 2011	January 30, 2010
Assets		
Current assets:		
Cash and cash equivalents	$ 1,506	$795
Accounts receivable, net	2,026	2,035
Merchandise inventories	977	898
Current deferred tax assets, net	236	238
Prepaid expenses and other	79	88
Total current assets	4,824	4,054
Land, buildings and equipment (net of accumulated depreciation of $3,520 and $3,316)	2,318	2,242
Goodwill	53	53
Other assets	267	230
Total assets	$ 7,462	$ 6,579

Nordstrom, Inc. Consolidated Balance Sheets
(in millions)

	January 29, 2011	January 30, 2010
Liabilities and Shareholders' Equity		
Current liabilities:		
Accounts payable	$ 846	$ 726
Accrued salaries, wages and related benefits	375	336
Other current liabilities	652	596
Current portion of long-term debt	6	356
Total current liabilities	1,879	2,014
Long-term debt, net	2,775	2,257
Deferred property incentives, net	495	469
Other liabilities	292	267
Commitments and contingencies		
Shareholders' equity:		
Common stock, no par value: 1,000 shares authorized; 218.0 and 217.7 share issued and outstanding	1,168	1,066
Retained earnings	882	525
Accumulated other comprehensive loss	(29)	(19)
Total shareholders' equity	2,021	1,572
Total liabilities and shareholders' equity	$ 7,462	$ 6,579

Source: Nordstrom, Inc. SEC 10-K filed March 18, 2011.

Nordstrom, Inc. Consolidated Statements of Earnings
(in millions)

Fiscal Year	2010	2009	2008
Net sales	$ 9,310	$ 8,258	$ 8,272
Credit card revenues	390	369	301
Total revenues	9,700	8,627	8,573
Cost of sales and related buying and occupancy costs	(5,897)	(5,328)	(5,417)
Selling, general and administrative expenses:			
Retail	(2,412)	(2,109)	(2,103)
Credit	(273)	(356)	(274)
Earnings before interest and income taxes	1,118	834	779
Interest expense, net	(127)	(138)	(131)
Earnings before income taxes	991	696	648
Income tax expense	(378)	(255)	(247)
Net earnings	$ 613	$ 441	$ 401

Source: Nordstrom, Inc. SEC 10-K filed March 18, 2011.

Nordstrom, Inc. Consolidated Statements of Cash Flows
(in millions)

Fiscal Year	2010	2009	2008
Operating Activities			
Net earnings	$ 613	$ 441	$ 401
Adjustments to reconcile net earnings to net cash provided by operating activities:			
Depreciation and amortization of buildings and equipment	327	313	302
Amortization of deferred property incentives and other, net	(54)	(42)	(21)
Deferred income taxes, net	2	(58)	(36)
Stock-based compensation expense	42	32	28
Tax benefit from stock-based compensation	15	6	3
Excess tax benefit from stock-based compensation	(16)	(7)	(4)
Provision for bad debt expense	149	251	173
Change in operating assets and liabilities:			
Accounts receivable	(74)	(159)	(93)
Merchandise inventories	(80)	(1)	53
Prepaid expenses and other assets	1	(38)	38
Accounts payable	72	168	16
Accrued salaries, wages and related benefits	37	120	(54)
Other current liabilities	42	81	(48)
Deferred property incentives	95	96	119
Other liabilities	6	48	(29)
Net cash provided by operating activities	1,177	1,251	848
Investing activities			
Capital expenditures	(399)	(360)	(563)
Change in credit card receivables originated at third parties	(66)	(182)	(232)
Other, net	3	1	3
Net cash used in investing activities	(462)	(541)	(792)
Financing activities			
(Repayments) proceeds from commercial paper borrowings	–	(275)	275
Proceeds from long-term borrowings, net of discounts	498	399	150
Principal payments on long-term borrowings	(356)	(25)	(410)
Increase in cash book overdrafts	37	9	20
Cash dividends paid	(167)	(139)	(138)
Repurchase of common stock	(84)	–	(264)
Proceeds from exercise of stock options	35	21	13
Proceeds from employee stock purchase plan	13	13	17
Excess tax benefit from stock-based compensation	16	7	4
Other, net	4	3	(9)
Net cash (used in) provided by financing activities	(4)	13	(342)
Net increase (decrease) in cash and cash equivalents	711	723	(286)
Cash and cash equivalents at beginning of year	795	72	358
Cash and cash equivalents at end of year	$1,506	$ 795	$ 72

Source: Nordstrom, Inc. SEC 10-K filed March 18, 2011.

2. Refer to the Creative Technology example on delaying write-downs of current assets. How much excess inventory do you estimate Creative Technology is holding in March 2005 if the firm's optimal days' inventory is 100 days? Calculate the inventory impairment charge for Creative Technology if 50 percent of this excess inventory is deemed worthless? Record the changes to Creative Technology's financial statements from adjusting for this impairment.
3. U.S.-based American International Group, Inc. (AIG) is one of the world's largest insurance companies, offering property, casualty, life insurance, and retirement services to customers in more than 130 countries. In its 2010 10-K report to the SEC, it discloses the following information on the loss reserves created for claims originating in 2000:

	(in millions)
Net reserves held in 2000:	$ 26,971
Cumulative net liability paid as of:	
One year later	$ 9,709
Two years later	17,149
Three years later	21,930
Four years later	26,090
Five years later	29,473
Six years later	32,421
Seven years later	34,660
Eight years later	36,497
Nine years later	38,943
Ten years later	40,153
Net reserves for 2000 re-estimated as of:	
One year later	$26,979
Two years later	30,696
Three years later	32,732
Four years later	36,210
Five years later	41,699
Six years later	43,543
Seven years later	44,475
Eight years later	45,767
Nine years later	47,682
Ten years later	50,422
Net redundancy (deficiency)	$(23,451)

Was the initial estimate for loss reserves originating in 2000 too low or too high? How has the firm updated its estimate of this obligation over time? What percentage of the original liability remains outstanding for 2000 claims at the end of 2010? As a financial analyst, what questions would you have for the CFO on its 2000 liability?
4. AMR, the parent of American Airlines, provides the following footnote information on its capital and operating leases:

> AMR's subsidiaries lease various types of equipment and property, primarily aircraft and airport facilities. The future minimum lease payments required under capital leases, together with the present value of such payments, and

future minimum lease payments required under operating leases that have initial or remaining non-cancellable lease terms in excess of one year as of December 31, 2010, were (in millions):

Year Ending December 31	Capital Leases	Operating Leases
2011	$186	$1,254
2012	136	1,068
2013	120	973
2014	98	831
2015	87	672
2016 and thereafter	349	6,006
	$976	$10,804
Less amount representing interest	$372	
Present value of net minimum lease payments	$604	

AMR further disclosed that "lease terms vary but are generally six to 25 years for aircraft and seven to 40 years for other leased property and equipment." Assuming that all leases are for aircraft with an average lease term of 15 years, what interest rate does AMR use to capitalize its capital leases? Use this rate to capitalize AMR's operating leases at December 31, 2010. Record the adjustment to AMR's balance sheet to reflect the capitalization of operating leases. How would this reporting change affect AMR's Income Statement in 2011?

5. In 2011, Tata became the first Indian brand to be named in the top 50 global brands in Brand Finance's 2011 Global 500 report, which assigned the Tata brand a value of $15.8 billion. What approaches would you use to estimate the value of brands? What assumptions underlie these approaches? As a financial analyst, what would you use to assess whether the brand value assigned by Brand Finance was a reasonable reflection of the future benefits from this brand? What questions would you raise with the firm's CFO about the firm's brand assets?
6. As the CFO of a company, what indicators would you look at to assess whether your firm's long-term assets were impaired? What approaches could be used, either by management or an independent valuation firm, to assess the dollar value of any asset impairment? As a financial analyst, what indicators would you look at to assess whether a firm's long-term assets were impaired? What questions would you raise with the firm's CFO about any charges taken for asset impairment?
7. The cigarette industry is subject to litigation for health hazards posed by its products. The industry has been in an ongoing process of negotiating a settlement of these claims with state and federal governments. As the CFO for Altria Group, the parent company of Philip Morris, one of the larger firms in the industry, what information would you report to investors in the annual report on the firm's litigation risks? How would you assess whether the firm should record a liability for this risk, and if so, what approach would you use to assess the value of this liability? As a financial analyst following Altria, what questions would you raise with the CEO over the firm's litigation liability?
8. Refer to the Lufthansa example on asset depreciation estimates. What adjustments would be required if Lufthansa's aircraft depreciation were computed using an average life of 25 years and salvage value of 5 percent (instead of the reported values of 12 years and 15 percent)? Show the adjustments to the 2008 and 2009 balance sheets, and to the 2009 income statement.

9. In early 2003, Bristol-Myers Squibb announced that it would have to restate its financial statements as a result of stuffing as much as $3.35 billion worth of products into wholesalers' warehouses from 1999 through 2001. The company's sales and cost of sales during this period was as follows:

($ millions)	2001	2000	1999
Net sales	$18,139	$17,695	$16,502
Cost of products sold	5,454	4,729	4,458

The company's marginal tax rate during the three years was 35 percent. What adjustments are required to correct Bristol-Myers Squibb's balance sheet for December 31, 2001? What assumptions underlie your adjustments? How would you expect the adjustments to affect Bristol-Myers Squibb's performance in the coming few years?

NOTES

1. If a firm's primary business income is from rentals, rental income will be classified as Sales, rather than Investment Income.
2. The IASB and FASB are currently considering a proposal for all lease commitments to be capitalized and shown as an asset and liability on the lessee's balance sheet.
3. See P. Healy, S. Myers, and C. Howe, "R&D Accounting and the Tradeoff Between Relevance and Objectivity," *Journal of Accounting Research* 40 (June 2002): 677–711, for an analysis of the value of capitalizing R&D and then annually assessing impairment.
4. J. Elliott and D. Hanna find that the market anticipates large write-downs by about one quarter, consistent with managers' reluctance to take write-downs on a timely basis. See "Repeated Accounting Write-Offs and the Information Content of Earnings," *Journal of Accounting Research* 34, Supplement, 1996.
5. J. Francis, D. Hanna, and L. Vincent find that management is more likely to exercise judgment in its self-interest for goodwill write-offs and restructuring charges than for inventory or PP&E write-offs. See "Causes and Effects of Discretionary Asset Write-Offs," *Journal of Accounting Research* 34, Supplement, 1996.
6. P. Healy, K. Palepu, and R. Ruback find that acquisitions added value for only one-third of the 50 largest acquisitions during the early 1980s, suggesting that acquirers frequently do not recover goodwill. See "Which Takeovers Are Profitable—Strategic or Financial?" *Sloan Management Review*, Summer 1997.
7. Managers can avoid capitalizing leases by assuming long asset lives (that get around the 75 percent of asset life rule) and high discount rates (to avoid violating the 90 percent of present value rule). Research indicates that some firms responded to the adoption of SFAS 13, which changed the rules for lease capitalization, by grooming transactions to avoid having to capitalize leases. See E. Imhoff and J. Thomas, "Economic Consequences of Accounting Standards: The Lease Disclosure Rule Change," *Journal of Accounting & Economics* 10 (December 1988): 277–311, and S. El-Gazzar, S. Lilien, and V. Pastena, "Accounting for Leases by Lessees," *Journal of Accounting & Economics* 8 (October 1986): 217–238. FASB has responded by issuing ten standards on leases, five interpretations, ten technical bulletins, and 27 EITFs, many designed to reduce managers' ability to avoid capitalizing leases.

8. E. Imhoff, R. Lipe, and D. Wright show that adjustments to capitalize operating leases have a significant impact on leverage and other key financial ratios. See "Operating Leases: Impact of Constructive Capitalization," *Accounting Horizons* 5 (March 1991): 51–64.
9. P. Healy, S. Myers, and C. Howe, "R&D Accounting and the Tradeoff Between Relevance and Objectivity," *Journal of Accounting Research* 40 (June 2002): 677–711, show that the magnitude of this bias is sizable.
10. See B. Bublitz and M. Ettredge, "The Information in Discretionary Outlays: Advertising, Research and Development," *The Accounting Review* 64 (1989): 108–124; S. Chan, J. Martin, and J. Kensinger, "Corporate Research and Development Expenditures and Share Value," *Journal of Financial Economics* 26 (1990): 255–276; R. Dukes," An Investigation of the Effects of Expensing Research and Development Costs on Security Prices," in proceedings of the conference on topical research in accounting (New York University, 1976); J. Elliott, G. Richardson, T. Dyckman, and R. Dukes," The Impact of SFAS No. 2 on Firm Expenditures on Research and Development: Replications and Extensions," *Journal of Accounting* 22 (1984): 85–102; M. Hirschey and J. Weygandt," Amortization Policy for Advertising and Research and Development Expenditures," *Journal of Accounting Research* 23 (1985): 326–335; C. Wasley and T. Linsmeier, "A Further Examination of the Economic Consequences of SFAS No. 2," *Journal of Accounting Research* 30 (1992): 156–164; E. Eccher, "Discussion of the Value Relevance of Intangibles: The Case of Software Capitalization," *Journal of Accounting Research* 36 (1998): 193–198; B. Lev and T. Sougiannis, "The Capitalization, Amortization, and Value-Relevance of R&D," *Journal of Accounting and Economics* 21 (1996): 107–138; and D. Aboody and B. Lev, "The Value-Relevance of Intangibles: The Case of Software Capitalization" (working paper, University of California, 1998).
11. See Lufthansa, Annual Report 2009 (Cologne, Germany: Deutsche Lufthansa AG, 2010) and Air France-KLM 2009–10 Reference Document (Paris, France: Air France-KLM, 2010).
12. Lufthansa, Annual Report 2009 (Cologne, Germany: Deutsche Lufthansa AG, 2010).
13. M. Barth and M. McNichols discuss ways for investors to estimate the value of environmental liabilities. See "Estimation and Market Valuation of Environmental Liabilities Relating to Superfund Sites," *Journal of Accounting Research* 32, Supplement, 1994.
14. When a firm records a capital lease, the Long-Term Tangible Asset equals the Long-Term Debt only at inception. Thereafter, the two numbers are unequal because the asset is reduced by depreciation expense while the debt is reduced by the lease payment net of interest expense. For most companies it is not possible to learn the book value of the asset, requiring the analyst to record the asset at the same value as the debt.

APPENDIX A Recasting Financial Statements into Standardized Templates

The following tables show the financial statements for The TJX Companies, Inc. for the year ended January 2011, both as reported by the company and as standardized using the classifications discussed in this chapter. The first column in each reported financial statement presents the classifications that are used for each line item to standardize the statements. Note that the classifications are not applied to subtotal lines such as Total current assets or Net income. The recast financial statements for TJX are prepared by simply

totalling the balances of line items with the same standard classifications. For example, on the balance sheet there are two line items classified as *Other Current Assets – Prepaid expenses and other current assets* and *Current deferred income taxes, net.*

The TJX Companies, Inc. Reported Consolidated Balance Sheet (In thousands)

Fiscal Year Ended		January 29, 2011	January 30, 2010
Classifications:	**Assets**		
	Current assets:		
Cash and Marketable Securities	Cash and cash equivalents	$1,741,751	$1,614,607
Cash and Marketable Securities	Short-term investments	76,261	130,636
Accounts Receivable	Accounts receivable, net	200,147	148,126
Inventory	Merchandise inventories	2,765,464	2,532,318
Other Current Assets	Prepaid expenses and other current assets	249,832	255,707
Other Current Assets	Current deferred income taxes, net	66,072	122,462
	Total current assets	5,099,527	4,803,856
	Property at cost:		
Long-Term Tangible Assets	Land and buildings	320,633	281,527
Long-Term Tangible Assets	Leasehold costs and improvements	2,112,151	1,930,977
Long-Term Tangible Assets	Furniture, fixtures and equipment	3,256,446	3,087,419
	Total property at cost	5,689,230	5,299,923
Long-Term Tangible Assets	Less accumulated depreciation and amortization	3,239,429	3,026,041
	Net property at cost	2,449,801	2,273,882
Long-Term Tangible Assets	Property under capital lease, net of accumulated amortization of $21,591 and $19,357, respectively	10,981	13,215
Other Long-Term Assets	Other assets	231,518	193,230
Long-Term Intangible Assets	Goodwill and trademark, net of amortization	179,936	179,794
	Total assets	**$ 7,971,763**	**$ 7,463,977**
	Liabilities		
	Current liabilities:		
Short-Term Debt	Obligation under capital lease due within one year	$ 2,727	$ 2,355
Accounts Payable	Accounts payable	1,683,929	1,507,892
Other Current Liabilities	Accrued expenses and other current liabilities	1,347,951	1,248,002
Other Current Liabilities	Federal, foreign, and state income taxes payable	98,514	136,737
	Total current liabilities	3,133,121	2,894,986
Other Long-Term Liabilities	Other long-term liabilities	709,321	697,099

(*continued*)

Fiscal Year Ended		January 29, 2011	January 30, 2010
Deferred Taxes	Non-current deferred income taxes, net	241,905	192,447
Long-Term Debt	Obligation under capital lease, less portion due within one year	13,117	15,844
Long-Term Debt	Long-term debt, exclusive of current installments	774,400	774,325
Other Long-Term Liabilities	Commitments and contingencies	–	–
	Shareholders' equity		
Common Shareholders' Equity	Common stock, authorized 1,200,000,000 shares, par value $1, issued and outstanding 389, 657, 340, and 409,386,126 respectively	389,657	409,386
Common Shareholders' Equity	Additional paid in capital	–	–
Common Shareholders' Equity	Accumulated other comprehensive income (loss)	(91,755)	(134,124)
Common Shareholders' Equity	Retained earnings	2,801,997	2,614,014
	Total shareholders' equity	3,099,899	2,889,276
	Total liabilities and shareholders' equity	$ 7,971,763	$ 7,463,977

Source: The TJX Companies, Inc. SEC 10-K filed March 30, 2011.

The TJX Companies, Inc. Reported Consolidated Statements of Income (in thousands)

Fiscal Year Ended		January 29, 2011	January 30, 2010	January 31, 2009
Classifications:				(53 weeks)
Sales	Net sales	$ 21,942,193	$ 20,288,444	$ 18,999,505
Cost of Sales	Cost of sales, including buying and occupancy costs	16,040,461	14,968,429	14,429,185
SG&A	Selling, general and administrative expenses	3,710,053	3,328,944	3,135,589
Other Operating Expense	Provision (credit) for computer intrusion related costs	(11,550)	–	(30,500)

(*continued*)

The TJX Companies, Inc. Reported Consolidated Statements of Income (in thousands)

Fiscal Year Ended		January 29, 2011	January 30, 2010	January 31, 2009
Net Interest Expense (Income)	Interest expense, net	39,137	39,509	14,291
	Income from continuing Operations before provision for income taxes	2,164,092	1,951,562	1,450,940
Tax Expense	Provision for income taxes	824,562	737,990	536,054
	Income from continuing Operations	1,339,530	1,213,572	914,886
Unusual Gains, Net of Unusual Losses	Gain (loss) from discontinued operations, net of income taxes	3,611	–	(34,269)
	Net income	$ 1,343,141	$ 1,213,572	$ 880,617

Source: The TJX Companies, Inc. SEC 10-K filed March 30, 2011.

The TJX Companies, Inc. Reported Consolidated Statements of Cash Flows (in thousands)

Fiscal Year Ended		January 29, 2011	January 30, 2010	January 31, 2009
Classifications:				
	Cash flows from operating activities:			
Net Income	Net income	$1,343,141	$1,213,572	$880,617
	Adjustments to reconcile net income to net cash provided by operating activities:			
Long-Term Operating Accruals – Depreciation and Amortization	Depreciation and amortization	458,052	435,218	401,707
Long-Term Operating Accruals – Other	Assets of discontinued operations sold	–	–	31,328
Long-Term Operating Accruals – Other	Loss on property disposals and impairment charges	96,073	10,270	23,903

(*continued*)

Fiscal Year Ended		January 29, 2011	January 30, 2010	January 31, 2009
Long-Term Operating Accruals – Other	Deferred income tax Provision	50,641	53,155	132,480
Long-Term Operating Accruals – Other	Share-based compensation	58,804	55,145	51,229
Long-Term Operating Accruals – Other	Excess tax benefits from share-based compensation	(28,095)	(17,494)	(18,879)
	Changes in assets and liabilities:			
Net (Investments in) or Liquidation of Operating Working Capital	(Increase) in accounts Receivable	(23,587)	(1,862)	(8,245)
Net (Investments in) or Liquidation of Operating Working Capital	Decrease (increase) in Merchandise inventories	(211,823)	147,805	(68,489)
Net (Investments in) or Liquidation of Operating Working Capital	Decrease (increase) in prepaid expenses and other current assets	495	21,219	(118,830)
Net (Investments in) or Liquidation of Operating Working Capital	Increase (decrease) in accounts payable	163,823	197,496	(141,580)
Net (Investments in) or Liquidation of Operating Working Capital	Increase (decrease) in accrued expenses and other liabilities	77,846	31,046	(34,525)
Net (Investments in) or Liquidation of Operating Working Capital	(Decrease) increase in income taxes payable	(11,801)	152,851	(10,488)
Long-Term Operating Accruals – Other	Other	2,912	(26,495)	34,344
	Net cash provided by operating activities	$ 1,976,481	$ 2,271,926	$ 1,154,572
	Cash flow from investing activities:			
Net (Investments in) or Liquidation of Operating Long-Term Assets	Property additions	(707,134)	(429,282)	(582,932)

(*continued*)

The TJX Companies, Inc. Reported Consolidated Statements of Cash Flows (in thousands)

Fiscal Year Ended		January 29, 2011	January 30, 2010	January 31, 2009
Net (Investments in) or Liquidation of Operating Long-Term Assets	Proceeds to settle net investment hedges	–	–	14,379
Net (Investments in) or Liquidation of Operating Long-Term Assets	Purchase of short-term investments	(119,530)	(278,692)	–
Net (Investments in) or Liquidation of Operating Long-Term Assets	Sales and maturities of short-term investments	180,116	153,275	–
Net (Investments in) or Liquidation of Operating Long-Term Assets	Other	(1,065)	(5,578)	(34)
	Net cash (used in) investing activities	$ (647,613)	$ (560,277)	$ (568,587)
	Cash flows from financing activities:			
Net Debt (Repayment) or Issuance	Proceeds from issuance of long-term debt	–	774,263	–
Net Debt (Repayment) or Issuance	Principal payments on current portion of long-term debt	–	(393,573)	–
Net Debt (Repayment) or Issuance	Cash payments for debt issuance expenses	(3,118)	(7,202)	–
Net Debt (Repayment) or Issuance	Payments on capital lease obligation	(2,355)	(2,174)	(2,008)
Net Stock (Repurchase) or Issuance	Cash payments for repurchase of common stock	(1,193,380)	(944,762)	(751,097)
Net Stock (Repurchase) or Issuance	Proceeds from issuance of common stock	176,159	169,862	142,154
Net Stock (Repurchase) or Issuance	Excess tax benefits from share-based compensation	28,095	17,494	18,879
Dividend (payments)	Cash dividends paid	(229,329)	(197,662)	(176,749)
	Net cash (used in) financing activities	$ (1,223,928)	$ (583,754)	$ (768,821)
Non-operating Losses (Gains)	Effect of exchange rate changes on cash	22,204	33,185	(96,249)

(*continued*)

Fiscal Year Ended		January 29, 2011	January 30, 2010	January 31, 2009
	Net increase (decrease) in cash and cash equivalents	127,144	1,161,080	(279,085)
	Cash and cash equivalents at beginning of year	1,614,607	453,527	732,612
	Cash and cash equivalents at end of year	$ 1,741,751	$ 1,614,607	$ 453,527

Source: The TJX Companies, Inc. SEC 10-K filed March 30, 2011.

TJX Standardized Consolidated Balance Sheet (in thousands)

Fiscal Year Ended	January 29, 2011	January 30, 2010
ASSETS		
Cash and Marketable Securities	$1,818,012	$1,745,243
Accounts Receivable	200,147	148,126
Inventory	2,765,464	2,532,318
Other Current Assets	315,904	378,169
Total Current Assets	5,099,527	4,803,856
Long-Term Tangible Assets	2,460,782	2,287,097
Long-Term Intangible Assets	179,936	179,794
Other Long-Term Assets	231,518	193,230
Total Long-Term Assets	2,872,236	2,660,121
Total Assets	$ 7,971,763	$ 7,463,977
LIABILITIES		
Accounts Payable	$1,683,929	$1,507,892
Short-Term Debt	2,727	2,355
Other Current Liabilities	1,446,465	1,384,739
Total Current Liabilities	3,133,121	2,894,986
Long-Term Debt	787,517	790,169
Deferred Taxes	241,905	192,447
Other Long-Term Liabilities	709,321	697,099
Total Long-Term Liabilities	1,738,743	1,679,715
Total Liabilities	$ 4,871,864	$ 4,574,701
Minority Interest	–	–
SHAREHOLDER'S EQUITY		
Preferred Stock	–	–
Common Shareholder's Equity	3,099,899	2,889,276
Total Shareholders' Equity	3,099,899	2,889,276
Total Liabilities and Shareholders' Equity	$ 7,971,763	$ 7,463,977

TJX Standardized Consolidated Statements of Income
(In thousands)

Fiscal Year Ended	January 29, 2011	January 30, 2010	January 31, 2009
Sales	$21,942,193	$20,288,444	$18,999,505
Cost of sales	16,040,461	14,968,429	14,429,185
Gross profit	5,901,732	5,320,015	4,570,320
SG&A	3,710,053	3,328,944	3,135,589
Other operating expense	(11,550)	–	(30,500)
Operating income	2,203,229	1,991,071	1,465,231
Net interest expense (income)	39,137	39,509	14,291
Pre-tax income	2,164,092	1,951,562	1,450,940
Tax expense	824,562	737,990	536,054
Unusual gains, net of unusual losses	3,611	–	(34,269)
Net income	$ 1,343,141	$ 1,213,572	$ 880,617

TJX Standardized Consolidated Statements of Cash Flows
(In thousands)

Fiscal Year Ended	January 29, 2011	January 30, 2010	January 31, 2009
Cash Flows from Operating Activities			
Net Income	$1,343,141	$1,213,572	$880,617
After-tax interest expense (income)	24,200	26,120	9,020
Non-operating Losses (Gains)	22,204	33,185	(96,249)
Long-term operating accruals	638,387	509,799	656,112
Depreciation and Amortization	458,052	435,218	401,707
Other	180,335	74,581	254,405
Operating cash flow before working capital investments	2,027,932	1,782,676	1,449,500
Net (Investments in) or Liquidation of Operating Working Capital	(5,047)	548,555	(382,157)
Operating cash flow before investment in long-term assets	2,022,885	2,331,231	1,067,343
Cash Flows Used for Investing Activities			
Net (Investments in) or Liquidation of Operating Long-term Assets	(647,613)	(560,277)	(568,587)
Free cash flow available to debt and equity	1,375,272	1,770,954	498,756
Cash Flows from (used for) Financing Activities			
After-tax net interest (expense) income	(24,200)	(26,120)	(9,020)

(*continued*)

Fiscal Year Ended	January 29, 2011	January 30, 2010	January 31, 2009
Net Debt (Repayment) or Issuance	(5,473)	371,314	(2,008)
Free cash flow available to equity	1,345,599	2,116,148	487,728
Dividend (payments)	(229,329)	(197,662)	(176,749)
Net Stock (Repurchase) or Issuance	(989,126)	(757,406)	(590,064)
Net increase (decrease) in cash	127,144	1,161,080	(279,085)

Note: The cash flow statement shows the cash flows from operating activities attributable to all capital providers (debt and equity). Consequently, Net after-tax interest expense (income) is added back to Net Income in the Operating cash flow segment and reported in the Financing segment. Net after-tax interest expense (income) is Net interest expense (income) × (1 − Average tax rate).

APPENDIX B Nordstrom, Inc. Operating Lease Adjustment

To estimate the value of Nordstrom's operating lease assets and liabilities, we use footnote information on the future minimum operating lease payments provided by Nordstrom in the financial statement footnotes included in its 2010 10-K. For the years ending January 29, 2011, and January 30, 2010, these amounts were as follows:

Year ended (in thousands)	January 29, 2011	January 30, 2010
Less than 1 year	$ 111	$ 98
1-2 years	108	101
2-3 years	100	89
3-4 years	96	82
4-5 years	92	78
More than 5 years	524	406
Total	$ 1,031	$ 854

Whereas in the TJX adjustment shown earlier in the chapter TJX provides an estimate of the net present value of its minimum future lease obligations, Nordstrom does not provide such an estimate. However, using Nordstrom's reported average interest rate on its long-term debt of 6.3 percent, and estimating an average lease term of 18 years using data on general lease terms given in the 10-K, we can estimate the present value of Nordstrom's minimum lease obligations for the year ended January 29, 2011, as $685 million and for the year ended January 30, 2010, as $578 million.[15] With those estimates, we can now make the following adjustments to Nordstrom's beginning and ending balance sheets and to its income statement for the year ended January 29, 2011:

1. Capitalize the estimated net present value of the minimum lease obligations as of January 30, 2010, increasing Long-Term Tangible Assets and Long-Term Debt by $578 million.
2. Calculate the value of any change in lease assets and lease liabilities during the year from new lease transactions or terminations. On January 30, 2010, the estimated present value of Nordstrom's liability for operating lease commitments in 2011

[15]The net present value of Nordstrom's reported future operating lease obligation is calculated using 6.3 percent as a discount rate, which represents the average of Nordstrom's long-term debt at the time, and an 18 year assumed average lease term. The first 5 years are discounted by year as reported, with the remaining obligation (reported as a lump sum due beyond year 5) spread on a straight line basis across years 6–18 and discounted.

and beyond was $578 million. During 2010, the company expected to repay $98 million (as per the schedule above), comprising $36.4 million of interest (6.3 percent of $578 million) and the remaining $61.6 million as retirement of the lease liability. If there had been no new lease commitments added during the year, the operating lease liability on January 29, 2011, would therefore have been $516.4 million ($578 million − $61.6 million). Yet Nordstrom's actual lease commitment on January 29, 2011, was $685 million, indicating that it increased its leased store capacity by $168.6 million. Nordstrom's Long-Term Tangible Assets and Long-Term Debt therefore increased by $168.6 million during 2010 as a result of net new lease commitments.

3. Record the change in lease asset value and expense from depreciation during the year. Using an eighteen-year life and straight-line depreciation, the depreciation expense for 2010 (included in Cost of Sales) is $36.8 million {[$578 m + ($168.6 m/2)]/18}.
4. Add back the lease expense in the income statement, included in Cost of Sales, and apportion the payment between Interest Expense and repayment of Long-Term Debt. As previously mentioned, the lease expense is $98 million. As noted above, this reflects $36.4 million ($578 m × 6.3 percent) that is shown as Interest Expense and the remaining $61.6 million is allocated toward retiring the total operating lease liability.
5. Make changes to the Deferred Tax Liability to reflect differences in earnings under the capital and operating methods. If it capitalizes operating leases, Nordstrom's expenses are $73.2 million ($36.8 million depreciation expense plus $36.4 million interest expense) versus $98 million under the operating method, a difference of $24.8 million. Nordstrom will not change its tax books, but for financial reporting purposes it will show higher earnings before tax and thus a higher Tax Expense through deferred taxes. Given a corporate tax rate of 35 percent, Tax Expense will increase by $8.7 million ($24.8 million × .35) and the Deferred Tax Liability will increase by the same amount for the year ended January 29, 2011.

In summary, the adjustments to Nordstrom's financial statements on January 30, 2010, and January 29, 2011, are as follows:

	Adjustment January 29, 2011		Adjustment January 30, 2010	
($ Billions)	**Assets**	**Liabilities & Equity**	**Assets**	**Liabilities & Equity**
Balance Sheet				
Long-term tangible assets	(1) +578.0 (2) +168.6 (3) −36.8		(1) +578.0	
Long-term debt		(1) +578.0 (2) +168.6 (4) −61.6		(1) +578.0
Deferred taxes		(5) +8.7		
Shareholders' equity		+16.1		
Income Statement				
Cost of sales		(3) +36.8 (4) −98.0		
Net interest expense		(4) +36.4		
Tax expense		(5) +8.7		
Total increase in expense		−16.1		
Net Income		+16.1		

As noted in the TJX example above, we will be examining the impact of these adjustments in the next chapter.