The Wealth Effects of Writeoffs

An Honors Thesis (HONRS 499)

by

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Abstract

In the late '80s and early '90s, writeoffs and writedowns were used by managements to remove non-productive assets from the firms' financial statements. Writedowns allowed the firms to reduce the value of certain assets on the balance sheet, while writeoffs completely removed the assets from the statement. The writeoff/writedown decision is a way to clean up a balance sheet and show improved performance in the long run. The financial markets should reward these companies (in terms of stock price returns), for cleaning up the balance sheet. This hypothesis is tested using an event study regression, and a puzzling behavior is observed. The market does not reward the firm for admitting mistakes, but makes it experience negative returns. However, these results must be interpreted with caution because of the small sample size. Further research with a larger sample including a complete financial ratio analysis may indicate results contrary to those of this study.
The Wealth Effects of Writeoffs

Introduction

The managers of a firm like to show their company in its best light, because a firm with growth and profitability prospects is attractive to investors in the financial markets. Over time, however, mistakes are made in decision-making, and things can go wrong. Errors in judgement stay on the balance sheet as assets that are non-productive, and these investments affect firm performance. Financial analysts are better served if managements do not complicate financial statements, so these mistakes must be cleaned up. One way to do this is to use a writeoff. A writeoff occurs when a company completely removes an asset from its balance sheet. This is a loss for the firm, reducing the firm’s assets because of the deteriorated condition of the asset. A writedown is very similar to a writeoff. An asset is said to be impaired when its book value is far greater than its market value. The difference between these two values is the writedown, which is removed from the asset value on the firm’s balance sheet. This “clean up” on the balance sheet allows the firm to continue its operations and move on from the mistakes that have been made.

The organization of this paper is as follows. I present a review of literature, along with an explanation of the Efficient Markets Hypothesis, in Section I. The data and methodology are described in Section II, and the results of the event study are presented in Section III. Section IV includes a summary and concluding remarks.
I. Literature Review

A major reason to write off or write down assets (writeoff and writedown being used interchangeably from this point onward) is the legal ramifications for overstating asset value (Ragothaman, 1996, p. 32). If there is a large difference between a firm’s book and asset value, both management and speculators cannot make truly informed decisions. Writeoffs allow companies to admit past mistakes, reorganize their assets, and move on profitably (Hutheesing, 1995, p. 107).

Why would a firm need to either write down an impaired asset or completely write it off? “The primary concern of any managerial action should be its effect on stockholders’ wealth...” (Wetmore, 1996, p. 92). Management should always strive to increase the value of the firm. If a certain aspect of the firm has proven to be unhealthy over time, then the sick part must be made better. If it cannot be healed, it must be amputated.

A writeoff takes place when management assumes the responsibility for a loss (Ragothaman, 1996, p. 34). To preserve the value of the organization, management must admit that it would be best to accept a loss to remove an unprofitable asset from the books (Chen, 1995, p. 57). Writeoffs are a major part of restructuring and redefining the company’s strategy (Hutheesing, 1995, p. 106). A writeoff is top management’s signal to the market that it is removing the money-losing and excessive costs of the business for the deployed assets (Bleakley, 1995). The management signals that it is going to manage its operations more closely and scale back business components to the strongest assets upon which it can build. This strategy makes the firm healthier and more attractive.
The market can expect writeoffs and writedowns by recognizing the over-riding economic indicators for these impaired assets (Ragothaman, 1996, p. 35). The first indicator is when there is a reduction in plant utilization. This could indicate that there is a decline in long term demand for the firm’s product or service, and continued decline makes managements think of the size of the business. Impairment can also be expected when there is a significant amount of new competition in the line of business, making it hard for a company to retain a substantial market share. A major decline in market value is a strong indicator that an asset is impaired, because the firm has lost money on the funds invested in its assets. This means that the company has put a lot more money into the asset than they could currently get if they sold it in the market. The other factors indicating that a writeoff or writedown may take place are reductions in federal spending in the firm’s industry, and major changes in the strength of the dollar (Ragothaman, 1996, p. 35).

The use of writeoffs became frequent during the late ‘80s and early ‘90s. It may seem questionable as to why firms began using writeoffs so frequently, especially in a time of economic recovery. This can be partially explained by the rapid changes that began in technology. World competitiveness was becoming stronger. It was difficult for companies to keep up with the constant updating of computers and communications, oftentimes prohibiting pro-active measures when choosing technology. Unfortunately, mistakes are made in technology decisions, but writeoffs are a direct way to take care of them (Bleakely, 1995).
The other possibility for writeoff frequency in economic recovery is that firms are trying to cover up a slowdown in earnings. A firm can use a writeoff or writedown in one period to make future earnings look better (Bleakley, 1995).

The kinds of firms that seem to be experiencing the most writeoffs are in manufacturing industries (Zucca, 1992, p. 32). Manufacturing is a capital-intensive line of business. If a firm does not properly project the future of its industry, it can end up with unprofitable operations. This makes the entire business sector technologically out-of-date. The industries announcing the most writeoffs (in descending order) are: machinery and equipment manufacturing, chemicals, petroleum refining, iron and steel foundries, automobiles, oil and gas, and electricity, gas, and other services (Ragothaman, 1996, p. 7).

Top executives must determine when to actually announce the firm’s writeoff intentions. There are two motives for the management of a firm to time a writeoff announcement. The first, called income smoothing, is directly related to management objective requirements. Many top managers are required to maintain steady earnings from quarter to quarter. This is to show the firm has growth prospects. On April 3, 1997, Roger Lowenstein wrote an article in The Wall Street Journal about corporations and their attempts to maintain steady incomes. Lowenstein writes that firms prefer steady growth for a period of time, not just in random quarters, because the markets recognize this stability in earnings (C1). Lowenstein further warns that “counting pennies” from quarter to quarter may not be an indicator of the overall growth picture. Income smoothing suggests that executives will announce the firm’s writeoff intentions in a period when earnings are significantly high, in hopes to lower immediate earnings, which
will “smooth out” the earnings curve (Zucca, 1992, p. 35). This promotes the idea that management uses writeoffs as a tool when it is most helpful to the firm’s earnings.

The second motive is when writeoffs are recorded as “Big Baths” (Zucca, 1992, p. 35). A big bath is the process of admitting to a collection of various “errors” in judgement. Big baths suggests that management will wait until a period when a number of writeoffs and excessive costs have accumulated. An announcement of a writeoff signals management’s intentions to put the firm on a path of profitability. This could occur in a period when earnings are already low, to show the market that management is purging itself of its bad business once and for all. Under this motive, the firm is signaling that the bad times are behind the firm and things can only get better in the future (Zucca, 1992, p. 35). Research has shown that this explanation seems to be used most often by executives announcing writeoffs.

How do writeoffs and writedowns affect the value of the firm? There are differing opinions on this area. Some analysts are concerned that writeoffs may distort the firm’s earnings picture by combining all their losses into one quarter in order to make future earnings look better (Bleakley, 1995). Others are concerned that a writeoff or writedown may indicate deeper trouble because the firm at one time overstated its earnings (Shilling, 1992, p. 168).

According to Srinivasan Ragothaman (1996, p. 34), the market heaves a huge sigh of relief when a company announces a writeoff. An efficient market knows when a firm is having problems and it views writeoffs as management’s conscious decision to rid the firm of unprofitable operations. Writeoffs show that not only will these unprofitable activities be discontinued, but also that the company is restructuring to enhance the future
value of the firm (Ragothaman, 1996, p. 34). This allows the firm to use cash flows for other profitable activities (34). There are still others, such as Linda J. Zucca and David R. Campbell, who believe that there are just as many firms that do not feel these positive effects of writeoffs, insisting that a generalization cannot be made (1992, p. 37). Indeed, my results with a small sample support this conjecture.

Although writeoff/writedown information can reach the market gradually through multiple sources, it seems that the stock market reacts most positively to “surprise” announcements in efficient markets (Zucca, 1992, p. 31). This signifies that there is a definite “economic impact” of asset writedown and writeoff announcements on stockholder wealth (Ragothaman, 1996, p. 34). This study will address this impact in detail.

Efficient Markets Hypothesis

The relationship between market information and stock price is examined in the market efficiency hypothesis framework. This hypothesis addresses how the market responds to information in terms of changes in stock value. There are three forms of the efficient market hypothesis because there are varying ideas as to the degree of efficiency of financial markets (Reilly, 1994, p. 203). These forms are know as weak, semi-strong, and strong form market efficiency.

Weak form efficiency assumes the past information available to the market is already priced. This form assumes that stock prices reflect only the information available from past history of the stock price. Thus, historical data as information cannot assist in buy or sell decisions. This means that past information provides no signals on the future
performance of the firm. Students of finance, therefore, place little faith in technical analysis of weak form efficiency.

Semi-strong market efficiency occurs when prices reflect all information available to the public. This form includes all data available from historical stock prices, the firm’s financial statements, and the information available about the state of the economy. Semi-strong efficiency assumes that the market has more information for decision-making purposes than in weak form efficiency, so the market prices will reflect the additional information. In other words, semi-strong markets price “new” information very quickly.

Strong-form efficiency is the final form of the market efficiency hypothesis. Under strong-form, a firm’s stock price reflects all applicable information about that firm. This includes all public, as well as private (inside) information. Strong-form market efficiency shows that the market is fully aware of all data and reflects this knowledge in stock prices (Haugen, 1997, pp. 641-644). At an extreme, proponents of strong-form markets believe that assets trade at true values all the time. This means that beating the market is impossible.

The market is not strong form efficient if an arbitrage opportunity occurs. An arbitrage opportunity allows a speculator to make a profit from the market’s lack of information efficiency. This study will examine whether or not this chance exists in regards to writeoff announcements. This means that an opportunity exists to earn superior returns than the market. Such occurrences permit investors to beat the market.

Abnormal returns are detected when stock prices are different from observed prices. In other words, the stock price is predicted using the market model, and this prediction is compared to the actual prices on the days writeoffs are announced.
Abnormal returns for the sample are accumulated to give cumulative abnormal returns (CARs). Basically, the returns of a stock in the sample are regressed against the returns of a benchmark (the S&P 500 index). Using this model, I predict stock prices for a 5-day period around the day of the announcement. I now compare the predicted return with the actual return that took place within this 11-day window.

II. Data and Methodology

Data for this study were obtained from the Wall Street Journal Index. Specifically, I looked for all writeoff and writedown announcements. The companies’ CUSIPs (directly related to the Standard Industrial Classification code, or SIC code), ticker symbols, and Chicago Research and Security Prices (CRSP) Permanent database numbers are used for identification purposes. The CRSP database contains prices, dividends, and market index information for all companies trading on the stock exchange on a daily basis from 1962 onward. The dates are identified for which data are available on the CRSP daily returns file. From the 95 companies found, a sample of 19 companies was taken. Complete data were found for 16 firms, and the analysis was performed on these 16 companies.

The methodological approach used for this paper is in the form of an event study. This abnormal performance index test analyzes the security price behavior around the time of an event or informational announcement (Bowman, 1983, p. 561). A regression will be performed against the market return to evaluate the effects a writeoff announcement has on the firm’s stock price. The study will analyze stock return changes both before and after the announcement.
The market model is estimated for each firm in the sample for 95 days prior to the event, with a window for abnormal returns of 5 days around the event. The market model is described as:

\[ r_{it} = \alpha_i + \beta_i r_{mt} + e_{it} \]

Where,

- \( r_{it} \) = return on stock I on day t
- \( r_{mt} \) = return on the S&P 500 index from CRSP on day t
- \( \alpha_i, \beta_i \) = market model coefficients
- \( e_{it} \) = disturbance term

The coefficients are obtained using ordinary least squares. The 'abnormal returns' are computed for each firm:

\[ a_{r_{it}} = r_{it} - (a_i + b_i r_{mt}) \]

Where \( a_i \) and \( b_i \) are OLS estimates of \( \alpha_i \) and \( \beta_i \).

The regression helps us predict share prices in the 11-day window. The abnormal return is calculated by comparing the predicted and the actual return. Once abnormal returns are computed for each firm, they are added to get abnormal returns for each day. Abnormal returns are summed across the days to get the cumulative abnormal returns.

III. Results

Three different windows are examined in this study (Please see Table 1, p. 12). The first window consists of the returns for day -5 until day -2. In the three days prior to the event (the announcement in this case), the cumulative abnormal returns (CARs) show no abnormal patterns. In the second window, the reaction the day before (day -1) and the day of the announcement (day 0) produces an abnormal return of -2.34%, which is statistically significant. This means that the market seems to be aware of the firm's signal. The price changes in these two days are different from 'normal' trading. This is
anomalous behavior, permitting an investor to seek such events, trade on this information, and beat the market.

For the four days after the announcement (day 1 through day 5), there is no reaction, and one must assume that the event is assimilated in the stock price. In other words, the market is astute enough to react to the information. There is no sign of ingenious trading because of the absence of cumulative abnormal returns.

Surprisingly, my sample detects a negative return. This means that financial markets do not reward firm management for cleaning up the balance sheet. This puzzling reaction will require further analysis. Continued work must focus on changes in the companies' financial ratios. An extended examination will provide answers to this anomaly.

Figure 1 (See p. 13) shows the cumulative abnormal returns over the 11-day window. The different event windows document the price changes of writeoff announcements, and the graph provides a very clear picture of what is happening. For my sample, the price of shares continues falling before and after the announcement. This means that financial markets are not 'happy' with such writeoff announcements. One conjecture for this is that the investors are unhappy at the thought that their management has actually made mistakes.

The results to this study are preliminary, due to the small sample size, but the test is a good beginning to examine the effects of writeoffs on corporations. However, the conclusions should be read with care. Given the complete sample, the analysis will likely provide results that could either augment or refute my findings.
IV. Conclusion

A writeoff is a management tool used to rid a firm of unprofitable business activities. These activities can include business units that are no longer realizing earnings, or assets that are so severely undervalued in the market that it is not prudent for the firm to hold them on the books. Writeoffs and writedowns allow a company to accept a current loss so that the firm can continue profitably. The underlying idea is that a firm admits past mistakes, and moves on toward the future.

This study shows, through decreased stock value, that the market is really reprimanding the management's efforts to clean up the balance sheet. This reaction is puzzling, but could be because I have a small sample, and thus these results are preliminary, at best. The complete sample will provide more illuminating results. Also, further work must focus on the financial performance of the firms, both before and after the writeoff announcements, before stronger conclusions can be made.
Table 1.

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<th>Days</th>
<th>Average Compounded Abnormal Return</th>
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<td>-0.43</td>
<td>9:9</td>
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<td>(-1,0)</td>
<td>-2.34%</td>
<td>-3.49***</td>
<td>5:13</td>
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<td>(+1,+5)</td>
<td>-1.14%</td>
<td>-1.08</td>
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n=16

***, significant at .001
Figure 1.

Cumulative Abnormal Returns

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<th>Day</th>
<th>CAR</th>
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REFERENCES


