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I. Zaitech: The Art Of Financial Engineering

In my previous *Topical Study*, "New, Improved Stock Valuation Model," I showed that according to the Fed's Stock Valuation Model, the market is extremely overpriced and vulnerable to a significant fall. The model uses the market's earnings expectations, not mine. I believe that the market's expectations are unrealistically optimistic. If so, then the market is even more overpriced.

A related problem is that many companies are overstating their earnings by using questionable accounting and financial practices. Some are significantly overstating their profits, and they tend to have the highest valuation multiples in the stock market. This suggests that investors are not aware that the quality of earnings may be relatively low among some of the companies reporting the fastest earnings growth.

Japanese corporate managers played similar games with their earnings in the late 1980s, just before their market crashed. They called it *Zaitech*, i.e., financial engineering.² Today, in the United States, it's called "earnings management." Of course, I am not the first to warn about these games. Indeed, the *Economist* just ran a cover story on the subject.³ Last year, the Chairman of the Securities and Exchange Commission blasted the "numbers game." So did Warren E. Buffett earlier this year.

One of the most egregious practices today among America's most admired and best-performing companies is the liberal awarding of stock options to key employees. Of course, there is nothing wrong with giving managers and employees a strong incentive to work hard for the good of their fellow shareholders. In my *Topical Study #34*, "Populist Capitalism And Other Wildly Bullish Themes," I applauded this trend and predicted that it was one of many reasons to be bullish on the outlook for the US economy and stock market. However, this rapidly growing component of compensation—unlike wages, salaries, bonuses, and benefits—is not expensed, so it does not reduce earnings. Rather than focusing on the best interests of shareholders, some managers are obsessed with driving up their stock price and are padding their earnings for their own personal gain. Overstated earnings boost stock prices, increasing the attractiveness of stock options as compensation.

This seems like a sure formula for perpetual prosperity. Or is it just a Ponzi scheme? These schemes also promise unlimited wealth forever. They work until they stop working. The initial small circle of players can make lots of money. But as the circle expands the number of new contributors to the scheme isn't sufficient to pay the expected return to all those who previously, though belatedly, joined the pool.

The stock option scheme works as long as stock prices continue to rise. If they fall and the options become worthless, then those who received them will suddenly realize that they paid

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¹ Topical Study #44, July 26, 1999. www.yardeni.com/topical.html

² In the late 1980s, many Japanese companies attempted to boost their depressed profitability by speculating in the stock market.

³ http://www.economist.com/editorial/freeforall/19990807/index sa1604.html

⁴ February 25, 1997, www.yardeni.com/topical.html

dearly in foregone pay for a bet that didn't pay off as expected. This happened for a short time last summer and fall, when stock prices plunged during the crisis triggered by the meltdowns in Moscow and Greenwich. The financial engineers creatively reduced the options' target prices. The subsequent rebound in stock prices provided a huge windfall to the holders of the repriced options.

This experience suggests that, unlike Ponzi schemes, stock option compensation can create perpetual prosperity for shareholders, managers, employees, and the overall economy. But like a Ponzi, it will work until it doesn't. During the sell-off last year, among the biggest losers were companies that rely greatly on stock options to compensate their employees. The market recognized that these companies were most likely to have very depressed and disgruntled employees, whose loyalty might be sorely tested. Of course, the pain was very short-lived. Next time, it may be more severe and more prolonged. Even the financial engineers might run out of tricks.

II. The Overvaluation Game

Jack T. Ciesielski is the publisher of *The Analyst's Accounting Observer* and a special consultant to the Research Department here at Deutsche Banc Alex. Brown. He is an expert on the options compensation game. He is currently updating his previous analysis, titled "Option Compensation: Lessons From The S&P 500," dated September 29, 1998. It examined the data for 1995, 1996, and 1997. The update will include 1998. In last year's study, he determined that the earnings of 62 of the S&P 500 companies were overstated by 10% or more in 1997. Another 55 showed a 5%-10% overstatement.

The following table, from Jack's study, shows all of the S&P 500 industries. There seems to be a strong correlation between the industries overstating their earnings and valuation. The greater the overstatement, the higher the valuation. The top six industries with overstated 1997 earnings were semiconductor electronics, long-distance telecommunications, entertainment, networking computers, communications equipment, and computer hardware. Together, on average, the 32 companies in this sample are currently selling at 46.9 times 1999 earnings (excluding those that are losing money). That's almost twice the 26.4 multiple for the S&P 500 (also excluding those that are unprofitable). The 32 companies currently account for 19% of the market capitalization of the profitable S&P 500 companies.

It is not surprising that investors, in their collective wisdom, have learned how to play the game. They've been putting most of their money into the stocks of companies whose managements are working especially hard to manage earnings. These relatively few stocks have been the best performers in the stock market, while the rest of the pack has trailed badly behind. This is clearly demonstrated by the advance/decline lines for both the New York Stock Exchange (NYSE) and the Nasdaq. Indeed, both lines continued to trend down.

Table 1: Industry Averages: Perce	1997	1996	1995		1997	1996	1995
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Electronics (Semiconductors)	33%	16%	7%	Services (Computer Systems)	6%	5%	3%
Telecommunications (Long Distance)	27%	4%	5%	Insurance Brokers	6%	4%	1%
Entertainment	23%	6%	3%	Aluminum	6%	8%	5%
Computers (Networking)	22%	18%	6%	Chemicals	6%	4%	4%
Communications Equipment	18%	23%	4%	Consumer Finance	6%	5%	3%
Computers(Hardware)	17%	8%	5%	Manufacturing (Diversified)	5%	5%	4%
Oil (Domestic Integrated)	17%	2%	1%	Household Products (Non-Durables)	5%	4%	9%
Aerospace/Defense	16%	4%	8%	Retail (General Merchandise)	5%	4%	2%
Chemicals (Diversified)	16%	8%	3%	Electronics (Instrumentation)	5%	5%	0%
Health Care (Medical Products & Supplies)	15%	7%	14%	Specialty Printing	5%	10%	2%
Retail (Drug Stores)	15%	2%	4%	Auto Parts & Equipment	5%	4%	9%
Housewares	15%	2%	1%	Oil & Gas (Drilling & Equipment)	5%	3%	1%
Hardware & Tools	14%	5%	5%	Gold & Precious Metals Mining	5%	6%	4%
Health Care (Hospital Management)	14%	3%	3%	Health Care (Diversified)	5%	3%	2%
Biotechnology	13%	12%	9%	Retail (Specialty)	5%	4%	2%
Services (Data Processing)	12%	8%	4%	Telephone	5%	2%	1%
Health Care (Long Term Care)	12%	13%	11%	Photography/Imaging	5%	13%	3%
Airlines	11%	23%	3%	Beverages (Alcoholic)	4%	6%	4%
Gaming	10%	9%	6%	Gas & Oil (Exploration & Production)	4%	2%	1%
Equipment (Semiconductor)	10%	2%	50%	Insurance (Property-Casualty)	4%	4%	3%
Investment Banking/Brokerage	10%	7%	6%	Containers (Metal & Glass)	4%	5%	3%
Insurance (Multi-Line)	9%	3%	2%	Footwear	4%	2%	1%
Health Care (Managed Care)	9%	40%	8%	Publishing	4%	3%	1%
Electronics (Defense)	9%	4%	2%	Textiles (Apparel)	4%	3%	1%
Computers (Peripherals)	9%	10%	10%	Retail (Food Chains)	4%	2%	2%
Publishing (Newspapers)	9%	7%	4%	Retail (Department Stores)	4%	3%	4%
Computers (Software & Services)	9%	19%	10%	Iron & Steel	4%	5%	5%
Broadcasting (TV, Radio & Cable)	8%	8%	10%	Homebuilding	4%	3%	26%
Office Equipment & Supplies	8%	1%	1%	Banks (Major Regional)	3%	2%	3%
Truckers	8%	29%	2%	Financial (Diversified)	3%	2%	3%
Retail (Discounters)	8%	5%	3%	Containers & Packaging (Paper)	3%	2%	5%
Services (Commercial & Consumer)	7%	10%	4%	Railroads	3%	3%	2%
Leisure Time	7%	4%	2%	Restaurants	3%	3%	2%
Services (Advertising/Marketing)	7%	5%	3%	Electronics (Component Distributors)	3%	2%	1%
Building Materials	7%	4%	25%	Health Care (Specialized Services)	3%	8%	3%
Household Furnishings & Appliances	7%	4%	1%	Manufacturing (Specialized)	3%	1%	1%
Health Care (Drugs)	7%	5%	3%	Machinery (Diversified)	3%	3%	2%
Engineering & Construction	7%	1%	5%	Foods	3%	2%	1%
Retail (Specialty - Apparel)	7%	5%	1%	Retail (Building Supplies)	3%	2%	2%
Banks(Money Center)	7%	5%	5%	Lodging - Hotels	3%	2%	1%
Metals Mining	7%	3%	1%	Electrical Equipment	3%	3%	1%
Beverages (Non-Alcoholic)	7%	6%	3%	Consumer (Jewelry, Novelties & Gifts)	2%	1%	1%
Insurance (Life/Health)	7%	5%	4%	Automobiles	2%	2%	5%
Oil & Gas (Refining & Marketing)	7%	-1%	0%	Air Freight	2%	1%	0%
Chemicals (Specialty)	7%	6%	15%	Tobacco	2%	2%	1%
Retail (Computers & Electronics)	7%	4%	3%	Oil (International Integrated)	2%	1%	7%
Savings & Loan Companies	6%	3%	3%	Waste Management	1%	4%	1%
Personal Care		5%		Trucks & Parts			
Paper & Forest Products	6%		3%		1%	2%	0%
•	6%	5% 29/	4% 29/	Distributors (Food & Health)	1%	3%	1%
Natural Gas	6% 6%	2%	2%	Agricultural Products	1%	1%	0%
Textiles (Home Furnishings) Telecommunications (Cellular/Wireless)	6%	4%	2%	Electric Companies	0% 0%	2% 1%	0% 1%
relecommunications (Celiular/Wireless)	6%	8%	3%	Investment Management	0%	1%	1%

The big boxes in the corners of the table highlight the 10% of all industries with the highest and lowest overstatement of EPS due to non-recognition of option compensation. The individually boxed industries are the ones where the overstatement was at least 5% in each of the three years.

Source: Jack T. Ciesielski, The Analyst's Accounting Observer

The NYSE plunged in recent days to the lowest reading since November 1996 (Exhibits 1 and 2). While 65% of the S&P 500 stock prices are up from a year ago, only 35% of all NYSE stocks are up (Exhibits 3 and 4).

III. Warren In Wonderland

Again, I have nothing against the concept of paying compensation partly in the form of stock option incentives. Some of my best friends have them. However, they should be expensed and reflected in earnings. The best things in life really aren't free.

Warren E. Buffett is especially outspoken, outraged, and eloquent about this practice. In the 1998 annual report of Berkshire Hathaway, the widely respected Chairman of the Board included the following in his message to shareholders:⁵

This Alice-in-Wonderland outcome occurs because existing accounting principles ignore the cost of stock options when earnings are being calculated, even though options are a huge and increasing expense at a great many corporations. In effect, accounting principles offer management a choice: Pay employees in one form and count the cost, or pay them in another form and ignore the cost. Small wonder then that the use of options has mushroomed. This lopsided choice has a big downside for owners, however: Though options, if properly structured, can be an appropriate, *and even ideal*, way to compensate and motivate top managers, they are more often wildly capricious in their distribution of rewards, inefficient as motivators, and inordinately expensive for shareholders.

Mr. Buffett is passionate about this issue:

Whatever the merits of options may be, their accounting treatment is outrageous. Think for a moment of that \$190 million we are going to spend for advertising at GEICO this year. Suppose that instead of paying cash for our ads, we paid the media in ten-year, at-the-market Berkshire options. Would anyone then care to argue that Berkshire had not borne a cost for advertising, or should not be charged this cost on its books?

Mr. Buffett observes that his calculations show that properly expensed options in recent years would frequently cut the reported per-share figures by 5%, with 10% not uncommon. "On occasion, the downward adjustment has been so great that it has affected our portfolio decisions, causing us either to make a sale or to pass on a stock purchase we might otherwise have made," added the world's greatest investor.

The sage of Omaha concludes with three simple rhetorical questions that might have been asked by the great philosopher Hillel if he were alive today:

⁵ http://www.berkshirehathaway.com/1998ar/1998final.html

If options aren't a form of compensation, what are they? If compensation isn't an expense, what is it? And, if expenses shouldn't go into the calculation of earnings, where in the world should they go?

Mr. Buffett blasts two other *Zaitech* practices, namely, "dump-everything-into-one-quarter" charges and "merger magic."

The distortion *du jour* is the "restructuring charge," an accounting entry that can, of course, be legitimate but that too often is a device for manipulating earnings. In this bit of legerdemain, a large chunk of costs that should properly be attributed to a number of years is dumped into a single quarter, typically one already fated to disappoint investors. In some cases, the purpose of the charge is to clean up earnings misrepresentations of the past, and in others it is to prepare the ground for future misrepresentations.

This is what Mr. Buffett had to say about merger magic:

In the acquisition arena, restructuring has been raised to an art form: Managements now frequently use mergers to dishonestly rearrange the value of assets and liabilities in ways that will allow them to both smooth and swell future earnings. Indeed, at deal time, major auditing firms sometimes point out the possibilities for a little accounting magic (or for a lot). Getting this push from the pulpit, first-class people will frequently stoop to third-class tactics. CEOs understandably do not find it easy to reject auditor-blessed strategies that lead to increased future "earnings."

Mr. Buffett mentions some data compiled by our friend Jack Ciesieski on restructuring charges in 1998: "A preliminary tally by R. G. Associates, of Baltimore, of special charges taken or announced during 1998—that is, charges for restructuring, in-process R&D, merger-related items, and write-downs—identified no less than 1,369 of these, totaling \$72.1 billion. That is a staggering amount as evidenced by this bit of perspective: The 1997 earnings of the 500 companies in *Fortune's* famous list totaled \$324 billion."

Like the Godfather of Finance that he is, Mr. Buffett concludes: "Clearly the attitude of disrespect that many executives have today for accurate reporting is a business disgrace."

IV. Earnings Management: The Numbers Game

Another Godfather of Finance is Arthur Levitt, the Chairman of the Securities and Exchange Commission (SEC). On September 28, 1998 he gave a very important speech at the New York University Center for Law and Business. It was titled "THE NUMBERS GAME." The SEC Chairman is just as concerned about "earnings management" as Mr. Buffett:

Increasingly, I have become concerned that the motivation to meet Wall Street earnings expectations may be overriding common sense business practices. Too many corporate managers, auditors, and analysts are participants in a game of nods and winks. In the zeal to satisfy consensus earnings estimates and project a smooth earnings path, wishful thinking may be winning the day over faithful representation.

As a result, I fear that we are witnessing an erosion in the quality of earnings, and therefore, the quality of financial reporting. Managing may be giving way to manipulation; Integrity may be losing out to illusion.⁶

"Manipulation" is a strong word. In his speech, he also called some of the accounting practices hocus pocus, trickery, and gimmicks. Here are the five games that Mr. Levitt is especially concerned about:

- 1) "Big bath" restructuring charges. This is the same as Buffett's "dump-everything-into-one-quarter." Companies take one-time restructuring charges to clean up their balance sheets. Expecting that these will be non-recurring, Wall Street analysts have tended to focus on operating earnings, i.e., reported earnings excluding the charges. If these charges were taken in smaller bite-sized portions over several quarters, reported earnings would be higher, but operating earnings would be lower. For the overall market, operating earnings have exceeded book profits by \$4.0 per share on average since the start of the decade (Exhibit 5).
- 2) "Merger magic." In numerous mergers and acquisitions, the acquisition price is booked as "in-process" Research and Development, so the amount can be written off in a "one-time" charge, thus eliminating any future drag on earnings. Equally troubling, to Mr. Levitt, is the creation of large liabilities for future operating expenses to protect future earnings.
- 3) "Cookie jar reserves." A third game played by some companies is using unrealistic assumptions to estimate liabilities for such items as sales returns, loan losses, or warranty costs. In effect, they stash accruals in cookie jars during the good times and reach into them when needed in the bad times.
- 4) "Immaterial items." Some expenses are so insignificant that they are not worth measuring and reporting with exact precision. Mr. Levitt observed, "In markets where missing an earnings projection by a penny can result in a loss of millions of dollars in market capitalization, I have a hard time accepting that some of these so-called non-events simply don't matter."
- 5) Premature recognition of revenue. Finally, some companies are recognizing revenues before a sale is complete, before the product is delivered to a customer, or at a time when the customer still has options to terminate, void or delay the sale.

Mr. Levitt should have included "pooling" in his list of gimmicks. This practice of simply merging the assets of two companies to avoid generating goodwill—the difference between the purchase price of an acquisition and its fair value—avoids a 40-year write-off charge for this item for the acquiring company. The Financial Accounting Standards Board has concluded that the technique overstates earnings and will be banned late next year.

⁶ http://www.sec.gov/news/speeches/spch220.txt

V. The Crying Game

Obviously, managers should have an incentive to manage their businesses well and in the best interest of their shareholders. If they do so, then earnings should reflect these efforts. But what if the practice of managing earnings is as widespread as suggested above? Isn't this good for shareholders? If the stock price goes up, why would anyone complain, even if earnings are being manipulated a bit? This game only works as long as the bull market continues. In a bear market, the most aggressive players are likely to have the biggest falls. Investors have a right to be better informed about earnings. They may be putting too much of their assets in the stocks of companies that have good earnings managers rather than good business managers. The misallocation of capital is bad for the economy, and certainly relatively bad for the companies, which are not managed by manipulators.

It is more than a little bit ironic that American policy makers and investors have been urging Asian companies to adopt better accounting standards and to provide greater disclosure. We are calling for others to increase their financial transparency, at the very same time that our financial statements are becoming more opaque.

What is the SEC doing to clean up the accounting standards here at home? Mr. Levitt called on the financial community to stop the abuses. He also established, in September 1998, the Blue Ribbon Committee on Improving the Effectiveness of Corporate Audit Committees, which issued 10 recommendations to improve the quality of corporate financial reporting in February. What are the accountants and auditors doing? Not enough. Attempts by the Financial Accounting Standards Board to require firms to set the cost of options against profits were killed by corporate lobbyists in 1995.

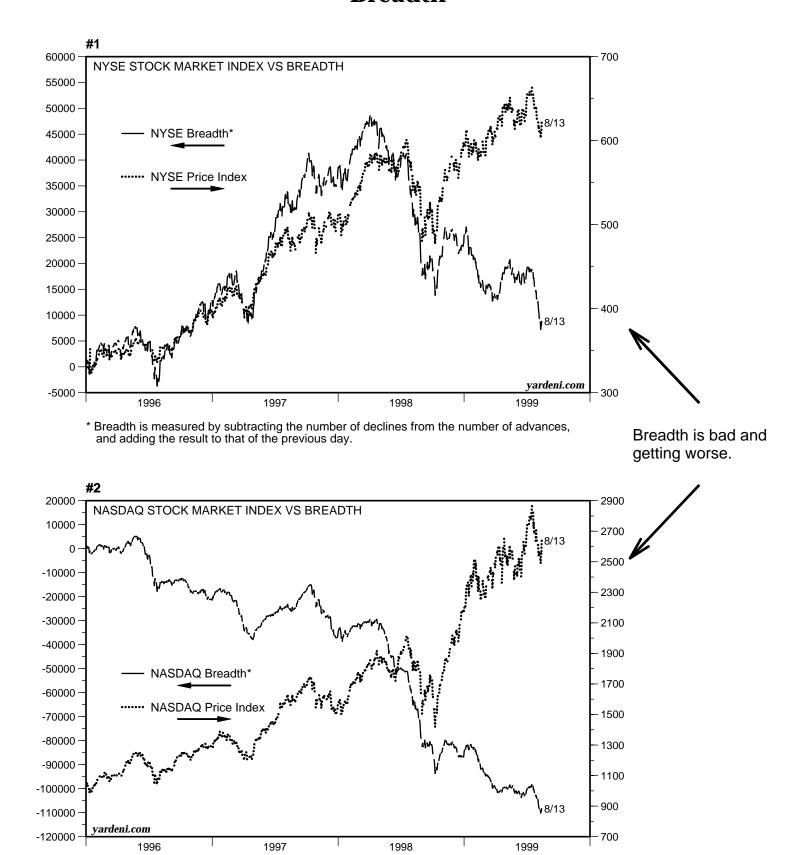
Overstated profits can solve some of the puzzles in our economy:

- 1) The wage puzzle. Wages have been rising faster than prices in recent quarters. Yet profit margins remain very high (Exhibit 6). Obviously, this implies that productivity is growing rapidly. I agree, but I doubt it is growing fast enough to offset the squeeze on profits. There is no puzzle if profits are overstated.
- 2) The competitive puzzle. Markets have clearly become more competitive in recent years. In such markets, profitability should be mediocre: Just enough to keep lots of firms from failing, but not enough to stimulate a wave of new entrants. Yet, profits have been remarkably strong. Again, no mystery if profits are overstated.
- 3) The statistical discrepancy puzzle. GDP is measured in two ways. In the first, all the components of expenditures are summed together to derive total GDP. In the second, all the sources of income are combined. The two measures should be identical in theory. In practice, there is a measurement error, i.e., the statistical discrepancy. In recent years, it has widened significantly, with the income side well exceeding the spending side. Inflated profits may explain the discrepancy (Exhibits 7 and 8).

⁷ http://www.nyse.com/public/thenyse/1e/1e11/1e11afm.htm

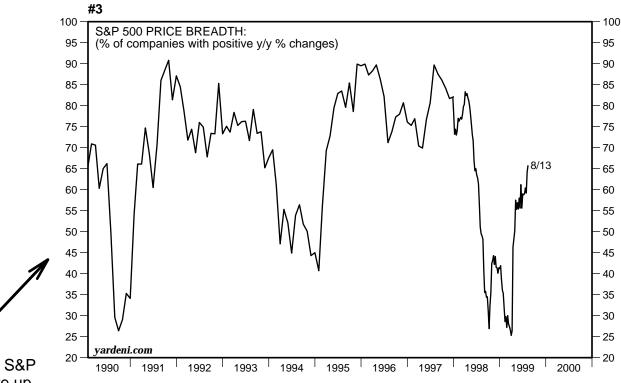
⁸ This point was made by Daniel Murray in "Employee Stock Options Revisited," Smithers & Co. Ltd., March 5, 1999.

- Breadth -

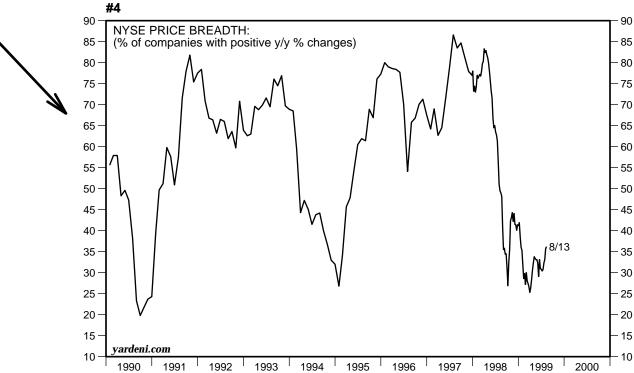


^{*} Breadth is measured by subtracting the number of declines from the number of advances, and adding the result to that of the previous day.

- Breadth -

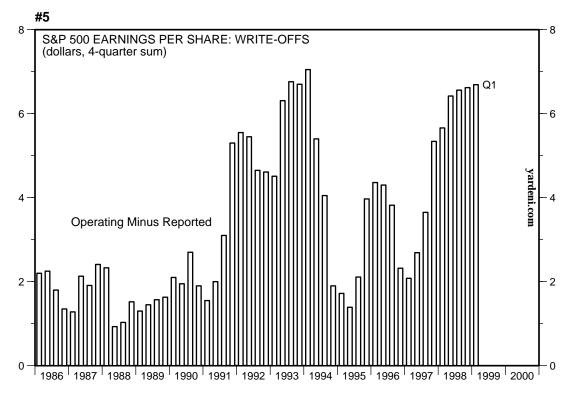


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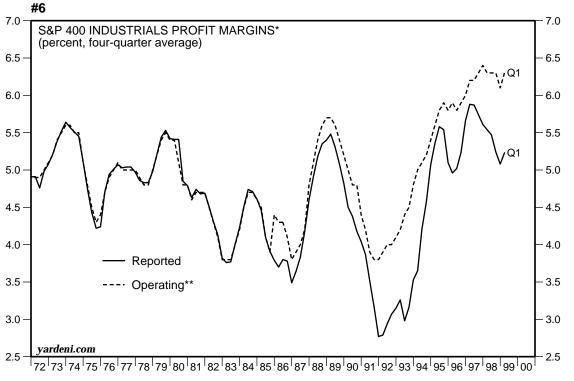


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- Earnings -



Write-offs have been significant in 1990s.



Operating profit margins remain near cyclical high.

^{*} Earnings (after taxes) divided by sales.

^{**} Includes write-offs.

- GDP Profits -

