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## U.S. MARKET COMMENT

## Writing Down Current U.S. Equities Valuations

## November 200I

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#### Abstract

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#### Abstract

U.S. Comment - Writing Down Current U.S. Equity Valuations

The disparity among market commentators and analysts in their assessment of market valuations is unusually high today. We've seen estimates ranging from as low as $25 \%$ undervalued to as high as $40 \%$ overvalued. In an effort to clarify current market valuations, we evaluated the differences between operating earnings and GAAP net income, and put current earnings growth expectations into historical context. Although our analysis suggested that the sharp price decline following September 11 brought the U.S. equity market close to fair value, the subsequent rise in the market and our closer analysis of the aggressive earnings assumptions required to assess the market as fairly valued have led us to conclude that it is now overvalued once again.


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## U.S. MARKET COMMENT

## Writing Down Current U.S. Equity Valuations

The disparity among market commentators and analysts in their assessment of market valuations is unusually high today. We've seen estimates ranging from as low as $25 \%$ undervalued to as high as $40 \%$ overvalued. By traditional metrics, the market is clearly overvalued. For example, the price-toearnings ratio (P/E) of the S\&P 500 based on trailing reported earnings (Generally Accepted Accounting Principles (GAAP) net income) excluding extraordinary items was a record 41.5 as of October 31, 2001more than four standard deviations above the long-term average of 15.2 since 1926. In the five major equity bear markets of the twentieth century, equity price declines exceeded earnings declines, resulting in a contraction, rather than an expansion, in the $\mathrm{P} / \mathrm{E}$ multiple (see Table A). Similarly, $\mathrm{P} / \mathrm{E}$ ratios at earnings troughs have historically been well below the current P/E ratio, ranging from a low of 9.4 in 1942 to a high of 26.2 in 1991 (Table B).

There are three primary sources for the divergence of opinion on market valuations. The first and most significant is the use of operating earnings versus the use of reported earnings conforming to GAAP standards. The spread between these earnings has reached record levels as the quality of operating earnings has come under considerable scrutiny. Second, there is a divergence of opinion on the earnings growth that should be expected in the short term, as the economic outlook for the United States has become more uncertain. The dispersion of analysts' 12-month forward earnings estimates for the S\&P 500 collected by Thomson Financial is at a ten-year high. Finally, some analysts argue that $\mathrm{P} / \mathrm{E}$ ratios are high, but that higher $\mathrm{P} / \mathrm{E}$ ratios are justifiable in an environment of low interest rates and low inflation. However, a higher P/E would be defensible only if we can safely assume that low long-term inflation and interest rates will not result in weakened corporate earnings power. This argument is suspect, as a low cost of capital typically attracts competition into the market, eroding margins, such that the return on capital is driven back down towards the cost of capital. In other words, lower interest rates should result in lower corporate earnings growth, keeping the fair value $\mathrm{P} / \mathrm{E}$ ratio close to its long-term historical average.

In an effort to clarify current market valuations, we evaluate the differences between operating earnings and GAAP net income, and put current earnings growth expectations into historical context.

## Operating Earnings and GAAP Net Income

## What's the Difference?

Operating earnings is an accounting measure that ostensibly was developed to value a firm's core operations net of any noise from extraneous activities. However, as analyst coverage has proliferated, options granting has expanded well beyond top management, and the pressure to "beat the street" has intensified, operating earnings have taken on a multitude of definitions and assumed many monikers (e.g., ongoing earnings, core earnings, or pro forma earnings). Operating earnings are usually net of all nonrecurring charges and some operating expenses that companies deduct from net income as defined by GAAP. However, since operating earnings are not regulated by a board or governed by a central set of standards, companies have free rein to determine what charges should or should not be included.

GAAP net income reflects the earnings of a firm after accounting for all charges, including nonrecurring items. Although GAAP does not officially recognize an earnings figure other than bottom line net income, GAAP APB 30 (1973) provides clear definitions for four categories of nonrecurring items: unusual or infrequent items, extraordinary items, discontinued operations, and accounting changes. (See Table C for definitions of these categories and a sample income statement.) Most of the more "common" operating expenses (e.g., write-offs and write-downs) that companies exclude from operating earnings are captured in the unusual or infrequent items category. While GAAP net income is more conservative than pro forma operating earnings, corporations maintain significant leeway to report in an aggressive manner under GAAP. In addition, even the most conservative analysts typically exclude extraordinary items from GAAP net income in evaluating companies' valuations.

## Are the Differences Meaningful or Material?

The difference between GAAP net income less extraordinary items and operating earnings is a widely recognized indicator of the quality of earnings - the larger the difference between them, the lower the quality of earnings. Between 1985 and 2000, operating earnings per share (operating EPS) ${ }^{1}$ for the S\&P 500 exceeded GAAP earnings per share excluding extraordinary items (EPS) by an average of $11.6 \%$ each year and exceeded EPS in all but two of the 17 years for which we have data. This has led many to question whether or not the self-regulated operating earnings that companies report are artificially inflated by various forms of accounting gimmickry. After all, how could operating earnings, which are supposed to exclude investment gains or losses, exceed net income during the bull market years of the late 1990s, when many companies (e.g., Microsoft and Intel) found their investment portfolios flush with

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massive gains? Until this year, the largest difference occurred in 1991, when operating EPS exceeded EPS by $32.8 \%$ (see Table D). However, as of October 31, 2001, operating EPS (\$48.47) exceeded EPS ( $\$ 25.54$ ) by $89.8 \%$, nearly triple the high recorded in 1991 (Table D).

## Accounting Tactics

There are three categories commonly cited in investigations of operating earnings: nonrecurring items, pension accounting, and options accounting. The first item relates to ways corporations exclude GAAP expenses from their operating earnings calculations, while the latter two items relate to ways corporations can manipulate earnings while following GAAP. GAAP provide corporations with a reasonably high degree of flexibility to use conservative or aggressive accounting tactics, which can result in wide disparities in earnings calculations.

## Nonrecurring Items

Nonrecurring has become an all too common label used to describe many expenses that companies choose to exclude from operating earnings. Although GAAP specifically defines items that may be classified as nonrecurring, corporations may use this label as a disguise for higher-than-expected operating expenses. Goodwill write-offs and inventory write-offs are two of the more popular expenses that are considered operating under GAAP standards, but are sometimes masked as nonrecurring in company operating earnings or pro forma statements.

Technology firms are responsible for a significant share of this year's write-offs that are included in EPS, but are excluded from operating EPS. These companies have written off impaired goodwill resulting from their acquisitions of companies at well above book value prior to the tech decline that started in March 2000. In addition, some tech companies have written off the value of obsolete inventories, resulting from the unexpected slowdown in global demand, under the category of "unusual or infrequent items." However, since product cycles for technology products tend to be relatively short, it is difficult to make a case for excluding these costs from operating earnings. (See Table D.)

Goodwill. Goodwill results from use of the purchase method of accounting for acquisitions and it represents the difference between the purchase price of a company and the fair value of its assets. Until recently, this value was carried as an asset on the balance sheet and amortized against net income over a future period not to exceed 40 years. However, the Financial Accounting Standards Board (FASB) recently decided to end the practice of goodwill amortization. Instead, companies are required to determine a fair value of goodwill at the time of the purchase and take a charge (write down for the impairment of

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goodwill) against earnings whenever the value of goodwill assets falls below the value determined on the purchase date. FASB also made the new goodwill rules effective retroactively to all acquisitions made under the purchase method.

These accounting changes help to explain many of the current write-offs excluded from operating earnings, as many companies that previously used the purchase method have chosen the most recent periods of already depressed earnings to recognize these historical impairment charges. The most significant example of the elimination of goodwill charges from operating earnings occurred in the June 30, 2001 earnings report of JDS Uniphase (JDSU). JDSU reported fiscal year "pro forma" earnings of \$0.02 share, despite registering a red-hot loss of $\$ 9.39$ per share according to GAAP standards. The majority of this difference came in the form of a $\$ 44.7$ billion charge for the cumulative impairment of goodwill, $\$ 38.7$ billion of which JDSU expensed in a restatement of March 31, 2001 income.

JDSU argued that these charges should be excluded from operating earnings because they used stock for the acquisition rather than cash and incurred no real expense. Grantham, Mayo, and Van Otterloo (GMO) accurately points out that this would only be the case if the overvaluation of JDSU's stock were greater than that of SDL, the aquiree constituting the majority of goodwill write-off. If stock of a company with a higher valuation is used to acquire a company with a lower valuation, this transaction has a positive economic impact on the acquiring firm because the inflated currency used to purchase the acquiree is worth less than the shares acquired. A close parallel to this argument is that U.S. corporations receive a discount by importing raw materials needed for production of goods rather than buying them at home because the U.S. dollar is stronger than the currency of its trading partners. On balance, GMO argues that the impact of goodwill among S\&P 500 companies has been a wash, with a balance of stock-for-stock acquisitions being made by overvalued and undervalued companies relative to their acquirees. Therefore, from GMO's perspective, the inclusion of these write-offs in reported earnings served to understate these earnings, while exclusion of goodwill write-offs from operative earnings is not misleading in the aggregate, but is misleading for certain individual corporations, such as JDSU.

Many believe that the recent goodwill changes may have significant implications for operating earnings in the next few years. For example, Morgan Stanley estimates that operating profits will increase an additional 300 basis points (bps) in 2001 and 400 bps in 2002 simply because of the changes in goodwill accounting. This is not because goodwill will be excluded from GAAP net income, or GAAP net income before extraordinary charges. Rather, companies will choose to write off the charges as onetime events, excluding them from their self-regulated "operating earnings."

Inventory Write-offs. The most prominent example of an inventory write-off is the $\$ 2.25$ billion nonrecurring charge for the elimination of excess inventory that Cisco excluded from operating

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earnings in its fiscal third-quarter ending April 28, 2001. While this item might be unusual, the assumption that it is a one-time or nonrecurring expense is certainly aggressive. The short life cycle of Cisco's products suggests that it will occasionally incur such charges again in the future, albeit perhaps to a lesser degree.

In a recent report, AllianceBernstein recently estimated that a total of $\$ 200$ billion in nonrecurring or one-time items will be excluded from 2001 operating earnings. This would represent over $40 \%$ of this year's expected operating earnings and $60 \%$ of the total of these expenses recorded over the previous 12 years. In addition, they estimate that the exclusion of such charges has accounted for two percentage points of the $9.0 \%$ average growth in operating earnings per year on average from 1995 through 2000.

## Pension Accounting

The fundamental problem with pension accounting is that companies report a gain if expected investment returns exceed expected pension benefit costs for the year. Companies have the discretion to set expected returns, which are often based on the expected market performance or the average past performance of the portfolio. As a result, companies often report income from their pension portfolios even though actual returns are well below expected performance. The ability to set expected investment returns provides corporations with an opportunity to manage earnings and still conform to GAAP reporting standards by keeping expected returns high in order to lock in a pension gain. According to a study by Credit Suisse First Boston, of the 352 S\&P 500 companies with a defined benefit pension plan, 63 companies raised their pension plan expected return for 2001, and about half of these companies did so even though their year 2000 performance fell below expectations. At the same time, only 31 companies lowered their return expectations. The actual losses on the portfolio relative to expected returns are accumulated in a separate account, which is typically amortized over 15 years. However, given the massive gains pension portfolios amassed in the bull market of the 1990s, it could take years of poor performance before these accounts would turn net negative.

In addition, corporate pension plan sponsors may also use a multi-year average of plan asset values to calculate the dollar value of expected gains. Companies typically report the portfolio value of plan assets on a five-year moving average in order to smooth out particularly high or low years. However, given the large increases that occurred in the 1990s, replacing 1995 with 2000 in the five-year average results in an automatic boost to assets, and income. ${ }^{2}$

[^1]An understanding of pension accounting rules help to explain why companies such as GE and Verizon reported massive pension gains in 2000, despite negative portfolio returns for the year. For example, Verizon reported a $\$ 2.3$ billion boost to earnings (approximately $19.7 \%$ of total profits) from pension income in 2000, while the pension portfolio lost $\$ 4.1$ billion based on actual performance.

The argument for reporting pension portfolio gains as operating income is that companies must report any required contributions to the pension plan as operating expenses if the plan is underfunded, so overfunded plans should get credit for pension gains. However, an important distinction should be emphasized: pension gains are paper gains and are largely inaccessible to corporate management for support of operations, while pension expenses represent actual cash contributions. Therefore, investors should be aware that accrued pension gains could hide pension expenses for some time as they come due. The AllianceBernstein study estimated that removing pension gains from operating earnings would have removed one percentage point of the $9.0 \%$ average growth in operating earnings on average per year between 1995 and 2000. Looking forward, pension income could become a negative contributor to earnings if the combination of falling interest rates, which raise the present value of pension liabilities, and falling asset values persist enough to eliminate plans' excess accrued reserves over liabilities, requiring plan sponsors to make contributions.

## Options Accounting

There are a variety of views as to how and whether to report the expense of employee stock options in corporate earnings. The current requirements are minimal. Recent accounting amendments require companies that use options as a form of compensation to report basic and fully diluted EPS. Fully diluted EPS, as the name implies, requires firms to report earnings per share under the assumption that all options have been exchanged for common shares. In addition, SFAS 123, Accounting for Stock Based Compensation, requires firms to either include a calculation of the fair value of options (based on the Black Scholes or binomial model) in the footnotes to income statements or to expense the fair value. As would be expected, virtually all corporations use the former methodology. ${ }^{3}$

One school of thought advocates expensing the full Black Scholes value of options granted through the income statement because this is equal to the cost of immunizing the liability associated with the options program. At the other extreme is the argument that the options expense should not be reported at all because sufficient information is available in the cash flow statement and footnotes to the income

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statement. There are many arguments in the middle; most notably, the AllianceBernstein analysis referenced above advocates expensing $50 \%$ of the Black Scholes value of options to account for the following factors: (1) employee stock options are worth something less than a Black Scholes model would calculate because they cannot be traded; (2) most workers exercise options years before they expire; and (3) many options will never be exercised because employees will leave prior to vesting. This treatment of options would result in a 2.5 percentage point reduction in the $9 \%$ average annual growth in operating earnings from 1995 to 2000 . GMO has a unique perspective on the appropriate treatment of options, which considers the economic cost of the options program. GMO believes that as long as the sources of cash flow from options (the strike price paid by employees and the tax credit on the difference between strike price and market price at the point that the options are exercised) are greater than or equal to the fair value of a company's stock, that no expense should be recognized. They argue that as long as a firm can issue more shares to meet its options obligations, there is no economic cost to providing options as long as the company receives sufficient cash flow from the option issuance to cover the fair value of its shares. In addition, GMO proposes that share issuance by overvalued companies is actually anti-dilutive to existing shareholders. Their analysis indicates that in practice, the most highly overvalued companies did not have buyback programs and received more than the fair value of their stocks from the option sales and the tax credit. In addition, GMO believes that buybacks should be considered separately from options issuance because there is nothing inherent about an options program that requires firms to buyback their stock. In the aggregate, GMO reckons that the net economic impact on earnings for S\&P 500 corporations is nil.

A multitude of different studies have been completed to quantify how significantly earnings have been overstated due to the failure to properly treat employee stock options. Estimates range from a low of no adjustment to a high of over $20 \%$ overstatement. In addition, the Federal Reserve Board estimated in a 1999 study that $40 \%$ of earnings of their sample of large companies were used to buy back shares, diverting the income from growth producing activities, such as reinvestment in the company or payment of dividends.

## Implications for Valuation Measures

The enormous gap between operating earnings and net income has left many questioning the reliability of net income figures, while others remain apprehensive about the self-guided nature of company reported operating earnings-both groups have legitimate concerns. It is not simply a coincidence that the next largest difference between operating earnings and net income occurred in the teeth of the last recession (1991), which also coincided with the final release of FASB 106, which required that corporations account for previously unrecognized retiree health liabilities on their financial statements. Companies

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often take advantage of economic recessions, which are accompanied by earnings recessions, to engage in "Big Bath accounting." This practice refers to the tendency to realize previously hidden charges (and mistakes), as well as future expenses, during a period when earnings are already extremely disappointing. This allows firms to cleanse their financial statement and align themselves for better comparables going forward.

However, this does not suggest that operating earnings are more suitable for valuation models. Rather, it suggests that blindly basing valuations on operating earnings or reported net income may be the riskiest bet of all. While operating earnings are inflated by the exclusion of various operating expenses, companies have depressed net income figures by loading them up with past, present, and future charges. As a result, one might consider ratcheting up current net income or ratcheting down operating earnings to come up with a figure that is based on more rational assumptions. The AllianceBernstein study determined that proper treatment of the three items-nonrecurring charges, pension gains, and options-in operating earnings would reduce the $9 \%$ growth in operating earnings per year between 1995 and 2000 to approximately $3.5 \%$. A study by the Levy Forecasting Center found that corporate operating earnings were overstated by $10 \%$ over the last 20 years, and $20 \%$ over more recent years based on the exclusion of options and "nonrecurring" expenses from operating earnings. GMO recently estimated how much reported earnings of the S\&P 500 would need to change to accurately reflect goodwill write-offs, cyclical writeoffs, and employee stock options. Based on the results of their analysis, GMO estimated that $\$ 160$ billion should be added back to the GAAP net income of $\$ 290$ billion (less extraordinary items) to come up with total earnings of $\$ 450$ billion. This would result in a P/E ratio of 24 , slightly higher than the $\mathrm{P} / \mathrm{E}$ of 22 based on trailing operating earnings and well below the $\mathrm{P} / \mathrm{E}$ of 37 based on net income, as of August 31, 2001. Alternatively, using normalized earnings (such as a moving average or trendline earnings) may smooth out the fluctuations in net income, providing a more reasonable picture of corporate earnings power. The $\mathrm{P} / \mathrm{E}$ ratio based on trailing five-year average earnings is 34 , and the $\mathrm{P} / \mathrm{E}$ based on trendline earnings since 1960 is 24 -both indicating overvaluation relative to their own historical average $\mathrm{P} / \mathrm{Es}$ of 14.9 and 16.5 , respectively.

## Earnings Growth

Consensus earnings growth expectations for the S\&P 500 over the next three to five years is $15 \%$, based on Thomson Financial data. Using our dividend discount model, and assuming an equity risk premium of three, a risk-free rate of $5.22 \%,{ }^{4}$ and long-term earnings growth of $5 \%$ per year, earnings

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growth over the next ten years has to be at least $16 \%$ annually in order for the market to be considered fairly valued on the basis of net income, at least $10 \%$ based on operating earnings. These growth rates are high by historical standards. Since 1926, net income has grown an average of 5.6\% over rolling five-year periods, and $5.8 \%$ over rolling ten-year periods. In real terms, earnings have grown an average of $2.1 \%$ over both five-year and ten-year periods. Earnings growth of $10 \%$ or greater over ten-year periods has only occurred in nine of the 66 rolling ten-year periods. Adjusted for the roughly $1.5 \%$ inflation expectations priced into the bond market for the next ten years, earnings would need to grow $8.5 \%$ in real terms, which only occurred in two ten-year periods since 1926.

However, this type of earnings growth has occurred following significant declines in earnings. Through the end of October of this year, net income has declined 52.4\% from its high on September 30, 2000. This magnitude of earnings decline has been exceeded only twice since our data series begins in 1926-in 1937-38, when earnings fell $59 \%$ ( $60 \%$ in real terms) and in 1929-32, when earnings fell $75 \%$ ( $67 \%$ in real terms). For the ten years following these periods, earnings increased at an average annual rate of approximately $7 \%$ in real terms for both periods, and $12 \%$ and $10 \%$ in nominal terms, respectively. While earnings usually expand rapidly coming out of recessions because previously constrained consumers and corporations act on their pent up demand to spend, it is clear that there is little if any pent-up demand in the current environment of high consumer spending, low savings rates, and low capacity utilization. The economic downturn would have to be more severe or protracted than currently expected by most market analysts in order for this to occur.

## Is the Market Fairly Valued?

After a fall in the S\&P 500 from peak to trough of nearly $40 \%$ we would expect the market to be fairly valued. However, fundamentals have clearly deteriorated more than have prices, and the earnings growth expectations required to make the market fairly valued, while potentially achievable if earnings have reached their cyclical low, are certainly aggressive. Given that we cannot say with conviction what historical earnings have been, as write-offs have depressed reported earnings below their economic value and operating earnings are clearly padded, valuation analysis should be approached with a heightened degree of caution. Although our analysis suggested that the sharp price decline following September 11 brought the U.S. equity market close to fair value, the subsequent rise in the market and our closer analysis of the aggressive earnings assumptions required to assess the market as fairly valued have led us to conclude that it is now overvalued once again.

A

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Table A

## VALUATION CHANGES DURING EQUITY BEAR MARKETS

|  | S\&P 500 | Price-to-Earnings (P/E) Ratio* |  |  |  |  | Price <br> Change | Earnings Change |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Period | Return | Beginning | Ending | Average | High | Low |  |  |
| 10/01/1929-06/30/1932 | -82.7\% | 19.4 | 8.7 | 15.4 | 19.4 | 8.7 | -85.3\% | -67.1\% |
| 01/01/1937-03/31/1938 | -47.1\% | 17.2 | 15.5 | 13.7 | 17.2 | 10.3 | -50.5\% | -45.0\% |
| 01/01/1969-06/30/1970 | -26.3\% | 18.0 | 13.2 | 16.1 | 18.0 | 13.2 | -30.0\% | -4.2\% |
| 01/01/1973-09/30/1974 | -42.6\% | 18.4 | 7.0 | 12.9 | 18.4 | 7.0 | -46.2\% | 41.9\% |
| 01/01/1990-09/30/1990 | -11.1\% | 15.4 | 14.1 | 15.5 | 16.8 | 14.1 | -12.3\% | -8.2\% |
| 04/01/2000-09/30/2001 | -29.3\% | 29.4 | 34.3 | 29.1 | 34.3 | 25.5 | -30.5\% | -40.3\% |

## Observations:

1) Prior to the most recent period of retrenchment in equity prices, price declines were greater than the concomitant earnings declines, resulting in a contraction in the $P / E$ multiple. In fact, prices fell significantly in the period $01 / 01 / 1973-09 / 30 / 1974$ despite a spike in earnings. This resulted in a large contraction in the $\mathrm{P} / \mathrm{E}$ multiple.
2) Only during the most recent period (04/01/2000-09/30/2001) has the highest quarter-end observed $\mathrm{P} / \mathrm{E}$ ratio been at the end of the period.
*P/E ratios are as of quarter-end and averages are based on the average of quarter-end values.

C A

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Table B
S\&P 500 PRICE-EARNINGS RATIO AT EARNINGS PEAKS AND TROUGHS
March 31, 1926 - September 30, 2001

## Earnings Peaks

## Earnings Troughs

| Peak Date | P/E |
| :---: | ---: |
|  |  |
| $3 / 31 / 26$ | 9.2 |
| $12 / 31 / 29$ | 13.3 |
| $9 / 30 / 37$ | 11.3 |
| $9 / 30 / 41$ | 8.6 |
| $6 / 30 / 43$ | 11.2 |
| $6 / 30 / 45$ | 15.0 |
| $12 / 31 / 50$ | 7.2 |
| $3 / 31 / 56$ | 13.1 |
| $9 / 30 / 59$ | 16.6 |
| $9 / 30 / 69$ | 15.8 |
| $9 / 30 / 74$ | 7.0 |
| $12 / 31 / 81$ | 8.0 |
| $12 / 31 / 84$ | 10.1 |
| $6 / 30 / 89$ | 12.6 |
| $9 / 30 / 00$ | 26.8 |
|  |  |
| Mean | 12.4 |
| Median | 11.3 |


| Trough Date | P/E |
| :--- | ---: |
|  |  |
| $12 / 31 / 27$ | 15.9 |
| $12 / 31 / 32$ | 16.8 |
| $9 / 30 / 38$ | 19.7 |
| $9 / 30 / 42$ | 9.4 |
| $9 / 30 / 44$ | 14.2 |
| $6 / 30 / 46$ | 21.9 |
| $6 / 30 / 52$ | 10.7 |
| $9 / 30 / 58$ | 17.4 |
| $6 / 30 / 61$ | 21.3 |
| $12 / 31 / 70$ | 18.0 |
| $9 / 30 / 75$ | 10.8 |
| $3 / 31 / 83$ | 12.3 |
| $6 / 30 / 87$ | 21.1 |
| $12 / 31 / 91$ | 26.2 |
| $9 / 30 / 01$ | 31.0 |
|  |  |
| Mean | 17.8 |
| Median | 17.4 |

Source: Ned Davis Research, Inc.
Note: Peaks and troughs are based on all $10 \%$ reversals in four-quarter S\&P 500 earnings.

## Table C

# SAMPLE INCOME STATEMENTS AND EXAMPLES OF NONRECURRING ITEMS 

## Income Statement

| - | Revenues from the sales of goods and services: Operating Expenses |
| :---: | :---: |
| = | Operating income from continuing operations |
| + | Other income and revenues |
| = | Recurring income before interest and taxes from continuing operations |
| - | Financing Costs |
| = | Recurring (pretax) income from continuing operations |
| +/- | Unusual or infrequent items |
| $=$ | Pretax earnings from continuing operations |
| - | Income tax expense |
| = | Net income from continuing operations |
| +/- | Income from discontinued operations (net of tax) |
| +/- | Cumulative effect of accounting changes (net of tax) |
| $=$ | Net income less extraordinary items |
| +/- | Extraordinary items (net of tax) |
| $=$ | Net income |

## Items Often Excluded From Operating Earnings

| Category: | Examples: <br> Unusual or Infrequent Items <br>  <br>  <br> Impairments, write-offs, write-downs, and restructuring costs <br> Employee severance costs <br> Gain/loss on disposal of business segment <br> Plant shutdown costs <br> Provisions for environment redemption |
| :--- | :--- |
| Accounting Changes* | Gain/loss from operations of discontinued business segment |
| Extraordinary Items | Income tax changes |
| Includes all changes mandated by accounting standards and some accounting changes undertaken voluntarily. |  |

Table D

S\&P 500: NET INCOME AND OPERATING EARNINGS PER SHARE


Sources: I/B/E/S International, Inc. Standard \& Poor's, and Standard \& Poor's Compustat.
Notes: Average Operating EPS above or below EPS is $11.61 \%$ from 1985 to 2000. Historical Operating EPS Figures are I/B/E/S Historical Operating Earnings, which were first tallied in 1985. All periods are calendar year-end. 2001 data are till October 31. Operating EPS Above or Below Historical EPS is calculated as (Operating EPS EPS/EPS).

## Table E

## TEN COMPANIES WITH THE LARGEST WRITE-OFFS



Sources: Aeltus, Fact Set, and First Call.

* EPS represents GAAP reported EPS less extraordinary items.


[^0]:    ${ }^{1}$ We analyzed trailing operating EPS as reported by I/B/E/S based on analyst consensus estimates of historical earnings.

[^1]:    ${ }^{2}$ For example, if the 1995 total portfolio value were $\$ 500$ million, replacing it with the year 2000 value of $\$ 700$ million would significantly raise the average, even though the 2000 value was probably lower than the 1999 value.

[^2]:    ${ }^{3}$ Corporations may also expense the intrinsic value of options (as outlined in APB 25), which defines the value of options as the difference between the strike price and market price at the grant date. In practice, this methodology does not capture the true cost of the options as firms reporting in this way could issue at-the-money or out-of-themoney options to avoid recognizing any costs for the compensation.

[^3]:    ${ }^{4}$ For this analysis, we used the yield on the 30-year Treasury on October 30, rather than October 31, to remove the supply/demand effects of the Treasury's October 31 announcement to discontinue issuing the 30 -year Treasury. While the yield fell from $5.22 \%$ on October 30 to $4.89 \%$ on October 31 , the price of the $\mathrm{S} \& \mathrm{P} 500$ remained virtually unchanged.

