

# Corporate Revenue Miscalculations & The Impact On Stakeholders

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## ABSTRACT

*Corporate earnings restatements are regarded as one of the most significant issues in accounting today. While there are various factors that can influence profitability, revenue is the key contributor to a business' net income. During the 2000s, a multitude of domestic and multinational corporations faced significant issues with their revenue recognition practices. Although the investing public might regard any revenue restatement as laden with possible fraud, this is not always the case. Multinational firms face dual accounting systems, such as U.S. Generally Accepted Accounting Principles (GAAP) and International Financial Reporting Standards (IFRS). Currently, similarities and differences between the accounting systems exist. However, key differences between GAAP and IFRS may cease to exist in upcoming years due to the Financial Accounting Standards Board's (FASB's) and the International Accounting Standards Board's (IASB's) joint effort to converge the two systems. Throughout this paper, examples of revenue "miscalculations" will be presented as well any penalties levied by the U.S. Securities & Exchange Commission against implicated corporations. Accordingly, the impact that revenue blunders have on shareholder wealth will be examined. Finally, the authors will present recommendations for mitigating revenue "errors" in the future.*

**Keywords:** Revenue Recognition; Bill-and-Hold Sales; Percentage-of-Completion Method; Earnings Restatements; Earnings Reserves; IFRS; U.S. GAAP; Convergence Project; Fraud; Shareholder Wealth

## U.S. GAAP REVENUE RECOGNITION OVERVIEW

The bottom line of any business' income statement is considered one of the most critical indicators of corporate wealth. While net income is paramount for current and prospective shareholders and creditors to make rational investment decisions, profits would be nonexistent without the presence of revenue. Revenue, which enhances the equity of any business, can be derived from a multitude of sources. According to Don Kieso, Jerry Weygandt, and Terry Warfield, authors of *Intermediate Accounting (14<sup>th</sup> edition)*, revenue can be defined as:

*inflows or enhancements of assets of an entity or settlements of its liabilities during a period from delivering or producing goods, rendering services, or carrying out other activities that constitute an entity's ongoing major or central operations. (p. 55)*

Thus, in order for a transaction to translate into revenue, the exchange must be relevant to the entity's core business. Sales revenue is the most basic form of revenue as this represents the selling prices for goods and/or services. Depending on the income source, the term can also be referred to as "sales, fees, rent, interest, royalties, warranty revenue, and service revenue" (Kieso, Weygandt, & Warfield, p. 1067). Although one may believe that the process of recording revenue is straightforward, this is not nearly the case. U.S. GAAP contains multiple approaches to revenue recognition. However, the correct method will depend on the nature of a transaction.

Revenue recognition standards, under U.S. GAAP, are primarily developed by the FASB, and are enforced by the Securities and Exchange Commission (SEC). FASB, a private standard setting body, located in Norwalk,

CT, currently creates the vast majority of accounting rules that become GAAP. In addition, FASB established a conceptual framework which defines the critical elements of a corporation's financial statements. General revenue recognition criteria are presented within FASB's Statement of Financial Accounting Concept (SFAC) No. 5. According to SFAC No. 5, "revenue is to be recognized when it is realized or realizable and when it is earned" (FASB, 1984, p. 7). For revenue to be realized, the seller must receive cash or other consideration (assets) from the buyer for purposes of the sale. On the other hand, realizable revenue indicates that the buyer has offered a valid promise to pay. At this time, the seller will accrue either an account receivable or a note receivable based on the characteristics of the transaction (Briner, 2001). Finally, for revenue to be earned, the seller must have fulfilled or nearly-fulfilled their obligations to the buyer (Kieso, Weygandt, & Warfield, p. 1067). This typically occurs when "the buyer gains possession of an item or all other contractual obligations have been met" (Briner, 2001). Thus, both criteria must be present for the seller to book the revenue from the transaction.

Within financial accounting, the most common approach is to record revenue at the "point of sale." Under this system, the seller has determined the selling price for the goods or services, delivery to the buyer has occurred, and the buyer has either paid the seller or is obligated to pay the seller (Kieso, Weygandt, & Warfield, p. 1069). Thus, there is high certainty that both parties will fulfill their obligations. However, depending on the complexity of the transaction, it can sometimes be challenging to determine when the revenue is "earned." For example, point of sale transactions can be clouded by variants to the rule such as, bill-and-hold sales. A bill-and-hold sale involves a special case where the seller has transferred the legal title for the goods and the economic rights to the buyer, but due to the buyer's request, the seller houses the product until the buyer is ready to accept delivery. A challenge can exist when the seller attempts to decipher when the economic benefits for the goods have transferred to the purchaser. With specific regard to bill-and-hold transactions, the FASB states,

*A customer may obtain control of a product even though that product remains in the physical possession of the entity [seller]. In such cases, the customer has the ability to direct the use of and obtain substantially all of the remaining benefits of the product even though it has decided not to exercise its right to take possession of the product. (FASB, 2011, p. 53)*

In addition, the FASB discusses four criteria for when control has been transferred to the buyer. FASB indicates that control passes if "(a) the reason for the bill-and-hold is substantive; (b) the product is separately identified as belonging to the customer; (c) the product is ready for physical transfer; and (d) the entity [seller] cannot use the product or sell it to another customer" (FASB, 2011, p. 53). Contractual agreements, such as these, can cause multiple complexities in the revenue recognition process.

In contrast to "point-of-sale" transactions, GAAP also allows for revenue to be recognized prior to delivery via the percentage-of-completion method. This method is typically applicable to long-term construction projects, but can be applied in other instances. Under this approach, the "seller" will record revenue, gross profit, and costs in multiple accounting periods. The value of the revenue, earnings, and costs will be based on the percentage of the project completed during that particular stage. In order to compute the percentage complete, the "seller" would need to divide cumulative costs, since the inception of the project, by the estimate of total construction costs (Kieso, Weygandt, & Warfield, p. 1083). As U.S. GAAP is grounded on the matching principle (which mandates that revenue must be matched with expenses incurred during the same accounting period), it is important for revenue to be recorded periodically throughout the tenure of the long-duration project. Thus, the percentage-of-completion method is used to allocate earnings to the accounting periods when earned. If this rule did not exist and a five-year construction project took place, the seller would not be able to report any revenue until the fifth year. This would create the illusion that the company had little revenue during the first four years, but had substantial revenue and earnings in the last year of the project. In this instance, stakeholders would not be provided with timely information, and thus, the usefulness of the financial statements would be severely diminished.

Though there is an array of approaches available for U.S. public corporations to recognize revenue, businesses must understand that a particular rule can only be applied when the proper conditions exist. An overview of various revenue recognition policies is displayed in Table 1. Nonetheless, in recent years, there have been numerous cases of entities misapplying U.S. revenue recognition rules. In the subsequent section, the authors will present examples of corporations accused of defying the law.

**Table 1: U.S. GAAP Revenue Recognition Methods**

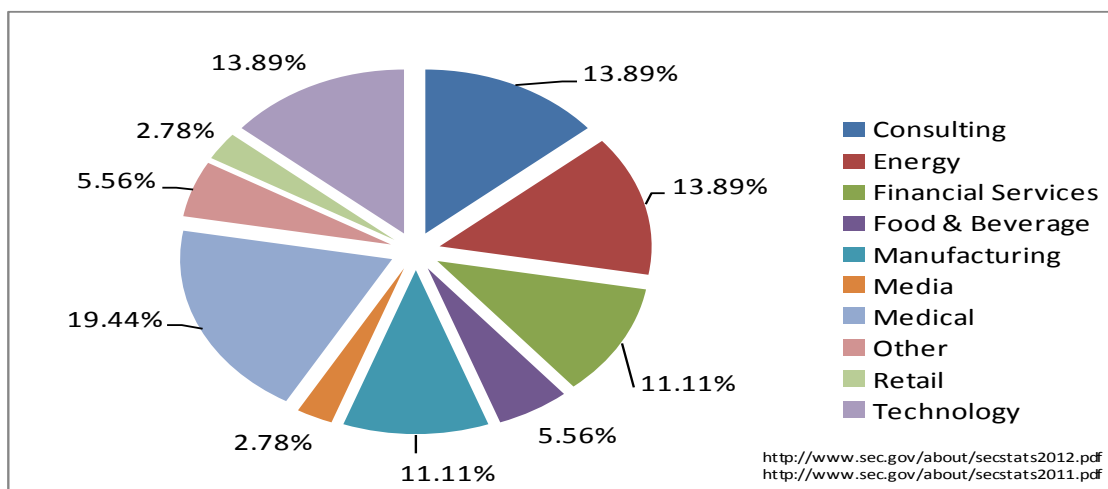
Point-Of-Sale	Revenue is recognized when 1) realized or realizable & 2) when earned. This typically occurs at time of delivery.
Bill & Hold	Transfer of title & economic benefits has occurred. However, the buyer requests that the product remain with seller, until the buyer is ready to accept delivery. The proper criteria must exist for this method to be utilized.
Sales with Buybacks	A "Seller" transfers merchandise to a buyer with the intent of repurchasing the merchandise at a later date. As the risk of ownership is retained with the seller, a true sale hasn't occurred. This is a financing transaction.
Consignment Sales	The cosignor sells inventory via another entity referred to as the consignee. Although the consignee collects the proceeds from a sale, the sale occurs on the cosignor's books.
Percentage of Completion	Revenue is recorded in each accounting period as the "seller" gradually completes the "product." Revenue recorded is based on the percentage of the total project complete. The proper criteria must exist for this method to be utilized.

Source: Kieso, Weygandt, Warfield. Intermediate Accounting. 14th edition. Chapter 18

**Examples of Corporate Revenue Misstatements**

Nearly all industries have faced scandals for the inaccurate reporting of financial results. Industries affected include, but are not limited to the consulting, technology, financial service, media, medical, energy, food & beverage, retail, and manufacturing sectors. According to Robert Khuzami, Director of the SEC’s Division of Enforcement, “Overly aggressive accounting can distort a company’s true financial condition and mislead investors” (SEC, 2009, August 4). As a result of total SEC enforcement actions, the agency collected over “\$5.9 billion in disgorgement and penalties during fiscal years 2011 and 2012...for the benefit of harmed shareholders” (SEC, 2012, November 14). Total enforcement actions included penalties for “financial crisis-related cases, insider trading cases, issuer and disclosure violations, infringements of the Foreign Corrupts Practices Act of 1977, and actions against investment advisers and broker dealers” (SEC, 2012, November). Revenue recognition violation cases are included within the “issuer and disclosure violations” section.

Nonetheless, while the abovementioned industries have been impacted by various scandals, the focus of this paper is on revenue recognition-related issues. Figure 1 reflects SEC Enforcement Actions for industries affected by Reporting & Disclosure Violations. Next, an example of a revenue recognition violation within the technology industry will be presented.



**Figure 1: SEC Enforcement Actions - Industries Affected by Reporting & Disclosure Violations (2011 & 2012)**

*Technology: Hewlett Packard (HP)*

The first case of revenue deception involves the technology behemoth, Hewlett Packard (HP). HP, the manufacturer of computer hardware, was subject to an accounting scandal resulting from the purchase of a U.K.-

based software manufacturer - Autonomy. The acquisition was completed in October 2011 at a purchase price of \$11.1 billion, or £25.50 per share. This value represented a 76% premium over the trading price at the time of the announcement (Haddon, 2011). Although HP’s intentions to boost profitability and enhance stockholder wealth were sensible, the diversification into the software market, via the acquisition, created major troubles for the entity. Within one year after the acquisition, HP alleged that there were significant accounting anomalies at the subsidiary (HP, 2012 Annual Report, p. 32). Via an internal investigation, HP claimed that some of the Autonomy’s employees intentionally misled investors by “inflating the [company’s] underlying financial metrics” (Worthen, 2012, November 27).

HP’s allegations against Autonomy were multifold. The company was accused of falsely booking hardware sales as software sales in order to artificially improve profits. Typically, software sales yield higher profit margins versus hardware sales. In addition, the subsidiary purportedly sold hardware to “value added resellers,” who acted as intermediaries between the customers and Autonomy. However, these “sales” typically did not translate into a true customer purchase. Nonetheless, the company booked these sales as licenses. Finally, HP claims that the subsidiary booked revenue from long-term software subscriptions immediately instead of deferring revenue recognition, as required by GAAP (Hesseldahl, 2012, November 20).

As a result of HP’s findings of significant “accounting improprieties, misrepresentations, and disclosure failures,” the technology giant was forced to record a \$5 billion write-down - or approximately 45% of the acquisition price - during the fourth quarter of 2012. In total, HP took a charge of \$8.8 billion from the deal (Worthen, 2012, November 27). The full loss was comprised of a write-down of both goodwill and an intangible asset impairment charge (HP, 2012 Annual Report, p. 32). Goodwill, which is an asset, is created only when an acquiring company pays more than the fair market value of net identifiable assets of the acquire. This asset can be impaired if the perceived value of the acquiree deteriorates.

The above losses were also partially based on a retroactive revision to the subsidiary’s revenues and earnings using the “correct” measurements. However, Autonomy’s founder, Mr. Michael Lynch, claims that any accounting discrepancies are due to key differences between U.S. GAAP and IFRS and that HP was aware of these differences (Worthen, 2012, December). Table 2 is an overview of how U.S. GAAP and IFRS diverge with regard to software revenue recognition.

**Table 2: Software Revenue Recognition - GAAP vs. IFRS**

<u>U.S. GAAP</u>	<u>IFRS</u>
<b>Sales Transactions:</b>	
1) Revenue Can't Be Recognized if Master Agreement isn't Signed (pg. 6)	1) A Sale Occures When A Purchase Order is Received & Economic Benefit
2) Pervasive Evidence of an Arrangement Must Exist Via a Signature (pg. 7)	Has Been Transferred to the Buyer (pg. 6)
<b>Licenses:</b>	
1) Under Agreements Where Licenses Are Sold with Products, The "Seller" Must Provide "Vendor Specific Objective Evidence" (VSOE) of the Fair Value For The License. (p. 8)	1) Lack of Stringent Rules to Determine Fair Value: Estimated Value Can Be Used Based On Market Information
2) Without Delivery and/or VSOE, Revenue Cannot Be Recorded (pg. 9)	2) Revenue will Only Be Deferred If An Estimate of Fair Value Can't Be Determined (pg 10)
3) VSOE Very Specific In Determing Fair Value (pg 10)	3) No Specific Information Regarding Post-Contract Support Is Included Under IFRS (p. 13)
4) If Products or Licenses Include Post-Contract Support, The Fair Value of The Post-Contract Support Is Deferred and Earned Over the Service Period (pg. 12)	Source: <a href="http://www.pwc.com/en_GX/gx/technology/pdf/shiftingsoftware.pdf">http://www.pwc.com/en_GX/gx/technology/pdf/shiftingsoftware.pdf</a>

As presented in the above table, GAAP requires additional evidence from a software sale or license to be booked when compared to IFRS. According to the accounting firm, Grant Thornton, “Revenue Recognition for software vendors can be complicated” (Davies, 2012). This complexity occurs because software is generally packaged with other products, such as a personal computer. Autonomy asserts that HP has no fundamental claim against the subsidiary’s practices with value-added resellers either because, under IFRS, “revenue can be recognized if sales are delivered in the current period, there is no right of return, collection is probable, and the fee is fixed or determinable” (Davies, 2012). In addition, the revenue recognition process for licenses may appear to be legal under IFRS as fair value estimates are permitted.

Regardless of Autonomy's defense, HP notified the SEC, U.S. Department of Justice (DOJ), and The U.K. Serious Fraud Office about their findings. Thus, as of November 21, 2012, the DOJ opened an official investigation into the accounting practices of the subsidiary (HP, 2012 Annual Report, pp. 157-159). A formal exploration into Autonomy's accounting procedures was started by the U.K. Serious Fraud Office as well (BBC, 2013, March). As of this writing, a verdict has not been reached against Autonomy.

Consequently, due to the fraud allegations, nine lawsuits have been launched by shareholder groups against HP (HP, 2012 Annual Report, pp. 157-159). In May 2013, a billion dollar class action lawsuit was also filed by shareholders. The charge suggests that HP was aware of the accounting issues at Autonomy but did not disclose this fact to the public. Accordingly, when the issues at Autonomy were fully disclosed in November 2012, HP's stock lost over \$3.4 billion in market capitalization in a single day (Gardside, 2013). Thus, the lawsuit intends to recover some of this lost capital.

Nonetheless, HP's CEO, Meg Whittman, indicated that Autonomy will remain a key component of the company's future success and that HP has no plans to divest the unit (Leach, 2013). Although the colossal losses adversely impacted shareholder wealth after the negative information became public, the parent company appears convinced that the acquisition will provide long-term revenue and profitability improvement.

#### *Technology - Nortel, Inc.*

In continuation with the technology sector, Nortel, the former multinational telecommunications and data networking equipment manufacturer, was also accused of artificially boosting its financial performance. Although Nortel is a Canadian corporation, the company began using GAAP in January 2000 as its common stock traded in the U.S. Foreign public companies can choose to list their stock on U.S. stock exchanges as an American Depository Receipt (ADR).

Nortel was accused of neglecting to adjust "internal accounting guidelines" to coincide with GAAP (SEC, Court Complaint, 2007, p. 11). Specifically, the SEC alleged that between late 2000 and early 2001, Nortel executives intentionally recorded future revenues as earned in the current accounting period. According to the SEC complaint, Nortel was motivated to engage in revenue manipulation as actual results fell \$2 billion short of forecasts in 2000 and 2001. The SEC claimed that the CFO, the Controller, and the Assistant Controller "altered Nortel's revenue recognition policies to accelerate revenues as needed to meet Nortel's quarterly and annual revenue guidance" (SEC, Nortel Court Complaint, 2007, pp. 2-3). Nortel recorded faux revenue by misusing the option to record a sale as a "bill-and-hold transaction." The entity recorded revenue on "undelivered inventory sitting warehouses and offsite storage locations" (SEC, Nortel Court Complaint, 2007, pp. 2-3). However, the structure of these "transactions" did not meet the criteria for bill-and-hold to be utilized. Correspondingly, revenue for 2000 was overstated by \$1 billion (SEC, Nortel Court Complaint, 2007, pp. 2-3).

According to the SEC, although Nortel initially adopted bill-and-hold accounting, the company banished its use as the recognition process was rendered complex. Yet, as Nortel's sales began to negatively diverge from analyst expectations, management chose to resurrect the accounting method. However, the company allegedly violated GAAP by adopting its own criteria to record sales. Nortel purportedly approached clients and encouraged them to engage in bill-and-hold transactions. This tactic is illegal under U.S. GAAP (SEC, Nortel Court Complaint, 2007, pp. 17-18).

In addition, the SEC asserted that Nortel created earnings reserves and did not follow GAAP's reserve disbursement requirements. Instead, the executives allegedly used the reserves to manipulate earnings to boost profitability in quarters where losses truly resulted, as was the case in the first quarter of 2003. Thus, management touted that the company had returned to profitability ahead of schedule and thus used this event to distribute bonuses (SEC, 2007, October).

As a result of the revenue "errors," Nortel was forced to restate revenues from the 2000-2003 period and take punitive action against the involved executives. In 2004, the entity terminated CEO Frank Dunn, the Controller, Michael Gollooly, and the CFO, Douglas Beatty, due to their involvement in these schemes. In addition,

in 2005, the company was forced to downgrade previously reported revenue by \$3.4 billion (SEC, Nortel Court Complaint, 2007, p. 3). Also in 2006, the company admitted that the revenue restatements were partly due to “management fraud” (SEC, Norte Court Complaint, 2007, p. 6).

In October 2007, the SEC concluded that Nortel must pay a \$35 million civil fine for violating U.S. revenue recognition standards. The SEC indicated that this monetary penalty was allocated to shareholders who endured losses resulting from the corrupt activity. The company was also forced to update the SEC on the current condition of internal controls over revenue recognition policies moving forward (SEC, 2007, October). However, in January 2013, the three primary executives (Dunn, Gollogly, and Beatty) were acquitted on all fraud charges by the Canadian court system as “the prosecution failed to meet the burden of proof test,” according to the judge (Judge Marrocco) who ruled on the case (Dummett, 2013). Hence, the three executives did not face any penalties from the scandal.

Regardless of Nortel’s attempted accounting maneuvers, the tactics did not result in long-term profitability. Partly as a result of the harsh financial conditions during the financial crisis, the company filed for bankruptcy in 2009. As of early 2013, Nortel has divested all assets and the stock is rendered worthless (Nortel Networks, 2013).

#### *Media -TheStreet, Inc.*

Although the technology sector contained some of the largest revenue recognition cases, the media sector has also been impacted. In December 2012, TheStreet, Inc., a New York based internet financial news company, was charged by the SEC for committing accounting fraud (Gandel, 2012). In contrast to the Nortel example, TheStreet actually detected its own accounting irregularities and reported these findings. The SEC complaint argued that TheStreet had “filed false financial reports by reporting revenue from fraudulent transactions at a subsidiary it had acquired the previous year” (SEC, 2012, December 18). The charge was also extended to the company’s former CFO, Eric Ashman, as well as the co-presidents of the acquired subsidiary, Gregg Alwine and David Barnett (Ryan, 2012). Specifically, TheStreet’s former CFO, Eric Ashman, was accused of allowing for “revenue to be reported before it was earned,” which clearly violates GAAP (SEC, 2012, December 18).

Though actions taken by Ashman contributed to the revenue misrepresentation, the SEC asserted that the chief reason for these “errors” was due to a lack of internal controls at the acquired subsidiary, Promotions.com (Ryan, 2012). For instance, the SEC claimed that “Alwine and Barnett had tampered with documents, backdated revenue contracts, and acquired an erroneous audit confirmation that pretended that the subsidiary earned revenue via completing work” (Ryan, 2012). In conjunction with Ashman’s approval, Promotions.com recorded \$305,000 in erroneous profits by recognizing revenue prior to completing the actual work (Ryan, 2012). In this case, the business improperly applied the percentage-of-completion method. According to the SEC, instead of TheStreet calculating a valid estimate for the percentage complete, the company booked revenue based on “the say so of management” (SEC, 2012, TheStreet Court Complaint, p. 6). In another instance, the co-presidents of the subsidiary engaged in “sham transactions” which created a revenue mirage of an additional \$275,000 (Ryan, 2012).

As a result of these “accounting errors,” TheStreet overstated its 2008 income by 152% or \$1.7 million (SEC, 2012, TheStreet Court Complaint, p. 6). Due to these accounting irregularities, the company restated its 2008 earnings in January 2010 (SEC, 2012, TheStreet Court Complaint, p. 6). With regard to the executives, Ashman, Barnett, and Alwine were forced to pay penalties of \$159,240, \$130,000, and \$120,000, respectively. While TheStreet’s CFO is banned from acting as an executive or board member for any U.S. public company for three years, the subsidiary’s presidents each received harsher 10-year banishments (SEC, 2012, December 18).

With respect to the company as a whole, “[it] is not required to pay any monetary penalties” (Gandel, 2012). Most likely, this can be attributed to the fact that TheStreet found its own accounting discrepancies and dutifully reported those violations to the SEC. TheStreet divested Promotions.com in 2009 (Gandel, 2012).

#### *Manufacturing - Diebold, Inc.*

With regard to the manufacturing sector, Ohio-based Diebold Inc., the producer of electronic voting machines, ATMs, and bank security systems, was accused of “manipulating earnings by at least \$127 million” via

revenue recognition “errors” (SEC, 2010, Diebold Court Complaint, p. 1). The complaint indicated that Diebold artificially enhanced income by “improperly using ‘bill-and-hold’ accounting, recognizing revenue on lease agreements subject to buyback opportunities, manipulating reserves and accruals, improperly delaying and capitalizing expenses, and writing up the value of used inventory” (SEC, 2010, Diebold Court Complaint, p. 1). All of the aforementioned “miscalculations” are in clear violation of GAAP. According to the SEC, the company issued at least forty erroneous reports containing accounting mishaps between 2002 and 2007 (SEC, 2010, Diebold Court Complaint, p. 1).

The SEC report provides insight into the purpose behind the revenue manipulations. For example, Diebold was accused of attempting to devise ways to “close the gap” between actual earnings performance and profit expectations. The company used an assortment of strategies to artificially bolster revenue and income. For instance, Diebold violated GAAP by recognizing a sale when inventory was shipped from the factory to the company’s warehouse. In some instances, the corporation would recognize sales prematurely by shipping merchandise to their warehouses ahead of schedule. These “sales” were recorded under the “bill-and-hold basis” but allegedly the customers never requested for the seller to retain the merchandise (SEC, 2010, Diebold Court Complaint, p. 4). As can be observed by the other cases, misuse of “bill-and-hold accounting” appears to be a common theme (see Table 3 for a summary of the allegations and applicable penalties against each corporation). According to the SEC, recording revenue in this manner falsely boosted revenue by nearly \$30 million in 2003 (SEC, 2010, Diebold Court Complaint, p. 10). After these “errors” were detected, the entity revised its bill-and-hold process to coincide with GAAP and was forced to reduce affected earnings by a cumulative total of approximately \$56 million (SEC, 2010, Diebold Court Complaint, p. 10).

**Table 3: Summary of Revenue Recognition Cases**

<u>Corporation</u>	<u>Years</u>	<u>Assertion</u>	<u>Executve</u>	<u>Corp.</u>	<u>Executive Penalty</u>	<u>Corporate</u>
			<u>Guilty?</u>	<u>Guilty?</u>		<u>Penalty</u>
<i>Hewlett-Packard</i>	Early 2010s	Subsidiary Booked Sales From VARs & Licenses Inaccurately	NYD	NYD	NYD	NYD; E\$
<i>Nortel</i>	2000-03	Misuse of Bill-and-Hold Accounting	No	Yes	CEO, CFO, & Controller Acquitted	\$35m; E\$
<i>TheStreet, Inc.</i>	Mid/Late 2000s	Subsidiary Created False Transactions & Misapplied % of completion	Yes	No	CFO: \$160k; Subsidiary Co-Presidents: \$250k	N/A; E\$
<i>Diebold</i>	2002-07	Inaccurate Use of Bill-&-Hold	Yes	Yes	CEO disgorges \$470k in stock and stock options Four Other Executives: NYD	\$25m; E\$
<i>General Electric</i>	2002-03	Recorded Sales of Locomotives & Spare Parts When Criteria Not Present	No	Yes	N/A	\$50m; E\$
<b>Abbreviations</b>						
NYD= Not Yet Determined		VARs= Value Added Resellers				
E\$= Earnings Restatement						

Another strategy Diebold used to inflate earnings was through the use of a bogus earnings reserve, similar to Nortel. In connection with the bill-and-hold transactions, in 2003 Diebold developed a profit reserve. While it is not illegal under GAAP to create a reserve, the profits must be released when the revenue is actually earned by the company. Hence, an earnings reserve actually is created when revenue is temporarily deferred. However, according to the SEC, Diebold released profits when earnings were truly deteriorating. Thus, the company falsely boosted earnings in 2004 by \$7.5 million (SEC, 2010, Diebold Court Complaint, p. 11).

In June 2010, the SEC forced Diebold to pay \$25 million in civil penalties related to the revenue “miscalculations.” In addition, four executives connected with the issue were charged (SEC, 2010, June 10). Also, the CEO, Walden O’Dell, though not entangled in the fraud, agreed to disgorge cash bonuses of \$470,000 as well as shares of Diebold stock and stock options. These disbursements were deemed necessary since they were awarded

during the period when the “enhanced” financial statements were issued (SEC, 2010, June 10). The case against the other four executives has not been settled as of this writing.

*Multi-Sector - General Electric*

The next case involves one of the most highly regarded blue-chip companies in the world. General Electric (GE), headquartered in Fairfield, Connecticut, was accused of manipulating its earnings through various revenue recognition techniques. The SEC was compelled to launch an investigation into the conglomerate’s accounting practices as GE consistently met or exceeded Wall Street analysts’ earnings expectations in each quarter between 1995 and 2004 (Leone & Reason, 2009). Although it is possible that a business will consistently meet or surpass earnings forecasts, it is improbable that this could occur consecutively in each quarter for 10 years in a row.

However, the SEC’s focus was on activity transpiring between 2002 and 2003. “On four separate occasions in 2002 and 2003, high-level accounting executives or other personnel approved accounting which was not in compliance with GAAP,” claimed the SEC (SEC, 2009, GE Court Complaint, p. 1-2). The SEC asserted that the entity misapplied revenue recognition standards for the sales of locomotives and sales of spare parts for aircraft engines (SEC, 2009, GE Court Complaint, p. 3).

During the fourth quarters of 2002 and 2003, the corporation recorded revenue from sales of trains (Leone & Reason, 2009), yet these locomotives were not sold to the typical railroad-oriented client. Instead, the machinery was transferred to a financial intermediary with the intent that the financial institution would subsequently resell the merchandise to the appropriate customers in the ensuing quarter. These financial institutions profited from the transactions by charging GE fees and interest (SEC, 2009, GE Court Complaint, p. 18-20).

Although the trains were “sold” to the financial institution, GAAP does not allow for revenue recognition because the product not only remained with the seller, but the seller maintained continual support for the products. GE still stored the trains on their property and provided the necessary fuel and maintenance for the equipment. These “sales” were not limited to a few locomotives. In the fourth quarter of 2002, 191 trains were “sold.” However, 68.6% of these of these transactions resulted from illegitimate sales that should have been recorded in the subsequent quarter (Henry, 2009). Accordingly, revenue, for this business segment, was artificially enhanced during the fourth quarter of 2002 and the fourth quarter of 2003 by \$223 million (8.8%) and \$158 million (22.6%), respectively. Consequently, in July 2007, GE announced that the revenue recognition was “inappropriately accelerated” and, subsequently, restated financial results for the aforementioned quarters (Leone & Reason, 2009; SEC, 2009, GE Court Complaint, p. 23).

Further revenue misstatements occurred in the company’s aircraft spare parts business between 2002 and 2007 (SEC, 2009, GE Court Complaint, p. 30). In an effort the boost earnings, GE adjusted a key accounting process. First, the company eliminated a method of accounting for spare parts transactions, labeled as the Revenue Accounting Model (RAM) for new aircraft engine sales. Under this approach, the company determined profit margins by combining “low margins from aircraft engine sales with high margins from spare parts/spare engines for those aircraft” (SEC, 2009, GE Court Complaint, p. 24). These profit margins were computed by incorporating actual margins with projected margins (SEC, 2009, GE Court Complaint, p. 24). In this respect, a projected profit margin is a highly questionable and unreliable technique under GAAP. Accordingly, in 2002 the company abolished RAM and, thus, earnings declined by \$844 million (SEC, 2009, GE Court Complaint, p. 27).

Yet, in an effort to counteract the loss resulting from the elimination of RAM, GE orchestrated a method where the spare parts were transferred to another GE business unit where the percentage of completion was used. This tactic created \$1 billion in additional earnings (SEC, 2009, GE Court Complaint, p. 27). This “gain” from the interdepartmental transfers more than absorbed the “loss” from the elimination of RAM. Additionally, GE saved the difference, valued at \$156 million, and established a “cookie jar” reserve. A cookie jar reserve indicates a hypothetical fund where profits are held and released at a future date. GE also violated GAAP by releasing the incremental profits in future periods when earnings were fundamentally weaker. These practices lead to GE overstating their net earnings by \$585 million in 2002. Consequently, in 2008 the corporation restated its revenues and earnings for the 2003-2007 period (SEC, 2009, GE Court Complaint, pp. 29-30).



After a lengthy four-year investigation, GE settled the accounting fraud charges. In August 2009, the entity settled with the SEC to pay a \$50 million civil penalty as a result of the above-mentioned issues, as well as “improper accounting for hedging transactions and interest rate derivative securities” (Henry, 2009). According to the Director of the SEC’s Division of Enforcement, Robert Khuzami, “GE bent the accounting rules beyond the breaking point” (SEC, 2009, August 4). In addition, throughout the tenure of this investigation, the company incurred \$200 million in legal and accounting costs. Nonetheless, these costs and penalties are relatively insignificant in comparison to the conglomerate’s total revenue and earnings.

### Impact on Stakeholder Wealth

Although the degree of losses and/or write-downs has been quantified, the impact on shareholder wealth must also be assessed. Typically, if an organization’s revenue and profits continue to climb, the stock price will follow suit. However, those reported numbers must be trustworthy. As a corporation’s integrity becomes impaired due to revenue and earnings restatements, there has been a significant impact on the common stock price as shown in Table 4.

**Table 4: Impact of Revenue Misstatements on Shareholder Wealth**

Company Name	Change in Stock on Day Accounting Irregularity or Restatement is Announced	Date Accounting Irregularity or Restatement Was Announced	Annual Performance During Year That Accounting Irregularity or Restatement is Announced
Hewlett-Packard	-11.95%	(November 21, 2012)	17.20%
Nortel	-28.36%	(April 28, 2004)	-17.92%
TheStreet	28.17%	(Jan 25, 2010)	11.25%
Diebold	-2.98%	(January 16, 2008)	-3.07%
General Electric	-0.26%	(February 19, 2008)	-56.30%
Average	-3.08%		-9.77%
Standard Deviation	20.6%		29.3%

While the information presented in Table 4 illustrates a short-term and intermediate-term view, it is also important to assess the long-term impact on shareholders. Although the market value of the previously-mentioned companies (except Nortel) has stabilized, none of the discussed companies’ stocks are near their historical highs. In comparison to the all-time high (which is the highest market value ever recorded for a company’s stock), HP, TheStreet, Diebold, and GE’s stocks, as of May 2013, have declined by 67%, 95%, 46%, and 60% (Yahoo Finance). Nortel’s stock, on the other hand, is now worthless as the business is defunct. Typically, when a security declines significantly from its maximum value, shareholders will demand organizational changes.

It appears that as the listed companies’ stock prices deteriorated, there might have been greater incentive for management to boost profits. Although the chief goal of a corporation is to amplify shareholder wealth, the maximization should occur legitimately through organic earnings growth and not accounting tactics that violate GAAP.

In addition, shareholders can also be harmed due to the deteriorating financial position of a corporation. Lawsuits can create major contingent liabilities. For example, if the \$1 billion lawsuit against HP materializes, the losses can multiply and negatively impact income and stockholder’s wealth.

Conversely, revenue recognition scandals can also have negative ramifications on bondholders (creditors). For example, although it is possible that Autonomy’s accounting issues are due to the differences between GAAP and IFRS, the credit markets decided to punish HP’s bond prices first and ask questions later. On the wake of HP’s announcement of the massive impairment loss, the company’s bonds began to trade as if they were “junk” A junk bond typically carries a high interest rate due to increased risk. After the announcement, interest rates on the entity’s corporate debt increased by nearly 0.25%. This resulted in HP’s five- and ten-year bonds trading at nearly 2.94% and 3.35% beyond U.S. treasury bonds (Robinson, 2012). Accordingly, one week later Moody’s Investors Service downgraded the company’s credit rating. Moody’s is a credit ratings agency that rates the quality of an entity’s long-term debts. Moody’s downgraded HP’s bonds to Baa1 from A3 as the company was rendered to carry greater risk (Hesseldahl, 2012, November 28). This reduction in credit quality placed HP’s corporate bonds on the lower end of the investment grade scale (Moody’s, p. 6).

Although Moody’s didn’t mention the case against Autonomy, it is likely that the massive impairment loss influenced the downgrade. As observed, when credit downgrades occur, interest rates can rise dramatically on

outstanding debt issues. Higher interest rates will not only reduce the market price of a company's bonds (bondholder will suffer losses) but can increase interest expense for future debt issues. Increased expenses can result in reduced profitability and also harm shareholders.

In addition, as Nortel Inc. filed bankruptcy, bondholders are attempting to recover their investment. Although the equity has been completely eliminated, some bond issues are still trading in the market. As of May 2013, one of the company's bond issues, due in 2023, was trading at roughly half price (Church, 2013). It is a reasonable assumption that the creditors will collect only the current fair value of the bond. Hence, creditors are significantly harmed in the Nortel case as well. Although the revenue recognition scandal didn't cause the bankruptcy, it was certainly a symptom of an underlying condition.

### Trend in Reporting & Disclosure Enforcement Actions

While there are still a significant number of companies mishandling revenue recognition laws, there has been a noticeable decline in SEC enforcement actions with regard to reporting and disclosure (R&S) investigations. For example, in 2007, actions against companies with R&S breaches comprised 33% of total enforcement actions. However, by 2012, only 12.8% of total violations resulted from reporting and disclosure issues, including violations of the Foreign Corrupt Practices Act (SEC, 2007; SEC, 2012). See Figure 2.

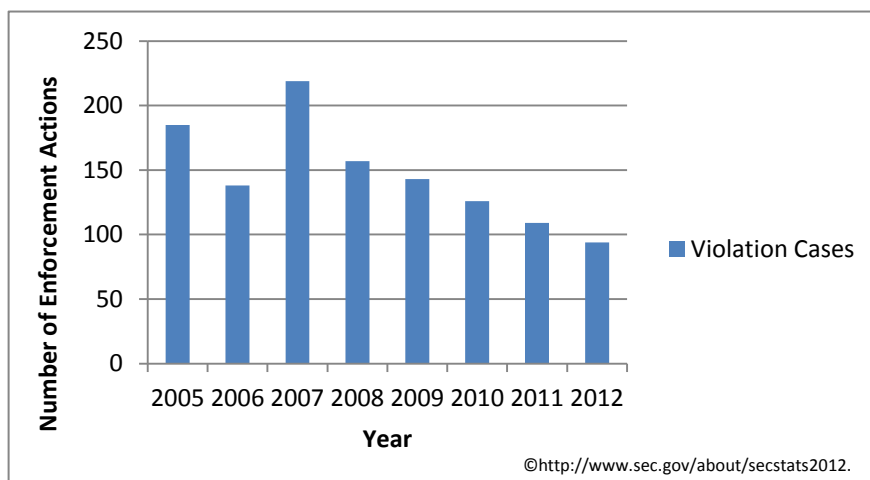


Figure 2: SEC Enforcement Actions – Issuer Reporting & Disclosure

Why has the following trend occurred? According to Stephen Juris, a Forbes contributor, “corporate executives are less inclined to risk their financial security or liberty to cook their employers’ books” (Juris, 2012). It is also quite possible that the stringent requirements set forth by the Sarbanes-Oxley Act of 2002 (SoX) have assisted in reducing overall financial reporting abuses. SoX, a law that was created as a result of massive financial accounting scandals occurring in the early 2000s (e.g. Enron, WorldCom, Tyco), significantly increases an executive’s responsibility over the financial reporting process. In addition, management must conduct a thorough assessment of their corporation’s internal controls over financial reporting (Cascini & DelFavero, 2008, p. 24). Each quarter, executives need to sign off on the validity of the financial statements and are required to issue a report attesting to the effectiveness of internal controls (Juris, 2012). If SoX is violated, executives may face severe penalties and jail-time.

According to Juris, it is plausible that the provisions of SoX have not only deterred management from engaging in fraudulent schemes, but the thorough assessment of internal controls has also allowed for deficiencies to be remedied prior to the development of significant GAAP compliance issues (Juris, 2012).

It is clear that there is a consistent downtrend in SEC enforcement actions resulting from reporting and disclosure violations. However, one must pose the following questions: 1) Have corporations begun to strictly obey

the rules? and 2) Has the SEC merely shifted its attention to other areas? It is highly plausible that SoX may have had a dampening effect on these types of regulation breaches, as Juris suggested. Nonetheless, oversight of the revenue recognition process should continue to strengthen regardless of the perceived trend.

### Revenue Recognition's Future

The above-mentioned examples presented cases where companies circumvented the prescribed accounting regulations. With the exception of HP, only GAAP rules were breached. Since GAAP clearly isn't tamperproof, should there be an extensive modification to revenue recognition rules? There is a high possibility that a revision will take place in near future.

As part of the International Convergence Project, the IASB and the FASB have been working on a joint framework to remove the differences between GAAP and IFRS. With regard to revenue recognition, the agenda aims to "create a single revenue recognition standard across industries for both GAAP and IFRS" (Lamoreaux, 2012). As of July 24, 2013, the FASB released proposed modifications to GAAP. The FASB & IASB proposed changes to sales with contracts by mandating that greater evidence must be provided in order to book a sale; procedures for "identifying separate performance obligations in a contract," constraints on revenue recognition from licenses, and "progress toward completion of a performance obligation" (FASB, 2013, August, Project Update).

Nonetheless, while a generalized approach might appear to be conceptually sound, in the opinion of the authors, this might not be practical. There are inherent differences in the two systems as U.S. GAAP is rendered to be more "rules-based," whereas IFRS is considered to be "principles-based." As observed in the HP case, some of the revenue recognition rules present under IFRS allowed for more flexibility and interpretation versus GAAP. According to Stice, Stice, and Skousen, authors of *Intermediate Accounting: 17<sup>th</sup> edition*, because international rules aren't as detailed as GAAP, "GAAP is often referenced when detailed revenue recognition guidance is needed" (Stice, 2010, p. 424).

In addition, according to Paul Miller, CPA, an accounting professor at the University of Colorado, the proposed revenue recognition modifications appear to be less complex than current law (Lamoreaux, 2012). "Simplification signals compromises have been made to make financial statements easier to prepare," stated Miller (Lamoreaux, 2012). Hence, it is being suggested that IFRS might be deficient in areas with regard to revenue recognition. Although it appears, based on SEC enforcement actions, that cases of revenue recognition violations have decreased in recent years, it is possible that this trend could reverse in the future if less stringent revenue recognition rules are instituted due to the convergence between GAAP and IFRS.

### CONCLUSION

Although revenue recognition errors can prove to be costly to shareholders, creditors, and the corporation as a whole, the penalties for cases involving fraud, in the opinion of the authors, should be more substantial. In all of the presented cases, the fines levied by the SEC equated to less than 1% of revenue, as shown in Table 5. When the fine is infinitesimal to the overall revenue, there appears to be little deterrent to stopping revenue manipulation. However, if a minimum penalty of 2% of total revenue was implemented for all cases involving revenue recognition fraud, the monetary punishments would be much harsher. For instance, if General Electric paid a penalty of 2% of revenue, the fine would have been over \$3.1 billion! A punishment of that magnitude might dissuade management from engaging in activities that could cause considerable losses, lawsuits, and significant long-term destruction to stakeholder wealth.

**Table 5: Fines as a Percentage of Revenue**

(\$ millions)	\$ Fine	Revenue in Penalty Year	% of Revenue
<b>Hewlett-Packard</b>	N/A	N/A	N/A
<b>Nortel</b>	\$35	\$10,948 (2007)	0.32%
<b>TheStreet*</b>	\$0.41	\$50.7 (2012)	0.81%
<b>Diebold</b>	\$25	\$2,823 (2010)	0.89%
<b>General Electric</b>	\$50	\$156,783 (2009)	0.03%

\* TheStreet's Penalty is Based on Penalties Levied on Executives

Yet, not all revenue recognition difficulties are a direct result from fraud. As demonstrated in the HP example, IFRS appears to be vaguer than GAAP with regard to revenue recognition for software transactions. Similar accounting discrepancies will continue to cause issues with international mergers. U.S. GAAP is regarded as “rules-based,” while IFRS is “principles-based.” These differences are illustrated by the software license example, as GAAP required objective measures for fair value determination while IFRS was more subjective. Thus, profits may also appear to be higher under IFRS vs. U.S. GAAP, solely due to the revenue recognition timing differences. Nonetheless, the convergence between GAAP and IFRS cannot allow for accounting rules to become less stringent.

In conclusion, cases of revenue recognition fraud are declining, but there must still be greater enforcement to prevent corporations from mismanaging accounting rules. Stakeholders will be negatively impacted when earnings restatements are announced and can lose their entire investment, as occurred in the Nortel case. This could have ramifications for not only stockholders, but could also negatively impact creditors and retirement assets within pension funds. Thus, penalties should be more severe to dissuade further accounting mismanagement. There can only be an efficient financial system in economy if there’s trust in the reported numbers. Integrity is key.

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**NOTES**