Identification of Fraudulent Financial Reporting through Analysis of Published Financial Statements

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Prepared by Paul Thompson

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ABSTRACT

INDENTIFICATION OF FRAUDULENT FINANCIAL REPORTING THROUGH ANALYSIS OF PUBLISHED FINANCIAL STATEMENTS

by Paul Thompson

Supervisor: Professor Thomas Kozloski, Accounting Department, School of Business and Economics, Wilfrid Laurier University

Fraudulent financial reporting has been identified by regulatory and oversight bodies as an area of significant concern. Common techniques that companies have employed, and reasons for this management behaviour have been have been identified and categorized.

This paper reviews techniques managers utilize to manage earnings and misstate revenues and balance sheet results. Generally accepted accounting principles in both Canada and the United States are reviewed to present the reader with the regulatory framework, and to help him understand how management judgement can often be applied that meets the form of the regulations, while falling short of the economic substance the regulations are attempting to achieve. Analytical tools are presented that can be used to identify the likelihood of material misstatement due to this behaviour in published financial statements.

This synopsis of unacceptable practices and how to spot them should assist financial statement analysts and investors in their review of the reported results from public companies, and help to identify those companies or instances that require closer analyses.

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Objectives

Despite unprecedented economic growth in market capitalization of publicly traded companies in the 1990's, another, more ominous trend also emerged: public exposure of financial misdealings, and financial frauds from this same group of firms. And while the boom growth eased in the early 2000's, the reported incidences of fraud continued to accelerate (see, for example, Table 1).

The objective of this paper is to provide users of financial statements with tools to avoid being deceived by financial statements that misrepresent the underlying economic performance of the firm.

Each chapter deals with a specific aspect of financial reporting that has proven to be at particular risk. I begin by examining how these frauds have been implemented, and then I review the regulatory guidelines in both Canada and the United States that prescribe acceptable accounting treatments. Finally, analytical tools that can be used to detect an increase in the likelihood that fraud may be occurring are discussed and illustrated.

The intended audience of this paper is a financially literate investor or analyst. However specific knowledge of generally accepted accounting principles (GAAP) is not assumed. Where appropriate, Canadian and U.S. GAAP are described so that the reader has a clear understanding of why the actions of the reporting firm are inappropriate.

Summary of Findings/Conclusions

Abusive earnings management practices are defined by the SEC as "the use of various forms of gimmickry to distort a company's true financial performance in order to achieve a desired result." [1]

Earnings management practices have received considerable analysis in the last fifteen years by both academics, and professional regulatory bodies like the U.S. Securities and Exchange Commission (SEC). The list of abusive earnings practices that the SEC has uncovered are reported in Accounting and Auditing Enforcement Releases (AAERs) which have been growing at a significant rate and continue to do up to the date of this report. The most common techniques utilized have been recorded, as well as auditor shortcomings that failed to identify these practices until much damage had been done.

Premature, overstated or unearned revenue leads all categories as the primary area in which abuses occur. While revenue recognition criteria are specified in regulatory pronouncements, in practice these criteria must be implemented by the application of professional judgement. This degree of flexibility is seen as mandatory given the wide ranging nature of economic transactions that regularly occur – we can't anticipate every set of possible circumstances – but it also opens the door to the potential to be intentionally misapplied by managers intent on achieving some goal other than fair and unbiased reporting. Examples of revenue recognition abuses are the lack of a firm, written sales order; channel stuffing; the existence of side letters which alter the original terms of the sale; transactions with related parties; and abuses in recording revenue in long-term contracts utilizing the percentage of completion method of accounting.

Tools which can assist in identifying revenue recognition abuses include: a critical review of the company's stated revenue recognition policies; analysis of certain balance sheet accounts; and analysis of physical capacity constraints.

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[1] Securities and Exchange Commission, *Annual report* (Washington, DC: Securities and Exchange Commission, 1999), p. 84

Financial statement users are frequently more interested in Income from Continuing Operations than Net Income. This arises from their use of current financial statements to forecast future results. Their belief is that Income from Continuing Operations is a better predictor of future income as these amounts are likely to continue in future periods. Knowing this, management may attempt to influence their analyses by inappropriate classification of income statement items.

Some techniques used to achieve this are shifting income statement items to other periods; recording expenses (revenue) as special charges or one-time losses (gains); changing accounting principles or estimates; sales of undervalues assets; and inappropriate recognition of gains and losses from discontinued operations.

The balance sheet is also subject to misleading presentation. Accounts receivable and inventory may be over stated, accounts payable or other accrued expenses may be understated, and contingent liabilities may be misrepresented.

Comparison of the percentage growth of these accounts to the growth in revenue may highlight this practice. Other useful ratios that will suggest trouble on the balance sheet are accounts receivable says outstanding, inventory days on hand, and accounts payable days outstanding. Uncovering manipulation of contingent liabilities requires an analysis of public information about the company such as press releases, legal filings, or news stories.

Capitalization and amortization policies are especially subject to manipulation since they are frequently material to a company's reported results, and they involve the use of considerable estimation and management judgement. Companies have attempted to amortize inappropriate assets such as advertising and marketing costs or research and development expenses; they have increased reported income by extending their estimates of an asset's useful life, or increasing their estimate of disposal values. When the practice runs the risk of getting out of hand, they can then record a write-down (taking a big bath) in the expectation that analysts will view this as a one-time aberration and discount this in the forecast of future cash flows.

The cash flow statement is not free of possible manipulation either. Classification of items into operating, financing, and investing activities can be manipulated, as can end of period utilization (or lack of utilization) of cash to allow inventory levels or accounts payable to increase or decrease depending on the effect desired. While operating cash flows can frequently help the analyst in identifying inappropriate accounting practices, care must be exercised in assessing the impact of income taxes, discontinued operations, and improper capitalization activities. As well, the purchase and sale of investments can affect cash flow to meet a desired objective, which may have little to do with the firm's ability to generate future cash flows at the same level.

An examination of the trend between adjusted cash flow from operating activities and adjusted income from continuing operations may help the analyst to identify companies that are manipulating earnings inappropriately.

Chapter 1

EARNINGS MANAGEMENT

Statement of Problem

Earnings management, in the context of this paper, is defined as "the use of various forms of gimmickry to distort a company's true financial performance in order to achieve a desired result."[2]

This definition refers to abusive earnings management, rather than the more benign version involving utilization of the inherent flexibility within GAAP. Abusive earnings management, if undetected, has the potential to materially misrepresent a firm's true performance, and to mislead investors and shareholders as to management's performance.

Scott (2003) defines earnings management as the choice by a manager of accounting policies to achieve some specific objective.[3] He points out that managers can choose accounting policies from a set of policies (GAAP), and given that, it is natural to expect that they will choose policies so as to maximize their own utility and/or the market value of the firm. While this definition is much broader than the one used by the SEC, it is useful for us to recognize that it is managers acting in their own self-interest that explains their behaviour.

This self-interest may be to achieve a higher bonus through reporting higher net income; to blame the current state of affairs on previous management (taking a "big bath"); to appeal to investors' preference for consistent results (income smoothing); to put some revenue aside in a good year for use in a subsequent period when it may be more difficult to achieve ("cookie jar reserves"); or simply to keep their reputation intact or to keep their job by

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[2] ibid

[3] Scott, William R., *Financial Accounting Theory* , Pearson Education Canada Inc., Toronto, 2003, p. 368.

reporting consistent year-over-year growth and profitability. Whatever the reason, it is potentially misleading to analysts and investors, and sometimes criminally so.

The Securities and Exchange Commission (SEC) issues Accounting and Auditing Enforcement Releases (AAERs) when they have uncovered abusive earnings management practices. A list of these from October, 1999 to the latest release can be found at:

http://www.sec.gov/divisions/enforce/friactions.shtml.

While most of the practices cited in the AAERs might otherwise be termed normal accounting activities (revenue recognition, expense accrual, capitalization and write-off practices), the inclusion of the instance in an AAER is done where the SEC believes the firm has exceeded the intent, if not the rule, of GAAP. Hence, the SEC considers these instances to be abusive earnings management.

The extent of the problem in the United States, as suggested by the number of annual AAER releases, appears to be increasing (Table 1). However, this may be due more to increased funding and heightened awareness post-Sarbanes-Oxley, than an increase in actual behaviour among US corporations.

Table 1: AAER Filings by Calendar Year

Release year	1999	2000	2001	2002	2003	2004	2005 (May)
# of AAER Filings	22	143	126	206	200	221	95

Techniques and Evidence

In a study by Professor Thomas Weirich of Central Michigan University, AAERs issued between July, 1997 and December, 1999 which involved audits of public firms by one of the (then) Big 5 audit firms, were examined.[4] In approximately 70% of the cases, the overstatement of revenue – either premature revenue recognition or fictitious revenue – was a contributing factor. Common techniques were:

- Recognizing revenue on consignment sales
- Recognizing revenue despite having entered into side agreements
- Recognizing revenue on conditional sales to related parties
- Recognizing revenue on bill and hold transactions inflating invoices in kickback schemes
- Recognizing revenue when the risks and rewards of ownership had not passed to the customer
- Recognizing revenue on shipments not ordered by customers
- Recognizing revenue on non-qualifying barter transactions
- Recording revenue on shipments after year-end by backdating shipping documents
- Delaying the recognition of returns
- Recognizing fictitious revenue with false journal entries
- Recognizing fictitious revenue on shipments of mock products or obsolete inventory
- Recognizing fictitious revenue on shipments to public or company warehouses[5]

Externally based evidence of earnings management, particularly in a public company, is challenging to detect. We might also ask why were these abuses not detected or reported

[4] Weirich, Thomas, *Panel on Audit Effectiveness Report*, Stamford, CT: Public Oversight Board, August, 2000.

[5] ibid, Appendix F, page 225

by the auditors. Professor Weirich noted numerous instances where the auditor's substantive procedures were apparently inadequate to detect material misstatements. Examples included:

- Inadequate (small) sample sizes

- Not adequately following up on exceptions noted on, or fax responses to, confirmations

- Not adequately testing the following: the approval process for sales, sales or inventory cut-offs, charges to asset accounts, or the valuation of securities or property, plant and equipment

- Not controlling the confirmation process or not confirming the terms of large or unusual sales transactions, especially those that occurred at year end

- Not ascertaining whether the financial statements agreed or reconciled with the accounting records

- Over-relying on management's representations (i.e., not obtaining sufficient evidence to corroborate or refute management's representations, such as management's explanations for unusual fluctuations noted when performing analytical procedures)

- Not testing the accuracy of computer-prepared schedules

- Various instances where the auditors apparently were not aware of, or did not pay sufficient attention to, such factors as negative cash flows, extended sales terms, customers taking longer than usual to pay, increased product returns, or very large percentages of sales being recorded at the end of periods

- A very limited number of situations where the external auditors may not have tested, supervised and reviewed the internal auditors' work as thoroughly as would have been desirable

- Some instances where the personnel assigned to audit certain areas, such as receivables and inventories, did not appear to have sufficient training and experience or to be adequately supervised.

In many of these situations, the auditors appeared to have demonstrated a lack of sufficient professional skepticism[6].

Earnings Management Evidence in Academic Research

The SEC evidence, which is based on specific enforcement cases, is enlightening as to the scope of the known problem and the techniques utilized as they became known during the investigations. Academic studies have also been conducted, but they are based on empirical research, normally involving very large sample sizes and publicly available information. A representative sample of these studies will be briefly discussed, recognizing that a comprehensive review would be beyond the scope of this paper.

Healy (1985) predicted that managers, with inside information on net income before earnings management, would opportunistically manage reported net income so as to maximize their bonus or incentive compensation.[7] He used changes in accruals across reporting periods as a proxy for earnings management behaviour. If the change in accruals resulted in a larger (or lesser) net asset balance, then this growth was considered the amount by which earnings were managed up (or down). Healy hypothesized that firms whose net income was below the minimum threshold for management bonuses (the bogie) or above the maximum threshold beyond which no further bonuses would be awarded (the cap) would experience negative accruals (representing opportunities to "take a big bath" or record reserves to be brought into income in future periods). Firms whose net income was between the bogie and the cap were predicted to show positive accruals. From 441 observations over the period 1930 – 1980, Healy's hypothesis was supported by the empirical results.

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[6] ibid, page 227

[7] P. Healy, "The Effect of Bonus Schemes on Accounting Decisions," *Journal of Accounting and Economics*, April 1985, pp. 85-107

McNichols and Wilson (1988) also studied the behaviour of accruals, for years where firms were very profitable, very unprofitable, and in between.[8] They examined the provision for bad debts estimate, and then compared this figure with the actual bad debt experience. For the period 1969 – 1985 they found that these discretionary bad debt accruals tended to reduce income in very unprofitable and very profitable years, but increase income in those in between. These results were consistent Healy's work.

Other studies by Holthausen, Larcker, and Sloan (1995)[9] and Jones (1991)[10] supported the findings of Healy, and McNichols and Wilson that managers use accruals to manage earnings in a way that improves their bonus prospects either in the current year, or sets the stage for improved prospects in future years.

Nelson, Elliott, and Tarpley (2003) surveyed 253 experienced auditors to determine how managers attempted to manage earnings.[11] They classified their survey results according to primary approach (expense recognition, revenue recognition, business combinations, and other approaches, and further sub-classified by the particular technique used in the attempt. Their findings were linked to recent AAERs that illustrated the specific approaches identified by their survey respondents. From the sample of 515 attempts, 53% increased current year earnings, and 31% decreased current year earnings. Attempts involving manipulation of expenses were reported in 52% of the cases, involving revenue recognition manipulation in 22% of the cases, and attempts involving business combination, and involving other approaches were each identified in 13% of the cases.

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[8] McNichols, M. and G.P. Wilson, "Evidence of Earnings Management from the Provision for Bad Debts," *Journal of Accounting Research* (Supplement, 1988), pp. 1-31

[9] Holthausen, R.W., D.F. Larcker, and R.G. Sloan, "Annual Bonus Schemes and the Manipulation of Earnings," *Journal of Accounting and Economics* (February 1995), pp. 29-74

[10] Jones, J., "Earnings Management During Import Relief Investigations," *Journal of Accounting Research* (Autumn 1991), pp. 193-228

[11] Mark W. Nelson, Elliott, John A., and Tarpley, Robin L., How Are Earnings Managed? Examples from Auditors, *Accounting Horizons, Supplement*, 2003, p. 17

Identifying Earnings Management

Beneish (1999) determined that earnings manipulation could be detected using two years of quantitative accounting data (one annual report).[12] The model identified distortions in financial statement data that might or might not result from manipulation; however its large rate of classification errors required further investigation of those companies so identified.

Wells, (2001) pointed out that the most basic analytical techniques (vertical, horizontal and ratio analyses) could have given auditors for ZZZZ Best, a well known public corporation fraud from the mid-1980's, some important clues.[13] Wells examined some basic financial statement ratios for two successive years, which showed significant variation, and pointed out that because they made such little sense, the fraud should have been evident to anyone doing the analysis. Wells' ratios from ZZZZ Best are shown in Table 2:

Table 2: Selected Ratios From ZZZZ Best

	1985	1986
Current ratio of assets to liabilities	36.552	.0977
Working capital: Total assets	0.05851	(0.0080)
Collection ratio	N/A	26.131
Asset turnover	.144	1.041
Debt to equity ratio	.017	1.486
Receivables turnover	N/A	6.984
Times interest earned	N/A	43.136
Cost of sales : Sales	.465	.423
Gross margin percentage	53.51%	57.68%
Return on equity	183.75%	46.58%

Earnings management practices include inappropriate recognition of revenue (recognizing it too early, or where the criteria have not been met); inappropriate manipulation of

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12 Messod D. Beneish, The Detection of Earnings Manipulation, *Financial Analysts Journal;* Sep/Oct 1999; p. 24

13 Wells, Joseph T., Irrational Ratios, *Journal of Accountancy*, August, 2001a.

classification of items within the current period income statement; misreporting assets and liabilities on the balance sheet; employing aggressive capitalization or amortization techniques, and manipulation of the items or categorization with the cash flow statement.

In the chapters that follow I will examine these different earnings management practices, and review specific ratios or analytic techniques that will be useful to uncover each technique.

C h a p t e r 2

PREMATURE, OVERSTATED OR UNEARNED REVENUE

The Committee of Sponsoring Organizations' (COSO) 1999 report stated that approximately one half of the AAERs issued between 1987 and 1997 were related to revenue misstatements.[14] In addition, the Public Oversight Board (POB) Panel on Audit Effectiveness[15] report studied AAERs issued between July 1, 1997 and December 31, 1999, and found that approximately 70% of the cases involved overstated revenues. Given the significance of these figures, we need to examine this issue in detail.

Revenue recognition under GAAP

The CICA Handbook at section 3400.07 states:

In a transaction involving the sale of goods, performance should be regarded as having been achieved when the following conditions have been fulfilled:

(a) the seller of the goods has transferred to the buyer the significant risks and rewards of ownership, in that all significant acts have been completed and the seller retains no continuing managerial involvement in, or effective control of, the goods transferred to a degree usually associated with ownership; and

(b) reasonable assurance exists regarding the measurement of the consideration that will be derived from the sale of goods, and the extent to which goods may be returned.

Background paragraphs 3400.10, .12 and .18 provide further guidance on applying the principles set forth in CICA 3400.07.

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14 Reported in Fraudulent Financial Reporting: 1987-1997 An Analysis of U.S. Public Companies, *The Auditors Report, American Accounting Association,* Vol. 22, No. 3, Summer, 1999.

15 Public Oversight Board Panel on Audit Effectiveness, *Report and Recommendations,* August 31, 2000, found at http://www.pobauditpanel.org/ June 17, 2005

In the United States the software industry, in particular, exhibited quite divergent patterns in how revenue recognition criteria was applied. This led the Accounting Standards Executive Committee of the American Institute of Certified Public Accountants (AICPA) to issue Statement of Position 97-2, *Software Revenue Recognition* (SOP 97-2)[16]. For most situations, SOP 97-2 indicates that the following four criteria must be met before software revenue can be recognized:

1. Persuasive evidence of an arrangement exists.

2. Delivery has occurred.

3. The vendor's fee is fixed or determinable.

4. Collectibility is probable.

The Securities and Exchange Commission borrowed the revenue recognition criteria from SOP 97-2 when it issued Staff Accounting Bulletin No. 101, *Revenue Recognition in Financial Statements* (SAB 101)[17], which was intended to provide guidance to accountants and managers in other industries where industry-specific criteria had not been developed. In 2000 the SEC further clarified their views on revenue recognition with the release of *Revenue Recognition in Financial Statements: Frequently Asked Questions and Answers*.[18] The Public Oversight Board (POB) Panel on Audit Effectiveness issued its *Report and Recommendations* the same year, which also considered this topic.[19]

In comparing U.S. and Canadian standards, I note that paragraph (a) of 3400.07 maps closely to criteria 1 and 2 of SOP 97-2, and paragraph (b) of 3400.07 maps to criteria 3 and 4. In the material that follows, I will examine how these criteria are abused, and then

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16 Statement of Position 97-2: *Software Revenue Recognition* (New York: Accounting Standards Executive Committee, October, 1997).

17 Statement of Position 101: *Revenue Recognition in Financial Statements* (New York: Accounting Standards Executive Committee, December 3, 1999)

18 Statement of Position 101: *Revenue Recognition in Financial Statements: Frequently Asked Questions* (New York: Accounting Standards Executive Committee, March 2000), found at : www.sec.gov/info/accountants/sab101faq.htm

19 Public Oversight Board Panel on Audit Effectiveness, *Report and Recommendations,* August 31, 2000, found at http://www.pobauditpanel.org/ June 17, 2005

consider tools and that may be used to identify such practices in published financial statements.

Abuses of revenue recognition criteria – Section 3400.07 (a)

Written Sales Order Abuses

The lack of a firm, written sales order will preclude companies from recognizing revenues under this criterion, however Mulford and Comiskey (2002)[20] (MC) cite numerous examples where the SEC has identified abuse in this area. Practices identified include:

- Shipping goods to a freight forwarder overseas, where ultimate sale to an end user was contingent on the company's sales agents finding a purchaser (Structural Dynamics Research Corp.).[21]

- Shipping goods to a third party warehouse, where the eventual sale was contingent on the purchaser obtaining a documentary letter of credit. (Cylink Corp.).[22]

- Shipping goods to distributors and making verbal commitments to accept the return of the equipment if it wasn't sold (Lucent Technologies, Inc.).[23]

- Back dating signed license agreements with customers in order to record the sale prior to a period end (Informix Corp.).[24]

- Early shipment by a carrier who was asked to delay delivery until the requested (future period) delivery date, and recording FOB destination sales as FOB shipping point sales in order to record the transaction in an earlier period (Sensormatic Electronics).[25]

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[20] Mulford, Charles W. and Eugene E. Comiskey, *The Financial Numbers Game*, John Wiley & Sons, Inc., New York, 2002

[21] AAER No. 903, Washington, DC: SEC, April 10, 1997

[22] AAER No. 1313, Washington, DC: SEC, September 27, 2000

[23] *The Wall Street Journal*, February 9, 2001, p. A3

[24] AAER No. 1215, Washington, DC: SEC, January 11, 2000

[25] AAER No. 1017, Washington, DC: SEC, 1998

- Using warehouses to store shipped goods, which had not yet been sold (Kurzweil Applied Intelligence, Inc.)[26]

Channel Stuffing

A similar practice, known as channel stuffing, occurs when a vendor uses tactics such as deep discounts, or extended payment terms to induce their customers to order more product then they can use or resell in a reasonable period of time. MC (2002) illustrate this with the case of Bausch and Lomb, Inc. whose distributors, in 1993, bought enough contact lenses in two weeks to satisfy their needs for up to two years.[27] While technically this criterion was satisfied, from an economic standpoint Bausch and Lomb were robbing future period sales in order to boost their current revenue, seriously compromising the relevance (predictive value and feedback value) of their financial statements.

Side Letters

The existence of side letters is another common technique used to abrogate or seriously compromise the original, recorded sales agreement. Where side letters are used to clarify provisions in the original contract, they may be a useful business tool; the problem in a revenue recognition context occurs when they effectively negate the original sale, or modify it in such a way that this recognition criterion is not met. Examples of provisions in side letters which have this result are:

- Absolvement from the requirement to pay for the product unless it is subsequently sold (Engineering Animation, Inc.).[28]

- Providing an unconditional right of return (KnowledgeWare, Inc.).[29]

- Extended payment terms beyond 12 months (Informix).[30]

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[26] *Business Week*, September 16, 1996, p. 90.

[27] Mulford, Charles W. and Eugene E. Comiskey, *The Financial Numbers Game*, John Wiley & Sons, Inc., New York, 2002, p. 171.

[28] AAER No. 1332, Washington, DC: SEC, October 5, 2000

- Agreement to pay fictitious consulting or other fees to resellers to be repaid to the company as license fees (Informix).[31]

According to SAB 101, side letter agreements that make collection contingent on the ultimate resale to an end-customer constitute consignment transactions.

<u>Related Party Transactions</u>

Implicit in the language that "*the seller retains no continuing managerial involvement in, or effective control of, the goods transferred to a degree usually associated with ownership"* is the assumption that the sale is to an arm's length entity that is unrelated to the vendor. Section 3840 of the CICA Handbook discusses related party transactions, where "related party" is defined as:

"Related parties exist when one party has the ability to exercise, directly or indirectly, control, joint control or significant influence over the other. Two or more parties are related when they are subject to common control, joint control or common significant influence."[32]

Related party transactions are not inherently bad; the issue is that their contribution to the financial results is required to be disclosed. Section 3840.43 stipulates the disclosure requirements as:

An enterprise should disclose the following information about its transactions with related parties:

(a) A description of the relationship between the transacting parties;

(b) A description of the transaction(s), including those for which no amount has been recorded;

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[29] AAER No. 1179, Washington, DC: SEC, September 28, 1999

[30] AAER No. 1133, Washington, DC: SEC, May 17, 1999

[31] ibid

(c) *The recorded amount of the transactions classified by financial statement category;*

(d) *The measurement basis used;*

(e) *Amounts due to or from related parties and the terms and conditions relating thereto;*

(f) *Contractual obligations with related parties, separate from other contractual obligations; and*

(g) *Contingencies involving related parties, separate from other contingencies. [OCT. 1995]*[33]

If the required disclosure is not made, users of financial statements may make the assumption that the operating income that results from the transaction is sustainable, which may not be the case.

Percentage of Completion Method accounting

The Percentage of Completion (POC) method of accounting for revenue in long-term contracts is utilized to inform users of progress towards the fulfillment of a contract which may take many accounting periods to finish. Rather than show zero revenue for most of the time during which a contract is undertaken, followed by 100% of the revenue and expenses on completion, this method allows a contractor to inform their financial statement users of the degree of economic activity during the intervening periods. The problem occurs when firms make aggressive estimates of the degree of completion and hence, the amount of revenue to recognize.

AICPA Statement of Position 81-1 (supported by the FASB in Statement No. 56) cites the following necessary conditions to utilize the percentage of completion method:

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[32] The Canadian Institute of Chartered Accountants, CICA Handbook, Section 3840.03 (g)

[33] ibid, Section 3840.43

- *The entity has the ability to make reasonably dependable estimates of the extent of progress toward completion, contract revenues, and contract costs.*

- *The contracts executed by the parties clearly specify the enforceable rights regarding goods or services to be provided and received by the parties, the consideration to be exchanged, and the manner and terms of settlement.*

- *The buyer can be expected to satisfy its obligations under the contract.*

- *The contractor can be expected to perform its contractual obligations.*

CICA 3400 states that *"revenue recognized under the percentage of completion method would be determined on a rational and consistent basis that reflects the extent of work accomplished."*

When applying the percentage of completion method, how does the contractor determine the extent of work accomplished for the purpose of determining the amount of revenue to be recognized? Making estimates of progress is fraught with the potential to over-estimate completion, thus bringing revenue onto the Income Statement earlier than should be the case.

To address this issue, the Emerging Issues Committee of the CICA determined that, "when applying the percentage of completion method to the contract, the contractor should determine the amount of work accomplished by reference to measures of performance that are reasonably determinable and related as directly as possible to the activities critical to completion of the contract. Measures of performance include output measures, such as units produced or project milestones, or input measures, such as labour hours or machine use." [34]

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[34] Emerging Issues Committee, CICA, *Abstract of Issue Discussed, EIC-78: Construction Contractors – Revenue Recognition When the Percentage of Completion Method is Applicable*, January 22, 1997

Abuses of revenue recognition criteria – Section 3400.07 (b)

Price is Not Fixed or Determinable

If the price for a good or service is contingent on some future event, or the degree of usage by the customer, or if the contract is cancelable without penalty, then the price cannot be said to be determinable, and criterion (b) of CICA 3400.07 is not satisfied.

Examples of abuses are often evident in Side Letters, such as provisions allowing an exchange of one type of product for another where significantly different margins exist (Cylink)[35], or payment may be forgiven if anticipated funding is not received (Kendall Square Research Corp.)[36].

Identifying Premature, Overstated or Unearned Revenue

1. Determine the Revenue Recognition Policy

The first step in a prudent analysis of a company's financial statements will be to read the accompanying notes, particularly Note 1 which describes the company's accounting policies.

The revenue recognition policy described by the company should be carefully read to determine if it suggests any of the techniques listed are being utilized. Consideration must be given to the degree of estimation the company is utilizing – the more estimation is employed, the more opportunity exists for unsupportable bias, or misapplication of the intent of the GAAP provisions.

Have the revenue recognition criteria changed? This, too, requires disclosure and explanation, and requires careful scrutiny for reasonableness and economic justification.

The company's policy should also be compared to industry norms. If significant deviation is observed, it should be explainable by the company; otherwise it should be considered a red flag.

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[35] AAER No. 1313, Washington, DC: SEC, September 27, 2000

[36] AAER No. 776, Washington, DC: SEC, April 29, 1996

2. Analyze Balance Sheet Accounts

Premature revenue, or fictitious revenue, when recorded, must have a corresponding debit entry, usually to accounts receivable. Cash is not likely to be used to record fictitious revenue since it comes under significant audit scrutiny. However, as accounts receivable remain uncollected, they will increase in size faster than revenue growth can justify. The result is an increase in the A/R to Sales ratio, or the days-accounts-receivable-outstanding ratio. These should be calculated and analyzed both in a time series analysis and a cross-sectional analysis (comparing the data from one company to that from another company in the same industry for the same time period). If a company has become aggressive in its recognition of revenue, a clear growth pattern in these ratios is likely to occur.

While the accounts receivable are the most likely debit entry to balance fictitious revenue entries, devious managers may also resort to utilizing other asset accounts. Liability accounts could theoretically also be used, but they have a limit, since debit entries will reduce them, and the shrinkage, in a growing balance sheet, would be obvious. Eventually, a different approach would be required. The most likely asset accounts are property, plant and equipment (PP&E), and other assets (OA).

The PP&E to sales ratio should be examined in both a time series analysis and cross-sectional analysis. Distortions in either of these patterns should be explainable by the company's economic activity; if not further questions need to be asked of the company.

Other assets tend not to be examined as closely as cash, A/R and inventory, and hence may prove suitable for fictitious debit entries. Preparing a common size balance sheet, whereby all assets are expressed as a percentage of total assets, and then conducting a time series analysis of OA will provide a quick reasonableness test of this line.

3. Consider Physical Capacity Considerations

Fictitious revenue, in particular, may be recorded to such an extent that it is not reasonable given the company's investment in capacity. The specific capacity tool to utilize in this analysis will depend on the industry – sales per square foot in a retail operation, revenue per truck in a transportation operation, or even revenue per employee could indicate an achievement that is unlikely. Comparison to other firms in the same industry will help to identify these instances.

Summary

Revenue recognition criteria receive much regulatory attention; nevertheless, they still require considerable judgement in some situations. In some instances revenue is recognized before the earning criteria have been met; in others it is recognized when an actual sale to an end user has not happened, or collectibility is highly uncertain. Abuses of revenue recognition occurred in approximately 70% of AAERs between July, 1997 and December, 1999, indicating that this is the major area in which abusive earnings management takes place.

Identifying revenue recognition abuses should start with an understanding of the company's stated policy, which is found in the notes to the financial statements. Days-accounts-receivable-outstanding is a useful ratio to calculate and analyze in both a time-series and cross-section analysis; if the company is aggressive in its revenue recognition practices, we expect to see a growth pattern in this ratio.

It is also important to remain cognizant of a firm's inherent capacity. The specific measure used will vary by industry; what is important is a reasonability test – is the firm large enough, or has it invested enough capital to achieve the results it purports to have achieved?

Chapter 3

INCOME STATEMENT CLASSIFICATION AND DISCLOSURE

The Securities and Exchange Commission, in a letter to the AICPA, noted the importance of income statement classification to users of financial statements:

"The appropriate classification of amounts within the income statement or balance sheet can be as important as the appropriate measurement or recognition of such amounts. Recently, financial statement users have placed greater importance and reliance on individual income statement captions and subtotals such as revenues, gross profit, marketing expense, research and development expense, and operating income."[37]

As with much else in GAAP, considerable flexibility is allowed in the presentation of operating period results. In theory, in order to preserve the relevance of accounting information, more emphasis will be placed by users on income from continuing operations, in the belief that these earnings are replicable. Management, however, may attempt to influence this analysis by making classification decisions that achieve a desired result, quite apart from the economic basis of the underlying transactions. That is not to say that management's bias will always be to increase income from continuing operations; in some instances a decrease may be desirable, in order to demonstrate a stronger comparative performance in a subsequent period. Users of financial statements need to be aware of this potential, and be willing to apply their own judgement to the classification presented by management. In this chapter I will review some of the techniques used to manipulate operating income.

[37] SEC, *Letter: 2000 Audit Risk Alert*, extracted from http://www.sec.gov/info/accountants/staffletters/audrsk2k.htm, June 12, 2005.

Shifting Income Statement Items to Other Periods

Capitalizing operating costs

The matching principle requires that operating costs be accounted for in the same period as the revenue is earned to which the costs contributed. If the costs are improperly recorded as an asset rather than an expense item, the current period's earnings will be overstated, and subsequent periods earning will be understated, as the capitalized asset is amortized. Examples of costs that have often been seen to be treated in this way are marketing costs, research and development costs, and repair and maintenance costs.

We will examine the effect of this practice more fully in chapter 5; however it is listed here because of the connection this practice has to shift income to other periods.

Special Charges and One-Time Gains/Losses

Extraordinary items; non-operating gains

To be classified as extraordinary, a transaction must be both unusual and nonrecurring (in the US); in Canada, section 3480 of the CICA Handbook specifies:

3480.02 Extraordinary items are items which result from transactions or events that have all of the following characteristics:

(a) they are not expected to occur frequently over several years;

(b) they do not typify the normal business activities of the entity; and

(c) they do not depend primarily on decisions or determinations by management or owners.

This last characteristic, which was added in 1989, eliminated items such as gains or losses on disposals of capital assets from extraordinary item classification; they are now included in income from continuing operations. This has had the effect of severely limiting the numbers of items classified as extraordinary.

A similar limitation exists in the application of the U.S. standard. Mulford and Comiskey (2002) cite the annual survey conducted by the AICPA as having located, on average, only about 3 extraordinary items per year out of 600 companies surveyed.[38] But why have standard setters sought to exclude this separate classification by setting such stringent requirements?

Barnea, Ronen, and Sadan (1976) reported evidence that managers in the United States acted to smooth income from continuing operations by classifying items as extraordinary or not, depending on their effect.[39] The 1989 Handbook revision was intended to eliminate this practice with respect to where the items are recorded, but it may not have been totally effective since management still retains flexibility with respect to both the amount and the timing of recording these items.

The amounts of many losses can be subjective, especially when they are based on future earnings. For example, the impairment test for Goodwill is not only subjective, but very difficult to externally verify by a financial statement user. To the extent that a "big bath" is taken, future earnings may be overstated.

Timing of recognition is also at management's whim to a certain extent. And when a loss is finally recorded, it may well be the case that the loss had been building up for some time; consequently it could be argued that prior statements of earnings were overstated.

In both instances, management has the ability to achieve income smoothing by selectively choosing when and how much to record of unusual and non-recurring items.

Discontinued operations

Discontinued operations have two effects on income statements – the recording of a gain or loss on the disposition of the associated capital assets, and the recording of the operating results from this segment. This latter item is provided in order to improve the

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[38] Mulford, Charles W. and Eugene E. Comiskey, *The Financial Numbers Game*, John Wiley & Sons, Inc., New York, 2002, p. 283

[39] Barnea, A., J. Ronen, and S. Sadan, "Classification Smoothing of Income with Extraordinary Items," *The Accounting Review* (January, 1976), pp. 110-122.

comparability of the current income statement to that of future periods in which the discontinued item will not appear. The issue that concerns us however is the application of the discontinued operations criteria.

Rapaccioli and Schiff (1991) found that a "significantly greater proportion of gains on the disposal of components were included in income from continuing operations and a greater proportion of losses were disclosed below-the-line."[40] This strongly suggests that discontinued operations are selectively classified and reported in order to achieve a favored (income smoothing) result.

<u>Accounting changes; reclassification of Balance Sheet accounts; reducing reserves</u>

Accounting changes usually involve a change in accounting principle or a change in estimates. In May, 2005, FASB issued Statement No. 154 on Accounting Changes and Error Corrections, which replaced APB Opinion No. 20. The new standard requires retrospective application to prior periods' financial statements of changes in accounting principle. Examples of the types of changes that would be affected by this statement are changes in the amortization method from straight-line to accelerated, or inventory costing method from FIFO to LIFO or a change in accounting for long-term contracts, from percentage of completion to completed contract.

Changes in estimates however are handled differently. A change in estimate, such as the useful life or estimated residual value of a long-term asset are applied prospectively; that is, the change is applied to the current and future periods, but prior periods are unaffected.

The application of a change in accounting principle has the potential to shift future, expected losses or higher expenses to prior periods, and thus "hide" them from financial statement readers. For example, using a straight line amortization approach for long term assets will apply an equal expense to each period. If, half way through the life of an asset, a switch is made to an accelerated approach, significantly higher amortization expense is

[40] D. Rapaccioli and A. Schiff, "Reporting Sales of Segments Under APB Opinion No. 30," *Accounting Horizons*, (electronic version) December 1991, p. 58

recorded in prior periods and lesser expense in future periods. The result would be an enhancement of current and future period income.

Changes in accounting principles cannot be applied in an unrestricted manner. The change must be justifiable by an argument that the new principle is preferable to the old one, and reference must be made to the change in the auditors' report. The astute reader of the financial statement therefore should be aware of these changes, and take them into consideration in their analyses of the firm's performance.

Sales of undervalued assets

Selling assets which have appreciated in value will result in a gain which, in some cases can be quite substantial. For example, land purchased years earlier for $100,000 may now be worth $1,000,000. If it is sold, the resulting gain of $900,000 can create the impression of a successful business which may not necessarily be the case.

Until the release of SFAS No. 141 in June, 2001, U.S. companies were able to report acquisitions of other companies using the "pooling-of-interests" method. In this situation, the assets of the two companies were combined, at their book value, into the newly formed company.

BusinessWeek reported an example of the balance sheet effect of the pooling-of-interests method in their January 21, 2002 cover story:

"When Cisco bought GeoTel Communications in 1999 for some $2 billion in stock, it recorded only $41 million for the deal on its books--roughly the amount of GeoTel's shareholders' equity. Abraham J. Briloff, professor emeritus at Baruch College, estimates that in the two fiscal years ended in July, 2000, Cisco 'suppressed a grand total of $18.2 billion in costs' by using this method of accounting. 'It inflates their subsequent results to the extent that they avoid having to charge off everything from inventory, patents, licenses, plant, equipment, and goodwill,' says Briloff."[41]

In this example, Cisco could subsequently sell some or all of these assets at their fair market value and record huge earnings in the year of sale.

Even though SFAS No. 141 effectively removed the pooling-of-interests method from being used in an acquisition, there will be many companies still carrying assets from these acquisitions on their balance sheets, at book vales which might be well below FMV. Consequently, the effect from pre-SFAS 141 acquisitions may be felt for many years to come.

Summary

Management may attempt to achieve income smoothing in reported income from continuing operations by a variety of techniques. Inappropriate capitalization, special charges and one-time gains or losses all have the potential to mislead investors and other financial statement analysts if their true, non-recurring nature is hidden or buried deep in the notes. Users of financial statements need to be particularly wary of the sources of income, and dig further into the statements to determine if extraordinary items, discontinued operations, accounting changes, or sales of undervalued assets have distorted the company's true economic performance.

If the firm under analysis had acquired other companies using the pooling-of-interest method prior to the release of SFAS No. 141 in June, 2001 then they could be carrying significant levels of undervalued assets on their books. Any subsequent sale of these assets will need to be carefully evaluated in order to determine the true nature of the underlying transaction.

[41] Byrne, John A., and Ben Elgin.2002. *Cisco: Behind the Hype*, *BusinessWeek Online*, extracted June 12, 2005 from: http://www.businessweek.com/@@TdM3iYUQmlbGUhIA/magazine/content/02_03/b3766001.htm

C h a p t e r 4

MISREPORTED ASSETS AND LIABILITIES

Overvalued assets

Accounts receivable

Accounts receivable are carried at net realizable value, which includes the outstanding amounts owed to the company less an allowance for uncollectible or doubtful accounts. This allowance is created by recording an expense on the income statement, normally based on the firm's historical collection success. If market factors change, such as the criteria used to allow credit to a customer, or the general economic conditions under which the company is operating, then an adjustment to the way the allowance is calculated should be made.

If the allowance account is understated for any reason, the company will experience a two-fold improvement in their financial condition - both net income and total assets will be overstated. Consequently, if a firm intends to mislead, this is an area that is often chosen.

Intentionally minimizing the allowance taken for doubtful accounts may serve to show a short-term improvement in net income over what would otherwise be reported, but eventually it will result in having an inadequate reserve from which to write-off specific accounts that prove to be uncollectible. The company is then forced to take an additional write-down to try to hide the problem or, worse, they may attempt to avoid it altogether by retaining the bad debt as a current receivable.

Fortunately, manipulation in this area is often fairly easy to spot, as the company's operating ratios will start to show deterioration. The immediate impact of overstating A/R is that the ratio of A/R to sales will increase. Or stated another way, the percentage increase in A/R from one period to the next will be higher than the percentage increase in total revenue in the same periods. If it is desirable to select one ratio to track, then A/R days outstanding (dividing average A/R by revenue per day) captures all of this information. A/R days outstanding should also be compared to the company's stated credit policy, as well as to A/R days outstanding for competitors and for the industry average. If the company policy is to provide 30 day terms, and A/R days outstanding are 40, then the company is not collecting their receivables in a timely manner, and a greater provision should probably be made. By calculating these ratios for successive periods, the trend for the company can also be compared to the trend for the industry or for key competitors.

Inventory

The inventory asset represents investments in raw materials or finished goods that have not yet contributed to the earning of revenue. When the associated revenue is earned – the inventory is sold – the inventory cost is transferred to the income statement as costs of goods sold. Therefore, if inventory is overvalued, that means that costs of goods sold are understated, and, like the situation with accounts receivable, both total assets and net income are overstated.

Conceptually, there are three approaches to overstating inventory. One approach is to overstate the actual amount held on hand. This can be achieved by including empty boxes in the inventory count, or shifting goods from one warehouse to another in such a way that they are counted twice, or simply not making an appropriate adjustment to a perpetual inventory system when the results of an accurate count indicate significant shrinkage.

A second approach is to overstate the valuation applied to the inventory outside of the physical count calculation. For example, a journal entry that increases inventory and decreases costs of goods sold will have this effect.

The third approach to mislead readers of financial statements is to delay or avoid taking an appropriate write-down of inventory to replacement cost when this falls below original cost. This can happen with slow moving or obsolete inventory or to inventory in an industry where reducing costs, technological advancements, and manufacturing efficiencies are driving prices down. The microcomputer industry over the last 15 years is an example of this situation. As we have seen before, when management must apply its judgement, the temptation to err in a favourable light is sometimes irresistible, especially when a company has had an unexpected downturn.

Whatever the approach to overstating inventories, determining this in financial statements involves the same conceptual approach as I discussed for overvalued accounts receivable. There will be an increase in inventory carrying levels at a faster rate than the increase in sales revenue. Also, inventory days on hand, calculated by dividing average inventory by the cost of goods sold per day, will be increasing to levels higher than prior periods, or than key competitors, or industry averages. Any sudden jump in inventory days on hand should be considered a red flag in the absence of a reasonable discussion in the notes to the financial statements.

Undervalued liabilities

Accounts payable

Accounts payable typically arise due to purchases in inventory. In fact, when inventory is understated, accounts payable may often be understated as well, and vice versa. If A/P are understated, then costs of goods sold are likely to be understated, providing a boost to the income statement as well as the balance sheet.

We have two good tools to uncover understatement of A/P balances. The first is similar to the one we use for A/R and inventory – days payables outstanding. It represents the average number of days it would take to pay the ending balance in A/P at the year's average cost of goods sold per day. We would expect this ratio to remain fairly steady, unless the company has need for, and has made arrangements for extended credit terms for one reason or another. If this number is improving unaccountably, it may be that the A/P balance is understated.

Another useful tool is to track changes in percentage terms of A/P balances from one period to the next. Since these changes normally relate to inventory purchases, we would expect them to be mirrored in percentage changes to inventory levels. If one percentage is increasing while the other is decreasing, further investigation is warranted.

Accrued Expenses Payable

Accrued expenses typically relate to amounts due for selling, general and administrative expenses, as well as accruals for wages and benefits unpaid at statement date, and future cash outflows such as warranty expense which must be matched to the current period's revenues.

We expect accrued expenses payable to remain fairly steady if operations are constant (output of product, number of employees, etc.) To the extent that the business is growing, accrued expenses payable should grow as well. Consequently, by comparing the percentage change of accrued expenses payable to that of revenue, we should see a consistent relationship. If revenues are growing and accrued expenses payable are shrinking, that may suggest that this liability is understated.

The caveat to this is that improvements in operating efficiencies may account for a reduction. A smaller work force or lower administrative overhead may account for the pattern observed. Also, payroll and benefit accruals may vary widely from one period to another depending on the timing of company payday in relation to the fiscal period end. These, of course, will be unrelated to changes in revenue. If it is possible to isolate certain accrued expenses such as warranty expense payable, it may prove helpful to use the above ratios to check for reasonability.

Contingent Liabilities

Contingent liabilities are obligations that are dependent on the occurrence of a future event, or the clarification in the future of the amount owed, or the date by which it must be paid. Examples include settlement of lawsuits, environmental liabilities, or unexpected warranty obligations due to defects unforeseen at the time of sale. Where the amount and timing can be reasonably estimated, they should be recorded within the liability section of the balance sheet; otherwise they should be disclosed via the notes to the financial statements.

Failure to make an accrual for a contingent liability will result in an overstatement of shareholders' equity and possibly net income. Yet, since this is so heavily dependent on management judgement, it is difficult to determine when inadequate provisions have been made. The conscientious analyst will carefully review the notes to the financial statements for the discussion of contingent liabilities, and compare these to known facts about the company's operations. Lawsuits, environmental damage, and product recalls all receive a certain amount of press coverage; the company should be expected to address these issues within the notes, depending of course on the materiality.

Summary

Overstated assets or understated liabilities have the potential to mislead investors and other financial statement analysts by presenting the company as having a greater earning potential (larger asset base) than is actually the case. In addition, to the extent that the misrepresentation reflects transactions which were diverted from the income statement, the company's current earnings will be overstated as well.

Calculating the percentage growth of these accounts over a number of periods and comparing the result to the growth of revenue or cost of goods sold, as the case may be, can be an effective way to decide if further investigation is warranted. Single ratios which are effective for this purpose are A/R days outstanding, inventory days on hand, and A/P days outstanding. Accrued expenses payable should closely match growth in overall operations, but some variability will be due to factors like the timing of paydays in relation to the fiscal period end. Uncovering manipulation of contingent liabilities requires an analysis of the company's public information outside of the reported financial results – press releases and news stories that discuss lawsuits, potential environmental liabilities, or product recalls all have the possibility to affect the company's financial health and should, at least, be discussed in the notes, if they are material.

C h a p t e r   5

AGGRESSIVE CAPITALIZATION AND AMORTIZATION POLICIES

Capitalization policies under GAAP

As previously discussed, capitalization of fixed assets is applied as an implementation of the matching principle. Since long term assets contribute to the earning of revenue over many accounting periods, a systematic and rational allocation method should be selected by management to match the cost of the asset to each period.

However, as we will see, the decision of what to allocate, and the choice of an allocation method are often subjective, particularly when a transaction lacks a discrete purchasing event, or involves the allocation of recurring expenditures over time. In addition, a number of future-oriented assumptions must be made, such as useful life and residual value. In this chapter I will examine some areas where aggressive capitalization and amortization policies are likely to occur, and then discuss how they can be identified in published financial statements.

Advertising and Marketing Costs

While capitalization of a long term asset should be clear, other expenses, such as advertising and marketing costs, also could be considered as providing a benefit to the organization for multiple future periods. In the U.S., Statement of Position (SOP) 93-7 provides guidance on how to account for advertising expenditures and says costs should generally be expensed either as they are incurred or the first time the advertising takes place.

SOP 93-7 provides two exceptions:

1. Direct response advertising that meets certain criteria should be capitalized.

2. A company's obligation for advertising expenditures it will make subsequent to recognizing revenues related to those costs should be accrued and the costs expensed when the company recognizes the related revenues.

An example of the latter is cooperative advertising, where an organization agrees to reimburse customers for some or all of their advertising costs. This might apply to a manufacturer that reimburses retailers for media advertising for its products. In these situations, the company should accrue the advertising costs and expense them as the related revenue is recognized.

A company should capitalize and amortize direct response advertising if:

1. Its primary purpose is to elicit sales from customers who can be shown to have responded specifically to the advertising.

2. It results in probable future economic benefits.

To meet the first requirement, companies must have a way to document that customers have responded to specific advertising. To meet the second requirement, companies must present documentation of benefits from previous direct response advertising campaigns. Industry statistics will not suffice in the absence of a specific entity's operating history.

Some FASB pronouncements and audit guides provide accountants with guidance on reporting advertising for specific items or industries. There is, however, some inconsistency between these sources. Pronouncements that allow capitalization seem to do so because there is a clear, demonstrable cause and effect relationship between the assets acquired and the costs incurred. Pronouncements that prohibit capitalization appear to do so because there is no demonstrable causal relationship—the amounts capitalized would be immaterial or the cost of obtaining the information would outweigh the benefits of reporting it.

<u>Research and Development costs</u>

While research and development would seem to have a clear benefit to future periods, given the high risk associated with R&D and the uncertainty as to the future cash flows that may result from the research, these costs will normally be expensed in the current period. This conservative approach also ensures the comparability of companies engaging in such research.[42]

The exception to expensing occurs when technological feasibility is reached. While defining this point for various industries is outside the scope of this paper, the reader should recognize that management judgement is going to be a significant factor in making this determination.

<u>Capitalizing interest</u>

Interest incurred during the construction period of capital assets should be capitalized, and added to the cost of the asset.[43] The capitalization should cease when the asset is complete and ready for service. However there are limits to the amount of interest that can be capitalized. If the interest would increase the capitalized cost beyond the asset's net realizable value (NRV), then capitalization should cease and the subsequent interest cost should be expensed. This may often be an issue when the project has experienced construction delays or cost overruns. Even after construction is completed, if the asset experiences a subsequent impairment in value, a special write-down charge may be required to bring the carrying value to NRV.

The point at which an asset is complete and ready for service also may require management judgement. For example, if a building is still under construction, but some floors, which are largely complete, are rented out, the ready for service test is somewhat unclear.

<u>Intangibles and leaseholds</u>

Intangibles such as patents and licenses that are purchased can be amortized over their legal or economic useful lives. However where a patent has been developed from internal R&D, only the cost of registering it, or defending it in a court case, can be capitalized.

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[42] Statement of Financial Accounting Standards No. 2, *Accounting for Research and Development Costs* (Norwalk, CT: Financial Accounting Standards Board, October, 1974

Leasehold improvements are a general exception to the rule that an asset must be owned to be capitalized. While the leasehold improvements are typically attached to the lessor's property, an amortization charge is permitted by FASB Statement No. 142, *Goodwill and Other Intangible Assets.* At paragraph 11 this provision provides that the amortization period used should be an estimate of the useful life of the asset to the organization. The determination of useful life should be based on an analysis of all pertinent factors, such as the cost of the renewal or extension, and the existing terms and conditions that are subject to the material modifications considerations.

Identifying aggressive amortization policies

As we have seen, while specific guidance exists for all of these instances, they must be applied in ways that rely considerably on management judgement. This flexibility provides another opportunity for companies to manage their reported earnings, or to revise their financial position in order to create a deceptive impression of the firm's performance.

The starting point to identify these instances is to review the company's amortization policies in the notes to the financial statements. Their stated practices should then be compared to competitors and others in the same industry. This will give you insight as to whether the company should be viewed as conservative or aggressive in their capitalization approach.

The review of amortization policies should also consider whether they have changed, and if so, the reason for the change. Is the change moving to a more aggressive or more conservative approach? How would their reported results differ if the change had not been made? Does the explanation make sense considering what you know about the company's business, and their competitors?

Aggressive capitalization behaviour can also be indicated when a company has been forced to take a special charge to write down costs that were capitalized in prior periods.

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[43] Statement of Financial Accounting Standards No. 34, *Capitalization of Interest Costs* (Norwalk, CT: Financial Accounting Standards Board, October, 1979

The analyst must also consider the balances in other asset accounts. If a firm wanted to hide inappropriate capitalization practices, they could choose other asset accounts that typically don't receive as much audit attention. These could include Prepaid Expenses, Other Assets, or even Accounts Receivable. Mulford and Comiskey (2002) report the case of Sunrise Medical that capitalized miscellaneous operating expenses to accounts receivable, referring to the customer as "miscellaneous" on the A/R subsidiary ledger. To help identify where this might be taking place, a comparison of the change in each balance sheet account to the rate of change of revenue may prove useful.

While reviewing a company's policies is a required first step, often the analyst will discover that the detail provided is too vague to give clear guidance. For example, a firm may report that they amortize machinery over periods from 1 to 15 years. Is this reasonable? That can't be answered given the vagueness of the disclosure.

Consequently, I recommend that a calculation be made of the average amortization period of the company's capital assets. Buildings, because of their much longer economic life than other assets should be excluded from this calculation, if possible, as should land and construction-in-progress. Taking an arithmetic average of the resulting gross balances (that is, before deducting accumulated amortization) for the beginning and ending balance sheets, and dividing this into the amortization expense from the income statement will provide an average amortization rate. This should be comparable to the company's stated amortization policy, and should also be reasonable according to your understanding of the company's economic history. Comparisons to competitors and industry averages will be useful as well.

Summary

Matching of cash outflows to future periods is warranted if the expenditure contributes to earning revenues in those future periods. This is accomplished through capitalization of the costs, carrying them as assets on the balance sheet until the associated revenue is realized.

Some costs, because of their nature should not be capitalized, or should only be capitalized if they meet specific, stringent criteria. These include advertising and selling, research and development, and general and administrative expenses. Interest during construction periods, and purchased intangibles are also eligible for capitalization.

In all cases, management judgement must be applied in determining what to capitalize, how much to capitalize, and the period over which the capitalization should extend. If management has an incentive to achieve a specific result, or to smooth their income stream, there may be temptation to achieve these ends through manipulation of the capitalization process. Consequently, the astute analyst must take care that capitalization policies are appropriately selected and applied, considering not only the firm's economic circumstances, but also those of their competitors and others in the same industry.

Chapter 6

PROBLEMS WITH CASH FLOW REPORTING

Cash flow reporting under GAAP

The importance of the Cash Flow Statement (CFS) to investors is its use in valuing a firm's equity securities – the discounted value of the stream of future cash flows. Similarly, creditors find the CFS useful in assessing a borrower's ability to service existing and proposed debt.

SFAS No. 95 in the U.S.[44] and Section 1540 of the CICA Handbook in Canada detail the requirements for the preparation of this financial statement.

Section 1540.12 states:

"The cash flow statement should report cash flows during the period classified by operating, investing and financing activities. [AUGUST 1998]"

It is the operating section of the CFS that investors focus on in their analyses to the extent that they believe the results are sustainable. By their nature, the investing and financing activities of the firm are comprised of more discrete events that can vary widely between periods. However the operating section, which purports to reflect the cash flow from the firm's usual day to day operations, is considered to be a strong predictor of the firm's future income earning potential. Furthermore, since it removes the accruals associated with many of the creative accounting practices discussed in previous sections, it is considered to be "least subject to accounting distortions"[45].

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[44] Statement of Financial Accounting Standards No. 95, *Statement of Cash Flows* (Norwalk, CT: Financial Accounting Standards Board, November, 1987

[45] *CFO Magazine*, online article, "Charting the Disconnect between Earnings and Cash Flow," November 10, 2000. found at http://www.cfo.com/article.cfm/2989286/c_3046523?f=magazine_coverstory June 15, 2005.

Section 1540.20 states that the CFS can be prepared using either the direct method or indirect method, and paragraph .21 states that “Enterprises are encouraged to report such cash flows using the direct method.” Notwithstanding this encouragement, the indirect method, by which net income is adjusted to remove the effect of non-cash items and accrual entries, is far more widespread. I shall confine our comments here to the indirect method of preparation, although these considerations should be used in the analysis of the direct method CFS as well.

Using Operating Cash Flow to identify inappropriate accounting practices

The distinction between the two methods is only found in the operating section of the CFS. Here, cash flow provided by operating activities is considered the cash flow equivalent of net income from continuing operations, which is an accrual-based concept. However there are some critical differences between these two measures.

Net income includes gains or losses (accrual concepts) from sales of PP&E or investments. The effect of these gains/losses must be removed from net income to calculate cash flow from operations. The actual cash received from the disposal of these assets will be reported in the investing section of the CFS.

Interest and dividends received and paid are normally classified as operating activities (paragraph .34). And income taxes, which Section 1540.38 states should be disclosed separately are usually classified as cash flows from operating activities because of the difficulty in segregating them according to the specific transaction which gave rise to the tax effect.

The cash flows arising from extraordinary items should be disclosed separately (section 1540.32) as should cash flows arising from disposals of business units (section 1540.42).

The U.S. standard is not as rigorous in requiring separate disclosure, which makes the identification and adjustment for these items more challenging. The comments below will consider the challenge of the analyst making adjustments for those items which are not specifically segregated.

Adjusting for Income Tax Effect

Income tax payments and recoveries are most often found in the operating activities section (OA). However if the underlying transaction is an investing or financing event, this tax effect could be misleading when using the OA section of the CFS as a predictor of sustainable cash flows. For example, if a significant asset such as an operating division is discontinued and sold at a gain, this gain on the sale will be separately shown in the investing section of the CFS. However, the gain is taxable, and will increase taxes above what the firm would other wise experience during the year. These increased taxes will reduce cash flow from operating activities.

To illustrate, I will assume a company shows a pretax gain on sale of a subsidiary of $8 million on the income statement, an after-tax gain of $5 million in the notes to the financial statements, and showed proceeds from the sale in the investing activities section of $12 million. If the pre-tax gain of $8 million is deducted from net income in the indirect OA section of the CFS, then the tax on the gain of $3 million will have been deducted from the OA section. Had the tax been reported as a deduction from the investing activities section instead, where the cash proceeds are shown, the OA section would have been $3 million higher. If losses from non-operating transactions were experienced, the situation would be reversed, and the OA section would report a higher than appropriate cash flow based on the tax savings realized. Either way the result is misleading and requires adjustment.

Adjusting for Income from Discontinued Operations

The disposal of discontinued operations will normally be recorded in the Investing activities section of the CFS. To the extent that a pre-tax gain or loss on disposal is removed from net income in the OA section, the associated tax effect will have to be added back, as above.

Adjustment will also have to be made for the income from the discontinued operations, to the extent that it is included in the OA section. If it is not removed, cash flow from OA will be overstated as a proxy for future sustainable cash flows.

Adjusting for Purchase and Sale of Short-term investments

While the purchase and sale of long-term investments will normally be recorded in the investing section of the CFS, those from short-term investments are considered near-cash, which means that interest and dividend income as well as gains or losses from the disposition of these securities will be shown in the OA section. This has three aspects that the analyst will have to consider:

1. The income received is dependent on the free cash invested during the period, so there is a magnification effect in that high cash flows from OA will be increased as free cash is invested, and vice-versa.

2. Gains or losses are dependent on trading skills, market and economic conditions and a host of other variables; these may have little to do with the sustainability of cash flows from operating activities.

3. Management has the ability to manipulate cash flows from OA by selling more securities than it buys (increasing the cash flows) or buying more than it sells (decreasing the cash flows), to meet a desired objective, which again has little to do with the sustainability of this measure.

Impact from improper Capitalization activities

I discussed in chapter 5 the potential to mislead investors by aggressive capitalization and amortization policies. These policies will have an additional affect on the CFS.

Improper capitalization of an expense removes the expense from Net Income; it also removes this "use of cash" from the OA section of the CFS. Consequently, the predictive value of the cash flows from operating activities will be compromised as cash flow from OA is overstated.

Nonrecurring Income and Expenses

Net income can contain a number of nonrecurring income and expense items, such as insurance proceeds, settlement of a lawsuit, or restructuring charges. Section 1540 of the CICA Handbook is silent on how to categorize these items, but in the U.S. SFAS No. 95 states that cash flows from operating activities are:

22. c. All other cash receipts that do not stem from transactions defined as investing or financing activities, such as amounts received to settle lawsuits; proceeds of insurance settlements… (Emphasis added).[46]

And cash outflows for operating activities are:

23. e. All other cash payments that do not stem from transactions defined as investing or financing activities, such as payments to settle lawsuits; cash contributions to charities… (Emphasis added).[47]

Given the non-recurring or discretionary nature of these transactions, they should not be included when forecasting future cash flows.

Identifying Fraudulent Financial Reporting Using the Cash Flow Statement

Activities such as premature or fictitious revenue recognition, overstating inventory, or understating payables will show an increase in net assets or reported net income, but not in cash. Consequently, we can examine the ratio between cash flow from continuing operations and income from operations to identify instances when fraudulent financial reporting may be taking place.

In calculating this ratio we must make sure to adjust both the numerator and the denominator for the non-recurring items such as those described above. These will include gains and losses from sale of capital assets, trading in short-term securities, restructuring charges, settlements of material lawsuits, and the like.

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[46] Statement of Financial Accounting Standards No. 95, *Statement of Cash Flows* (Norwalk, CT: Financial Accounting Standards Board, November, 1987, paragraph 22 c.

If this ratio is decreasing, it informs us that earnings are growing faster than cash flow, and it may be a signal that earnings are being manipulated upward. If the ratio is increasing, then earnings may be manipulated downward, as we might see when a firm wishes to smooth their earnings stream, or set aside reserves for future periods when they may be needed.

Caution must be exercised not to confuse normal fluctuations in an economic or business cycle, with a trend. We know the ratio won't be a constant from one period to the next, and indeed if quarterly ratios are being examined there may be normal seasonality associated with the core business at work. And this ratio won't provide answers to what is happening – for that further analysis must be undertaken. But as a red flag that something may be amiss, this can be a very useful indicator.

Summary

The Cash Flow Statement is often used to forecast future earnings streams, but it can be manipulated as well to suggest a growth which isn't sustainable. Prior to using the CFS for this purpose, it must be adjusted to remove the effect on non-recurring items which can distort its usefulness. These include adjustments for tax effects associated with items in the financing or investing sections, which often are not removed by management when preparing the CFS.

An examination of the trend between cash flow from (adjusted) operating activities and income from (adjusted) continuing operations, over a sufficient period, may help to identify companies that are manipulating earnings inappropriately and that require further investigation.

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[47] ibid, paragraph 23 e.

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