EARNINGS MANAGEMENT: THE CASE OF LUCENT TECHNOLOGIES [1]

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ABSTRACT

The use of accounting discretion to window dress financial statements seems to be eroding public confidence in the financial reporting process. Critics argue that some managers are intentionally abusing GAAP's afforded discretion to manage earnings. This can reduce the quality of the financial reporting process and ultimately bring adverse effects on resource allocation in the economy. Not surprisingly, market participants, legislators, regulators, and academics are concerned with the need to control financial reporting abuses. In this paper we briefly review the recent literature on earnings management and show the incentives as well as the mechanics used by Lucent's managers to manipulate earnings. We found strong incentives for Lucent's managers to report smooth and increasing earnings to: a) increase the firm's market capitalization; b) enhance management compensation and job security; and c) reduce the company's cost of capital. The evidence we found suggests that the managers used: a) *big bath* restructuring charges; b) miscellaneous *cookie jar* reserves; c) premature and aggressive revenue recognition; and d) creative acquisition accounting and purchased R&D to manage earnings.

Keywords: Financial statements. Manipulate earnings. Managers.

RESUMO

O uso de discrição contábil para maquiar os demonstrativos financeiros parece estar corroendo a confiança pública no processo do relato financeiro. Os críticos argumentam que alguns gerentes estão intencionalmente abusando da discrição de GAAP para gerenciar lucros. Isto pode reduzir a qualidade do processo do relato financeiro e, finalmente, trazer efeitos adversos para a alocação de recursos na economia. Em função disso, os participantes do mercado, legisladores, reguladores e acadêmicos se preocupam com a necessidade de controlar os abusos do relato financeiro. Neste artigo, revisamos concisamente a literatura sobre o gerenciamento de lucros e mostramos tanto os incentivos, como também a mecânica, usados pelos gerentes da Lucent para manipular os lucros. Encontramos incentivos fortes para os gerentes da Lucent informarem lucros fáceis e crescentes para: 1) aumentar a capitalização do mercado da empresa; 2) fortalecer a compensação de gerenciamento e a garantia de emprego; e 3) reduzir o custo do capital da companhia. A evidência encontrada sugere que os gerentes, para gerenciar os lucros, usaram: 1) a estratégia de *big bath* para os custos de reestruturação; 2) reservas diversas do tipo *cookie jar*; 3) o reconhecimento prematuro e agressivo da renda; e 4) a contabilidade de aquisição criativa e o R&D adquirido.

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Palavras-chave: Demonstrações financeiras. Gerenciamento de resultados. Gestores.

1 INTRODUCTION

The primary objective of financial reporting is to provide information useful to investors, creditors and others for rational decision making. The Generally Accepted Accounting Principles (GAAP) are a set of principles that guide managers in preparing financial statements. These principles are flexible and allow managers to use their judgment to best report the underlying economics of their organizations.

On some occasions, when it is unlikely that the firm will meet certain financial expectations (such as earnings, revenues, return on investments, debt covenants or other measures) and the costs of not meeting them are considered to be too high, managers may use GAAP's flexibility to manipulate the accounting numbers. This is also known as earnings management.

Because earnings management reduces the quality of financial reporting, it can interfere with the resource allocation in the economy and can bring adverse consequences for the financial market. Enron and Worldcom are recent examples of earnings management that need no additional comments because of the damages they brought to the economy. Therefore, it is not surprising that market participants, legislators, regulators, and academics are concerned with the need to control financial reporting abuses.

Responsible authorities seem to be concerned with the pervasiveness of earnings management. Since 1998, after Levitt's speech addressing the need to control earnings management, the *Securities and Exchange Commission* (SEC) has been on the lookout for selective disclosure. *Business Week* recently published that the number of restatements more than tripled in the last 3 years.

In this paper we briefly review the recent literature on earnings management and show the incentives as well as the mechanics used by Lucent's managers to manipulate earnings. We identify strong incentives for earnings management and present several suspicious accounting practices consistent with these incentives.

The remainder of this paper proceeds as follows: first, we succinctly define and comment the earnings management definition; next, we briefly review academic literature, present most common incentives for earnings management and show major empirical findings. Subsequently, we identify possible incentives for earnings management and show the mechanics used by Lucent's managers to manage earnings. Finally, we present our conclusions and final remarks.

2 WHAT IS EARNINGS MANAGEMENT?

Among the many definitions of earnings management, the one most frequently cited is:

> Earnings management occurs when managers use judgment in financial reporting and in structuring transactions to alter financial reports to either mislead some stakeholders about the underlying economic performance of the company or to influence contractual outcomes that depend on reported accounting numbers (HEALY; WAHLEN, 1999, P. 368).

Healy and Wahlen (1999) observed that many aspects of this definition deserve additional comments. First, managers can use judgment in many different ways. For example, judgment is required to estimate future economic events such as salvage values of long term assets, obligations for pension benefits, losses from bad debt, asset impairment and many other events. Managers must also choose among acceptable accounting methods for reporting the same economic transactions, such as straight-line or accelerated depreciation methods or LIFO, FIFO or weighted average inventory valuation methods. Managers must also use judgment to manage working capital (inventory management, timing of shipments and purchase of supplies and receivables policies, to name a few), which affects cost allocations and revenues. Managers also use judgment to make or defer expenditures such as R&D, advertising, and maintenance. Finally, they must also decide how to structure transactions, for example: lease contracts can be structured so that lease obligations are on or off balance, and equity investments can be structured to avoid consolidation.

The authors also noted that the definition frames the objective of earnings management as misleading stakeholders about the economic performance of the firm. Obviously, managers can also use accounting judgment to make financial reports more informative for users. This can arise if certain accounting choices or estimates are perceived to be credible signals of a firm's financial performance. Decisions to use accounting judgment to make financial reports more informative for users do not fall within the definition of earnings management.

Finally, the authors pointed out that management's use of judgment in financial reporting has both costs and benefits. The costs are potential misallocations of resources that arise from earnings management. Benefits include potential improvements in management's credible communication of private information to external stakeholders, improving resource allocation decisions.

Earnings management seems to be a rather controversial matter. While the SEC and most academics consider it misleading to some users of financial information, some accountants and managers consider some alternatives of earnings management legitimate managerial practices.[1]

Dechow and Skinner (2000) noted that it is difficult to spot earnings management when it occurs within the bounds of GAAP. According to them,

> while some financial reporting choices that clearly violate GAAP can constitute both fraud and earnings management, other choices, within GAAP, can constitute earnings management. The key point to be made is that there is a clear conceptual distinction between fraudulent accounting practices (that clearly demonstrate intent to deceive) and those judgments and estimates that fall within GAAP but may comprise earnings management depending on managerial intent. However, in the latter types of choice it would, in many cases, seem difficult, absent some objective evidence of intent, to distinguish earnings management from the legitimate exercise of accounting discretion.

Therefore, not surprisingly, it is not easy to identify whether earnings management has occurred, and academics find it difficult to document it convincingly. A common approach used by them is, first, to identify conditions in which managers' incentives to manage earnings are likely to be strong, and, then, to test whether patterns of unexpected accruals or accounting choices are consistent with these incentives. In the following section, we present the major academic findings.

3 EVIDENCE OF EARNINGS MANAGEMENT

Healy and Whalen (1999) reviewed the academic literature on earnings management. They identified three major factors that could create incentives for earnings management. These factors are: a) capital market expectation and valuation; b) contracts written in terms of accounting numbers; and c) anti-trust and other government regulations.

3.1 Capital market motivations

The widespread use of accounting information by market participants to assess firm's economics can generate incentives for managers to manipulate earnings in attempt to influence short term stock price performance.

Academic research reviewed by Healy and Wahlen (1999) documented that at least some firms attempt to influence short-term stock price performance by managing earnings. The evidence is consistent with firms managing earnings in periods surrounding capital market transactions and when there is a gap between firm's performance and analysts' or investor's expectations. However, there is little evidence on the frequency of the practice, and about the effect on resource allocation. Additionally, it is also unknown which accruals are used to manipulate earnings.

3.2 Contracting motivations

The financial statements are widely used to assess management compensation and to regulate lending contracts. Since the accounting data are used to monitor and regulate the contracts between the firm and its stakeholders, it is possible to assume that there are incentives for earnings management.

In short, academic research findings suggest that compensation and lending contracts induce at least some firms to manage earnings to: a) increase bonus awards; b) improve job security; and c) mitigate potential violation of debt covenants. However, there is little evidence of whether this behavior is widespread or infrequent, no evidence of which specific accruals are most likely being used to manage earnings and no evidence of its effect on resource allocation.

3.3 Regulatory motivations

Virtually all industries are regulated to some degree. For example, in the U.S., banking and insurance industries are required to meet certain financial health criteria. Utilities have historically been rate-regulated to earn profits consistent with its business risks. Clearly, the need to comply with such regulations can trigger accounting manipulation. In addition, firms undergoing an anti-trust investigation and firms seeking a government subsidy or protection may have incentives to manage earnings to appear less profitable. The earnings management literature has covered the effects of two forms of regulation: a) industry specific; and b) anti-trust.

Healy and Whalen (1999) cited that the literature on earnings management strongly suggests that regulatory considerations induce firms to manage earnings. However, there is little evidence of whether this behavior is widespread, and no evidence of the effect on resource allocation.

4 TESTS OF DISTRIBUTION OF REPORTED EARNINGS

Healy and Wahlen (1999) also noted that some recent studies adopted a new approach to document earnings management. These studies examined the distribution of reported earnings to assess whether there is evidence of earnings management. The studies assumed that managers have incentives to avoid reporting losses or reporting declines in earnings, and examined the distribution of reported earnings around these benchmarks. The findings strongly suggest that some firms engage in earnings management when they anticipate: a) reporting a loss; b) reporting an earnings decline; or c) falling short on investors' expectations.

Although Healy and Wahlen (1999) asserted that there is not enough evidence to determine which accruals or accounting methods have been most frequently used for managing earnings, Levitt (1998) pointed out the 5 most popular mechanisms that firms are using to manage earnings:[2]

a) big bath restructuring charges;
b) creative acquisition accounting and purchased R&D;
c) miscellaneous cookie jar reserves;
d) intentional errors deemed to be immaterial and intentional bias in estimates; and
e) premature or aggressive revenue recognition.

Moreover, Sherman and Young (2001) noted that recent history has shown that businesses with the following characteristics are more likely to feature manipulation of accounts:

a) high growth company entering a low growth phase;
b) companies that receive extensive coverage in the business and popular press;
c) new businesses where there are ambiguities about how key transactions are and should be measured;
d) weak control environments in which managers can manipulate reported financial results with relative impunity;
e) companies that are followed by a small number of analysts; and
f) companies with complex ownership and financial structures.

The majority of the academic studies usually examine large samples of firms to document earnings management. The research methodology adopted in these studies relies upon statistical measures to identify earnings management. As result, these studies often present general conclusions about earnings management and their tests are often not powerful enough to identify managers of specific firms that managed earnings.

In this paper, contrary to the bulk of academic research, we examine the occurrence of earnings management within one given firm. We chose to study Lucent Technologies because we knew that the company: a) restated earnings for the fiscal years of 1998, 1999, and 2000; b) was under investigation by the SEC; and c) was subject to a number of articles in the financial press that suggested that the managers manipulated earnings.

To perform our analyses, we first searched for information about Lucent in the financial press and then looked for possible incentives and evidence of earnings management in the financial statements consistent with the practices described or suggested in the articles reviewed. We find this alternative approach to document earnings management useful to market participants, regulators, academics and students, because in addition to showing the innovations of creative accounting, it also illustrates the "mechanics" of earnings management.

In the next section we present our analyses. First, we briefly describe the company and, then, identify possible incentives for earnings management and look for possible earnings manipulation consistent with these incentives.

5 EARNINGS MANAGEMENT IN LUCENT TECHNOLOGIES' FINANCIAL REPORTS

5.1 Company background and business summary

Lucent Technologies (www.lucent.com) was formed in 1996 as an AT&T spin-off. Essentially, the firm designs and delivers networks for the world's largest communications service providers. Lucent's main business segments are: research and development, mobility, optical, data and voice networking systems, and software development.

Lucent's competitors vary widely among the company’s various product and businesses categories. Its main competitors are: JDS-Uniphase, Pirelli, Fujitsu, Motorolla, Texas Instruments, Nortel, Cisco and Alcatel. Most of Lucent's clients are high tech and telecom firms. During the high tech *golden years* (from 1997 to 1999), Lucent was the largest manufacturer of telecom equipment and one of the most prominent corporations in the U.S.

5.2 Evidence of earnings management

In this section we identify some evidence that suggests that Lucent managed earnings. Yet, we first highlight the major incentives that could have possibly motivated earnings management.

5.2.1 Possible Incentives

a) Stock market motivations

During its growth phase (from 1996 to 1999), Lucent's major incentive was to keep on reporting earnings and revenues above market expectation, to increase market capitalization (benefit from the premium that the investment community awards continuous high performance companies) (BARTH; ELLIOT; FINN, 1999).

As virtually all companies, also Lucent has strong incentives to smooth earnings to appear less volatile.

b) Contract motivations

Inflating earnings to boost management compensation is a strong incentive. According to the information displayed in the proxy statement for year 2002, all of the top managers and most of the directors have performance pay plans based upon accounting measures such as earnings and revenues.

Enhancing job security can also be considered an incentive to manage earnings to make the firm appear more profitable.

Reducing the cost of capital can be considered a major incentive. Because of its aggressive growth strategy, Lucent was constantly issuing debt to acquire firms. Therefore, the company has incentives to present strong, healthy, and steady financial statements to reduce the cost of debt.

5.2.2 Earnings management

a) Miscellaneous *cookie jar reserves* and *big bath* restructuring charges

Recent history has proven that investors *panic* when reported earnings fall below expectations and reward firms that consistently report earnings that are above expectations. In a technologically dynamic and fast growing industry such as the telecom, one might expect earnings to be highly volatile. However, for Lucent they were not.

It has become a common practice among managers to take excessive restructuring charges (GAAP requires companies to estimate the future costs they expect to incur to carry out the restructuring plan) to *clean up* their balance sheet, giving the company a *big bath*. Popular belief says that investors will look beyond a one time loss and focus only on future earnings.[3] In addition, it is not unusual practice to reverse the overly conservative reserves to smooth out earnings whenever the company *needs some extra revenue* to meet certain accounting numbers (these reserves are also known as *cookie jar reserves*). The combination of the *big bath* with the *cookie jar reserves* is a convenient income smoothing device.

At the time of its spin off, Lucent set up a $2,801 billion reserve to cover future costs of restructuring its operations. As it turned out, Lucent overestimated these future costs. Over the following 4 years, the company reversed more than $500 million to pretax income, increasing and smoothing out what would otherwise have been a more volatile earnings.

It seems that at the spin off, Lucent took a big bath and expensed $2,801 billion. In the subsequent years, managers reversed part of the charge and enhanced revenue to smooth out earnings and to help to keep on reporting a pattern of constant revenue and earnings growth.

b) In process research and development (IPRD) write-off

In the last decade, there were many consolidations, acquisitions and spin-offs. GAAP allows firms to use discretion in accounting for acquisitions. In a purchase transaction, the acquiring company records the current market value of the purchased firm. The gap between the purchase price and the value of the purchased assets is called 'goodwill'. Goodwill represents the value of the target to the acquiring firm, above the fair market value of all assets that can be identified. According to GAAP, firms must amortize goodwill over time. This amortization reduces future earnings and managers rarely like them.

For high tech firms, where the bulk of the assets are intangibles that cannot be identified, a significant part of the purchase price can be goodwill. When a firm invests in a tangible asset, the cost is charged against the revenue over the asset's useful life. But for many intangible assets, because of the high uncertainty of future revenue associated with their useful life, GAAP requires firms to expense them. In an acquisition, the acquirer can include in the purchase price its own estimate of the future value of R&D in the target company. In this way, it is possible to reduce the goodwill and the associated amortization charges on future earnings.[4]

Over its existence, Lucent has acquired 40 companies. Naturally, one might suspect that a possible area for earnings management is in-process research and development (IPR&D) write-off. Katz (2000) noted that Lucent has avoided $2.5 billion in goodwill and the associated drag on earnings since 1996. Although her analyzes does not provide irrefutable evidence of earnings management with IPR&D write-off, she suggested that Lucent conservatively expensed IPR&D to avoid large future amortization charges of goodwill.

c) Premature or aggressive revenue recognition

The most widely earnings management practice is premature or aggressive revenue recognition. In other words, managers recognize revenues before they have been *earned* or become *realized*.[5]

In 1999, in order to keep up with revenue and earnings growth as well as with the competition, Lucent adopted an aggressive market strategy. The firm decided to finance customers to buy its equipment and to offer substantial discounts for anticipated purchases.

By early 2000, even though many of its clients were signaling financial trouble, Lucent, possibly pressured to meet *the numbers*, offered significant discounts on purchases on account, continued to offer new loans to troubled companies, and expanded credit to client companies. Although such aggressive strategies can substantially increase current sales, the extra revenue is often generated at the expense of future sales at list price. These strategies can constitute normal and legitimate business practices, but they can also be misleading to investors reading the financial reports, especially if managers engage in these transactions specifically to meet financial targets at the very end of the accounting period and chose not to fully disclose the details of the deal in the footnotes.[6]

The increase of the Accounts Receivables (A/R) to Revenues ratio suggests that the company has been aggressively booking revenues. It can be seen from the company's financial statements that the ratio increased by more than 50% from 1998 to 2000. This strongly suggests that the firm has been aggressively booking revenues.

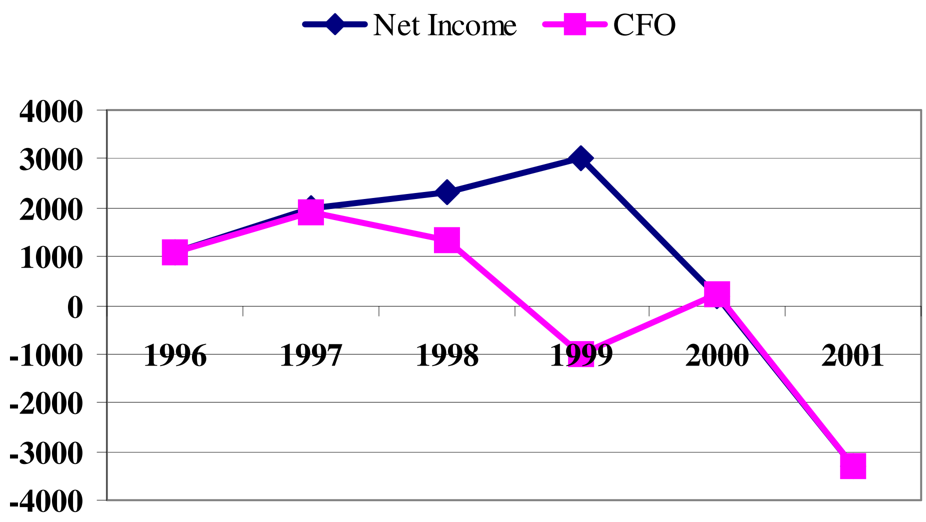

Exhibit 1 - Net Income vs. Cash Flow from Operations

Exhibit 1 provides additional support of aggressive revenue recognition. One can observe that in years 1998 and 1999 the cash flow from operations was significantly lower than the net income. This disparity is mainly due to the large increase in accounts receivables ($2.161 and $3.183 billion dollars for years 1998 and 1999 respectively).

6 CONCLUSION AND FINAL REMARKS

Financial statements are to convey managers' information about their companies' performance to users of financial information. GAAP guide managers and allow them to exercise judgment in preparing the financial reports. In the GAAP, managers are permitted to use their best knowledge about their business to enhance the value of the report. However, this flexibility also leaves room for opportunistic behavior.

There are many ways that managers can use judgment to influence reported accounting numbers. When such influence is directed at choosing reporting methods and estimates that do not accurately reflect their firm's underlying economics, it is also known as earnings management. Earnings management is not new. Levitt (1998) asserted that earnings management has evolved over the years. Recent accounting scandals proved that he was right. The massive market pressure on managers to meet Wall Street's expectations seems to be overriding business ethics; this raises serious concerns about the quality of earnings and the quality of financial reporting.

As virtually all firms, also Lucent has strong incentives to manipulate earnings. It seems reasonable to assume that the managers have incentives to smooth out earnings and report increasing revenues and earnings to: 1) enhance the firm's market capitalization; 2) increase management compensation and job security; and 3) reduce the cost of capital. It seems clear that Lucent used GAAP's flexibility to manage earnings. The earnings management evidence found was consistent with the incentives. The most prominent evidence suggests that the firm used: 1) *big bath* restructuring charges; 2) miscellaneous *cookie jar* reserves; 3) premature and aggressive revenue recognition; and 4) creative acquisition accounting and purchased R&D to manage earnings.

The responsible authorities seem to be concerned with the consequences that earnings management can bring to the economy. On July 22, 2002, after the recent accounting scandals, *Business Week* published several government reform proposals that were likely to come true. They are: a) an independent accounting board; b) a more muscular SEC; c) CEO/CFO certification; d) shareholder approval on stock options award; e) auditor independence; f) more outside directors; and g) a curb on insider sales of stocks.

In addition to these reforms, we believe it would also be helpful to: a) make companies expense stock options; b) impose harsher penalties for earnings management; and c) motivate companies to provide more accounting training and continued education for its managers. Moreover, we also agree with Bruns and Merchant's (1990) argument about managing the corporate culture to reduce earnings management. According to them, a culture that promotes openness and cooperative problem solving among managers is likely to result in less short-term earnings management than one that is more competitive and where annual and even quarterly performance shortfalls are punished. A corporate culture that is more concerned with managing for excellence rather than for reporting short-term profits will be less likely to induce the widespread use of immoral earnings management practices.

And last but not least, it is also important to implement internal control systems capable of preventing opportunistic earnings management through operating decisions taken exclusively to report short term profits (SANCOVSCHI; MATOS, 2002).

NOTES:

[1] Parfet (2000), who is on the corporate side, argues that there are *good* and *bad* types of earnings management. According to him, the *bad* earnings management, which comprises *improper earnings management*, is intervening to hide real operating performance by creating artificial accounting entries or stretching estimates beyond a point of reasonableness. The *good* kind of earnings management comprises reasonable and proper practices that are part of operating a well managed business and delivering value to shareholders. According to him, taking such actions as selling assets when revenues are at low or awarding special discounts to advance sales at the end of quarters are all legitimate ways to try to create stable financial performance, by acceptable voluntary business decisions.

[2] Revsine, Collins, and Johnson (2002) pages 115-117 provide further details on these mechanisms.

[3] Francis, Hanna and Vincent (1996) also provides additional support that there are significant positive reactions to restructuring charges, consistent with the view that these announcements signal information about expected future performance.

[4] Note that nowadays under the SFAS 142, implemented at the end of year 2001, goodwill must be tested for impairment rather than amortized up to a 40 year period.

[5] The SEC asserts that revenue is earned (critical event) and is realized or realizable (measurability)-and, therefore, can be recognized - when all of the following criteria are met: a) persuasive evidence of an exchange arrangement exists; b) delivery has occurred or services have been rendered; c) the seller's price to the buyer is fixed or determinable; and d) collectability is reasonably assured (REVSINE; COLLINS; JOHNSON, 2001).

[6] With the benefit of hindsight, one can observe that this aggressive sales strategy turned out to be costly to the firm. The company lost close to 679 million in bad debt/sales return and decided to restate earnings due to improper revenue recognition. As a result, market value of the company dropped by $10.9 billion in 2000. In late November 2002, Lucent's CEO admitted aggressive revenue recognition in years 1998, 1999 and 2000 due to strong market pressure.

REFERENCES

BARTH, M.; ELLIOTT, J. A.; FINN, M. Market rewards associated with patterns of increasing earnings. *Journal of Accounting Research*, Autumn 1999.

BRUNS, W.; MERCHANT, K. The dangerous morality of managing earnings. *Management Accounting*, p. 21-25, Aug. 1990.

COLLINGWOOD, H. The earnings game: everyone plays, nobody wins. *Harvard Business Review*, p. 65-74, Jun. 2001.

DECHOW, P. M.; SKINNER, D. J. Earnings management: reconciling the views of accounting academics, practitioners, and regulators. *Accounting Horizons*, n. 14, p. 235-250, Jun. 2000.

FRANCIS, J.; HANNA, J.; VINCENT, L. Causes and effect of discretionary asset write-off. *Journal of Accounting Research,* n. 34 Suppl., p. 117-134, 1996.

HEALY, P. M.; WAHLEN, J. M. A review of the earnings management literature and its implications for standard setting. *Accounting Horizons*, v. 13, n. 4, p. 365-383, Dec. 1999.

KATZ, J. Making the numbers. *Regional Review*, v. 10, n. 1, First quarter 2000.

LEVITT, S. D. Why do increased arrest rates appear to reduce crime: deterrence, incapacitation, or measurement error? *Economic Inquiry*, 36 (3), pp 353-372,1998.

LUCENT TECHNOLOGIES. Available in: www.lucent.com>.

PARFET, W. U. Accounting subjectivity and earnings management: a preparer perspective. *Accounting Horizons*, v. 14, n. 4, p. 481-488, Dec. 2000.

REVSINE, L.; COLLINS, D.; JOHNSON, W. B. *Financial reporting & analysis*. 2nd ed. Local: Prentice Hall, 2002.

SANCOVSCHI, M.; MATOS, F. F. J. Gerenciamento de lucros: o que pensam administradores, contadores e outros profissionais de empresas no Brasil? ENCONTRO

NACIONAL DOS PROGRAMAS DE PÓS-GRADUAÇÃO EM ADMINSTRAÇÃO, 26. Salvador. *Anais…* Rio de Janeiro: ANPAD, 2002. CD-Room.

SECURITES and Exchange Commission (SEC). Statements made by Arthur Levitt, SEC Chairman, in a speech entitled "The Earnings Game", delivered at the New York University Center of Law and Business, September 28, 1998. Available in: www.sec.gov

SHERMAN, H. D.; YOUNG, S. D. Tread lightly through these accounting minefields. *Harvard Business Review*, p. 129-135, Jul./Aug. 2001.