

# Forensic Investing: Red Flags

By Nicholas G. Apostolou, DBA, CPA  
and D. Larry Crumbley, Ph.D., CPA, CRFAC

## Forensic Investing

Forensic investing involves looking beyond the obvious. A normal investor acts like a watchdog, but a forensic investor acts like a bloodhound looking for red flags. Investors must look beyond the numbers on financial statements and dig into the corpse of a company or a mutual fund. The author and creator of Sherlock Holmes [Sir Arthur Conan Doyle] said that "detection is, or ought to be, an exact science, and should be treated in the same cold and unemotional way."

Many investors and creditors are discouraged from using financial statements and the related footnotes because of their complexity. And, indeed, a thorough knowledge of financial statements of a company of any size can require considerable time and effort. But it is possible to glean important information about a company's prospects by spending time looking for specific indications of potential problems or red flags.

But suppose the financial statement is wrong? Some companies use creative accounting techniques to disguise damaging information, to provide a distorted picture of the financial health of the business, to smooth out erratic earnings, or to boost anemic or no earnings. Investors should have a healthy skepticism when reading and evaluating financial reports. Businesses are often clever in hiding these accounting tricks and gimmicks, so investors must be ever alert to the signs of outright financial shenanigans. Investors must attack financial statements and company information the way the fictional Sherlock Holmes approached murder cases.



According to Howard M. Schilit, "financial shenanigans are acts or omissions intended to hide or distort the real financial performance or financial conditions of an entity." Schilit provides seven shenanigans; the first five boost current year earnings, and the last two shift current-year earnings to the future:

1. Recording revenue before it is earned
2. Creating fictitious revenue
3. Boosting profits with non-recurring transactions
4. Shifting current expenses to a later period
5. Failing to record or disclose liabilities
6. Shifting current income to a later period
7. Shifting future expenses to an earlier period

[H.M. Schilit, *Financial Shenanigans*, New York: McGraw-Hill, Inc., 1993]

## Red Flags

Clues that a company may be heading for trouble include:

- **Earnings problems.** One of the most significant red flags is a downward trend in earnings. Companies are required to disclose earnings for the last three years in the income statement, so don't look just at the "bottom line." The trend in operating income is just as important as the trend in earnings.
- **Reduced cash flow.** To a certain extent, management can exploit GAAP to produce the appearance of increased earnings. Some popular shenanigans include booking sales on long-term contracts before the customer has paid up, delaying the recording of expenses, failing to recognize the obsolescence of inventory as an expense, and reducing advertising and research and development expenditures. You can use the cash flow statement to check the reliability of earnings. If net income is moving up while cash flow from operations is drifting downward, something may be wrong.
- **Excessive debt.** Crucial to determining whether a company can weather difficult times is the debt factor. Companies burdened by too much debt lack the financial flexibility to respond to crises and to take advantage of opportunities. Small companies with heavy debt are particularly vulnerable in economic downturns. Investment professionals pay special attention to a company's debt-to-equity ratio, the total debt to stockholders' or owners' equity. While the optimum ratio varies from industry to industry, the amount of stockholders' or owners' equity should significantly exceed the amount of debt by a significant amount. This information should be available on the balance sheet, but Enron hid millions of dollars of debt in special purpose entities.
- **Overstated inventories and receivables.** Look at the ratio of accounts receivable to sales and the ratio of inventory to cost of goods sold. If accounts receivable exceeds 15 percent of annual sales and inventory exceeds 25 percent of cost of goods sold, be careful. If customers aren't paying their bills and/or the company is saddled with aging merchandise, problems will eventually arise. Overstated inventories and receivables are often at the heart of corporate fraud, resulting in future declines in profits. As significant as the ratios are, trends overtime are also important. Although there may be good reasons for a company to have bloated or increasing inventory or receivables, it is important to determine if the condition is a symptom of financial difficulty.
- **Inventory plugging.** Inventory fraud is an easy way to produce instant earnings and improve the balance sheet. Crazy Eddie, an electronic equipment retailer, allegedly recorded sales to other chains as if they were retail sales (rather than wholesale sales).
- **Balancing act.** Inventory, sales, and receivables usually move in tandem, because customers do not pay up front if they can avoid it. Neither inventory or accounts receivable should grow faster than sales. Furthermore, inventory normally moves in tandem with accounts payable, since a healthy company does not often pay cash at the delivery dock as purchases are received.

- **Off-balance sheet items.** Enron had more than 2,500 offshore accounts and around 850 special purpose entities.
- **Unconsolidated entities.** Enron did not tell Arthur Anderson that certain limited partnerships did not have enough outside equity and more than \$700 million in debt should have been included on Enron's statements.
- **Creative or strange accounts.** For their 1997 fiscal year, America Online, Inc. showed \$385 million in assets on its balance sheet called deferred subscriber acquisition costs.
- **Barter deals.** A number of Internet companies used barter transactions (or non-cash transactions) to increase their revenues.
- **Look at revenues.** Compare the trend in sales with the trend in net income. For example, from 1999 to 2001, HealthSouth's net income increased nearly 500%, but revenues grew only 5%. On March 19, 2003, the SEC said that HealthSouth faked at least \$1.4 billion in profits since 1999 under the auditing eyes of Ernst & Young.
- **Hockey stick pattern.** Look for aggressive revenue recognition policies (Qwest Communication, \$1.1 billion in 1999-2001) which form a hockey stick pattern.
- **Nonrecurring charges.** Beware of the ever-present nonrecurring charges (e.g., Kodak for at least 12 years).
- **Avoid buying shares of a mutual fund just before it pays dividend.** Merrill Lynch says to wait until after the fund's record date before making your investment. Otherwise, you'll owe taxes on the dividend, even though that dividend is, in a sense, return of the principal you've just invested. Also, the share price is typically lowered by the amount of the dividend after it is paid. So, by waiting, you may acquire more shares for the same investment amount.
- **Be careful of your cost basis when selling or exchanging fund shares.** Merrill Lynch gives an example of this caution flag. Suppose you originally invested \$10,000 in a mutual fund several years ago and that your shares are now worth \$20,000. Does that mean that you'd have a \$10,000 taxable gain to report on your tax return if you were to sell or exchange all of your shares today? Not necessarily. According to Merrill Lynch, you may increase your cost basis by any sales charges you paid to acquire your shares. And if you have reinvested dividends and/or capital gains, you may increase your cost basis by the amounts reinvested. Increasing the cost basis may help reduce your tax liability.
- **Choose the most favorable method from among these three options to calculate your cost basis when selling or exchanging some of your shares:**
  1. **The average cost method:** According to Merrill Lynch, you calculate the average cost basis per share among all of your shares and multiply that figure by the number of shares sold. (If you choose this method, you must use it whenever you sell or exchange shares of that fund in the future.) Changing from this method requires IRS approval.

**2. The specific identification method:** You identify specific shares to be sold (before you sell or exchange them). You may choose the shares with the highest cost basis to reduce taxes on the transaction.

**3. If you don't use one of the above methods, the IRS' "default" method (first-in, first-out) is applied:** The IRS assumes you are selling the first shares you purchased, which may result in a higher tax liability than necessary if you purchased shares later at a higher price.

- **CPA switching.** Auditor switching and the financial condition of a company are dependent to a limited extent. Firms in the midst of financial distress switch auditors more frequently than healthy companies.
- **Underwriter broker basis.** The long run performance of initial public stock offerings that are recommended by their underwriters is dramatically worse than the performance of firms recommended by non-underwriters. Roni Michaely and Kent Womack found significant evidence of bias-- and possible conflict of interest -- between the analyst's responsibility to his investing clients and his incentive to market stocks underwritten by his firm. Contrary to the conventional wisdom, they found that the market does not come close to recognizing the full extent of this bias.
- **Hyped sales.** According to court documents, CEO Emanuel Pinez used a form of trickery rarely seen: He hyped sales by using his ample personal fortune to fund purchases. 'Any auditor would have had a hard time catching that,' says William Coyne, an accounting professor at Babson College. Centennial Director John J. Shields, a former CEO of Computervision Corp., says in an affidavit that Pinez admitted to him that he altered inventory tags and recorded sales on products that were never shipped. Pinez' lawyer says he is innocent. (Geoffrey Smith, "Why Didn't Anyone Smell a Rat at Centennial?" *Business Week*, March 24, 1997, p.190.)
- **Board of directors.** The "Heard on the Street" column in the April 25, 1997 issue of the *Wall Street Journal*, written by E. S. Browning, discusses red flags that relate to a company's board of directors. Wharton Professors John Core, Robert Holthausen and David Larcker published a study that found six different board characteristics linked to both higher CEO pay and weaker performance of the company's common stock. These factors cause poor governance systems and ultimately lead to poor financial performance by the firm, according to the authors. The characteristics of boards that are danger signals for a company's common stock are the following:
  - Chairman and Chief Executive are the same person
  - Large board
  - Chief Executive himself appoints outside directors
  - Outside directors who have business dealings with company
  - Outside directors over the age of 70
  - "Busy" outside directors who serve on many other boards
- **Index funds.** According to the April 29, 1997 Deloitte & Touche Review, index funds do not alleviate market risk--the possibility that stocks and bonds will decline in value. If the market that a particular index fund is tracking declines, the value of shares of the index fund will

decline. Many index funds have achieved excellent returns as a result of the strong overall performance of the U.S. market in recent years. When the U.S. stock market experiences a correction or decline, stock index funds may not perform as well as actively managed equity funds, because stock index funds are fully invested in equity security at all times. During market declines, actively managed equity mutual funds may have a larger percentage of their assets in cash and investments other than stocks. Investment risk is reduced through the diversification achieved by investing in mutual funds (index or actively managed funds). Most mutual funds hold securities of many different companies; therefore, the risk that an individual security loss will negatively impact the overall return of a mutual fund is reduced.

### **Statements on Auditing Standards No. 82 and 99**

Before the Sarbanes-Oxley Act, the American Institute of Certified Public Accountants was responsible through its Auditing Standards Board in developing auditing standards that had to be satisfied by public accounting firms. The SEC required publicly traded firms to be audited by public accounting firms to provide reasonable assurance of presentation in conformity with generally accepted accounting principles. In conducting an audit, public accounting firms had to observe generally accepted auditing standards as promulgated by the Auditing Standards Board. Today the PCAOB is responsible for developing auditing standards.

One of the most highly publicized statement on fraud auditing standards in recent years was published in early February of 1997. Statement on Auditing Standards No. 82, Consideration of Fraud in a Financial Statement Audit, provided guidance to the auditor in the detection of financial statement fraud. This statement, effective December 15, 1997, clarified the auditor's responsibility to detect fraud.

The statement is rather lengthy but it has an interesting discussion of what it calls risk factors (what we call red flags) that should be of interest to our readers. Although subsequent SAS No. 99 replaced SAS No. 82, the following section of SAS No. 82 is still of particular relevance:

***Risk factors relating to management's characteristics and influence over the control environment.***  
***Examples include:***

A motivation for management to engage in fraudulent financial reporting. Specific indicators might include:

- A significant portion of management's compensation represented by bonuses, stock options, or other incentives, the value of which is contingent upon the entity achieving unduly aggressive targets for operating results, financial position, or cash flow.
- An excessive interest by management in maintaining or increasing the entity's stock price or earning trend through the use of unusually aggressive accounting practices.
- A practice by management of committing to analysts, creditors, and other third parties to achieve what appear to be unduly aggressive or clearly unrealistic forecasts.
- An interest by management in pursuing inappropriate means to minimize reported earnings for tax-motivated reasons.

A failure by management to display and communicate an appropriate attitude regarding internal control and the financial reporting process. Specific indicators might include:

- An ineffective means of communicating and supporting the entity's values or ethics, or communication of inappropriate values or ethics.
- Domination of management by a single person or small group without compensating controls such as effective oversight by the board of directors or audit committee.
- Inadequate monitoring of significant controls.
- Management failing to correct known reportable conditions on a timely basis.
- Management setting unduly aggressive financial target and expectations for operating personnel.
- Management displaying a significant disregard for regulatory authorities.
- Management continuing to employ an ineffective accounting, information technology, or internal auditing staff.
- Nonfinancial management's excessive participation in, or preoccupation with, the selection of accounting principles or the determination of significant estimates.
- High turnover of senior management, counsel, or board members.
- Known history of securities law violations or claims against the entity or its senior management alleging fraud or violations of securities laws.
- Risk factors relating to industry conditions. Examples include:
- New accounting, statutory, or regulatory requirements that could impair the financial stability or profitability of the entity.
- High degree of competition or market saturation, accompanied by declining margins.
- Declining industry with increasing business failures and significant declines in customer demand.
- Rapid changes in the industry, such as high vulnerability to rapidly changing technology or rapid product obsolescence.

Risk factors relating to operating characteristics and financial stability. Examples include:

- Inability to generate cash flows from operations while reporting earning and earnings growth.
- Significant pressure to obtain additional capital necessary to stay competitive considering the financial position of the entity -- including need for funds to finance major research and development or capital expenditures.
- Assets, liabilities, revenues, or expenses based on significant estimates that involve unusually subjective judgments or uncertainties, or that are subject to potential significant change in the near term in a manner that may have a financially disruptive effect on the entity -- such as ultimate collectibility of receivables, timing of revenue recognition, realizability of financial instruments based on the highly subjective valuation of collateral or difficult-to-assess repayment sources or significant deferral of costs.

### Green Flags/Yellow Flags

Is this a good time to buy or sell stocks? Stock analysts usually have an answer to this perennial question, but individual investors can form their own judgments by looking at several relatively simple yardsticks or green flags.

**1. Start up dividends.** Kent Womack, Professor of Finance at Dartmouth University, believes that companies that start paying dividends (or resume paying them after a long pause) are great

buys. Such stocks get an initial boost of about 3%, and then go on to outperform the market by more than 20% in the next three years. [Red flag: stocks whose dividends are eliminated tend to fall in price an average of 7% in the first two days, and then outperform the market by 15% the next three years.]

**2. Price-to-earnings gauge.** This ratio measures the relationship between the price of common stocks and their annual earnings per share by dividing the price of the common stocks in the S&P 500 index by the earnings per share of the stocks in the 500 index. The market is fairly valued when stock prices reflect reasonable expectations regarding earnings growth. When the price-earnings ratio is high--above 20 say--the market is expecting significant positive future earnings increase (a prediction that may not occur). When price-earnings ratios approach historic lows--under 10--the market may be too pessimistic about future earnings growth. Since 1950, stocks in the Standard & Poor's 500 index have traded an average of 14.3 times the previous 12 months' earnings per share. This ratio is provided weekly in *Barron's*. A ratio above 18 historically indicates that the market may be ready for a correction (green flag). Like all stock market predictors, the P/E gauge does not have a perfect record, especially in the short run. Extreme readings can be reached and maintained for long periods of time.

**3. Fund performance.** According to D Enterprises, a Baton Rouge-based strategic planning and consulting firm, this area can be very elusive to the investor, because the fund's performance should not be looked at as the annual return that the fund realized. ***Performance should be compared to an appropriate benchmark for that fund.*** For example, benchmarks used could be the average performance of peer funds or the market index that this particular fund tries to outperform. Once you determine what benchmark the fund is using and if it seems appropriate, then you look to see if the fund outperformed the benchmark. An underperforming fund is not necessarily a bad thing. It could be that the fund manager's strategy is to reduce risk relative to the benchmarks, and thus, he expects the fund to perform below the comparative benchmark.

**4. Rule of 23.** This measure offers a simple method of evaluating whether or not the market is vulnerable. According to this rule, when the price-earnings (P/E) ratio of the Dow Jones Industrials plus the current rate of inflation total 23 or more, watch out (red flag). Prior to the October 1987 crash, the rate of inflation was 5% and the P/E ratio of the Dow Jones Industrials was 18.4. The P/E ratio of the Dow Jones is available daily in *Investor's Business Daily* and weekly in *Barron's*.

**5. Presidential election cycle.** An interesting indicator is based upon the presidential election cycle. Simply put, every four years, stock prices tend to perform much better in the last two years of an administration rather than in the first two years. This difference arises because the incumbent President in years three and four acts politically to ensure the party's return to power.

Yale Hirsch has extensively researched the cycle, with the results providing evidence of the validity of this indicator. The last two years, (election year and pre-election year) of the 41 administrations since 1832 produced a total net market gain of 557%, far in excess of the 74% gain of the first two years of these administrations. Although the evidence is convincing, there have been misleading signals. For example, in 1985 and 1986, when stock prices should have been weak, they were up 27% and 17% respectively.

An update of the presidential election cycle is provided annually in Yale Hirsch's Stock Trader's Almanac (The Hirsch Organization, Inc., 184 Central Avenue, Old Tappan, NJ 07675). This publication contains a wealth of information useful to investors.

**6. Real Estate Investment Trusts.** During a down market, a person may consider investing in a Real Estate Investment Trust (REIT). According to Martin Cohen, Cohen & Steers Realty Shares, because REITs invest in properties--not manufacturers or producers--they are more dependent on real estate values than on the economy as a whole. That's why REITs tend to rise or remain stable in volatile market environments.

**7.** The January 20, 1997, Deloitte & Touche Review indicates that when invested solely in equity securities, a mix of approximately 70% U.S. stocks and 30% foreign stocks produces the best return with the least amount of risk. In the past, individuals who invested 100% in U.S. stocks could have improved their rate of return and lowered their risk by allocating a portion of their portfolio to foreign equity securities.

- Many people are intimidated by financial statements and, as a result, ignore them. Financial statements, which can seem extremely complex, are based upon certain accounting rules with which you should be familiar; once you learn the basic rules and terms, the statements seem much less formidable. The goal of forensic investing is to help you become proficient in understanding and interpreting financial statements, looking for those red flags. ***To be a good investigative investor, you need to be a good detective to detect financial tricks and gimmicks.***

**8. Stock Funds.** The March 31, 1997 issue of the Deloitte & Touche Review stated "the extent to which a mutual fund manager buys and sells securities (measured by the fund's turnover rate) can have a significant effect on an investor's after-tax return. Mutual funds are required to distribute their earnings (including capital gains from selling appreciated stocks) to investors annually. Capital gains realized by mutual funds, therefore are taxable income for the fund's shareholders (i.e., are "passed through" to the shareholders). Investing in mutual funds that have low turnover rates will minimize taxable capital gains distributions. If an investment in a mutual fund is made before a capital gains distribution date, the new investor is subject to the taxes on the capital gains the fund realized and distributed. If the investment is made after the distribution date, the new investor avoids the taxable distribution. Capital gains distributions are usually made in November or December. Many funds will inform potential investors of the date of an upcoming capital gains distribution, and will provide an estimate of the amount of the distribution.

**9. Corporate takeovers.** In a recent study of 1,000 corporate takeovers, according to Bottom Line Personal, stock price increases for the first five years after the takeover were highest when takeovers were hostile and for cash...and lowest when friendly and for stock. In friendly for-stock situations, the price over the next five years typically increased less than at similar companies that had not made acquisitions. Bottom line: If you own shares in a company that is taken over for stock, consider selling after the takeover.

**10. Mutual fund classifications.** According to the September 1997 issue of the *ABA Journal*, in the Winter 1997 issue of *The Journal of Portfolio Management*, John J. Bowen Jr. and Meir Statman discuss ways that funds can be manipulated to boost ratings. "People know that a sure

way to look tall is to stand next to short people, and mutual fund managers know that a sure way to a high standing is a short benchmark." As crucial as category assignments are to fund raisings, they can be highly capricious. The authors note that funds focused on various overseas stock markets are lumped into a single "international stock" category even though they have little in common. Likewise, stock/bond blend funds that diversify risks by having fixed ratios of assets in each market are in the same category as a fund whose manager can switch assets entirely from one market to another. Uncovering mismatched classifications is one thing, but circumventing fund managers' attempts to play the ratings game is even tougher Bowen and Statman say. It can be done, but "fund detectives will always be slower than fund managers,...[and] investors will know only later what fund managers know now."

**11.** For years experts have suggested a 60-40 mix of stocks and bonds, but this benchmark may no longer be the appropriate ratio. Jonathan Clements in the *Wall Street Journal* on 12/16/97 at page C-1 states that even if 60-40 is no longer the optimal mix, a stock-market investor should still own at least some bonds, argues John Bogle, chairman of Vanguard Group, the Malvern, Pa., mutual-fund company.

"They should have at least 5% or 10% in bonds," he says. "It's psychological comfort, and it reduces the volatility of your portfolio."

The same holds true for bond investors. "*If you start with an all-bond portfolio and add a small amount of stock, you don't increase risk,*" notes Pittsburgh investment adviser Roger Gibson. "There's a small free lunch. An 80% bond and 20% stock portfolio will have a similar risk level to an all-bond portfolio, but with modest incremental returns."

**12.** Deloitte & Touche says that the goal of asset allocation is to maximize potential return based on the investor's acceptable level of risk. There is no one "correct" allocation for any particular situation. An investor should understand the principles of risk and return and the potential impact of the allocation strategy on his/her financial situation before determining the target asset allocation.

"An asset allocation strategy that has a long-term focus will help take the emotion out of investment decisions, especially during times of market volatility," notes Greg Sandor, Financial Counseling Services Group, Deloitte & Touche LLP.

**13. Tracking your mutual fund basis.** The Taxpayer Relief Act of 1997 reduced the tax rate on long-term capital gains, but increased the complexity of tracking and computing an investor's cost basis in shares of mutual funds. Investors must compute the cost basis in mutual fund shares in order to determine the gain/loss from a sale, and the method used to compute basis can affect the amount and type of gain/loss realized.

The tax rate differential between capital gains and ordinary income can exceed 19.6 percent for high-income taxpayers. The lowest capital gains tax rate is currently 15 percent (for taxpayers above the 15 percent federal tax bracket). Because of the tax rate differential, investors should maintain records of their mutual fund basis (rather than rely on reports provided by the mutual fund company).

**Basis in Shares.** The original basis in a mutual fund share is generally the purchase price, plus any fees paid in connection with buying or selling the share (front-or back-end load). Other items that increase basis include reinvested dividends (taxable and nontaxable), reinvested capital gains, and undistributed long-term capital gains. Among the items that reduce basis are nontaxable distributions and taxes paid by the mutual fund on undistributed long-term capital gains. Failure to consider reinvested dividends is a common mistake taxpayers make when computing basis in mutual fund shares sold-- a mistake that results in double taxation of dividends (as ordinary income and increased capital gain) from tracking your mutual fund basis, *Deloitte & Touche Review*, June 22, 1998, page 7.

**14. The auditors are always last to know.** It's clear that something's not quite right in the world of accounting. "It used to be you'd see two, three, four, or five accounting restatements in a year," says class-action attorney Bill Lerach of Milberg Weiss Bershad Hynes & Lerach. "Now you see one almost every other week." Part of the increase is due to tremendous competition among companies to boost results and stock prices, Lerach says. More directly, he traces it to the passage of new securities legislation in December 1995, which made it harder to hold accountants culpable in securities-fraud cases notes Herb Greenberg, *Fortune*, August 17, 1998, page 228.

**15.** John Dorfman, in the July/August 1998 issue of *Bloomberg Personal Finance*, indicates that earnings can lie:

- a. Watch the inventories
- b. Beware of rising receivables
- c. Uncover extraordinary expenses
- d. Investigate asset sales
- e. Who's skimping on research?
- f. Note reduced capital spending
- g. When is revenue really not?
- h. Who's playing currency roulette?
- i. Look for pension shenanigans
- j. Spot out-of-balance growth

**16. A bond's worth...** A bond's value is affected by many factors, including: its type, investor demand, maturity level, the credit quality of the bond's issuer and availability in the marketplace. But, perhaps the most important factor in determining a bond's value is the current level of interest rates.

***When interest rates go up, bond prices drop; and when interest rates drop, bond prices go up.*** To better illustrate, let's suppose you own a 10-year bond with a face value of \$1,000 that pays 6 percent interest. If it was issued three years ago, the bond will mature in seven years. Let's suppose interest rates rise to 8 percent. It makes little sense for an investor to purchase your 3-year-old bond yielding 6 percent when the investor can buy a newly- issued bond at 8 percent.

If you were to sell your 6 percent bond, you would probably sell it at less than its face value - at a *discount*. Conversely, if interest rates declined to 4 percent, you could sell the bond for more

than its face value - at a *premium*. The reason: Investors might be willing to pay more for the 6 percent yield when new issues offer a yield of only 4 percent.