

Forensic Accounting Procedures Applied to Valeant: Where Were the Gatekeepers?

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Introduction

The 2016 biennial report on global fraud and abuse by the Association of Certified Fraud Examiners (ACFA) found more than \$6.3 billion of fraud losses, based upon thousands of fraud cases reported by fraud examiners worldwide. Although financial statement fraud occurred in less than ten percent of these cases, it caused the biggest median loss of \$975,000 versus \$125,000 for asset misappropriations (ACFE 2016). Fraudulent financial reporting has been an ongoing issue and the earlier 2008 ACFE biennial report stated that this type of fraud costs about one billion dollars per year in the U.S. (ACFE 2008). Discussing such ongoing financial reporting scandals, Howard Schilit (2010) observed: “I read recently that the one lesson we have learned from history is that we have learned nothing from history. Yet my mantra remains that in order to find fraud, we must study the history of fraud. A common element in major frauds is that their warning signs were not hard to find; in fact, they were hard to miss.”

Fraud risk analysis should be a key concern of forensic accountants, auditors, external financial statement users, and board members in order to assess the possibility of fraud in any organization. However, there are no rules or regulations concerning which methodologies and tools should be used. The purpose of this article is to develop and apply fraud risk assessment screening guidelines using well-known fraud models and ratios as lessons learned from Valeant Pharmaceuticals International which had an eighty-two billion dollar market capitalization destruction in just the last year. This destruction exceeded Enron’s seventy-eight billion dollar market cap destruction. *Forbes* (2013) had ranked Enron the number one fraud of this century. Then, follow-up procedures are applied, based primarily on the work of financial analysts, forensic accountants, and short sellers, involving major financial reporting frauds of the 21st century (Grove and Basilico 2011) and major Chinese reporting frauds (Grove et.al., 2017; Grove and Clouse 2014). Such analyses can assist the fraud brainstorming sessions of auditors in their consideration of fraud possibilities, as required by Statement on Auditing Standards (SAS) No. 99, “Consideration of Fraud in a Financial Statement Audit.” A forensic accountant has commented: “All auditors must be forensic accountants in order to fulfill the responsibilities of SAS No. 99” (Yale 2016).

Where Were the Gatekeepers?

CNBC commentator Jim Cramer (2015) said Valeant Pharmaceuticals International Inc.’s one-day stock meltdown was one of the most frightening experiences of his professional investing career. On October 21, 2015, Valeant’s stock plunged as much as forty percent, or sixty dollars, from its opening \$150 price with a market cap of \$51.5 billion after the issuance of a Citron Research (2015) report by Andrew Left, Citron’s founder, who alleged fraud at Valeant. The stock recovered to close at \$118.61 that day after the company immediately responded to this Citron Research report, but Valeant’s one-day market capitalization decline was \$10.8 billion.

In response to the October 21, 2015, Citron Research report, five days later, the Valeant Board of Directors established an ad hoc Board committee to review these allegations and related matters. Four months later on February 22, 2016, based primarily upon the work of this committee, Valeant determined that approximately fifty-eight million dollars in net revenues relating to sales to a distributor during the second half of 2014 should not have been recognized upon delivery of product to this distributor (i.e., a “sell-in” basis), but postponed until the distributor sold the products to final customers (i.e., the “sell through” basis), which is a typical channel stuffing problem. One month later on March 21, 2016, Valeant issued an 8-K Report which stated that the 2014 audited financial statements, the fourth quarter 2014 financial statements, the 2015 first quarter financial statements, and related six and nine month periods included in the unaudited second and third quarter 2015 reports could no longer be relied upon. Valeant then failed to file its 2015 10-K report on time by 3/31/2016, but its banks (with about thirty-one billion dollars of loans to Valeant) waived the right to call these loans.

As U.S. stock markets have expanded with more companies and more investors in this century, large market cap destructions have been occurring more frequently. The 2000 Enron fraud destroyed seventy-eight billion dollars; the 2001 WorldCom, Qwest, and Global Crossing frauds destroyed \$295 billion; the 2002 Tyco fraud destroyed sixty billion dollars; the 2003 HealthSouth fraud destroyed fifty billion dollars; the 2008 Lehman Brothers and Bear Stearns collapses destroyed fifty-seven billion dollars (Grove 2007–2016). Also, the 2007–2011 initial public offerings (IPOs) and reverse merger frauds of 100 Chinese companies, listing on U.S. stock exchanges, destroyed forty billion dollars (McKinsey and Company 2013).

Once again, with these 21st century frauds destroying over one-half trillion of market capitalization, the question must be asked: where were the gatekeepers to protect investors? Jim Chanos, the billionaire short seller, has answered: “In virtually all cases of major financial market fraud over the past twenty years, the only people who really brought forth the fraud into light were either internal whistleblowers, the press, and/or short sellers. It was not the normal guardians of the marketplace—regulators, law enforcement, external auditors or people like that—that did it. It was people who had an incentive to come forward either for personal reasons or for profit” (Parramore 2013). Also, these short sellers did not even have access to internal, confidential evidence which is always available to the external auditors.

Chanos teaches a course at Yale University, “Financial Fraud through History: A Forensic Approach,” on “the rogues and charlatans” who have cheated investors through history. He constantly urges his students to challenge established opinions. For example, when one student remarked that a scandal-ridden firm had a reputable auditor signing off on its reports, Chanos said: “They all have reputable audit firms. That is one thing I want you to take away from this course: every big fraud had a great audit firm behind it.” He compares auditors and government regulators to archaeologists: “They will tell you what happened after the damage has been done” (Conniff 2013). Howard Schilit, the forensic accountant, agreed: “I have always been disappointed that accountants and auditors tend not to have the intellectual curiosity to ask the penetrating questions that bring manipulations to light. I think auditors should be more helpful to the businesses they audit” (Schilit 2010).

Many of these 21st century frauds were caught only by short sellers, such as Chanos (shorting Enron in 2000 and Valeant in 2014), Andrew Left and Carson Block (shorting Chinese IPO and reverse merger companies and Valeant in 2015), or by only buy-side financial analysts, such as Howard Schilit (2010), working for mutual fund clients, not sell-side financial analysts, who work for investment banks. For example, Left (2011) called the Chinese Longtop Financial Technologies company a fraud from the time of its 2007 IPO listing on the NYSE until its delisting and bankruptcy in 2011 (Grove and Victoravich 2014).

The personal risk to such short sellers can be demonstrated by the following example. Carson Block has exposed several of the major fraudulent public Chinese companies, the largest fraud being Sino-Forest which did a 2010 Toronto IPO. After Block’s 2011 report, Sino-Forest’s stock price decreased seventy-eight percent in a matter of days on its way to delisting and bankruptcy. Consequently, he received death threats and had to move from his Hong Kong office to an undisclosed location on the U.S. west coast (*The Economist* 2011). Also, there is now a five million dollar bounty on him for exposing such Chinese frauds if he ever returns to China, and he now refuses to investigate any Russian companies (Casas-Klett 2015).

Fraud Detection Tools

There are six well established fraud or earnings management detection models and ratios that can be used while awaiting stronger SEC enforcement actions and the development of the SEC Accounting Quality Model or just relying upon whistleblowers, bloggers, and short-sellers. (Let the lawyers decide whether there was fraud or just earnings management in financial statements.) As shown in Table I (with Excel spreadsheet available from authors), these six models and ratios are: the New Fraud Model (Dechow, Ge, Larson, and Sloan 2007); the Old Fraud Model (Beneish 1999); the Quality of Earnings (Schilit 2010); the Quality of Revenues (Schilit 2010); the Altman Bankruptcy Model (Altman 2005); and the Sloan Accrual (Sloan 2012). Since the Old Fraud Model also has detection guidelines for each of its five index inputs into the overall model, there are actually eleven possible red flags for earnings management detection to be further investigated.

As a summary of Table I, when these eleven screening red flags were applied to Valeant’s three recent reporting years of 2014, 2013, and 2012, before its market meltdown in 2015, the overall fraud or earnings management predictions were twenty-seven percent, seventy-three percent, and fifty-five percent, respectively. The three-year average was fifty-two

percent. Also, the 2015 financial statements, issued at the end of April 2016, had similar results of sixty-four percent for these eleven screening red flags. However, since the eighty-eight billion dollar market cap destruction had already occurred by then, the screening red flags for the 2015 financial statements were not included in Table I to avoid hindsight issues for these red flags. This overall three-year percentage was identical to the fifty-two percent overall result from the analysis of eight major frauds of the 21st century: Enron, WorldCom, Lehman Brothers, Tyco, HealthSouth, Qwest, Parmalat, and Satyam (Grove and Basilico 2011). This overall fifty-two percent result also was similar to the fifty-eight percent overall result for twenty-three fraudulent Chinese companies listing on foreign stock exchanges, primarily in the U.S., with either IPOs or reverse mergers (Grove et al., 2016).

Fraud Risk Screening Guidelines

Using six of these eleven possible fraud models and ratios, fraud risk screening guidelines have been developed. These guidelines were based upon an approach developed by the Chief Investment Officer, Dan Sierra, for John Malone's Private Investment Office for initial screening of potential investments and follow-up screening of actual investments. (John Malone's net worth is estimated at eight billion dollars and Dan Sierra has made investments up to one billion dollars.) The overall objective was to determine if cash is being generated by business operations and accumulated for business opportunities (Sierra 2014):

1. Apply the New Fraud Model to ascertain if there are any predictions of fraudulent financial reporting. In Table I, the New Fraud Model showed red flags for fraud predictions in only 2013. However, there were red flags for all four years, 2012–2015, if a materiality guideline of ten percent within the fraud prediction cutoff of 1.0 (big is bad) was used. For the eight major U.S. frauds and the twenty-three Chinese frauds, the overall percentage was ninety percent which covered fifty-two reporting years.
2. If fraud predictions are generated by the New Fraud Model, then apply the Old Fraud Model to check for consistency in predictions. In Table I, the Old Fraud Model showed red flags for fraud prediction in 2013 and 2012. However, there were red flags for all four years, 2012–2015, if a materiality guideline of ten percent within the fraud prediction cutoff of -1.99 (big is bad) was used. For the eight major U.S. frauds and the twenty-three Chinese frauds, the overall percentage was seventy-three percent which covered fifty-two reporting years.
3. Calculate the Quality of Earnings ratio (Operating Cash Flows/Earnings) to determine if cash is being generated from business operations. This ratio showed red flags in two of the three years, 2013 and 2012 below the cutoff of 1.0 (big is good), as well as 2015. For the eight major U.S. frauds and the twenty-three Chinese frauds, the overall percentage was fifty percent for the fifty-two reporting years.
4. Calculate the Quality of Revenues ratio (Cash Collected/Revenues) since revenue recognition is the starting point for cash flow generation by business operations. It is usually the number one manipulator in fraudulent financial statements. This ratio showed red flags in all four years, 2012–2015, below the cutoff of 1.0 (big is good). For the eight major U.S. frauds and the twenty-three Chinese frauds, the overall percentage was seventy-nine percent for the fifty-two reporting years.
5. If there are red flags for quality of revenue, expand the revenue analysis with the calculation of both the Sales Growth Index (SGI) and the Days Sales Receivable Index (DSRI) from the Old Fraud Model. Both indexes compare the current year to the prior year. Per a public company Chief Financial Officer (CFO) who dealt with Wall Street on quarterly conference calls for over ten years: "Wall Street pays for two things: top line (sales) growth and operating leverage to get the top-line growth to the bottom line" (Coburn 2016). The SGI ratio showed red flags in all three years above the 1.13 cutoff (big is bad). The DSRI ratio showed red flags in 2013 and 2012 above the 1.03 cutoff (big is bad). Both ratios also showed red flags for 2015. For the eight major U.S. frauds and the twenty-three Chinese frauds, the overall percentages were eighty-three percent and fifty-four percent, respectively, for the fifty-two reporting years.

In Table I, the overall fraud predictions from the six key screening models and ratios (New Fraud Model; Old Fraud Model; Quality of Earnings; Quality of Revenues; Sales Growth Index; and Days Sales Receivable Index) were thirty-three percent, 100%, and eighty-three percent for 2014, 2013, and 2012, respectively (for a three-year average of seventy-two percent) and eighty-three for 2015. However, the 2014 and 2012 fraud predictions increased to sixty-seven

percent and 100% when the new and old fraud models were included within a materiality guideline of ten percent of their fraud prediction cutoffs. The three-year average, thus, increased to eighty-nine percent. Similarly, the 2015 results increased to 100%.

Economic operating problems signaled by quality of earnings and quality of revenues red flags also may be indicated by the Altman bankruptcy model. There were bankruptcy predictions for all four years below a cutoff of 2.40. It is the midpoint in the uncertainty range of 1.8 to 3.0 for the Altman bankruptcy model where small is bad. Accordingly, the analysis can be expanded to investigate typical debt covenants to assess the possibility of lenders calling their loans. Typical debt covenants of long-term debt divided by sales of less than 1.00 and long-term debt divided by EBITDA of less than 4.00 were expanded to include a Fixed Charge Coverage (FCC) ratio of greater than 1.15. This FCC ratio has been used by private equity firms investigating potential company acquisitions. This ratio is computed as follows: EBITDA less capital expenditures divided by interest, debt, and cash tax payments (Miller 2016). Similarly, Chanos says that companies which are highly levered with negative cash flow are excellent candidates for shorting (Pramuk 2016).

All three such debt covenants were violated in all four years, although actual debt covenants on the thirty-one billion dollar loans of Valeant were not disclosed (a typical disclosure problem for public companies). Citron concluded:

“In the face of all these headwinds, will Valeant actually be able to generate sufficient cash to service its debt load? It is a tough call. And since the cost of insuring against default has skyrocketed, as its debt ratings sag and CDS spreads have widened, it is no longer possible to hedge the risk at a reasonable cost. Valeant’s CDS is trading at a spread of 650 bps, implying a forty-three percent probability of default” (Left 2015 and FT Lexicon 2016).

Also, typical market valuation ratios, price to earnings (PE) and price to sales (PS), were assessed, using cutoffs of greater than fifteen or less than zero for PE and greater than three for PS. Both valuation ratios showed red flags for excessive valuation in all four years.

Fraud Risk Follow-up Procedures

When there are so many red flags for fraud prediction, professional skepticism and analysis need to be expanded with such specific screening red flags providing guidance for follow-up procedures which are now developed. These procedures rely heavily on the work of various short sellers and financial analysts who blew the whistle on many of the Chinese IPO and reverse merger frauds and on many of the major frauds of the 21st century (Chanos 2014 and 2000; Left 2015; Block 2015; Bases et al., 2011; and Schilit 2010). For example, Jim Chanos’s short selling approach is primarily basic financial detective work, including a “heightened instinct for bad behavior and an inordinate appetite for hieroglyphic footnotes and disclosures buried deep in SEC reports” (Conniff 2013). Also, Andrew Left has warned analysts to investigate their concerns without starting with the phrase: “after discussions with management” in an attempt to improve the quality of evidence and analysis (Left 2011). These fraud risk screening guidelines with follow-up procedures have been applied as forensic analysis to major 21st century frauds (Grove and Basilico 2011) and to various delisted Chinese IPO and reverse merger companies (Grove et al., 2016; Grove and Clouse 2014). Such follow-up procedures are now applied to Valeant Pharmaceuticals.

Revenue Disclosures Analyses

Per a public company CFO: “For any company that uses distributors, first check the revenue disclosures for the possibility of channel stuffing” (Coburn 2016). Valeant had the following revenue recognition disclosures in its 2014 10-K, Management and Discussion Analysis (MD&A) and footnotes:

“We recognize product sales revenue when title has transferred to the customer and the customer has assumed the risks and rewards of ownership, the timing of which is based on the specific contractual terms with each customer. In most instances, transfer of title as well as the risks and rewards of ownership occur upon delivery of the product to the customer. Our estimate for returns may be impacted by a number of factors, but the principal factor relates to the level of inventory in the distribution channel. When we are aware of an increase in the level of inventory of our products in the distribution channel, we consider the reasons for the increase to determine if the increase may be temporary or other-than-temporary. As is customary in the pharmaceutical industry, our gross product sales are subject to a variety of deductions in arriving at reported net product sales. Provisions for these deductions are recorded concurrently with the recognition of gross product sales revenue and include cash discounts and

allowances, chargebacks, and distribution fees, which are paid to direct customers, as well as rebates and returns, which can be paid to both direct and indirect customers.”

In reviewing related 2014 disclosures by Valeant, the provisions recorded to reduce gross product sales to net product sales increased as follows: thirty percent in 2014 from twenty-eight percent in 2013 and from nineteen percent in 2012. Such large and increasing provisions from nineteen percent to thirty percent in just three years to decrease gross product sales to net product sales to distributors for sales allowances, rebates, and returns may be a red flag for channel stuffing. The Citron Research report criticized Valeant’s revenue recognition procedures as channel stuffing.

Valeant has three major customers which each represent about 10% of Valeant’s total sales. These three customers are all pharmaceutical sourcing and distributions services companies. To offset their declining sales, caused primarily by consolidation in the health care industry with increased bargaining power for their customers and declining drug pricing for their expensive specialty drugs, these companies purchased growth through the acquisition of competitors, similar to Valeant’s strategy of acquiring drug companies to increase sales prices and sales. However, two of these three major Valeant customers, AmerisourceBergen and McKesson, both confirmed that in the summer of 2015, a slowdown in generic price inflation had hurt their specialty drug pricing and, in turn, their stock prices were “slammed” about thirty-three percent (Stevenson 2016). However, Valeant’s allowance for bad debts has stayed fairly consistent at about 1.7% of sales in the last few years.

Valeant’s 8-K on March 21, 2016 discussed its revenue recognition procedures in detail. The report stated that revenue on sales to Philidor, a major distributor, had been recognized by the Company on a “sell-in” basis (i.e., recorded when the Company delivered product to Philidor). However, revenue for certain transactions should have been recognized on a “sell-through” basis (i.e., record revenue when Philidor dispensed the products to patients). The Company identified misstatements to 2014 revenue of fifty-eight million dollars (0.7 %) and to 2014 net income of thirty-three million dollars (3.5%) (Valeant 8-K 2016). This channel stuffing problem (i.e., “sell-in” versus “sell-through”) was often the key problem for companies using distributors and, accordingly, the first accounting issue a fifteen-year public and private company CFO investigated when being recruited as a professional manager to help grow or turnaround companies (Coburn 2016).

Revenue and Customer Investigations

Valeant had red flags for Quality of Revenues and Sales Growth Index in all four years, 2012–2015. There were red flags in three of the four years for both Quality of Earning and Days Sales Receivable Index. These red flags indicate a need to investigate possible revenue and customer problems. In the Citron Research report of October 21, 2015, which caused a one-day market cap destruction of \$10.8 billion, Andrew Left questioned how Valeant’s drugs were distributed and noted undisclosed relationships with specialty pharma companies, especially Philidor RX. Left’s investigation was triggered by another such company, R&O Pharmacy, which claimed in a lawsuit that it had received a demand for a sixty-nine million dollars payment from Valeant even though it had received no invoices from Valeant. Apparently, Philidor had sent these invoices but now Valeant was demanding payment of such invoices.

In a conference call responding to the Citron research report, Valeant revealed that it had purchased an option to acquire Philidor late in 2014 although undisclosed in the 2014 financial statements. Citron questioned why Valeant would acquire a company after discovering that Philidor’s only customer was Valeant and concluded that Valeant is “a fraud to create invoices to deceive the auditors and book revenue with Phantom Accounts. Citron believes that Philidor and R&O are the same company and share the same management” (Left 2015).

For revenue and customer investigations, Citron used an updated variation of the traditional onsite inspection procedure which first was used in 1937 and led to the detection of fraudulent financial reporting. During a weekend day off in 1937, a “Big 8” audit associate drove up to Toronto from Buffalo, the headquarters of its audit client, McKesson & Robbins (M&K). He found that a Toronto M&K warehouse, which purported to have a nineteen million dollars inventory (\$285 million in current dollars), was an empty lot. For this investigative work, he was fired by the “Big 8” audit firm, but he had to be rehired when proven correct! This fraud led to a change in auditing procedures where auditors had to actually inspect inventory to verify its existence (Fox 2012).

Citron’s updated version of onsite inspections was internet inspections, online instead of onsite! Citron found that both Philidor and R&O had the same patient privacy disclosure on both companies’ websites and both had the identical toll-

free number to reach their Privacy Officer. Citron dialed the fax number on the R&O website and pressed one which turned out to be Philidor and the R&O website refers to itself as Philidor. Furthermore, Citron argued that Valeant/Philidor have created an entire network of phantom captive pharmacies as the same privacy notice with the same Privacy Officer contact phone number appeared on several other pharmacy website domains (westwilshirepharma.com, safexpharma.com, and orbitpharmacy.com.) which were all established on the same day. A similar 2008 online investigation by Citron discovered that a medical device company and an undisclosed captive company had the same fax number. The CEO of that company is now doing twenty years in prison.

Reverting back to traditional onsite inspection procedures, Citron personally visited both R&O Pharmacy and West Wilshire Pharmacy and observed that they were both just neighborhood pharmacies. Citron then commented that R&O Pharmacy court documents “provided plenty of basis to question how a neighborhood pharmacy of this size might reasonably have received, processed, and shipped \$69.8 million in prescriptions in a few months” and concluded that Valeant has created a network of pharmacies “merely for the purpose of phantom sales or stuff the channel and avoid scrutiny from the auditors.” Citron summarized the Valeant situation as “the distinct aroma of product being jammed into a channel. It had to have started small and now it’s just too big. Citron Research has delivered the proof that something really stinks at Valeant and it goes beyond their egregious price hikes” (Left 2015). Citron further commented that “We will see what the audits show with heightened scrutiny that will extend through all Valeant’s distribution channels—including, of course, the entire consolidated Philidor network, as well as Europe” (Left 2015). Philidor was closed in late 2015. Valeant then did an internal review of its revenue accounting for Philidor which led to the restatement reducing 2014 revenues by fifty-eight million dollars and earnings by thirty-three million dollars disclosed in the delayed 2015 financial statements filed on April 29, 2016 (Stevenson and Goldstein 2016).

Competitive Analysis

Valeant’s business model and strategy is to buy drug companies with existing brand-name drugs and then raise prices on these drugs to increase revenues. In acquiring these drug companies, similar to a private equity strategy, Valeant uses debt, which is now about thirty-one billion dollars, and immediately lays off employees of the acquired drug companies to achieve cost savings. Just in 2015, Valeant raised drug prices an average of sixty-six percent, according to a Deutsche Bank study, about five times as much as its closest industry competitors. The same study noted that large pharmaceutical companies, like Pfizer and Merck, raised list prices by an average of thirteen percent and eight percent in the last two years and spent fifteen to twenty percent of sales on research and development, as opposed to Valeant’s three percent. One Valeant competitor, which is much smaller but has the same business model and strategy, is Turing Pharmaceuticals which raised the price on its only acquired drug from \$13.50 to \$750 a tablet. Its CEO, Martin Shkreli, is facing a federal criminal inquiry for his activities at a previous company.

There are more examples of Valeant’s extreme price gouging. It had raised the prices of a diabetes pill by 800% and a nerve damage drug by 400% within one year of acquiring the two drug companies that owned those medications. A Cleveland hospital reported that only nine drugs, which had their prices increased by ten percent or more, had cost the hospital \$11.2 million annually and Valeant products represented eighty percent of that additional cost. Morgan Stanley analysts estimated that price increases on just eight drugs accounted for seven percent of Valeant’s revenue and thirteen percent of its operating earnings (Pollack and Tavernise 2015).

Billionaire investor William A. Ackman has become the unofficial leader of the hedge fund “groupthink” on Valeant. He first pitched Valeant as one of his best investment ideas at an annual hedge fund charity event in 2015 and hedge funds accumulated twenty-three percent of Valeant’s common shares, including nine percent by Ackman. The stock has since plummeted eighty-five percent and Ackman’s Pershing Square Capital Management hedge fund has since lost billions on Valeant, as have other hedge funds. A Wells Fargo analyst commented on this hedge fund “groupthink” about Valeant: “They follow Valeant because they want to follow it. They want to believe they have found a new way to make money in pharmaceuticals without investing in new drugs—it sounds like a magic money box.” Similarly, short seller Chanos said: “We all get lazy and when an idea seems to be working—inertia tends to take over and you stop paying attention” (Stevenson and Goldstein 2016).

Chanos’s Kynikos Associates began researching Valeant in late 2013 and found that the company was a classic corporate roll-up that was growing because of serial acquisitions while piling on debt to facilitate those acquisitions. Chanos’s short thesis argued that Wall Street was giving the company too much credit for future growth that depended on Valeant

continuing to acquire bigger companies. In February 2014, Chanos presented Valeant as a short candidate at his annual “Bears in Hibernation” retreat (Stevenson and Goldstein 2016). As the hedge funds lost billions of dollars, the short-sellers were probably making billions, based upon the current seventy-eight billion dollar market cap destruction from the all-time high stock price of \$262.50 on August 5, 2015 to a \$25.90 price on May 13, 2016. In a U.S. Senate Special Committee on Aging hearing on April 27, 2016, Ackman was scolded by one senator for not looking closely enough into Valeant’s drug pricing and said: “I regret that we did not do more due diligence” (Stevenson and Goldstein 2016), which is the main thesis of this research paper!

As an extension of such competitive analysis, Chanos has recommended the Kindleberger-Minsky macro model (Cassidy 2008), which looks at various market cycles. He has found that the greatest clustering of fraud in financial markets occurs during and immediately after the biggest bull markets as people have suspended their disbelief and analyses. Then the frauds are uncovered after the markets decline when firms, like Enron and Bernie Madoff, cannot finance themselves from a self-sustaining basis (Parramore 2013). Analysts and others start asking tough questions and, as Warren Buffett has likewise said, “we find out who is swimming naked when the water runs out of the pool” (Liu 2016).

SEC Comment Letters

Carson Block, the short seller of the Muddy Waters firm, uses an unlikely secret weapon for his research: the public website of the U.S. Securities and Exchange Commission. Block said he is an avid reader of comment letters from the SEC’s corporation-finance experts to executives about the adequacy of disclosures and financial reporting in regulatory filings: “The CorpFin accountants do a good job of spotting issues in the companies’ filings. We have read some astute questions from CorpFin on a range of issues.” For example, informed by such SEC correspondence, Block’s 2010 report on the waste treatment company, Rino International, helped drive that firm’s stock from thirteen dollars to almost zero, erasing about \$370 million in market value (Sandler, 2013).

Similarly, a recent research study analyzed 1,209 companies with SEC comment letters from 2007–2012. A five red flag forensic metric, based upon the fraud models and ratios used in Table I, was used to examine the information content in SEC comment letters and to analyze market performance surrounding the comment letter issuance event. The companies with four and five red flags had thirty percent and sixty-one percent cumulative abnormal return declines, respectively, in the following twelve months after release of the SEC comment letters, as opposed to ten percent for three-red flag companies and none for two or one-red flag companies. This study concluded that comment letters are a useful but unrecognized source of independent expert opinion regarding the quality of a firm’s financial reports (Grove et al., 2016).

Recent SEC comment letters questioned Valeant’s accounting and related disclosures. A September 24, 2015, comment letter had eight major queries about Valeant’s revenue accounting for contingent cash payments with its distributors. These SEC queries were similar to the customer and revenue issues raised by Andrew Left in his October 21, 2015 Citron Research report on Valeant. Also, the SEC comment letter on September 18, 2013 raised issues about the revenue recognition procedures for distributor shipments and revenue disclosures for separate product lines which were all issues raised in the October 21, 2015 Citron Research report. An earlier SEC comment letter on May 16, 2012 to Valeant questioned unusual gains from company acquisitions and inventory obsolescence accounting.

Insider Stock Sales

In response to the problem of insider stock sales during the frauds of the early 2000s, the 2002 Sarbanes-Oxley Act (SOX) required the prompt reporting of such activities within four days on Form 4 to the SEC, as opposed to the prior requirement of ten days after the month-end when such insider stock sales were made. One prominent pre-SOX example was Enron where the current and former CEOs, Jeff Skilling and Kenneth Lay, were both selling their own shares while telling investors that Enron’s stock was undervalued at ninety dollars and heading toward \$120 (i.e., the “pump and dump” strategy). Also, Enron insiders sold over one billion dollars of their Enron stock just before its collapse in 2001. Financial analysts called such behavior a “screaming” red flag for Enron (Grove et al., 2004).

Similarly, per Valeant’s Form 4 report to the SEC, the outgoing Valeant CEO, Michael Pearson, sold 1.3 million Valeant shares for \$103 million on November 5, 2015, just two weeks after the key Citron Research report came out on October 21, 2015. Four months later on February 18, 2016, the former CFO, Howard Schiller, sold over 54,000 shares for almost five million dollars. Four months earlier than this key Citron report, on June 10, 2015, a Valeant board director and hedge fund co-founder, Jeffrey Ubben, sold 4.2 million shares for over \$944 million. Ubben has been accused of being, a “bad

activist” investor who does not have the best interests of investors in mind by focusing upon financial engineering, rather than substantive plans to improve operating performance. Such “bad activist” investors are likely in the stock for the short-term with little concern for creating long-term shareholder value (Trainer 2016), similar to Valeant’s business model and strategy.

Also, four months earlier, on June 2, 2015, Valeant’s President and General Manager for Europe, Pavel Mirovsky, sold almost 38,000 shares for nine million dollars and he sold another 10,000 shares for \$1.3 million on June 2, 2014, sixteen months earlier than the Citron report. Five months earlier, on May 4, 2015, the Executive Vice President, General Counsel and Chief Legal Officer and formerly also the Corporate Secretary, Robert Roswell Chai-Onn, sold almost 91,000 shares for over twenty million dollars, and he sold another 91,000 shares for over eighteen million dollars on March 2, 2015, seven months earlier. Over the six months starting just after the key Citron report, from November 2015 to May 2016, insider sales were 4.3 million shares, insider purchases were only 30,775 shares, and net institutional sales were just under thirteen million shares (finance.yahoo 2016). Such significant activities for insider and institutional stock sales is a huge red flag for possible fraud and/or earnings management, especially in relation to the date of the key Citron report.

Other Follow-up Procedures

Other forensic follow-up procedures have been used in investigating Chinese IPO and reverse merger frauds for companies listing on U.S., Toronto, and Hong Kong stock exchanges (Grove et al., 2017). A recommended procedure is the comparison of company reports to different legal authorities, reinforced by this observation: “If a firm makes abnormally low cash payments to the taxman, it may be a warning sign that it reports lower profits to the tax authorities than it does to investors (*The Economist* 2016). Concerning major U.S. frauds, both Enron and WorldCom reported GAAP effective tax rates of about thirty percent in their 10-K reports to the SEC but cash effective tax rates of only about 4% in their corporate tax reports to the Internal Revenue Service. For its only profitable year in the last four, 2014, Valeant reported a GAAP tax rate of about sixteen percent but a cash tax rate of only nine percent with a net operating loss carryover of one billion dollars. These low tax rates come from Valeant being the first U.S. pharmaceutical company to play the tax inversion game in 2010, when it acquired a Canadian drug company and became a Canadian corporation (Left 2015).

To help with identifying questionable behavior, Chanos recommended a “wonderful” checklist, the Seven Signs of Ethical Collapse in an organization (Parramore 2013). These seven signs are: pressure to maintain numbers, fear of silence, young ‘uns and a bigger-than-life CEO, weak board, conflicts, innovation like no other, and goodness in some areas atoning for evil in others (Jennings 2006). For example, Chanos said that one of his firm’s “historical signposts of a company in trouble is when numbers of senior people leave over a short period of time” (Wang 2016). In just the last year, Valeant has had unexpected resignations of the following senior executives and board members: the CEO, the Chief Financial Officer, the Audit Committee Chair, and nine of eleven Valeant board members, as well as administrative leave for its corporate controller. Similarly, eight senior executives have left Tesla in the last year, another company Chanos is shorting (Wang 2016). A corporate governance consultant has similarly cautioned: “For the management teams of many companies in today’s high pressure markets, their daily reality is encapsulated in the following simple statement: as long as the stock price keeps going up, information and corporate governance be damned” (Davis 2016). For example, Joe Naccio, the convicted insider trader and former CEO of Qwest, had a policy to never disclose anything that would cause the stock price to go down (Grove and Basilico 2011).

Another follow-up procedure is a review of a company’s legal issues. Valeant’s 2015 10-K legal proceedings footnote of nine pages revealed litigations in twenty-four investigations and lawsuits, only one of which has been settled. So many lawsuits indicate a red flag for the company’s business operations. There were government and regulatory investigations related to a Massachusetts anti-kickback statute, a U.S. Federal trade Commission investigation regarding a patent infringement claim from a generic drug manufacturer, a U.S. Department of Health and Human Services investigation regarding questionable drug payments with medical professionals, and a U.S. Department of Justice civil and criminal agreement which required a Valeant affiliate to create a compliance and ethics program for three years. Also, there were five securities class action lawsuits, one antitrust lawsuit, eleven intellectual property lawsuits, including brand names versus generics and patent infringement cases, one general civil action for misrepresenting cold medicine benefits, one employment lawsuit involving female gender discrimination, and one product liability lawsuit for personal injury from using contact lens solutions. Valeant also disclosed new investigations by state regulators in North Carolina for drug

pricing and in New Jersey for the Philidor relationship. Federal prosecutors in New York and Massachusetts were already investigating Valeant for drug pricing and are now also investigating the Philidor relationship. Congressional committees from both the U.S. Senate and the U.S. House of Representatives are also investigating these issues (Rapoport and McNish 2016).

On October 23, 2015, two days after the Citron Research report came out, a class action complaint for violations of the Federal Securities Laws was filed on behalf of Valeant shareholders. According to the law firm press release, the lawsuit alleges that the defendants, Valeant, the CEO and both CFOs, issued materially false and misleading statements to investors and/or failed to disclose ten items, among which were deficient internal controls, a relationship with a network of specialty pharmacies used to boost Valeant's sales of its high-priced drugs and a claim that without using such specialty pharmacies Valeant's financial performance would be negatively impacted, and Valeant's true relationship with, and potential control of, Philidor. The lawsuit further charged that the defendants were engaged in a scheme to manipulate Valeant's stock price and, as a result, Valeant's public statements were materially false and misleading and/or lacked a reasonable basis at all relevant times. The entire Citron Research Report was included in the class action complaint. No amount for damages was provided, just "compensatory damages for all damages sustained as a result of defendants' wrongdoing in an amount to be proven at trial, including interest thereon (Stanford 2015).

Conclusions

This paper used eleven well-established fraud and earnings management models and ratios to investigate any shenanigans in Valeant's 2014–2012 financial statements, leading up to its market crash on October 21, 2015 and subsequent eighty-two billion dollar market cap destruction. The overall fraud or earnings management predictions were twenty-seven percent, seventy-three percent, and fifty-five percent, respectively, and the post-meltdown 2015 overall average was eighty-three percent. The three and four year averages were fifty-two percent and fifty-five percent, respectively, for these eleven screening red flags. However, when the six key screening models and ratios (New Fraud Model; Old Fraud Model; Quality of Revenues; Quality of Earnings; Sales Growth Index; and Days Sales Receivable Index) were used, the overall fraud or earnings management predictions increased to thirty-three percent, 100%, and eighty-three percent, respectively, and the post-meltdown 2015 overall average was eighty-three percent. The three and four year averages increased to seventy-two percent and seventy-five percent, respectively, for these six screening red flags. However, the 2014 and 2012 fraud predictions further increased to sixty-seven percent and 100% when the new and old fraud models were included within a materiality guideline of ten percent of their fraud prediction cutoffs and the 2015 fraud prediction increased to 100%. Also, the three and four year averages further increased to eighty-nine percent and ninety-two percent, respectively.

In addition to earnings management, these models and ratios detected economic operating problems for Valeant, signaled by the quality of earnings and quality of revenues red flags. Economic problems may also be indicated by the Altman bankruptcy model. The model predicted bankruptcy in all four years. The model's prediction value was below a cutoff of 2.40, the midpoint in the uncertainty range of 1.8 to 3.0 for the Altman bankruptcy model where small is bad. The analysis was expanded to investigate typical debt covenants to assess the possibility of lenders calling their loans. Typical debt covenants of long-term debt divided by sales of less than 1.00 and long-term debt divided by EBITDA of less than 4.00 were expanded to include a Fixed Charge Coverage ratio of greater than 1.15, which has been used by private equity firms investigating potential company acquisitions. All three such debt covenants were violated in all four years although actual debt covenants on the thirty-one billion dollars loans of Valeant were not disclosed, a typical disclosure problem for public companies.

The Citron Research report did conclude that it was a tough call to determine if Valeant will be able to generate sufficient cash to service its debt load. On October 30, 2015, Standard & Poor's downgraded Valeant's credit rating of BB- to B+ and further downgraded it to B on March 31, 2016. Similarly, Moody's downgrades of Valeant's credit rating went from Ba3 on March 16, 2016 to B1 on March 31, 2016, and to B2 by the end of April, 2016 (Valeant 10-K 2016). Also, both price to earnings and price to sales valuation ratios showed red flags for excessive stock valuation in all four years.

Such forensic red flags, screening for fraud and earnings management, indicated the need for fraud risk assessment follow-up procedures. Six major procedures indicated fraud risks for Valeant as follows in order of recommended investigation:

1. Revenue disclosure analysis revealed that Valeant used distributors which are a high risk for channel stuffing. Such stuffing was admitted in Valeant's 8-K report on March 21, 2016 and restated financial statements.
2. Revenue and customer investigations for Valeant's distributors by Citron uncovered possible phony revenues from questionable distribution networks, as admitted in the above 8-K report. Citron's online investigations were an extension of traditional onsite audit investigation methodology introduced in 1937. The major distribution network, Philidor, has since been terminated and Philidor itself has been closed.
3. Competitive analysis revealed the predatory drug pricing policy of Valeant which is now being investigated by two Congressional committees as well as other regulatory agencies.
4. An analysis of SEC comment letters for Valeant revealed ongoing revenue recognition and disclosure problems as far back as at least 2012.
5. An examination of insider stock sales in the six months from November 2015 through April 2016 revealed both executives and institutions selling shares (net of minor purchases) of 4.3 million and thirteen million, respectively.
6. Additional follow-up procedures included a comparison of Valeant's reporting to different government entities. It revealed a significant difference in income tax rates, sixteen percent in financial reports versus nine percent in tax reports. Both rates were very low since Valeant was the first U.S. pharmaceutical company to do the tax inversion strategy in relocating to Canada. Also, there were unexpected resignations of senior executives: the CEO, the CFO, and the head of the Audit Committee, as well as nine of the eleven board members, all in just the last year. Another follow-up procedure was the reading of Valeant's 10-K legal footnote disclosures which revealed twenty-four ongoing investigations and lawsuits, the most recent being a shareholder class action lawsuit filed just two days after the Citron Research report came out on October 21, 2015.

These six procedures were reviewed by a manager of a billion dollar Blackstone hedge fund who really liked this checklist and recommended two procedures: 1) run a "Blackline analysis" which is a function on Bloomberg and other software that compares the wording of a financial document, like a 10-K or 10-Q, to the prior period and highlights any word changes, and 2) do a detailed quality of earnings analysis to strip out all one-time items and look at the earnings sources to make sure earnings are from fundamental business, like General Motors selling cars, not warranties.

All three screening guidelines and procedures can be related to, and reinforce, the deficiencies and failures of the gatekeepers in detecting financial reporting fraud. This entire article can be used for lessons learned from such failures. How many times must lessons to be learned be relearned from all these 21st century financial reporting frauds? A good starting point to correct such failures and market cap destructions would be for any gatekeepers to use these six recommended investigatory procedures discussed within this paper for proactive, rather than reactive, analyses. Similarly, a corporate governance consultant concluded: "Simply put, had solid information and corporate governance discipline and technologies been in place, a thoughtful outsider or independent director would have been able to discover this information long before the Citron Research report on Valeant and taken action to remediate the resulting governance lapses" (Davis 2016).

Table I: Valeant Summary

Red Flag Indicators	Cutoff	2014	Red Flag?	2013	Red Flag?	2012	Red Flag?
		Result		Result		Result	
New Fraud Model**	>1.00	0.912	No	1.15	Yes	0.96	No
Old Fraud Model**	<-1.99	-2.16	No	-1.50	Yes	-1.94	Yes
DSRI**	>1.03	0.87	No	1.20	Yes	1.12	Yes
GMI	>1.01	0.92	No	1.08	Yes	0.99	No
AQI	>1.04	0.97	No	1.00	No	0.95	No
SGI**	>1.13	1.43	Yes	1.66	Yes	1.43	Yes
TATA	>0.02	-0.06	No	-0.05	No	-0.07	No
Quality of Earnings**	<1.00	2.51	No	-1.20	Yes	-5.66	Yes
Quality of Revenues**	<1.00	0.95	Yes	0.84	Yes	0.90	Yes
Altman Bankruptcy	<2.40	1.87	Yes	1.08	Yes	0.85	Yes
Sloan Accrual	>0.10	-0.04	No	-0.08	No	-0.04	No
Total Red Flags			3		8		6
% of 11 Possible Red flags			27%		73%		55%
** Investment Screening Approach							
% of 6 Possible Red flags			33%		100%		83%
New and Old Fraud Models							
Included Within 10% of Fraud Cutoff			67%		100%		100%
<u>Typical Debt Covenant Ratios</u>							
Fixed Charge Coverage	<1.15	0.69	Yes	0.20	Yes	0.40	Yes
LT Debt/Sales	>1.00	1.85	Yes	2.97	Yes	3.03	Yes
LT Debt/EBITDA	>4.00	4.02	Yes	11.16	Yes	9.86	Yes
<u>Typical Valuation Ratios</u>							
Price to Earnings	>15.0	53.6	Yes	-43.5	Yes	-157.3	Yes
	or <0.0						
Price to Sales	>3.0	5.8	Yes	6.8	Yes	5.2	Yes

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