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The Quarterly Report

Heads-Up on Current Accounting Issues and Trends

- **Welcome to the first edition of *The Quarterly Report*, which will highlight topics we think investors will find interesting in the world of accounting, provide a heads-up on new accounting issues, and address the questions we get from investors.**
- **This Quarter's Key Points:**
  - **Stock Options . . . The Rules Are Changing: Assuming an aggressive schedule, the FASB could change the rules on employee stock options this year and require companies to expense employee stock options beginning in 2004. Five industry groups—Communications Equipment, Software, Computers & Peripherals, Semiconductor Equipment & Products, and Diversified Financials—accounted for over 50% of the $74 billion in pro forma option compensation for the companies in the S&P 500.**
  - **The Magical World of Pensions, An Update: Many companies have been ratcheting down their expected return assumptions for 2003. With SEC and auditor pressure, it looks like we won't be seeing too many return assumptions north of 9% in the near future. Using our pension-forecasting model, we list the 19 companies in the S&P 500 that would have the largest drop in 2003 earnings if their expected return assumption were reduced to 8.5%. We expect the FASB to begin work on pension accounting this year.**
  - **Impairments: We have tracked over 100 companies with an impairment charge in their earnings release within the past four weeks. We focus specifically on the impairment tests for four types of assets: goodwill, investments, inventory, and other long-lived assets. Did you know that the companies in the S&P 500 have over $1 trillion of goodwill on the balance sheet? That is one-third of total book value and about 15% of market cap. We list the 15 companies in the S&P 500 where goodwill is greater than market cap.**
  - **So Much Restructuring, So Little Time: We have tracked 125 companies that have announced restructuring charges in just the past four weeks. Companies may have wanted to squeeze in last minute charges before the accounting rules changed. We briefly review the new rules.**
  - **Accounting Calendar: A section that we plan to publish quarterly to let you know about new accounting rules and what the FASB is working on.**

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Executive Summary

One of the most frequent questions we heard from investors during our *Magic of Pension Accounting* world tour—other than, "Why is pension accounting so complicated? and, "Did you bring the coffee?"—was "What are other people asking about?" With that in mind, we decided to launch a quarterly report to address some of the questions we get from investors, provide a heads-up on new accounting issues, and highlight topics we think investors will find interesting, and maybe even intriguing, in the world of accounting.

Seeing accounting and intriguing in a sentence together for the first time may be a bit unsettling, but we believe there are lots of interesting topics to consider. Much of what we will focus on is in response to questions from investors. If you would like us to concentrate on something specific, let us know by sending an e-mail or giving us a call, and we will try and tackle it in an upcoming issue. We expect to issue this report quarterly, prior to earnings season.

Waking Up to the New Realities

The usually sleepy world of accounting became exciting in the last couple of years. Accounting scandals and audit failures caused a crisis in confidence among investors, generating intense scrutiny on corporate accounting. The press had a field day; there was a time when it seemed as if every other story had something to do with accounting. Politicians got involved, public hearings and investigations were held, and, of course, new legislation was passed, including the Sarbanes-Oxley Act of 2002 (the "Act"). The Act created the Public Accounting Oversight Board, whose launch did not go as smoothly as planned. The SEC came out with new rules, including Regulation G (governing non-GAAP financial measures), the CEO and CFO oath, and new disclosures for off-balance-sheet transactions.

Further, the FASB is crafting new accounting rules, aimed at cracking down on some perceived abuses; for example, the myriad off-balance-sheet arrangements used by Enron are targeted by FIN No. 46, *Consolidation of Variable Interest Entities*. (See our January 21, 2003, research note, *SPEs . . . Coming Soon to a Balance Sheet Near You*.) Arthur Andersen was put out of business and we moved from the Big Five to the Final Four, forcing auditors toward more conservative interpretations of accounting rules. Company management, in an attempt to boost investor confidence, has broadcast its conservative accounting. A good example: the 140 companies that have voluntarily decided to expense employee stock options according to *The Wall Street Journal Online*. Investors realized that the world of accounting is not black-and-white rules and regulations; instead, it is filled with many interpretations and judgment calls.

Less Visibility, More Volatility

Over the long term, we view many of the changes as positive; maybe investors will get a clearer picture of the "true" results of the companies that they invest in, volatility and all. Investors know that the businesses are volatile. They don't want companies to hide it anymore; they want more transparency and less earnings management. Of course, the flip side will be less visibility and an increase in reported earnings volatility; the market is not too fond of volatility. Some companies have reacted by no longer providing quarterly

earnings guidance, including, for example, Coca-Cola Company (KO, $39, OUTPERFORM, TP $57) McDonalds (MCD, $13.9, NEUTRAL, TP $17) and PepsiCo (PEP, $38.39, NEUTRAL, TP $43).

With the world of accounting changing so dramatically in the last couple of years and continuing to change, we welcome you to the first edition of *The Quarterly Report*.

This Quarter's Highlights

1. A brief review of the accounting for employee stock options, including why and when we think the rules will change;
2. An update on the magical world of pension accounting;
3. Focus on impairments and restructurings, both of which have been common themes in fourth quarter earnings releases;
4. Initial thoughts on FIN No. 46, the FASB's new rule for off-balance-sheet activity; and
5. Our Accounting Calendar, outlining new accounting rules and what the FASB is working on, a section we plan to publish quarterly.

Stock Options . . . The Rules Are Changing

Key Points

- Assuming an aggressive schedule, the FASB could change the rules on employee stock options this year and require companies to expense employee stock options beginning in 2004.
- Sixty-nine companies in the S&P 500 are now expensing options. These companies account for 29% of the S&P 500's market capitalization.
- Five industry groups—Communications Equipment, Software, Computers & Peripherals, Semiconductor Equipment & Products, and Diversified Financials—accounted for over 50% of the $74 billion in pro forma option compensation for the companies in the S&P 500 in 2001.

Last summer, in a bid to restore investor confidence, Coca-Cola and a number of other companies voluntarily began expensing employee stock options, turning accounting for employee stock options into the hot topic in the world of accounting. Then it fell off the radar screen as other issues gained more attention, namely defined benefit pension plans.

Now, options accounting could take center stage again. On February 1, 2003, the comment period ended for the FASB's invitation to comment on accounting for stock-based compensation (comparing current U.S. GAAP rules and the International Accounting Standard Board's (IASB) proposal on share-based compensation). The FASB received 238 comment letters, more than it received on its highly controversial special purpose entity project. A quick glance through the comment letters reveals there are still many critics of expensing options. The FASB staff will be spending the next few weeks analyzing the comments, and the board could begin discussing them by the end of the month. We then expect the FASB to put stock-based compensation back on its agenda some time this spring.

Rules Could Change This Year

Investors want to know whether or not the rules for option accounting will change. Will the FASB go through with it this time and require companies to record the fair value of employee stock options as a compensation cost on the income statement? We think it will. Assuming an aggressive schedule, the FASB could change the rules on employee stock options this year and require companies to expense employee stock options beginning in 2004.

The FASB could move quickly on this issue because it has already done the due diligence. The board added options accounting to its agenda in 1984 and worked on it for 11 years before issuing FAS No. 123, *Accounting for Stock-Based Compensation*.

The FASB reached a number of key conclusions in the past that should speed the passage of any new proposal. These conclusions were reinforced by the recent invitation to comment, in which the FASB sought comment on 27 separate issues. We

thought the issues that the board did not seek comment on expressed the FASB's view loud and clear. These included:

- Whether stock options granted to employees should result in compensation expense to the issuing company. In 1995, the FASB concluded that employee stock options represent something of value, the issuance of which results in compensation expense. The FASB found that arguments against this conclusion were not persuasive.
- Whether stock options issued to employees should be measured at something other than fair value. In 1995, the FASB determined that stock options issued to employees should be measured at fair value—not intrinsic value. The FASB found that arguments against this position were flawed.
- Whether the fair value of stock options could be reliably measured. The FASB, in 1995, concluded that the fair value of stock options could be reliably measured through the use of option-pricing models.

Stars Are in Alignment

A number of factors have lined up in the FASB's favor to push through a change in the rules requiring companies to expense employee stock options, including:

- The current environment is ripe for changes in accounting, especially rules that get tough on corporations.
- There is a significant amount of support from investors for the change.
- The FASB can now point at the 140 companies that have volunteered to expense employee stock options and say, "Look, if they can do it, you can do it too." There are some big influential companies on the list: General Electric (GE, $22.5, NEUTRAL, TP $29), General Motors (GM, $36.05, Neutral, TP $45), Coca-Cola, Procter & Gamble (PG, $83.19, NOT RATED), and Citigroup (C, $32.05, OUTPERFORM, TP $50) among others.
- The FASB has been recommending this approach all along; it is just that no one was taking the board up on its recommendation.
- Companies have now been disclosing the data for six years; it should not be too difficult to flip a switch and start recording the expense in the income statement.
- The IASB has a project on its agenda dealing with share-based compensation that would require the expensing of employee stock options. It is looking to produce a final standard this year.
- Similar transactions are accounted for differently. Option grants to non-employees are recorded at fair value; for example, if a company were to grant options to its outside counsel, it would record the fair value of those options as legal fees in its income statement. Grants of stock to employees are recorded at fair value as compensation expense on the income statement. And if a company were to involve a middleman and sell its options in the market for cash and then turn around and pay its employees the cash that it generated from the option sale, that cash payment would be recorded as compensation expense.

Of course, the FASB will have to overcome the objections of virtually every company in the United States.

The Accounting Debate

Option accounting is one of the most contentious and fiercely debated topics in the world of accounting. Lined up on one side, President Bush, Joe Lieberman, and most of Corporate America favor the status quo, where most companies don't record any compensation expense when options are granted to employees. On the other side, Alan Greenspan, Warren Buffett, John McCain, and most investors call for companies to record more compensation cost when options are granted.

The FASB proposed changes to the accounting rules in the early 1990s that would have forced companies to record the fair value of employee stock options as a compensation cost through earnings. That proposal sparked severe opposition. The FASB received close to 2,000 comment letters, protest marches were organized in Silicon Valley, and Congress threatened to put the FASB out of business.

The FASB backed away from its proposal, leaving us with the accounting model that we have today.

Two Choices

Under U.S. GAAP, companies currently can choose one of two methods to determine employee stock option compensation:

1. The intrinsic value method according to APB No. 25, "Accounting for Stock Issued to Employees," and
2. The fair value method as presented in FAS No. 123.

Intrinsic Value Method

The vast majority of companies choose the intrinsic value method. Prior to companies switching to the fair value method last summer, the intrinsic value method was used by 498 of the 500 companies in the S&P 500.

Under the intrinsic value method, employee stock options are considered a form of compensation. The compensation cost is the intrinsic value of the option at the date the number of shares under option and the strike price are fixed. For most options, that is the grant date. So for most options, compensation expense under the intrinsic value method is the difference between the fair value of the stock and the strike price of the option on the grant date.

Most companies avoid recording option compensation expense by simply granting "at-the-money" fixed options. By setting the strike price equal to the then-current stock price, the option has no intrinsic value on the grant date, and therefore, no compensation expense is recorded.

Fair Value Method

Companies can also choose the fair value method to determine the compensation cost of employee stock options. This is the FASB's recommended approach in FAS No. 123. Under the fair value method, employee stock options are valued at the date of grant using an option-pricing model such as Black Scholes.

That option value is fixed at the date of grant and charged to compensation expense over the option vesting period (generally between three and five years). For example, if

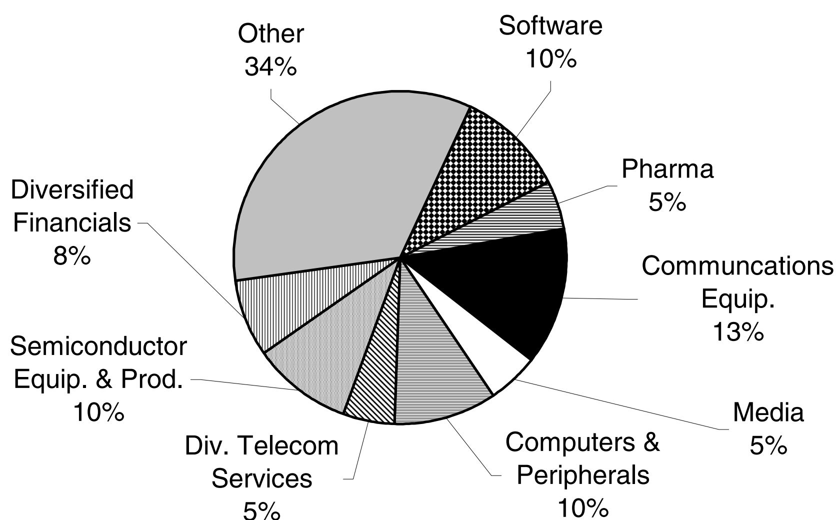
a company determines that an option grant has a fair value of $5 million and the vesting period is five years, the company will record $1 million of compensation expense in each of the next five years. As fair value is not adjusted for subsequent movement in the stock price, if the stock price were to move down and the options became worthless, the company would still record the $1 million per year compensation cost.

Sixty-nine companies in the S&P 500 are now using the fair value method. These companies account for 29% of the S&P 500's market capitalization.

Impact of Expensing Options

The FASB requires companies still using the intrinsic value method to disclose pro forma net income and earnings per share as if the fair value of employee stock options had been charged to compensation expense. Using this disclosure, we estimate aggregate earnings for the S&P 500 would have declined by approximately 21% in 2001 versus 11% in 2000 if the fair value of employee stock options had been charged to compensation expense. Unrecognized option compensation for the S&P 500 amounted to about $74 billion in 2001, up from $57 billion in 2000. As illustrated in Exhibit 1, eight industry groups accounted for $49 billion, or 66%, of the total pro forma compensation for the S&P 500 in 2001.

Exhibit 1: S&P 500 Breakout of Pro Forma Option Compensation



Source: Company data, CSFB estimates.

Cost Benefit Analysis

Corporate governance benefits could emerge if companies were forced to expense employee stock options, focusing management attention on a cost not previously accounted for. The disincentive for grants of performance options would also be removed.

The fair value method is not without its fair share of problems, including issues surrounding the valuation of options. In particular, when should the value be determined? Is it grant date, vesting date or exercise date? The option value is driven by management's assumptions; therefore, it may be prone to manipulation. To counter

this concern, the FASB could require a sensitivity analysis. For example, what would happen to earnings if the key assumptions used in the option-pricing model (i.e., volatility) were changed? That would enable investors to normalize assumptions and make apples-to-apples comparisons among companies. In fact, the assumptions should be disclosed and a sensitivity analysis presented in the financial statements whenever significant management assumptions are involved.

Warts and all, we believe the fair value method provides the best estimate of option compensation cost. It is better than what most companies record today, which is usually nothing.

New Rules–FAS No. 148

Late last year, the FASB issued FAS No. 148, *Accounting for Stock-Based Compensation—Transition and Disclosure*. We view FAS No. 148 as a small step toward providing better information about stock option plans while we wait for the FASB to change the accounting rules.

More Disclosure, More Often

Beginning this quarter, FAS No. 148 requires companies still using the intrinsic value method to disclose pro forma net income and earnings per share as if the fair value of employee stock options had been charged to compensation expense on a quarterly basis. For most companies, this information was previously only available once a year in the annual report.

Starting with the 2002 annual reports, the pro forma information must be presented in a specified tabular format in the “Summary of Significant Accounting Policies” footnote, typically the first footnote. Exhibit 2 provides an example of this tabular format. At least we won’t have to go searching through all the footnotes to find this data in the future; it will be in the same location for all companies. However, the information provided is not ideal; we would have liked the FASB to require companies to provide the pro forma data on a pretax basis, including the amounts and location of pro forma option compensation if it were to appear on the income statement—similar to the disclosure now provided by Microsoft (MSFT, $46.44, NOT RATED) on a quarterly basis. This would give investors the necessary information to properly adjust margins.

Exhibit 2: Required Presentation of Pro Forma Information According to FAS No. 148
US$ in millions, unless otherwise stated

	Year Ended December 31		
	2003	2002	2001
Net income, as reported	$479,300	$407,300	$347,790
Deduct: Total stock-based employee compensation expense determined under fair value based method for all awards, net of related tax effects	(18,902)	(12,747)	(10,962)
Pro forma net income	$460,398	$394,553	$336,828
Earnings per share:			
Basic—as reported	$2.66	$2.29	$1.97
Basic—pro forma	$2.56	$2.22	$1.91
Diluted—as reported	$2.02	$1.73	$1.49
Diluted—pro forma	$1.94	$1.68	$1.44

Source: FAS No. 148, Accounting for Stock-Based Compensation—Transition and Disclosure—An Amendment of FASB Statement No. 123.

New Transition Choices Make it Easy to Switch to Fair Value Method

The old rules allowed companies that switched to the fair value method to expense only future option grants. For example, GE is one of 140 companies that began expensing employee stock options; GE has stated that the option compensation cost would increase in each year, initially reducing net income by less than one cent per share. The expense will gradually increase to about three cents per share over the next three to four years as the cost is phased in.

FAS No. 148 provides three transition alternatives that companies are free to choose from:

1. Prospective method—same as old rules, ignore past grants, expense only future option grants.
2. Modified prospective method—includes all unvested options and adds on future grants. Prior periods are not affected.
3. Retroactive restatement method—restate all periods presented, mirrors amounts that are currently disclosed in the footnotes.

You may wonder why the FASB would give companies a choice. They have had to disclose the impact of expensing employee stock options in the footnotes since 1995. Information on past grants is readily available. Why not require companies to include the old grants? Because providing a choice makes it easier on companies to switch to the fair value method and many have. The FASB wants as many companies using the fair value method as possible, so that when the board tries to change the rules it can hold them up as an example.

All three alternatives are available to companies as long as they switch to the fair value method before December 31, 2003. Otherwise, only choices two and three can be used. We think that if the FASB requires companies to expense employee stock options, only choices two and three will be available.

The Magical World of Pensions, An Update

Key Points

- Many companies have been ratcheting down their expected return assumptions for 2003. With SEC and auditor pressure, it looks like we won't be seeing too many return assumptions north of 9% in the near future. Using our pension-forecasting model, we list the 19 companies in the S&P 500 that would have the largest drop in 2003 earnings if their expected return assumption were reduced to 8.5%.
- We have tracked about 40 S&P 500 companies that have announced recent pension plan contributions; we list 13 companies with contributions over $200 million. The total contribution announced by these 13 companies is $14.6 billion, very close to the $15 billion total contributed in 2001 by all of the companies in the S&P 500.
- We expect the FASB to begin work on pension accounting this year.

There have been some rumblings in the world of pension accounting since we released our report, *The Magic of Pension Accounting*, on September 27, 2002. For a while, it seemed as if every other company was saying something about its pension plan. We thought you might be interested in a brief update.

Expected Rates of Return Are Falling

The combination of a declining stock market, fixed income yields remaining at historical lows, and investor pressure were enough for many companies to start ratcheting down their expected return assumptions for 2003. Add on SEC and auditor pressure and it looks like we won't be seeing too many return assumptions north of 9% in the near future.

The SEC Steps In—Questions Rates above 9%

SEC officials and other accounting bigwigs met last December for the 30th Annual AICPA National Conference on Current SEC Developments. Along with a variety of other topics, pension accounting was on the agenda. The SEC staff urged companies to pay close attention to their expected return assumptions, indicating that the SEC could challenge anything over 9%. The SEC staff made clear the range in which it believes expected return assumptions should fall by highlighting a study from 1926 through the third quarter of 2002 that indicated 10% and 6% historical average annual returns on equity and fixed income portfolios, respectively.

The expected rate of return assumption is supposed to be a long-term concept (ten-plus years) that will vary depending on a company's belief about future market performance, its ability to generate rates of return either above or below those market levels, and the mix of plan assets. As a starting point, the SEC indicated that companies should use historical returns of similarly allocated portfolios.

Companies Ratchet down Expected Rates of Return

Whether they have done so on their own or have heeded the SEC's caution, many companies have indeed been ratcheting down their long term expected rates of return. We have been tracking companies that have announced a reduction in their rate of return. The 20 companies in Exhibit 3 have reduced their rate by at least 50 basis points.

Exhibit 3: Recently Announced Changes in Expected Rates of Return[1]

US$ in millions, unless otherwise stated

Company	Ticker	Date Announced	2001	2002	2003
Abbott Laboratories	ABT	1/16/03	9.50%	9.50%	8.80%
AT&T	T	1/23/03	9.50%	9.00%	8.50%
Bank of America	BAC	10/15/02	10.00%	8.50%	NA
Boise Cascade	BCC	11/13/02	9.80%	9.30%	NA
Burlington Northern	BNI	10/1/02	9.50%	8.50%	NA
Cummins	CUM	10/17/02	10.00%	10.00%	8.50%
Delphi	DPH	1/17/03	10.00%	NA	9.00%
Ford[2]	F	1/10/03	9.50%	NA	8.80%
General Motors[2]	GM	1/8/03	10.00%	10.00%	9.00%
International Business Machines[2]	IBM	1/16/03	10.00%	9.50%	8.00%
Marathon Oil	MRO	1/27/03	9.50%	9.50%	9.00%
New York Times	NYT	1/28/03	9.00%	9.00%	8.80%
Norfolk Southern	NSC	11/7/02	10.00%	9.00%	NA
Northrop Grumman	NOC	1/28/03	9.50%	9.50%	9.00%
Phelps Dodge	PD	1/29/03	9.50%	9.00%	8.80%
Raytheon	RTN	1/24/03	9.50%	9.50%	8.80%
The Saint Paul Companies	SPC	1/28/03	10.00%	10.00%	8.50%
Union Pacific	UNP	1/22/03	10.00%	9.00%	8.00%
United States Steel Corporation	X	1/28/03	8.90%	8.80%	8.20%
Visteon[2]	VC	1/24/03	9.50%	9.50%	9.00%

[1] NA = Not Available
[2] Expected return rates represent U.S. plans only.

Source: Company data, CSFB estimates.

We anticipate that increased SEC and auditor scrutiny of the expected rates of return will result in a 50-to-100-basis-point drop in the rate for many companies. There were 237 companies in the S&P 500 with an expected rate of return of 9% or higher and 18 companies with an expected rate of return above 10% at the end of 2001. The median return assumption used by companies in the S&P 500 during 2001 was 9.2%. Looking into our crystal ball, we see the median expected return assumption for 2003 settling around 8.5%. As noted in our September report, this was the return on a portfolio allocated to 65% equity and 35% fixed income, using historical rates of return (back to 1926) for equity (10%) and fixed income (5.50%) securities.

As Rates of Return Fall . . . Earnings Fall

For a back-of-the-envelope approach to estimating the impact on earnings of a falling expected return assumption, simply multiply the change in the assumption by the fair value of the pension plan assets. Then, tax effect the answer and that should get you in the ballpark. For example, a 100-basis-point decline in the expected rate of return for a pension plan with $1 billion in plan assets would increase pension cost by approximately

$10 million. If we take into account income taxes, assuming a 35% tax rate, earnings would decline by about $6.5 million.

Sensitivity of Earnings to a Cut in the Expected Rate of Return

We decided to see what would happen to earnings if we lived in a world where all companies set their expected rate of return to 8.5%. Exhibit 4 shows the 19 companies that would experience the largest increase in 2003E pension cost per share from setting the expected rate of return to 8.5%. We then compare these estimates to a base case that holds expected rates of return flat from 2001 levels. We assume a 35% tax rate for all companies and keep the share counts at 2001 levels. The estimates were obtained by using our pension-forecasting model. An individual company model is available to clients on the CSFB Web site (http://www.csfb.com/equity/presentations/pension_forecast_model.xls).

Exhibit 4: **Companies Experiencing Highest Increase in 2003E Pension Cost per Share from Dropping Expected Rate of Return to 8.5%**

		Pension (Income)/Expense per share		
Company	**Ticker**	**2003E—Base Case**	**2003E—Assuming 8.5%**	**Difference**
Northrop Grumman Corp	NOC	$ (2.52)	$ (1.34)	$ 1.18
General Motors Corp	GM	5.83	6.48	0.64
Delta Air Lines Inc	DAL	3.75	4.30	0.55
Cummins Inc	CUM	0.74	1.20	0.46
NCR Corp	NCR	(0.36)	(0.00)	0.35
Navistar International	NAV	1.24	1.59	0.35
Lockheed Martin Corp	LMT	0.02	0.35	0.33
Weyerhaeuser Co	WY	(0.41)	(0.12)	0.30
ITT Industries Inc	ITT	0.21	0.47	0.26
Eaton Corp	ETN	0.18	0.43	0.25
Fedex Corp	FDX	1.06	1.31	0.25
United States Steel Corp	X	(0.57)	(0.32)	0.25
Boeing Co	BA	(0.18)	0.03	0.21
Raytheon Co	RTN	0.09	0.30	0.21
Deere & Co	DE	0.05	0.25	0.20
AMR Corp/De	AMR	2.47	2.67	0.20
Coors (Adolph) -Cl B	RKY	0.35	0.55	0.20
Caterpillar Inc	CAT	(0.11)	0.09	0.20
TRW Inc	TRW	0.04	0.23	0.19

Source: Company data, CSFB estimates.

Look Out for New Disclosures

The SEC staff has also encouraged companies to beef up pension disclosures in the Management Discussion and Analysis (MD&A) section of their annual filings, including information about additional cash contributions that companies expect to make (whether voluntary or required), the impact on pension cost of recognizing previously unrecognized gains or losses, whether the expected return was based on the fair value or the calculated value of plan assets, the asset allocation used to arrive at the expected rate of return, and detail on the sensitivity of pension cost to changes in expected return assumptions.

Pension Disclosure Wish List

Believe it or not, the pension footnote is one of the better footnotes in the financial statements because it provides consistent information across companies. Take a look at one pension footnote and compare it with another and they will be virtually the same. However, it is missing some key information. In addition to the various new disclosures that the SEC is looking for in the MD&A, we are providing the following wish list, information that we think would improve pension disclosures from an investor's perspective.

- The funded status of the pension plan used to determine the funding requirements according to the tax code and the amount of the funding credit, if any.
- The funded status of the pension plan from the Pension Benefit Guarantee Corporation's (PBGC) perspective.
- A sensitivity analysis for the expected return, discount rate, and salary inflation assumptions. For example, what happens to pension cost if each of the assumptions moves up or down 100 basis points?
- Pension plan asset allocations.
- The accumulated benefit obligation for all plans.
- The vested benefit obligation for all plans.
- A breakdown of what was contributed to the plans (i.e., cash, stock, hard assets, etc.).
- The location of pension cost on the income statement, and the amounts. Is it going to cost of goods sold, SG&A, R&D, etc.?

Pension Announcements

In the four months since we released our *The Magic of Pension Accounting* report, many companies have made announcements regarding the status of their pension plans; we have been tracking these and have included a few for your reading enjoyment.

Contributions

This issue is now getting so much attention from investors because it has become a valuation issue. The most popular question that we were getting from investors was, "When will companies have to fund their pension plans?" With the health of the pension plans deteriorating and many plans now underfunded, companies have been announcing contributions to their pension plans. In theory, investors are forecasting out a series of future cash flows to value the companies that they invest in. If the pension plan is underfunded, then it has a claim on those future cash flows, potentially reducing the company's valuation from a shareholder's perspective. Even in situations where there may be no required cash contributions, the market still reacts to a negative impact on earnings from the pension plan, especially if the company is valued on an earnings basis.

Many companies have announced that they will be making contributions to their pension plans. Thus far, we've tracked roughly 40 S&P 500 companies that have announced recent pension plan contributions, including the 13 companies listed in Exhibit 5 with

contributions over $200 million. The total contribution announced by these 13 companies is $14.6 billion. That is very close to the $15 billion total contributed by all of the companies in the S&P 500 with defined benefit pension plans during 2001.

Exhibit 5: Recently Announced Pension Plan Contributions over $200 Million
US$ in millions, unless otherwise stated

Company	Ticker	Date Announced	Amount
General Motors	GM	1/16/03	$4,800
International Business Machines	IBM	12/31/02	3,950
United Technologies	UTX	Various	1,500
3M	MMM	1/22/03	1,000
Honeywell	HON	1/1/03	800
Ford	F	1/10/03	500
Delphi	DPH	1/17/03	350
Boeing	BA	10/16/02	340
Pitney Bowes	PBI	1/28/03	339
J.C. Penney	JCP	11/13/02	300
AOL Time Warner	AOL	1/29/03	257
Fedex Corp.	FDX	1/13/03	241
Eastman Chemical	EMN	2/4/03	220

Source: Company data, CSFB estimates.

Required versus Voluntary Cash Contributions

Some companies have made contributions because they have been required to do so according to the funding requirements, while others have made voluntary contributions. Boise Cascade (BCC, $24.38, NEUTRAL, TP $27), for example, made both required and voluntary contributions in 2002. In November, the company announced that its required minimum contribution for 2002 was $1 million, but the company voluntarily decided to make additional cash contributions totaling $48 million in the third quarter. Ford, on the other hand, stated in mid-October that it would not be required to make contributions to its pension plan until 2006. Nevertheless, Ford announced that it was making a voluntary $500 million contribution in early January 2003.

Why Make a Voluntary Contribution?

There are a variety of reasons why a company would choose to fund its pension plan before being required to do so. Reasons include avoiding the variable rate premium charged by the PBGC, eliminating the need to take a charge to shareholders' equity to record the minimum pension liability, obtaining the tax benefit from a tax-deductible contribution to an underfunded pension plan, boosting earnings, and, let's not forget, improving the health of the pension plan.

Noncash Contributions

Some companies have elected to contribute something other than cash to their pension plans. On the last day of the year, International Business Machines (IBM, $77.39, NEUTRAL, TP $87) contributed roughly $4.0 billion to its U.S. pension plan. The contribution included approximately $2.1 billion in cash and $1.9 billion in IBM stock. Companies are allowed to contribute their own stock to their pension plans as long as the stock does not account for more than 10% of the total pension plan assets.

Charges against Shareholders' Equity

As the health of defined benefit pension plans has deteriorated, some companies are facing the need to adjust their balance sheets to reflect their minimum pension liabilities. For some companies, that adjustment generates a charge against shareholders' equity. Thus far, we have tracked over 40 S&P 500 companies that have announced charges against shareholders' equity, including the 11 companies in Exhibit 6 with charges over $1 billion.

Exhibit 6: 2002 Announced Charges against Shareholders' Equity over $1 Billion
US$ in millions, unless otherwise stated

Company	Ticker	Date Announced	Amount
Boeing	BA	10/16/02	$4,000
Lucent	LU	10/11/02	2,900
E.I. Du Pont	DD	1/28/03	2,500
Honeywell International	HON	11/14/02	1,700
Lockheed Martin	LMT	1/24/03	1,600
United Technologies	UTX	1/16/03	1,600
Delta Airlines	DAL	1/16/03	1,600
International Paper	IP	1/16/03	1,500
SBC Communications	SBC	1/28/03	1,500
Northrop Grumman	NOC	1/28/03	1,200
AMR Corp	AMR	1/22/03	1,100

Source: Company data, CSFB estimates.

Fixing Pension Accounting

In 1985, with the issuance of FAS No. 87, *Employers Accounting for Pensions*, the FASB recognized that it was taking a significant step—although not the final step—in the evolution of good pension accounting. Investor complaints are rising, including our own; we think FAS No. 87 is confusing and misleading. It would not surprise us if the FASB were to take another look at pension accounting and take that final step toward reflecting what is actually going on with the pension plan in the financial statements.

The FASB's chairman, Robert Herz, has stated that he is not a fan of existing pension accounting and is clearly taking criticisms voiced by investors seriously, saying that he considers the pension issue "pervasive." Additionally, the International Accounting Standards Board (IASB) tentatively voted in late January to eliminate the use of expected returns. Changes to existing pension accounting rules are gaining momentum. The issue was discussed by the FASB at its Users Advisory Council meeting on February 13 here in New York City. It was one of the most actively debated topics on the agenda. We expect pension accounting may make its way onto the FASB's active agenda this year.

Give the FASB a couple of years and pension accounting could look very different than it does today. Once again relying upon our crystal ball, if the FASB were to take on a project on pension accounting, it could start out by going after the low hanging fruit (i.e., providing investors with additional disclosures). We mentioned some of our suggestions earlier. Or the board could, as we suggest, separate the pension expense or income on the income statement into three buckets: compensation, financing, and investing; only the compensation component would remain in operating income.

After it has grabbed the low hanging fruit, the FASB could attack pension accounting by trying to put the pension plan assets and obligation on the balance sheet—with changes in each going through earnings—similar to our methodology described in *The Magic of Pension Accounting*. However, after hearing company complaints about earnings volatility, we think the FASB could once again come to a compromise, requiring companies to report the funded status of the pension plan on the balance sheet as an asset for an overfunded plan and as a liability for an underfunded plan. On the income statement the FASB will probably end up asking companies to run service cost through operating income and interest cost through interest expense, and to take the actual returns on the pension plan assets and changes in the pension obligation due to changes in actuarial assumptions and run them through other comprehensive income as part of shareholders' equity.

For further discussion, and detailed analysis of pension accounting please refer to our September 27, 2002 research report, *The Magic of Pension Accounting*.

Impairments

Key Points

- We have tracked over 100 companies with an impairment charges in their earnings releases within the past four weeks. We focus specifically on the impairment tests for four types of assets: goodwill, investments, inventory, and other long-lived assets.
- Did you know that the companies in the S&P 500 have over $1 trillion of goodwill on the balance sheet? That is one-third of total book value and about 15% of market cap. We list the 15 companies in the S&P 500 where goodwill is greater than market cap and the 18 companies where we estimate a goodwill impairment in excess of $1 billion.
- There is a ton of management judgment that goes into determining whether or not an investment in a debt or equity security is impaired. With the deterioration in investment portfolios over the last few years, this issue has once again popped onto the SEC's radar screen.

Given the current economic environment and a stock market that has declined three years in a row, it is no big surprise that some assets on corporate balance sheets may not be worth as much as they once were. Impairments, writedowns, and writeoffs have become a common theme during earnings seasons—most recently in the fourth quarter—over the past few years. We have witnessed quite a few notable asset impairments, including AOL Time Warner's (AOL, $10.20, NEUTRAL, TP $16.00) $54 billion goodwill impairment charge, followed by its recently announced $45 billion additional charge; JDS Uniphase's (JDSU, $2.90, UNDERPERFORM, $1.25) $50 billion goodwill impairment charge; and the $2.2 billion inventory writedown taken by Cisco Systems (CSCO, $13.47, OUTPERFORM, TP $17) a couple of years ago.

An asset impairment charge is reported as part of operating income, even though most companies will describe it as a onetime or nonrecurring charge. In most cases, from an analytical perspective, it should be pulled out of current results when analyzing how the business performed in the period.

The impairment charge has no impact on current period cash flow. However, it could have an impact on investor's expectations for future cash flows. Usually the market is way ahead of the accountants when it comes to determining impairments. If the impairment is a negative surprise to the market, management may be indicating that its assets are not going to generate the cash flows that the market thought it would. If so, then the valuation of the corporation is likely impaired as well.

Let's not forget that future reported results could actually benefit from an asset impairment. Generally, an impairment charge will reduce shareholders' equity, boosting future returns on equity. An inventory writedown will reduce future costs of goods sold, increasing margins; and depreciation expense will fall with an impairment of fixed assets.

With another year-end upon us, and impairment announcements picking up pace, we have tracked over 100 companies that have discussed impairment charges in their earnings releases within the past four weeks. We thought it would be helpful to briefly review some of the asset impairment rules and tests that companies are required to put their balance sheets through. We focus specifically on the impairment tests for four types of assets: goodwill, investments in debt and equity securities, inventory, and other long-lived assets (property, plant and equipment).

Goodwill Impairment—New Rules, Lots of Charges

We made too many wrong mistakes – Yogi Berra

With the implementation last year of FAS No. 142, "*Goodwill and Other Intangible Assets*," companies no longer amortize goodwill. Instead, goodwill remains on the balance sheet and is evaluated for impairment using a new methodology that we describe below. That evaluation has resulted in goodwill impairment charges that are getting plenty of attention. The size of the charges makes them difficult to miss, and therefore easy to ignore. Exhibit 7 includes eight companies that have announced goodwill impairment charges in excess of $750 million in the past few weeks; charges relate to the fourth quarter ended December 2002, unless otherwise noted.

Exhibit 7: Recently Announced Goodwill Impairments

US$ in millions, unless otherwise stated

Company	Ticker	Date Announced	Impairment of Goodwill
AOL Time Warner	AOL	1/29/03	$44,688 [1]
Schlumberger	SLB	1/22/03	3,168 [2]
Transocean	RIG	1/30/03	2,876 [3]
Sun Microsystems	SUNW	1/17/03	2,125 [4]
Broadcom	BRCM	1/23/03	1,241
International Paper	IP	1/16/03	1,200 [5]
General Electric	GE	1/17/03	1,015 [5]
Georgia Pacific	GP	1/22/03	753 [6]

[1] Reflects decline in market values and includes charges to reduce the carrying value of goodwill at America Online ($33.5 billion), the cable segment ($10.5 billion), and the music segment ($650 million). Excludes separate $850 million charge to reduce the carrying value of brands and trademarks at the music segment.
[2] Charges relate to the business realignment, impairment of goodwill and intangibles, and other costs.
[3] $2,494 million of this goodwill impairment is associated with the International and U.S. Floater Contract Drilling Services reporting unit.
[4] Relates to goodwill & other intangibles for the second quarter ended 12/31/02.
[5] Includes goodwill impairment charge for the full year ended 12/31/02.
[6] Includes a $651 million goodwill impairment charge relating to Unisource for the full year ended 12/31/02.
Source: Company press releases, CSFB estimates.

$1 Trillion in Goodwill

Before we dig into the mechanics of the goodwill impairment test, we wanted to put things in perspective with some interesting statistics. The companies in the S&P 500 had over $1 trillion of goodwill on the balance sheet as of the most recent reporting period. That is about one-third of total book value and approximately 15% of the total S&P 500 market capitalization. There are 428 companies (86%) in the S&P 500 with goodwill on their balance sheets. Exhibits 8 lists the 18 companies that reported over $10 billion of goodwill as of the most recently reported period end. AOL recently announced a $45 billion goodwill impairment, reducing its goodwill balance to about $37 billion.

Exhibit 8: Goodwill Greater than $10 Billion
US$ in millions, unless otherwise stated

Company	Ticker	Industry	Goodwill
AOL Time Warner Inc	AOL	Movies & Entertainment	$81,688
Viacom Inc -Cl B	VIA.B	Movies & Entertainment	57,518
General Electric Co	GE	Industrial Conglomerates	37,446
Qwest Communication Intl Inc	Q	Integrated Telecommunication Services	29,696
Tyco International Ltd	TYC	Industrial Conglomerates	26,093
Altria Group Inc	MO	Tobacco	25,747
AT&T Corp	T	Integrated Telecommunication Services	20,517
Citigroup Inc	C	Diversified Financial Services	20,277
Disney (Walt) Co	DIS	Movies & Entertainment	16,978
Hewlett-Packard Co	HPQ	Computer Hardware	15,089
ConocoPhillips	COP	Integrated Oil & Gas	14,464
Comcast Corp	CMCSA	Broadcasting & Cable TV	13,909
Bank Of America Corp	BAC	Banks	11,389
Raytheon Co	RTN	Aerospace & Defense	11,170
Procter & Gamble Co	PG	Household Products	11,038
Wachovia Corp	WB	Banks	10,810
General Motors Corp	GM	Automobiles Manufacturer	10,288
Cendant Corp	CD	Diversified Commercial Services	10,273

Source: Company press releases, CSFB estimates.

There are 47 companies with goodwill that is more than 50% of their market capitalization, including the 15 companies in Exhibit 9 with goodwill balances in excess of market capitalization.

Exhibit 9: Goodwill Greater than Market Capitalization
US$ in millions, unless otherwise stated

Company	Ticker	Goodwill	Market Capitalization	Goodwill / Market Capitalization
Mirant Corp	MIR	$3,422	$656	522%
Allied Waste Inds Inc	AW	8,570	1,958	438%
Qwest Communication Intl Inc	Q	29,696	6,985	425%
RJ Reynolds Tobacco Hldgs	RJR	7,090	3,545	200%
Georgia-Pacific Corp	GP	7,606	3,855	197%
Healthsouth Corp	HRC	2,552	1,388	184%
Delta Air Lines Inc	DAL	2,092	1,152	182%
AOL Time Warner Inc	AOL	81,688	45,657	179%
TXU Corp	TXU	7,671	4,631	166%
AT&T Corp	T	20,517	13,946	147%
AES Corp. (The)	AES	2,040	1,480	138%
CMS Energy Corp	CMS	740	633	117%
Sprint Pcs Group	PCS	4,374	3,876	113%
Sanmina-Sci Corp	SANM	2,100	1,913	110%
Perkinelmer Inc	PKI	971	937	104%

Source: Company press releases, CSFB estimates.

As of the most recently reported quarter, 33 S&P 500 companies have goodwill balances greater than shareholders equity. Stated differently, these companies have negative tangible book value. Exhibit 10 shows the ten companies with the highest goodwill-to-equity ratios.

Exhibit 10: Top 10 Ranked by Goodwill-to-Equity
US$ in millions, unless otherwise stated

Company	Ticker	Goodwill	Equity	Goodwill / Equity
Campbell Soup Co	CPB	$1,660	$3	55,333%
American Standard Cos Inc	ASD	972	159	610%
Allied Waste Inds Inc	AW	8,570	1,941	441%
Colgate-Palmolive Co	CL	1,147	323	355%
Sprint Pcs Group	PCS	4,374	1,277	343%
Kellogg Co	K	3,110	1,094	284%
Hercules Inc	HPC	453	190	238%
Equifax Inc	EFX	612	264	231%
Omnicom Group	OMC	4,372	2,308	189%
Sara Lee Corp	SLE	3,322	1,791	185%

Source: Company press releases, CSFB estimates.

Test Goodwill for Impairment at Least Once a Year

According to FAS No. 142, goodwill is evaluated for impairment at the reporting unit level. A reporting unit is an operating segment or one level below an operating segment. The goodwill in each reporting unit must be tested at least annually for impairment, and more frequently if an event occurs that could reduce the fair value of the reporting unit below its book value. Examples of potential impairment triggering events, according to the FASB, include:

- A significant adverse change in legal factors or in the business climate.
- An adverse action by a regulator.
- Unanticipated competition.
- A loss of key personnel.
- An expectation that a reporting unit will be sold or disposed of.

Goodwill Impairment Test Mechanics

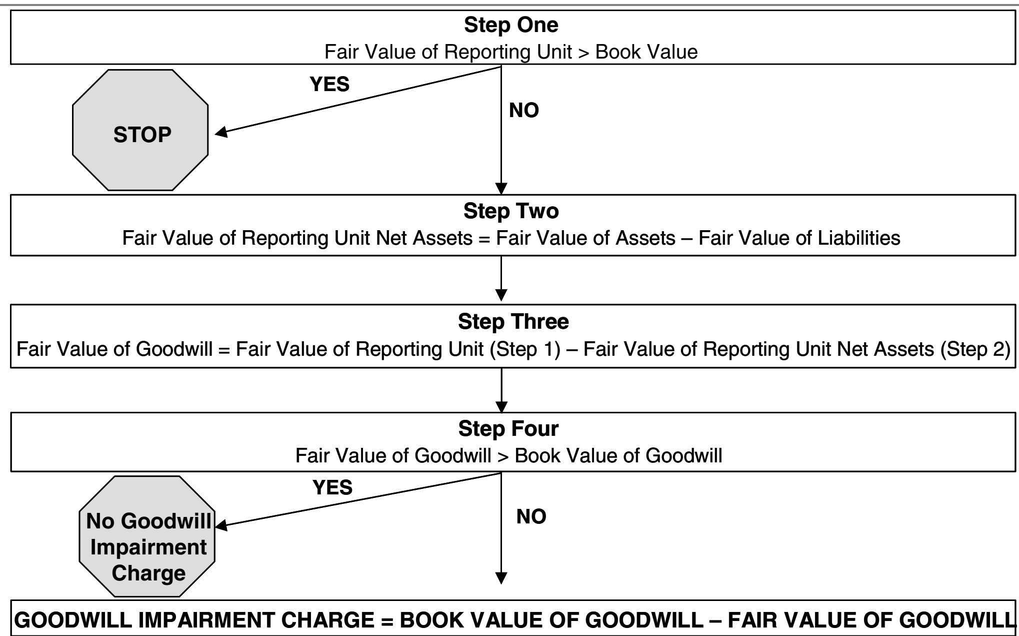
Now that we have established how often the test takes place, we will walk through the four-step process that companies must go through when applying the new goodwill impairment test:

- *Step One.* Determine the fair value of the reporting unit, then compare it to the book value of the reporting unit. If fair value is greater than book value, the impairment test stops. If fair value is less than book value, move to Step Two.
- *Step Two.* Determine the fair value of the reporting unit's net assets by estimating the fair value of each asset and liability. The fair value of its assets, less the fair value of its liabilities, is the fair value of the reporting unit's net assets.
- *Step Three.* Estimate the fair value of goodwill by subtracting the fair value of the reporting unit's net assets (Step Two) from the fair value of the reporting unit (Step One).
- *Step Four.* Calculate the impairment. Compare the fair value of goodwill from Step Three with the goodwill reported on the balance sheet. If the fair value is greater than goodwill on the balance sheet, there is no impairment charge. If the fair value of

goodwill is less than the goodwill on the balance sheet, goodwill is written down to fair value and a charge is taken through operating income to reflect the difference between the fair value and the book value of goodwill.

Exhibit 11 depicts the four-step goodwill impairment test.

Exhibit 11: Goodwill Impairment Test



Source: Statement of Financial Accounting Standard No. 142.

Lots of Management Discretion

There is a significant amount of management discretion that goes into applying the goodwill impairment test, particularly when determining fair value. For example, a variety of methods can be employed to arrive at the fair value of the reporting unit. According to FAS No. 142, quoted market prices in active markets provide the best evidence of fair value and should be used if available. If there is no market price for the reporting unit, the next best method would be a discounted cash flow (DCF) analysis. Other methods could include multiples of earnings, revenue, EBITDA, etc. However, multiples should only be used if there are good comparables. We expect most auditors would require that companies use more than one valuation methodology.

Most valuation methods involve a ton of assumptions. For example, a DCF analysis is extremely sensitive to the assumptions used, particularly the rate used to discount the future stream of cash flows. Estimating the fair value of assets and liabilities from Step Two above would also involve a number of judgment calls. In other words, in many cases, if management wants to take an impairment charge, it will; if it doesn't, it won't.

Don't Ignore Goodwill Impairment Charges

Typically, the market is way ahead of the accountants when it comes to determining a company's impairments. As the market continually revalues a company's future prospects, it conducts a daily impairment test on the corporation as a whole. The new goodwill impairment test according to FAS No. 142 does the same thing at the reporting

unit level; however, it is from a management perspective. Therefore, a goodwill impairment charge could provide investors with new information about management's view of what it thinks the business is worth and the expected cash flow generating capability of the business.

Back-of-the-Envelope Estimate

When a company announces a goodwill impairment charge, we recommend the following back-of-the-envelope estimate to check on whether it appears that management and the market have differing expectations. The estimate involves applying the goodwill impairment test that we described above to the corporation as a whole.

- *Step One.* We compare the company's market cap as of February 11, 2003, with its most recently available book value. If market cap is greater than book value, the impairment test stops. If market cap is less than book value, move to Step Two.
- *Step Two.* We substitute the company's book value less goodwill on the balance sheet for the fair value of the company's net assets.
- *Step Three.* We estimate the fair value of goodwill by subtracting the fair value of the company's net assets (Step Two) from market cap (Step One).
- *Step Four.* We calculate the impairment, comparing the fair value of goodwill, from Step Three, to the goodwill reported on the balance sheet. If the fair value of goodwill is greater than the goodwill on the balance sheet, there is no impairment charge; if it less, then the goodwill is written down to fair value.

We applied our back-of-the-envelope estimate to the companies in the S&P 500 as of December 31, 2002. We found 69 companies with a market cap less than book value. Exhibit 12 lists the 18 companies where we estimate a goodwill impairment in excess of $1 billion. Note that market cap is less than book for all of the companies in Exhibit 12, indicating that they failed Step One of our back-of-the-envelope test. After performing the remaining steps, we estimated the goodwill impairment and compared our estimates to any actual goodwill impairments that were recently announced.

Exhibit 12: Companies Potentially Subject to Goodwill Impairment Charges

US$ in millions, unless otherwise stated

Company Name	Ticker	Current Market. Cap.	Book Value	Goodwill	Estimated Fair Value of Net Assets	Estimated Fair Value of Goodwill	Estimated Goodwill Impairment	Announced Impairment
AOL Time Warner Inc	AOL	$45,657	$98,018	$81,688	$16,330	$29,327	$(52,361)	$(44,688)
Qwest Communication Int'l	Q	6,985	35,969	29,696	6,273	712	(28,984)	NA
AT&T Corp	T	13,946	42,863	20,517	22,346	0	(20,517)	NA
AT&T Wireless Services Inc	AWE	13,565	27,638	7,177	20,461	0	(7,177)	NA
TXU Corp	TXU	4,631	9,486	7,671	1,815	2,816	(4,855)	NA
RJ Reynolds Tobacco Hldgs	RJR	3,545	7,440	7,090	350	3,195	(3,895)	NA
Mirant Corp	MIR	656	5,231	3,422	1,809	0	(3,422)	NA
Transocean Inc	RIG	7,061	9,953	5,099	4,854	2,208	(2,891)	(2,876)
Healthsouth Corp	HRC	1,388	3,964	2,552	1,412	0	(2,552)	NA
Solectron Corp	SLR	2,747	4,721	2,197	2,525	222	(1,975)	NA
Delta Air Lines Inc	DAL	1,152	3,095	2,092	1,003	149	(1,943)	NA
Sanmina-Sci Corp	SANM	1,913	3,415	2,100	1,315	599	(1,501)	NA
Georgia-Pacific Corp	GP	3,855	5,273	7,606	(2,333)	6,188	(1,418)	(753)
Penney (J C) Co	JCP	4,872	6,218	2,302	3,916	956	(1,346)	NA
Hartford Finl Svcs Grp Inc	HIG	9,721	10,943	1,722	9,221	500	(1,222)	NA
El Paso Corp	EP	2,821	10,236	1,214	9,022	0	(1,214)	NA
Aetna Inc	AET	6,533	7,629	3,618	4,011	2,523	(1,096)	NA
Williams Cos Inc	WMB	1,565	5,369	1,087	4,282	0	(1,087)	NA

Source: Company data, CSFB estimates.

Market Expectations versus Management Expectations

As we mentioned earlier, a goodwill impairment charge has no impact on current-period cash flows. The tricky part of the analysis is determining whether the impairment will have any impact on forecasts of future cash flows. Is management telling us anything about its assets that we did not know before the impairment, i.e., will cash flow generation not be what we thought it would?

We use our back-of-the-envelope approach as a framework for thinking about this question. If the company takes a goodwill impairment charge that is larger than our estimate, the charge may be a negative surprise for the market. If the actual goodwill impairment charge is smaller than our estimate, it could be a positive surprise. Or do management and the market simply have different opinions about the future prospects for the company?

For example, in Exhibit 12 we arrive at a $20.5 billion goodwill impairment charge for AT&T Corporation (T, $17.81, NEUTRAL, TP $27). The company has yet to announce that its goodwill is impaired. Is the market underestimating AT&T's ability to generate future cash flows? Is AT&T management overestimating its ability to generate future cash flows? Does the market have to rethink its expectations? All are important questions for investors to think about while analyzing and valuing a company like AT&T.

Prior to AOL announcing its $45 billion goodwill impairment charge on January 29, the stock closed at $13.96 per share, a $63 billion market capitalization. Using our back-of-the-envelope approach, the market appeared to have factored in a $36 billion goodwill impairment. The next day, after digesting the news of the goodwill impairment along with the year-end results, the stock traded down to $12 per share, a 14% decline, and

AOL's market capitalization fell to $54 billion. At that point, the market and management appear to have aligned their respective expectations, or it was just dumb luck. Our back-of-the-envelope approach would have arrived at a $44 billion goodwill impairment as compared with the actual impairment charge of $45 billion.

Inventory—Lower-of-Cost-or-Market, Not as Simple as It Sounds

Inventory writedowns occur all the time. We have found the terms "inventory writedown" or "inventory writeoff" mentioned 209 times in the 10-K filings of S&P 500 companies over the last five years. These mentions break out as follows: 91 in 2001, 51 in 2000, 1 in 1999, 42 in 1998, and 24 in 1997. However, these are rarely material enough to draw the attention of investors. Recent market conditions have resulted in inventory writedowns that have grabbed investors' attention and sparked questions about the proper accounting treatment. For instance, Cisco took a $2.8 billion charge for inventory obsolescence in 2001 ($2.2 billion of this amount was in excess of Cisco's typical charge). Lucent took charges of $621 million, $2.4 billion, and $360 million for the fiscal years ended 2002, 2001, and 2000, respectively. More recently, LSI Logic announced a $46 million charge for 2002 related to excess inventory after taking a $211 million charge in 2001. In response, we dusted off our old textbooks to provide a brief review of the rules surrounding an inventory writedown.

Inventory is an important asset on the balance sheet, and cost of goods sold is generally the second largest line item—behind revenue—on the income statement. Nevertheless, there is very little guidance on the accounting for inventory, and what is available is quite old. Most of it is contained in Chapter 4 of Accounting Research Bulletin No. 43 (ARB No. 43) that was last amended in 1953. According to ARB No. 43, inventory is carried on the balance sheet at cost unless that cost exceeds market value, better known as the lower-of-cost-or-market (LOCOM) rule.

Only One Way to Go . . . Down

An inventory writedown, with a loss reported on the income statement in cost of goods sold, is required when the market value of inventory drops below its cost reported on the balance sheet. Once inventory is written down, a new cost basis is established. If the inventory subsequently increases in value, it can't be written back up. However, if the market value of the inventory declines further, the inventory could continue to be written down.

Sounds simple enough; however, applying the rule and analyzing it are extremely difficult. One of the first things that auditors learn is that inventory is among the most significant and difficult areas in auditing.

Determining Cost and Market

Cost

The first step in applying the LOCOM rule is determining the cost of inventory. That cost is approximated through the use of an inventory cost flow method; for example, LIFO (Last-In/First-Out) or FIFO (First-In/First-Out).

Market Value

The next step, determining the market value of inventory, is where LOCOM gets complicated and involves a significant amount of management judgment. Market value is generally equal to *replacement cost*; that is, the price that the company would currently pay in the open market to purchase the inventory, subject to a ceiling and floor.

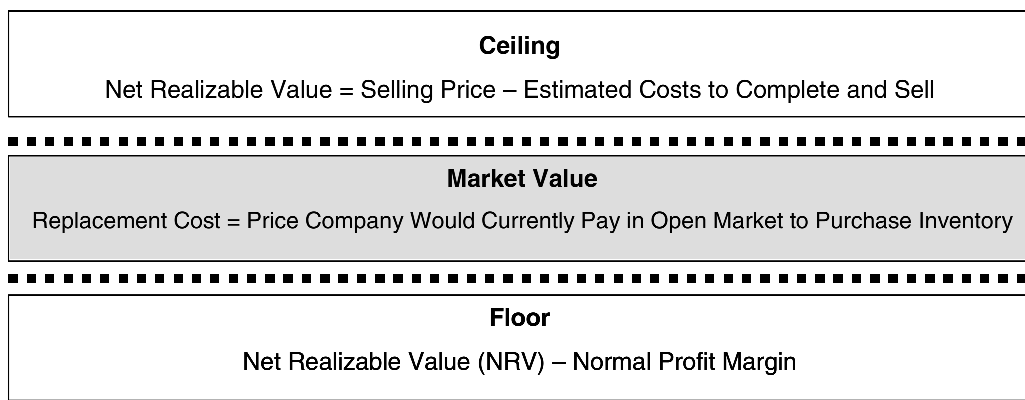
Market Value—Ceiling

The market value of inventory can't be greater than its net realizable value—the selling price of the finished product less estimated costs of completion. Determining this market value ceiling for a finished good is relatively straightforward. The computation becomes more complex and subjective for raw materials and work in process. If a company wants to determine the market value ceiling of a raw material, then the costs of completion would include the costs required to transform the raw material into the final finished product, including selling costs.

Market Value—Floor

The market value floor, which is the net realizable value less a normal profit margin, is supposed to prevent companies from writing down inventory below its market value to try and provide a boost to future margins. A normal profit margin can be estimated by reviewing the profit performance from prior periods. Exhibit 13 shows the relationship between the variables used to determine the market value of inventory.

Exhibit 13: **Determining the Market Value of Inventory**



Source: CSFB.

Firm commitments to purchase inventory are also subject to the LOCOM rule. If a company has contracted to purchase a certain amount of inventory at a cost that is greater than market, a loss is recognized in the same way as an inventory impairment, through cost of goods sold.

Excess Inventory

Many companies set up their own guidelines to judge whether or not there is excess inventory; for example, all amounts in excess of six months' or one year's forecasted demand. A one-year time frame would probably be at the end of the range for most companies, as inventory is a current asset that is generally sold within one year.

The guidelines are just that—the companies must still evaluate whether or not the inventory will be sold. If the company has no plans to sell the inventory based on its current demand forecast, then that inventory is deemed excess and it should be written down to salvage value.

If the inventory will eventually be sold, even if later than the guidelines established by the company, it should be written down to its net realizable value, taking into account incremental carrying costs, including interest to the date the inventory is sold. For example, a company had misjudged the demand for a product and overstocked its inventory. The demand did not materialize as fast as expected, and the company now has two years' worth of inventory on its books. The company's policy is that all inventory greater than one year's demand is excess; however, it has determined that the excess inventory will eventually be sold. The excess inventory in this case should be written down to its net realizable value.

Clearly, the determination of net realizable value gets trickier the further and further out the calculation is extended. Not only must the company estimate the costs of completion and carrying costs over a longer time horizon, it must also look to the future and evaluate the risk of obsolescence, which affects the eventual selling price or the ability to sell the product at all.

If conditions change (demand picks up), there is no prohibition against selling excess inventory. Nor is there a time frame after the writedown during which the inventory can't be sold. Clearly, a writedown immediately followed by a pickup in profit margin may raise some investor eyebrows. However, a company that takes an inventory writedown can't pick and choose which item of inventory it is selling. If eventually sold, the written-down inventory will make its way into cost of goods sold based on the company's inventory costing system—FIFO, LIFO, etc. The company is not required to segregate inventory that has been written down; however, controls should be in place to prevent the company from including low-or-zero-cost excess inventory from entering cost of goods sold prior to the inventory that remained at full cost.

Inventory Valuation Allowance

The accounting mechanics for performing an inventory writedown include setting up an inventory valuation allowance. The inventory balance on the balance sheet is presented net of this valuation allowance, in the same way that accounts receivable are presented net of the allowance for doubtful accounts.

For example, if inventory with a cost of $100 is written down to $75, the inventory balance on the balance sheet will comprise $100 in cost and $25 in a valuation allowance for a net balance of $75. Clearly, if this inventory item is eventually sold, future profit margins will be better than if the inventory had been maintained at historical cost.

If investors are concerned that a company is inflating its future profit margins by taking an inventory writedown, they should pay attention to the movement in the valuation allowance. Tracking the reconciliation of the valuation allowance, which is generally provided as a separate schedule at the back of the 10-K or 10-Q filing or included in the footnotes, may be the best way to arrive at a normalized profit margin estimate for future periods.

Continuing our previous example, if the inventory is eventually sold for $150, the cost of goods sold is now $75, generating $75 in gross profit and a 50% gross profit margin. Assuming no other activity, the reconciliation of the valuation allowance would have a beginning balance of $25, deductions of $25, and an ending balance of $0 since the inventory was sold. For analytical purposes, a normalized profit margin could be obtained by adding the $25 back to cost of goods sold, reducing gross profit to $50 and gross margin to 33%. We provide in Exhibit 14 the reconciliation of Cisco Systems' allowance for excess and obsolete inventory from its July 27, 2002, 10-K.

Exhibit 14: Cisco Systems Inventory Valuation Account[1]

US$ in millions, unless otherwise stated

SCHEDULE II

VALUATION AND QUALIFYING ACCOUNTS
(In millions)

	Balance at Beginning of Period	Charged to Expenses or Other Accounts	Deductions	End of Period
Year ended July 29, 2000:				
Allowance for excess and obsolete inventory	$151	$339	$95	$395
Year ended July 28, 2001:				
Allowance for excess and obsolete inventory	$395	$2,775	$891	$2,279
Year ended July 27, 2002:				
Allowance for excess and obsolete inventory	$2,279	$149	$1,964	$464

[1]Allowance for Doubtful Accounts and Valuation Allowance for Deferred Tax Assets have been omitted.

Source: July 27, 2002 10-K.

Investments in Debt and Equity Securities—Other-than-Temporary Decline

Many portfolios have been decimated over the past few years and corporate portfolios are no exception. If a company has an investment in debt or equity securities that has declined below its original cost basis, the company must evaluate whether or not that decline is temporary. If it is "other-than-temporary", then the company will be required to write down the investment on the balance sheet and take an impairment charge through earnings. Exhibit 15 includes a list of nine companies that took an investment-related impairment charge recently.

Exhibit 15: Recently Announced Investment Related Impairments

US$ in millions, unless otherwise stated

Company	Ticker	Date Announced	Impairment
Motorola Inc.	MOT	1/22/03	$1,253 [1]
Lockheed Martin	LMT	1/24/03	610 [2]
AES Corp	AES	1/28/03	587 [3]
AT&T Wireless	AWE	1/6/03	245 [4]
Saint Paul Companies	SPC	1/27/03	144 [5]
Adelphia Communications Corp	ADELQ	1/27/03	86
Tellabs	TLAB	1/23/03	30 [6]
Duke Energy Corp	DUK	1/13/03	28
LSI Logic Corp	LSI	1/22/03	19 [7]

[1] *Investment impairments.*
[2] *$504 of this charge relates to the impairment of telecommunications equity investments and $106 million relates to the impairment of LMT's investment in Space Imaging, LLC and its guarantee of its share of Space Imaging's existing credit facility.*
[3] *$587 reflects the writedown to fair value of the company's equity method investment and a related deferred tax asset in Cemig (an integrated utility in Minas Gerais).*
[4] *Losses from impairments of cost method unconsolidated subsidiaries.*
[5] *After-tax realized losses relating to $143.8 million impairment charges for fixed maturity, equities and venture capital portfolios*
[6] *Pretax loss of $29.6 million for the impairment writedown of certain strategic equity investments.*
[7] *Loss on writedown of equity securities.*

Source: Company press releases, CSFB estimates.

Before we dig into other-than-temporary impairments, those who would like a brief review of the basics in accounting for certain types of investments can refer to the end of this section.

Judging Whether Investments Are Impaired

How does a company evaluate whether or not its investment in debt or equity securities is impaired? That depends on how the investment is accounted for. For example, an investment classified as trading will not have to be evaluated for impairment. It is recorded on the balance sheet at fair value, with gains and losses running through the income statement; any impairment in its value is automatically recognized. At the other end of the spectrum, each asset of a majority-owned subsidiary is evaluated for impairment separately, applying the relevant asset impairment test. The four other categories of investment—available-for-sale, held-to-maturity, cost method, and equity method—are subject to an "other-than-temporary" impairment test.

Management Judgment Call

Corporate management teams are required to make a judgment call on each investment in a debt or equity security that declines in value below its original cost basis. If the drop in value is deemed other-than-temporary, then the company recognizes an impairment loss and writes down the investment to fair value. The problem with making this judgment is defining other-than-temporary. It is not defined anywhere in the accounting literature. Instead, management must evaluate the facts and circumstances for each investment to determine if a decline in value is other-than-temporary.

According to SEC Staff Accounting Bulletin (SAB) No. 59, *Accounting for Noncurrent Marketable Securities*, issued in September 1985, factors to consider when evaluating whether an investment has suffered an other-than-temporary decline include:

- The length of time and extent to which the market value has been less than cost.
- The financial condition and near-term prospects of the issuer.
- The intent and ability of the investor to hold its investment for enough time to allow for a recovery in market value.

Other factors to consider include whether the investee suffered a series of operating losses, and the following from the American Institute of Certified Public Accountants' (AICPA) Statement on Auditing Standards (SAS) No. 92, *Auditing Derivative Instruments, Hedging Activities and Investments in Securities*:

- Whether the security has been downgraded by a rating agency.
- Whether the financial condition of the issuer or counterparty has deteriorated.
- Whether dividends have been reduced or eliminated, or scheduled interest payments have not been made.

Many companies set up their own guidelines to judge whether or not an investment has experienced an other-than-temporary impairment; for example, all securities that are trading 20% below their cost basis for a period of six months. With this amount of discretion, there is the fear that the impairment test could be applied inconsistently across companies and that management could use its control over when the impairment charge is recorded to manage earnings.

SEC Cracking Down on Impairments

It is the high level of management judgment that has caused the determination of other-than-temporary impairment to be a thorn in the SEC's side for quite some time. The SEC issued SAB No. 59 in 1985, and its staff has discussed other-than-temporary impairments in various speeches over the years. There were even a few SEC enforcement actions in the early 1990's—(Fleet/Norstar, Excel Bankcorp, Abington Bancorp (ABBK, $22.49, NOT RATED), and Presidential Life Corporation (PLFE, $8.40, NOT RATED)—that resulted in restatements for companies that did not write down their investments as soon as the SEC thought they should have. In the enforcement releases, the SEC stated that it expects companies to have a systematic method for determining whether a decline in value was other-than-temporary, including documentation of factors considered.

Recently, the topic again appeared on the SEC's radar screen. It is our understanding that the SEC began last summer asking companies with large investment portfolios how they were evaluating whether their investments were impaired. The SEC staff was looking for whether or not a company had a system in place for judging impairment. The SEC staff also discussed other-than-temporary impairments at the 30th Annual AICPA National Conference on Current SEC Developments last December. The discussion centered on the impairment of debt securities. Specifically, a company would have to prove that the decline in value of a debt security was due entirely to an increase in interest rates to avoid having to take an other-than-temporary impairment charge. That is not that easy to prove in the current interest rate environment.

Six-to-Nine Months Is Other-than-Temporary According to the SEC

The SEC prefers a more objective approach. For example, one of the important facts and circumstances for management to pay attention to is the length of time and the extent to which the market value of the investment has been less than its cost basis. Back in June 1991, at the AICPA SEC Regulations Committee meeting, the SEC staff stated that it believes there is a strong indication of an other-than-temporary decline in the value of an investment when its market value is less than its cost basis for a period of six-to-nine months. It appears as if the SEC is now holding companies to this standard. In other words, a company better have a systematic procedure for judging impairments and a good reason backed by objective evidence as to why a writedown was not required when the market value of an investment is below its cost basis for six-to-nine months.

Decline in Value Does Not Have to Be Permanent

The investment does not have to suffer a permanent impairment for a writedown to take place. The decline in value below the original cost basis need only be other than temporary.

Recent Examples

The SEC has been known to make its point by making examples of companies. For instance, UnumProvident Corporation (UNM, $13.61, UNDERPERFORM, TP $14) included the following discussion in its February 5, 2003, earnings release:

> The Company has responded to requests for information from the staff of the SEC in connection with a review of the Company's SEC periodic filings relating, primarily, to its investment disclosures and to the timing and amount of other-than-temporary losses recorded on below-investment-grade securities. The Company will continue to respond to the SEC staff's requests and will provide additional disclosures relating to its investment portfolio in its future SEC filings. While the final outcome of the discussions is uncertain, the Company believes it has a sound process for determining the timing and amount of impaired assets and will continue to work with the staff on this important issue.

Aon Corporation (AOC, $18.05, NEUTRAL, TP $21.50) included the following in its August 7, 2002, earnings release:

> Aon has always had a policy of reviewing the investment portfolio of its subsidiaries for potential impairments. In discussions with the SEC, their staff believed that, with respect to equity and certain below-investment-grade fixed maturity securities which have been trading below cost, the Company should recognize other-than-temporary impairments through the income statement in a shorter time horizon. The Company has agreed to modify its policy prospectively and Aon is recognizing in second quarter 2002 an other than temporary impairment loss of $56 million relating to this action. This adjustment recognizes the effect of other-than-temporary impairments that existed at prior financial reporting periods.

The Meaning of Other-Than-Temporary Impairment

Now the Emerging Issues Task Force (EITF) is getting into the act. (See the FASB Calendar section for a brief description of the EITF.) At its January 23, 2003, meeting it began work on EITF 03-01, *The Meaning of Other-Than-Temporary Impairment and Its Application to Certain Investments.* The EITF has presented three alternative views to defining other-than-temporary. Alternative A defines other-than-temporary as a one-year period; if the market value of an investment was less than its cost basis for more than one year, the decline is other-than-temporary and an impairment loss is recognized. In Alternative B, the one-year period is a rebuttable presumption where the facts and circumstances must be evaluated. For Alternative C, no timeframe is provided and other-than-temporary is not defined.

Since the FASB is shying away from establishing bright lines, we expect that the EITF will go with Alternative B, which is simply a clarification of the existing rules replacing the six-to-nine month SEC window with an official one-year period.

Taking the Charge, The Mechanics

If the drop in value of an investment is deemed other-than-temporary, then the company recognizes an impairment loss for the difference between the investment's original cost basis and its fair value as part of income from continuing operations. The investment is written down to fair value on the balance sheet, establishing a new cost basis that can't be written up for subsequent increases in fair value.

Available-for-Sale

Why are investments categorized as available-for-sale subject to the other-than-temporary impairment test when they are carried on the balance sheet at fair value? Wouldn't an impairment in value be recognized automatically, in the same way that it is with trading? The difference is that there is no impact on the income statement for an available-for-sale security until the investment is sold and the gain or loss is realized. The other-than-temporary impairment adjustment for an available-for-sale security only serves to run the unrealized loss through the income statement; there is no impact on the balance sheet other than a reshuffling of shareholders' equity between other comprehensive income and retained earnings.

Each Security Is Evaluated for Impairment, Each Quarter

Now picture this situation. A company owns a diversified portfolio of securities. As a whole, the portfolio is performing reasonably well; however, there are a few outliers, including an investment that has significantly underperformed and traded below its cost basis for six months. The company has a policy that any investment that trades below its original cost basis for more than six months has suffered a decline that is other-than-temporary and is impaired. Therefore, the investment is written down to fair value and a loss is recognized through earnings. The company will not be able to take the loss for tax purposes until the investment is sold. Management must explain the impairment loss and resultant earnings volatility to investors, if material.

The accounting result that you get by examining individual securities for impairment on a quarterly basis can be misleading. In our example, the underlying economics of the investment portfolio are not properly reflected in earnings. A better answer would be to

simply mark the entire investment portfolio to market through earnings instead of the arbitrary classifications that we face today.

Accounting for Investments in Debt and Equity Securities: A Review

Investments in Debt Securities

There are three ways to account for an investment in a debt security, according to FAS No. 115, *Accounting for Certain Investments in Debt and Equity Securities*.

1. Trading—securities that are held for a short period are reported on the balance sheet at fair value, with changes in fair value along with interest income reported in earnings.
2. Held-to-Maturity—debt securities that the company plans to hold until maturity are reported at amortized cost on the balance sheet. Realized gains and losses and interest income are reported in earnings.
3. Available-for-Sale—any debt security, other than the first two, is reported on the balance sheet at fair value; however, the changes in fair value are run through shareholders' equity. Realized gains and losses and interest income are reported in earnings.

Accounting for Investments in Equity Securities

An investment in an equity security may be accounted for using five methods—trading, available-for-sale, cost, equity, and consolidation methods. The accounting treatment will depend upon how large of an ownership interest the investor holds.

Less Than 20% Ownership Interest: Trading, Available-for-Sale, and Cost Methods

For ownership interests that are less than 20%, the accounting will depend on whether or not the equity security has a readily determinable fair value: in other words, does it trade on an exchange? If the security trades on an exchange, the accounting is governed by FAS No. 115, and there are two choices: *trading* or *available-for-sale* (same treatment as described above). If it does not trade on an exchange, the investment is recorded on the balance sheet at *cost* according to APB No. 18, *The Equity Method of Accounting for Investments in Common Stock*.

Between 20% and 50% Ownership Interest: Equity Method

Generally, for ownership interests between 20% and 50%, the *equity method*, as described in APB No. 18, is used. The equity method requires that the investment be initially recorded at cost on the balance sheet and adjusted in future periods for the investor's share of the investee's earnings and changes in the investee's capital; for example, dividends received by the investor will reduce the investment on the balance sheet.

Over 50% Ownership Interest: Consolidation Method

Under GAAP, majority-owned subsidiaries are generally *consolidated*.

What Is Fair Value

According to the FASB, quoted market prices provide the most reliable measure of fair value. If quoted market prices are not available, an estimate of fair value is acceptable. For example, a discounted cash flow analysis or option-adjusted spread model could be used to determine fair value.

Impairment of Long-Lived Assets—New Rules, Same Test

In August 2001, the FASB issued FAS No. 144, *Accounting for the Impairment or Disposal of Long-Lived Assets*, replacing FAS No. 121, *Accounting for the Impairment of Long-Lived Assets and for Long-Lived Assets to Be Disposed Of*. The new rule still requires a company to focus on the cash flows that its long-lived assets are expected to generate and their fair values to determine if they are impaired. We briefly review the methodology below.

Test for Impairment When There Are Signs of Impairment

Long-lived assets—for example, property, plant and equipment, and certain intangibles (patents, copyrights, etc.)—are not tested for impairment on a regular basis. Instead, they must be tested for impairment if an event occurs indicating that the carrying amount of the asset may not be recoverable. Examples of potential impairment triggering events, according to the FASB, include:

- A significant decrease in the market price of a long-lived asset.
- A significant adverse change in how a long-lived asset is being used.
- A significant deterioration in the physical condition of a long-lived asset.
- An unfavorable change in legal factors or in the business climate that could affect the value of a long-lived asset, including an adverse action by a regulator.
- Costs significantly in excess of the amount originally expected for the purchase or construction of a long-lived asset.
- A current-period operating or cash flow loss combined with a history or forecast of losses associated with the use of a long-lived asset.
- A better than 50% likelihood that a long-lived asset will be sold or disposed of.

Two-Step Impairment Test

Once an event occurs that signals that future cash flows from an asset may be less than the value of the asset on the balance sheet, a two-step impairment test is required.

- *Step One.* Estimate all the future cash flows that the asset is expected to generate over its life, including the proceeds from a future sale. Compare the sum total of all the cash flows to the book value of the asset. If the cash flows are greater than book value, the impairment test stops. If cash flows are less than book value, move on to Step Two.

- *Step Two.* Estimate the fair value of the asset by discounting the future cash flows from Step One. Calculate the impairment charge by subtracting the fair value of the asset from its book value.

Once the asset is written down to fair value, a new cost basis is established; that cost basis is then depreciated over the remaining life of the asset. Depreciating this smaller cost basis will result in a decline in depreciation expense, providing a benefit to future earnings. The combination of increased future earnings and a reduced equity balance as a result of the charge would also provide a boost to return on equity. Exhibit 16 includes 11 companies that have recently announced long-lived asset impairment charges in excess of $100 million.

Exhibit 16: Recently Announced Long-Lived Asset Impairments

US$ in millions, unless otherwise stated

Company	Ticker	Date Announced	Impairment	
Motorola Inc.	MOT	1/22/03	$ 1,380	[1]
AT&T Wireless	AWE	1/06/03	1,329	[2]
American Electric Power	AEP	1/24/03	1,014	[3]
AES Corp.	AES	1/28/03	1,000	[4]
Honeywell International	HON	12/20/02	877	[5]
Corning Inc	GLW	1/10/03	701	[6]
Kerr-McGee Corp.	KMG	1/29/03	561	[6]
ConocoPhillips	COP	1/29/03	492	[7]
McDonald's	MCD	1/23/03	402	[8]
BellSouth Corp.	BLS	1/23/03	198	[9]
Phelps Dodge	PD	1/29/03	147	[10]

[1] Fixed asset impairments.
[2] License impairment.
[3] $414 for UK Generation Assets, $53.5 for South Coast Power, $38.9 for AEP Coal, $159.6 for telecom, $142.2 for Eastex, $141.1 for Grupo Rede-Brazil, $69.2 for other impairments, and ($4.9) for other items.
[4] $1,000 for 2 UK facilities (after taxes).
[5] Business impairment charges for the full year ended 12/31/02.
[6] Asset impairment.
[7] Reported special charges of $1.1 billion, primarily related to the impairment of property, plant and equipment ($177 million), expected impairments and early cancellation penalties on various lease-financing structures ($315 million), goodwill ($257 million), and intangibles ($345 million).
[8] Restaurant closings/asset impairments.
[9] Represents the impairment of MMDS spectrum previously held for sale, as well as impairments related to Cingular Wireless's TDMA network assets and Mobitex data business.
[10] Pretax asset impairment charges.
Source: Company press releases, CSFB estimates.

Lots of Management Discretion, Once Again

As with all the other impairment tests, both steps of the long-lived asset test involve a great deal of management judgment. In Step One, the company must forecast the future cash inflows and outflows associated with the asset; if there is a range of potential cash flows, then a probability-weighted approach is suggested. In Step Two, we are once again estimating fair value and, with a long-lived asset, typically a discounted cash flow analysis is used.

So Much Restructuring, So Little Time

Key Points

- We have tracked 125 companies that have announced restructuring charges in just the past four weeks.
- Companies may have wanted to squeeze in a last minute restructuring charge before the new accounting rules go into effect.
- Restructurings initiated after December 31, 2002 are subject to FAS No. 146, *Accounting for Costs Associated with Exit or Disposal Activities*. This new rule has reduced the amount of flexibility that management previously had over when to report a restructuring charge.

The difficult economic environment is causing many companies to rethink and restructure their business plans and business. Not surprisingly, we have tracked 125 companies that have announced restructuring charges in just the past four weeks. Exhibit 17 includes 11 companies that have recently announced restructuring charges in excess of $300 million. Please note, however, there may be another reason for the rash of restructurings: some companies may have wanted to squeeze in a last minute charge before the accounting rules change.

Exhibit 17: Recently Announced Restructuring Charges
US$ in millions, unless otherwise stated

Company	Ticker	Date Announced	Amount
Nortel Networks Corp.	NT	1/23/03	$2,300
Corning Inc	GLW	1/10/03	1,271
JPMorgan Chase	JPM	1/23/03	1,210 [1]
Agere Systems Inc.	AGRA	1/23/03	755 [2]
Xerox Corp	XRX	1/28/03	670
Corning Inc	GLW	1/23/03	652
Pfizer	PFE	1/23/03	630 [3]
Sun Microsystems	SUNW	1/17/03	357
Advanced Micro Devices	AMD	1/16/03	331
U.S. Bancorp	USB	1/22/03	324 [4]
General Electric	GE	1/17/03	301

[1] Includes merger and restructuring costs.
[2] Includes restructuring and related charges.
[3] Restructuring and other merger related costs.
[4] Merger and restructuring costs.
Source: Company press releases, CSFB estimates.

New Rules—FAS No. 146

Restructurings initiated after December 31, 2002 are subject to FAS No. 146, *Accounting for Costs Associated with Exit or Disposal Activities*. This new rule has reduced the amount of flexibility that management previously had over when to report a restructuring charge. In many cases, FAS No. 146 could delay when a company recognizes a charge, pushing out recognition closer to when the actual cash outflows

occur. FAS No. 146 makes it more difficult for companies to take the "big bath" restructuring charges that former SEC Chairman Arthur Levitt describes below in an excerpt from his 1998 speech, "The Numbers Game."

> Companies remain competitive by regularly assessing the efficiency and profitability of their operations. Problems arise, however, when we see large charges associated with companies restructuring. These charges help companies "clean up" their balance sheet -- giving them a so-called "big bath."
>
> Why are companies tempted to overstate these charges? When earnings take a major hit, the theory goes Wall Street will look beyond a onetime loss and focus only on future earnings.
>
> And if these charges are conservatively estimated with a little extra cushioning, that so-called conservative estimate is miraculously reborn as income when estimates change or future earnings fall short.

What Is a Restructuring?

Restructuring charge, onetime charge, and nonrecurring charge are not defined anywhere in U.S. GAAP. The closest that the accountants get to defining those terms would be through two of the items that are reported below income from continuing operations: extraordinary items and discontinued operations. Both of these items are narrowly defined. For example, extraordinary items have to be both unusual in nature and infrequent in occurrence; and to qualify as a discontinued operation, the company must be discontinuing a separate, major line of business (think operating segment).

So what happens if a company incurs a cost that is unusual yet not infrequent in occurrence, or if it is disposing of one manufacturing plant that is not a separate major line of business? Then, it will most likely report a "restructuring charge," or "onetime charge," or "nonrecurring charge," etc., that it would like everyone to ignore. It is this type of activity that FAS No. 146 targets.

According to FAS No. 146, an exit activity includes restructurings. The FASB uses the International Accounting Standards Board (IASB) definition of a restructuring, which includes:

- The sale or termination of a line of business,
- The closure of business activities in a particular location,
- The relocation of business activities from one location to another,
- Changes in management structure, and
- A fundamental reorganization that affects the nature and focus of operations.

How Have the Rules Changed?

FAS No. 146 changes the accounting for costs associated with exit activities in two important ways: (1) the timing of when the liability and charge are reported and (2) the amount reported. Under the old rules a liability (restructuring reserve) was generally recognized and a charge reported in the income statement on the date the company committed to an exit plan. Now, the FASB has decided that a commitment to a plan by itself does not create an obligation that meets the definition of a liability. Under FAS No.

146, a liability for a cost associated with an exit or disposal activity is recognized at fair value when the liability is incurred. Now that makes sense: record a liability when it is incurred. How do we know when a liability has been incurred? Let's start with the definition of a liability, according to Statement of Financial Accounting Concepts No. 6, *Elements of Financial Statements,* issued by the FASB:

> Liabilities are probable future sacrifices of economic benefits arising from present obligations of a particular entity to transfer assets or provide services to other entities in the future as a result of past transactions or events.

Only a present obligation to others is a liability; an obligation becomes present when a transaction or event occurs that leaves an entity little room to avoid the future use of assets to settle the liability.

Determining when a liability has been incurred depends on the type of costs incurred. According to FAS No. 146, the costs associated with an exit activity include but are not limited to the following:

- Onetime termination benefits provided to current employees that are terminated involuntarily;
- Costs to terminate a contract; and
- Costs to consolidate facilities or relocate employees.

Let's take a look at each one separately.

Onetime Termination Benefits—Severance

If, for example, a company is closing a manufacturing plant and is laying off the plant's workers, a bonus paid to the laid off employees is generally referred to as a onetime termination benefit or a severance cost. FAS No. 146 did not radically change the accounting for this type of cost. As under the old rules (EITF 94-3, *Liability Recognition for Certain Employee Termination Benefits and Other Costs to Exit an Activity, including Certain Costs Incurred in a Restructuring*), a onetime benefit arrangement exists at the date the plan of termination meets all the following requirements and has been communicated to employees:

- Management commits to a plan of termination.
- The plan identifies the number of employees to be terminated, their job classifications or functions and their locations, and the expected completion date.
- The plan establishes the terms of the benefit arrangement, including the benefits that the employees will receive upon termination.
- Actions required to complete the plan indicate that it is unlikely that significant changes to the plan will be made or that the plan will be withdrawn.

When the liability is incurred depends on whether the employees are required to keep working to get their bonuses. If they are not required to keep working, the liability is incurred at the date all the above criteria have been met. A liability is recognized on the balance sheet at fair value and a charge is reported on the income statement. If the employees are required to keep working, then the liability is recognized ratably over the remaining time they will be working for the company. In both cases, the timing is virtually

the same as under the old rules; the only difference is that now the liability will initially be recognized at fair value (the present value of the future benefits to be paid).

However, if the company has a history of providing similar termination benefits, they are considered a part of ongoing compensation costs and receive no special accounting treatment, unless the company can prove otherwise. This could have an impact on those companies that tend to have a "nonrecurring" charge every quarter, also known as "recurring—nonrecurring" charges.

Costs to Terminate a Contract

Of the three types of restructuring costs that we mentioned earlier, it is costs to terminate a contract that will undergo the most significant change in timing. Under the old rules, a liability was recognized for the costs to terminate a contract when management committed to an exit plan and the following criteria were met:

- The plan identified all significant actions to be taken to complete the exit plan, activities that would not be continued, including the method of disposition, location and expected date of completion.
- The period of time needed to complete the exit plan indicated that significant changes to the plan were unlikely—generally no longer than one year.

According to FAS No. 146, a liability is not incurred for costs to terminate a contract when management commits to an exit plan. Instead, it is incurred at a later date, depending on the type of cost:

1. *Costs of terminating a contract before the end of its term.* A liability is recognized at fair value and a corresponding charge reported on the income statement when the company terminates the contract.
2. *Costs that will continue under the contract for its remaining term without any economic benefit to the company.* For example, a company has leased office space for ten years and decides after three years that it no longer needs the space and will stop using it. The remaining seven years of rental payments are an example of costs that will continue under the contract for its remaining term without any benefit to the company. (This is also an example of a restructuring cost that can extend over a long period). The company receives no benefit, as it is no longer using the space. Continuing our example, a liability is recognized at fair value and a charge is reported on the income statement when the company stops using the office space. If the contract is an operating lease, then the fair value of the liability is the present value of the remaining lease payments less an estimate of what the company could get by subleasing the space.

Costs to Consolidate Facilities or Relocate Employees

Other exit or disposal costs include costs to consolidate facilities or relocate employees. Under the old rules, a liability was generally recognized on the date a company committed to an exit plan, as long as the costs would not benefit the company in the future. Therefore, relocation costs and costs to consolidate facilities were not treated as restructuring costs, as they would have provided benefits to the company in the future. Instead, a liability was recognized when the costs were incurred. For example, when a

moving company moved equipment from one location to another, costs to consolidate a facility were incurred.

According to FAS No. 146, a liability for other costs associated with an exit or disposal activity is recognized at fair value when the goods or services associated with the activity are received. In other words, the accounting treatment for relocation costs and costs to consolidate facilities has not changed.

New Restructuring Mechanics

A liability is initially recorded at fair value. In most cases, companies will apply a discounted cash flow analysis to calculate the present value of the future cash outflows associated with a restructuring.

Costs associated with exit or disposal activity are reported as part of operating income. The increase in the liability due to the passage of time will be reported as an expense on the income statement (not as interest expense).

If there are changes in the timing or amount of future cash flows, the liability is adjusted and the impact on earnings is reported on the same line as the initial charge. That is the same treatment that is required currently. The SEC made clear in Staff Accounting Bulleting No. 100, *Restructuring and Impairment Charges*, that GAAP does not permit unused or excess accruals to be retained as general accruals, used for other purposes or returned to earnings over time in small amounts. This is a quality-of-earnings issue; investors must evaluate how much of the bottom line or earnings growth is the result of releasing a restructuring reserve: Is the company trying to manage its earnings? The following excerpt from Sara Lee's (SLE, $20.27, NOT RATED) January 23, 2003 press release highlights this point:

> In the first half of fiscal 2003, the corporation completed certain restructuring activities for amounts that were less than previously reflected in the financial statements, and the recognition of these completed transactions increased pretax income and net income by $30 million and $21 million, respectively.

Sara Lee's pretax income grew by $27 million for the six months ended 12/28/02 compared to the same period in 2001. Instead, it would have declined by $3 million if not for the $30 million reversal of the previously recorded restructuring charges. Sara Lee's net income grew by $254 million during the same period; $21 million of this net income growth was the result of reversing restructuring charges.

Timing

The new rule applies to all exit or disposal activities initiated after December 31, 2002; all other restructurings are grandfathered. FAS No. 146 does not deal with restructurings through a business combination.

Recurring versus Nonrecurring

The problem for investors with all onetime or nonrecurring charges is deciphering whether they truly are nonrecurring. Should they be ignored when evaluating current-period results, or should they be factored into forecasts of future cash flows? A company history of restructurings, growth by acquisition or recurring—nonrecurring charges may indicate the need to factor potential charges into cash flow forecasts.

SPEs Are Now "Variable Interest Entities"

On Friday, January 17, 2003, the FASB released Interpretation No. 46 (FIN 46), *Consolidation of Variable Interest Entities* (VIEs). The new rule provides guidance on whether or not a company should put its off-balance-sheet activity on balance sheet. Our January 21, 2003, research note, *SPEs . . . Coming Soon to a Balance Sheet Near You*, provides our initial thoughts, which we highlight below.

- FIN 46 goes into effect immediately for VIEs (the entities formerly known as SPEs) created after January 31, 2003, and in the third quarter for VIEs created before January 31.
- The new rule can be broken down into two steps. The first step is figuring out whether or not the entity is a VIE. If the entity is a VIE, then the second step is determining who controls it. Each step will involve a significant amount of management and auditor judgment, potentially resulting in inconsistencies among companies when the rule is applied.
- We expect that many more off-balance-sheet entities will make their way on to a balance sheet as FIN 46 is implemented. Transactions that will come under FIN 46 scrutiny include off-balance-sheet R&D ventures, synthetic leases, asset-backed commercial paper, collateralized debt obligation, and exploration ventures, among others.
- Sectors that appear to have a higher level of exposure to this type of activity include financial services, health care, technology, and energy.
- The FASB provided for a few exceptions to its new rule. Notably, most credit card and mortgage securitizations will remain off balance sheet.
- The combination of weak existing disclosures and a vague new accounting rule lead us to believe we may be in for a few surprises over the coming weeks and months as companies announce and investors digest the impact of applying the new rule.

We expect to provide a more detailed analysis on VIEs in the near future.

Accounting Calendar

What to Expect

On a quarterly basis, we plan to use this section to keep you current on what's happening in the accounting world by highlighting new accounting rules, providing the FASB's calendar, describing major projects, and adding color along the way. For this first edition, however, we thought we would start with the basics and briefly give you some background on a couple of important accounting standard-setting bodies—the FASB and the EITF—before continuing any further.

The Financial Accounting Standards Board

For those of you who don't know, accounting rules are created by standard-setting bodies, which provide guidance on how to account for the transactions and events ultimately reported in financial statements. The Financial Accounting Standards Board (FASB) is the top dog among standard-setting bodies in the U.S., with generally the highest position in the hierarchy of accounting authority. The FASB, consisting of seven members from various disciplines (i.e., public accounting, education, investment management, industry, etc.), meets frequently in its home of Norwalk, Connecticut, to deliberate over accounting issues. In doing so, it creates generally accepted accounting principles (GAAP), standards that all companies generally follow when reporting financial results to external parties in the U.S. Currently, the FASB has issued 148 "Statements of Financial Accounting Standards" and 46 "Interpretations." Exhibit 18 lists the accounting guidance issued by the FASB during 2002 and thus far in 2003. We will update this list quarterly.

Exhibit 18: Authoritative Accounting Guidance from the FASB

FINANCIAL ACCOUTING STANDARDS BOARD: RECENT GAAP RELEASES		
Statements of Financial Accounting Standards		**Issue Date**
No. 148,	Accounting for Stock-Based Compensation - Transition and Disclosure -- An Amendment of FASB Statement No. 123	Dec-02
No. 147,	Acquisitions of Certain Financial Institutions -- An Amendment of FASB Statements No. 72 and 144 and FASB Interpretation No. 9	Oct-02
No. 146,	Accounting for Costs Associated with Exit or Disposal Activities	Jun-02
No. 145,	Rescission of FASB Statements No. 4, 44, and 64 -- An Amendment of FASB Statement No. 13 and Technical Corrections	Apr-02
Interpretations		**Issue Date**
No. 46,	Consolidation of Variable Interest Entities -- An Interpretation of ARB 51	Jan-03
No. 45,	Guarantor's Accounting and Disclosure Requirements for Guarantees, Including Indirect Guarantees of Indebtedness of Others -- An Interpretation of FASB Statements No. 5, 57, and 107 and rescission of FASB Interpretation No. 34	Nov-02

Source: Financial Accounting Standards Board.

The Emerging Issues Task Force

The FASB also works closely with the Emerging Issues Task Force (EITF), which is responsible for addressing practical issues that arise in the normal course of business but which the FASB does not have the time or resources to tackle. Exhibit 19 lists the accounting guidance issued by the EITF during 2002 and thus far in 2003. We will update this list quarterly.

Exhibit 19: Authoritative Accounting Guidance from the EITF

EMERGING ISSUES TASK FORCE: RECENT CONSENSUS

Issue Number and Name		Meeting Date
03-2:	Accounting for the Transfer to the Japanese Government of the Substitutional Portion of Employee Pension Fund Liabilities	January 2003
02-18:	Accounting for Subsequent Investments in an Investee after Suspension of Equity Method Loss Recognition	January 2003
02-16:	Accounting by a Reseller for Cash Consideration Received from a Vendor	November 2002
00-21:	Accounting for Revenue Arrangements with Multiple Deliverables	November 2002
02-3:	Issues Involved in Accounting for Derivative Contracts Held for Trading Purposes and Contracts Involved in Energy Trading and Risk Management Activities	October 2002
02-17:	Recognition of Customer Relationship Intangible Assets Acquired in a Business Combination	October 2002
02-11:	Accounting for Reverse Spinoffs	September 2002
02-13:	Deferred Income Tax Considerations in Applying the Goodwill Impairment Test in FASB Statement No. 142	September 2002
02-15:	Determining Whether Certain Conversions of Convertible Debt to Equity Securities Are within the Scope of FASB Statement No. 84	September 2002
NA:	No Consensus Reached on any Issues	June 2002
02-4:	Determining Whether a Debtor's Modification or Exchange of Debt Instruments Is within the Scope of FASB Statement No. 15	March 2002
02-5:	Definition of "Common Control" in Relation to FASB Statement No. 141	March 2002
02-6:	Classification in the Statement of Cash Flows of Payment Made to Settle an Asset Retirement Obligation within the Scope of FASB Statement No. 143	March 2002
02-7:	Unit of Accounting for Testing Impairment of Indefinite-Lived Intangible Assets	March 2002
02-8:	Accounting for Options Granted to Employees in Unrestricted, Publicly Traded Shares of an Unrelated Entity	March 2002
01-3:	Accounting in a Business Combination for Deferred Revenue of an Acquiree	March 2002
01-12:	The Impact of the Requirements of FASB Statement No. 133 on Residual Value Guarantees in Connection with a Lease	March 2002
00-23:	Issues Related to the Accounting for Stock Compensation under APB Opinion No. 25 and FASB Interpretation No. 44	March 2002
01-7:	Creditor's Accounting for a Modification or Exchange of Debt Instruments	January 2002
01-14:	Income Statement Characterization of Reimbursements Received for "Out-of-Pocket" Expenses Incurred	January 2002

Source: Financial Accounting Standards Board.

The EITF tries to arrive at a consensus over accounting issues not already addressed by the FASB. The FASB must ratify any consensus reached by the EITF before it becomes GAAP. If the EITF is unable to reach a consensus, however, the FASB may undertake a project to address the matter. EITF issues can be identified by year and number. For instance, the third issue addressed by the EITF in 2002 is referred to as "Issue 02-03." The EITF has 12 members from public accounting and industry.

FASB Calendar

Exhibit 20 highlights the FASB's focus in the months ahead.

Exhibit 20: FASB Projects and Activities as of December 31, 2002

	Q1 - '03	Q2 - '03	Q3 - '03	Q4 - '03
MAJOR PROJECTS				
Financial Instruments:				
Disclosures about Fair Value (Replacement of SFAS 107)				E
Liabilities and Equity, including:				
Limited-Scope Statement (Phase One)	F			
Amendment to Concepts Statement 6				
Compound Instruments and Noncontrolling Interests (Phase Two)				
Financial Performance Reporting by Business Enterprises				
Revenue Recognition				
Short-Term International Convergence		E		
Disclosures about Intangible Assets				
OTHER PROJECTS AND ACTIVITIES				
Consolidation of Variable Interest Entities	F			
Statement 123 Transition and Disclsoure				
Business Combinations:				
Purchase Method Procedures		E		
Combinations of Not-for-Profit Organizations		E		
Combinations between Mutual Enterprises		E		
Amendment to Statement 133	F			
Real Estate Time-Sharing	E			
Certain Costs and Activities Related to Property, Plant, & Equipment				
International Convergence				
Financial Instruments:				
Consolidations:				
Policy and Procedure				
Unconsolidated Entities				
Fresh-Start (New Basis) Accounting				
Share-Based Payments	C			
Principles-Based Standards	C			

Codes: C – Comment Deadline; E – Exposure Document; F – Final Statement or Other Final Document

Source: Financial Accounting Standards Board.

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Summary of FASB Projects

We provide a brief description below of each of the major projects highlighted in the calendar, along with its current status.

Disclosures about Fair Value

The board has been working for several years on the conceptual and practical issues surrounding the measurement of financial assets and liabilities at fair value. The FASB intends to issue a final statement in 2003 and continues to meet regularly in this effort.

Liabilities and Equity

The objective of this project is to improve the financial reporting of financial instruments that have the characteristics of debt, equity, or both. One specific area that would be affected by this standard involves a company's use of written put options and forwards on its own stock. For example, a company may use the premium received from the sale of a put to repurchase its own shares in an attempt to minimize the impact of shareholder dilution caused by employee stock option grants. Under current practice, the put is not treated as a derivative, since it involves the company's own stock. Instead, the company records the premium received on the put as an increase in shareholders' equity. In subsequent periods, the put is not marked to market and changes in its fair value are not run through earnings.

The FASB expects to issue a limited scope standard, FAS No. 149, *Accounting for Certain Financial Instruments with Characteristics of Liabilities and Equity,* in a few weeks. FAS No. 149 could require companies to move these puts and forward purchase contracts to the liability section of their balance sheets, recording them at fair value with changes in fair value going through earnings. We expect to provide further analysis of this standard and its implications in a future report.

Financial Performance Reporting by Business Enterprises

The principal goal of this project is to improve the quality of information presented and reported in the financial statements. David Zion is one of ten members of the Financial Performance Reporting by Business Enterprises Task Force. We would be interested in hearing any feedback that you have on the overall structure of the financial statements, particularly items needing improvement. The FASB's objective is to issue an Exposure Draft of a proposed Statement in 2003.

Revenue Recognition

The FASB seeks to issue a comprehensive revenue recognition statement, which will bring accounting concepts and standards under one umbrella. Currently, no single comprehensive revenue recognition standard exists. The FASB does not currently have a definitive timeframe.

Disclosure about Intangible Assets

This project deals with disclosures of intangible assets not currently recognized on the balance sheet. The FASB considers valuation issues critical on this project. Currently, the FASB has suspended this project in lieu of other higher-priority projects.

Short-Term International Convergence

The FASB and the International Accounting Standards Board (IASB) agree that convergence of global accounting standards is a significant objective and both boards are working jointly on reconciling differences. Differences that can be addressed reasonably quickly are part of this short-term project, while differences that will take longer to resolve are part of a longer-term international convergence project. The FASB hopes to issue an Exposure Draft on this topic in the second quarter of 2003.

Other Projects

The FASB is currently juggling a number of other projects, including a simplification project to address accounting standards overload, a consolidations project to revisit how relationships between companies should be evaluated and reflected in the financial statements, and a project on purchase accounting procedures in business combinations (a joint project with the IASB).

Additionally, the FASB decided to put the issues raised in EITF Issue 02-12, *Permitted Activities of a Qualifying Special-Purpose Entity in Issuing Beneficial Interests under FASB Statement No. 140,* onto its agenda in January 2003. FAS No. 140, *Accounting for Transfers and Servicing of Financial Assets and Extinguishments of Liabilities - A Replacement of FASB Statement No. 125*, provides the rules for when a company can deconsolidate assets that are transferred to a special purpose entity and whether the company is allowed to recognize a gain on the transfer. Generally, under current guidelines, companies that transfer assets to a qualifying special-purpose entity (QSPE) are immediately allowed to deconsolidate assets and recognize any gains associated with that transfer. By taking on this issue, the FASB may change the rules surrounding what qualifies as a QSPE. The FASB's work in this project could impact who must consolidate a special purpose entity, as companies that transfer assets to a QSPE are exempt from having to consolidate the off-balance-sheet vehicle. See the our January 21, 2003, report, *SPEs . . . Coming Soon to a Balance Sheet Near You*, for information on the FASB's latest actions surrounding consolidation of off-balance-sheet vehicles. We'll keep you posted on developments.

Companies Mentioned ***(Price as of 11 Feb 03)***

Abington Bancorp (ABBK, $22.49)
AOL Time Warner (AOL, $10.2, NEUTRAL, TP $16)
Aon Corp. (AOC, $18.05, NEUTRAL, TP $21.5)
AT&T Corporation (T, $17.81, NEUTRAL, TP $27)
Boise Cascade Corporation (BCC, $24.38, NEUTRAL, TP $27)
Cisco Systems, Inc. (CSCO, $13.47, OUTPERFORM, TP $17)
Citigroup (C, $32.05, OUTPERFORM, TP $50)
Coca-Cola Company (KO, $39, OUTPERFORM, TP $57)
General Electric (GE, $22.5, NEUTRAL, TP $29)
General Motors Corp. (GM, $36.05, NEUTRAL, TP $45)
International Business Machines (IBM, $77.39, NEUTRAL, TP $87)
JDS Uniphase Corp (JDSU, $2.9, UNDERPERFORM, TP $1.25)
McDonald's Corp (MCD, $13.9, NEUTRAL, TP $17)
Microsoft (MSFT, $46.44)
PepsiCo, Inc. (PEP, $38.39, NEUTRAL, TP $43)
Presidential Life Corp (PLFE, $8.40)
Procter & Gamble Co. (PG, $83.19)
Sara Lee Corporation (SLE, $20.27)

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Underperform	21%	(33% banking clients)
Restricted	2%	

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