Investor Skepticism and Creative Accounting: 
The Case of a French SME Listed on Alternext

Frédéric Demerens\textsuperscript{a}, Jean-Louis Paré\textsuperscript{b}, Jean Redis\textsuperscript{c}
\textsuperscript{a} Professor, Novancia (CCIP), Paris, France, 
fdemerens@novancia.fr
\textsuperscript{b} CFA, Professor of finance, Novancia (CCIP), Paris, France 
Director, CFVG, Hanoi, Vietnam 
jpare@novancia.fr
\textsuperscript{c} Professor in finance and entrepreneurship at ESIEE Management, University Paris 
East, Paris, France 
redisj@esiee.fr

ABSTRACT

The enhancement of auditors’ professional skepticism remains an issue for the improvement of fraud detection in financial statements. However, all watchdogs, including investors, must increase their skepticism. This research project studies a real company and illustrates the implementation of an ex-ante approach to detecting different operations for managing accounting data. An attentive reading and analysis of the financial documents disclosed by an SME recently listed on the French stock exchange enables us to presuppose and identify certain accounting data management operations. Erroneous revenue recognition, transfers of current expenses to future periods, overvaluation of assets and undervaluation of liabilities are the main operations identified. These operations considerably modify corporate financial indicators. We question why no investor watchdog has yet barked. Specific determinants and changing contexts encourage the use of accounting data management techniques. The multiplication of standards and rules alone is not sufficient to put a stop to such practices. Ex-ante detection and suspicion must be enhanced by investors because the usual watchdogs are not always efficient.

JEL Classifications:   G17, G19, G32

Keywords: financial analysis; listed company; SME; financial manipulations; creative accounting; investor skepticism
I. INTRODUCTION

At a time when the accountancy environment has become much more complex because of the introduction of International Financial and Reporting Standards (IFRS) and accountancy rules are becoming increasingly flexible, financial manipulations designed to concoct more positive financial statements are frequently observed among listed companies. According to the 2005 “Global Economic Survey” produced by Price Waterhouse Coopers, the number of firms reporting fraud is increasing rapidly, and the number of restatements of financial statements increased to 1,195 cases in 2005 (8.5% of U.S. publicly traded companies). Thus, investors must be vigilant of potential accounting manipulations that could threaten their investments. Similar to any other watchdog, investors must be skeptical. In this paper, we will apply a revised definition of a skeptical investor by using the financial statements of a public firm. The skeptical investor, unlike the auditor, will not be able to demand confirmations. The investor arrives at his or her judgment only by analyzing the public information that is disclosed by the firm. Our research question investigates whether skepticism can lead an investor to have presumptive doubts about a firm’s financial statements and to make drastic financial restatements.

We adapt the concept of auditors’ professional skepticism, as defined by regulators and academics, to the investor. Using the determinants presented by Nelson (2009), we focus on knowledge. We apply a skeptical approach regarding financial statements to a real company that has not yet been charged for financial statement fraud. This “live case” addresses a French services company that is listed on Alternext and has financial statements that seem, from a skeptical point of view, to have been manipulated. Using the available knowledge of financial shenanigans and accounting manipulations, accounting and auditing standards, the company’s business model and its financial impact, we conduct a deeper analysis of the economic, legal and financial information that has been disclosed by the company over several years.

We find that skepticism based mainly on knowledge determinants leads to presumptive doubts and drastic financial restatements. Erroneous recognition of income, transfers of current expenses to future periods, overvalued assets and undervalued liabilities are the main “potential” accounting manipulations identified for the company. These operations considerably modify corporate financial indicators.

The contributions of the paper are twofold. First, our paper presents an original application of investor skepticism to a real “live case”, which reveals ex-ante presumptive doubt about potential accounting manipulations. Our original methodology allows us to explain how the financial statements of this firm do not comply with its real economic situation. We demonstrate that our methodology contributes to the economic analysis of this firm and that our restatements approach reality. Second, our research questions the ability of legal “watchdogs” to detect manipulations and to bark. No watchdog has suspected any fraud for this company or documented any of our doubts.

The article is divided into four sections. In the first section, we review the literature on creative accounting and investor skepticism. In the second section, we provide our investor skepticism-based methodology. In section III, we present the case of a French company and our restatements of its key financial indicators. Lastly, we
discuss our results and highlight the lack of skepticism among the investors of this company.

II. LITERATURE REVIEW ON CREATIVE ACCOUNTING AND INVESTOR SKEPTICISM

A. Creative Accounting: Definitions and Motivations

1. How to define accounting manipulations

The literature frequently makes a distinction between manipulations that conform to legal rules and standards and manipulations that do not. Accounting manipulations that fall within the regulatory system and do not break the laws are usually referred to as “creative accounting”. Jones (2011) defines creative accounting as “using the flexibility in accounting within the regulatory framework to manage the measurement and presentation of the accounts so that they give primacy to the interests of the preparers and not the users”. Creative accounting becomes ambiguous if it modifies the true and fair view that is delivered to account users and changes their decisions.

Copeland (1968) defines manipulations as the possibility of increasing or decreasing the net income. This definition implicitly recognizes that the notion of manipulation includes maximization, minimization, the smoothing of results and financial fraud. Manipulations, however, are not limited to profit and loss accounts (Barnea et al., 1975; Barnea et al., 1976; Ronen and Sadan, 1975); they are also featured on balance sheets and cash flow statements (Black et al., 1998). Stolowy and Breton (2003) use the term “accounting data management” to describe the various forms of accounting manipulations, which they define as “the exploitation of the discretion left to managers in terms of the choice of methods of accounting and of the structuring of transactions, with a view toward generating a modification of the risk of wealth transfer associated with the enterprise, such that risk is perceived in practice by the market”.

Therefore, we will define accounting manipulations as the causes of creative accounting and misstatements of financial statements that may “mislead some stakeholders” or “influence contractual outcomes”.

2. Why is accounting manipulation committed?

According to the academic literature, various motivations drive managers to become perpetrators of financial statement fraud.

- Managers’ personal motivations

Numerous motivations have been analyzed in the academic literature. Personal reasons for managers to commit financial manipulations and the consequences of their actions are often highlighted (Merchant and Rockness, 1994). The main personal motivations stem from a manager’s greed and fear.

Healy (1985) was among the first to suggest that a manager’s pay was a motivation; the researcher recalled that performance-related bonuses were frequently used to reward the members of a management team. Healy has shown that companies

Financial statement manipulations may considerably increase performance-linked bonuses and the resulting remuneration (Watts and Zimmerman, 1978; Healy, 1999; Lambert, 1984; Moses, 1987; Gaver et al., 1995; Balsam, 1998). Holthausen et al. (1995) show that managers who have attained the maximum bonus tend to use manipulations to reduce the level of profits that they generate. Increasing performance through accounting manipulations may make it possible to avoid negative outcomes, such as job loss (fear factor) (Fudenberg and Tirole, 1995).

Manipulating financial reports is relatively safe because there is low risk of financial, civil and criminal prosecution for managers, especially in France.

- **Respect for financial conditions**

  Following Watts and Zimmerman (1986), who believed that respect for the financial conditions of a loan motivated creative accounting, studies by Sweeney (1994) and DeFond and Jiambalvo (1994) demonstrate the existence of a link between financial shenanigans and respect for financial conditions. To procure funding under the most favorable conditions (rates, duration, covenants, guarantees), managers may be tempted to manipulate accounts to present a more favorable financial situation. Thus, a lower risk of bankruptcy can be used to guarantee greater capital loans. One academic study in this area is the research of Labelle (1990), who demonstrates that companies taking out obligatory loans manipulate their accounts with the intent to respect covenants.

- **IPO constraints**

  Friedlan (1994) demonstrates that companies improve their profit figures immediately before being listed on the financial market. Cormier and Magnan (1995) show that firms publishing forecasts prior to an initial public savings offer more frequently employ a strategic approach to managing results the year following their flotation on the stock exchange. Teoh et al. (1998) compare the level of accruals in firms that have completed an IPO with those of other companies. The researchers show that there is a difference in the level of accruals between the two groups but that the gap diminishes over time.

- **Tax optimization**

  Reducing taxes is another major motivation for manipulating accounts. In effect, managers may want to reduce taxes on profits by declaring higher-than-normal costs (Scholes et al. 1992). Other studies have verified the idea that accounts are manipulated for fiscal reasons. Jennings et al. (1996) demonstrate that the method applied to valuing stock makes it possible to reduce taxes, and Collins et al. (1998) show that multinational companies minimize fiscal costs.

- **Reducing financial costs and the cost of capital**

  Minimizing financial costs and the cost of capital is another key motivational factor in financial manipulations. Similarly, the capital costs (one’s own capital and debts) can
be reduced by applying a policy designed to smooth results and thus present a reduced level of risk (Stolowy and Breton, 2003). Dechow et al. (1996) showed that a desire to obtain low financing costs was a primary motivation for committing creative accounting by manipulating results and that manipulating firms tended to declare relatively elevated capital costs.

In the same vein, Hribar and Jenkins (2004) analyze the effects of restatements on the cost of capital. Using data on restatements from the United States General Accounting Office (2002), they demonstrate that accounting restatements lead to a decrease in the anticipated future results and an increase in the cost of capital.

- Labor negotiations and governance structure

Companies also manipulate their accounts to reduce their profits before entering negotiations concerning employee salaries or negotiations with unions (Waterhouse et al., 1993; Liberty and Zimmerman, 1986; D'Souza et al., 2000).

According to Moore (1973), manipulations differ depending on whether the primary motivation is to maximize, minimize or smooth out results. The weaknesses in the governance of the company represent an opportunity to commit financial shenanigans. Smaili et al. (2009) summarize the determinants of errors (leading to restatements) and frauds (leading to enforcement procedures). Thus, two major groups of determinants are defined according to the firm’s financial situation (incentive/pressure) and system of governance (opportunity). Dechow et al. (1996) demonstrated that there is more creative accounting in firms with a poor standard of governance, firms whose Boards of Directors are dominated by insiders and firms in which the role of the audit committee is relatively unimportant.

In the field of IPOs, Shawver and Shawver (2009) discovered relations that were the inverse of those presented in previous research. In effect, a greater number of shareholding managers (insiders) means fewer financial manipulations. It would seem that shareholding managers generally protect shareholders. Here, the expertise of board members in the fields of accounting, auditing and finance is correlated with more creative accounting: drawing up credible financial statements requires a certain degree of specialized knowledge.

3. From ex-post to ex-ant detection of accounting manipulations?

Few cases of financial manipulation are detected by investors before firms are forced to reveal them or before bankruptcy. In fact, investors cannot be sufficiently protected if accounting professionals do not exercise their professional skepticism to appraise the accounting and financial practices of certain companies. The ex-ante detection of manipulations is a complex exercise for anyone from outside of the company. Two American authors, Mulford and Comisky (2002), dedicate a number of chapters from their book ("The Financial Numbers Game: Detecting Creative Accounting Practices") to detection techniques. The book is a reference work for forensic analysts in the United States. These authors suggest the following series of clues for detecting financial manipulations: a firm with dishonest management; inadequate monitoring; frequent changes in auditors, legal advisors or financial directors; regular changes in accounting principles or forecasts; substantial differences between the CFFO and the bottom line or a large disparity between the growth in sales, accounts receivables and inventories; a
substantial increase or decrease in the gross margin (GP/sales); or the existence of commitments or contingencies. Many fraud detection tools exist in the literature (Beneish, 1999; Chen and Leitch, 1999; Lee et al., 1999), but this type of model generally produces a high proportion of false positives and is based on ex-post cases, not an ex-ante methodology.

Nevertheless, auditors, outside directors and regulatory bodies, such as the SEC or its French equivalent AMF (Autorité des Marchés Financiers), may play a primary role in the detection of financial manipulations because they have access to inside information. Bankers, financial analysts, journalists, and fund managers play a secondary role in that their work is based on the postulate that a company’s accounting and financial information has been validated by an auditor who considers it sincere and accurate. Lastly, the training and role of auditors and financial analysts are fundamentally important in terms of the ex-ante detection of financial manipulations.

B. Investor Skepticism: Toward an Extended Concept

Regulators usually consider the investor to be a main user of financial statements. Our research question explores the relevance and efficiency of the adaptation of auditors’ professional skepticism to investors if no watchdog barks. We focus on the knowledge aspect of skepticism and a “live case” of a company manipulating its financial reports.

The Statement on Auditing Standards No. 1 (Section 230, paragraphs .07 through .09) defines professional skepticism as an attitude that includes a questioning mind and a critical assessment of audit evidence. The auditor uses the knowledge, skills, and abilities called for by the profession of a public accountant to diligently gather and objectively evaluate evidence in good faith and with integrity. The auditor should conduct the engagement with a mindset that recognizes that a material misstatement due to fraud could be present, regardless of any past experience with the entity and the auditor’s beliefs about the management’s honesty and integrity. Furthermore, professional skepticism requires an ongoing questioning of whether the information and evidence obtained suggests that a material misstatement due to creative accounting has occurred. In exercising professional skepticism in gathering and evaluating evidence, the auditor should not be satisfied with less than persuasive evidence because of a belief that the management is honest (AICPA, 1997).

Nelson (2009) proposes a well-documented review of the literature on professional skepticism. The author stresses a point made by Bell et al. (2005): we may see a shift from a “neutral” to a “presumptive doubt” perspective on professional skepticism, which will, in turn, increase the minimum levels of evidence necessary to justify audit opinions. For Shaub (1996), skepticism and suspicion (defined as the opposite of trust) are equivalent. McMillan and White (1993) state that an auditor is skeptical if he or she is more sensitive to evidence that reduces the risk of failing to detect errors in the client’s financial statements. Nelson (2009) defines a skeptic as “one whose behavior indicates relatively more doubt about the validity of some assertion”.

In this paper, we apply this definition of a skeptical auditor to a skeptical investor by using the financial statements of a public firm. The skeptical investor will not be able to demand confirmations to the firm management. The investor’s judgment stems only from his or her analysis of the public information disclosed by the firm. However, a skeptical investor may be suspicious of every piece of information that a
firm issues. As a forensic auditor or analyst, he or she must verify every data point produced by the firm and compare it with the data generated by other providers.

Our research question investigates whether skepticism can lead an investor to have presumptive doubts about the financial statements of a listed firm and to make drastic financial restatements.

To define skepticism, we use the three determinants presented by Nelson (2009). Nelson (2009) argues that the judgment process is affected by knowledge, traits and incentives. Knowledge is defined as the “knowledge of evidential patterns and error/non-error frequencies to determine whether a given set of evidence suggests heightened risk”. Knowledge comes from education, as well as individual and professional experience and training. Traits are non-knowledge attributes that can affect skepticism. Nelson (2009) divides the professional skepticism-related trait research into three categories: problem-solving ability, ethics/moral reasoning, and skepticism scales. Among the skepticism scales, knowledge is one of the most important topics researched. Nelson (2009) identifies incentives at the audit-company level and at the individual level. Incentives are driven by the fear of losing reputation because of enforcements and litigations. This loss of reputation threatens the future of the company and the auditor’s career.

In this paper, we assume that the investor has some skepticism scales (traits) and some incentives to be skeptical. We assume that the main incentive for the investor is the fear of losing his or her money in companies with creative accounting. We focus on the knowledge needed to develop investor skepticism. We propose that this knowledge is based on four categories: (1) knowledge of financial shenanigans and red flags, (2) knowledge related to the analysis of financial statements, (3) knowledge of the legal rules and accounting standards, and (4) knowledge of the firm’s and its competitors’ business models and knowledge of the performance of competitors in the same industry.

III. AN ORIGINAL METHODOLOGY TO DETECT MANIPULATION BASED ON KNOWLEDGE

This paper adopts a “live case” methodology. Simkins (2001) defines a “live case” as a “case analysis that involves a current problem or issue that a company is investigating. The problem or issue has not been resolved, and the company is seeking input from students to assist them in making a management decision. In other words, everything is happening now”. Kocher and Helmuth (2000) use the term “real-time” case analysis to describe an approach that is more similar to Simkins’s live case.

Our methodology of studying and analyzing this live case is based on many determinants of knowledge for investor skepticism: (1) a high level of knowledge of financial shenanigans and red flags, (2) an expertise on sectoral accounting principles and on comparable firms, and (3) sufficient time to analyze all of the legal documents disclosed by the firm. This methodology allows us to detect ex-ante financial shenanigans.

A. Presentation of An Ongoing Manipulation: A French Listed SME

1. Presentation of the company
In this section, we present the case of a French SME listed on Alternext. The Company provides service solutions to French SMEs.

The live case of the Company began in the year 20N (the year of its IPO on the Marché Libre in France) and continues today in 20N+4, when the Company issued a new obligation in the market. Set up on 20N-10, the Company was listed directly on Euronext Paris’s Marché Libre without raising any capital on June 4, 20N. On July 30, 20N, the Company was recognized by the OSEO as an innovative enterprise. On April 20N+3, independent share subscription warrants were issued, and the Company was listed on Euronext’s Alternext exchange.

During this five-year period, financial statements and other documents were disclosed by the Company and certified by their auditors. The company drew up a Stock Purchase Warrant (BSA) prospectus that was validated by the AMF (Autorité des Marchés Financiers – the French market regulator). In this live case, we studied different documents that were disclosed by the Company over a five-year period and certified by the auditors or the AMF. These documents included mainly the IPO prospectus, legal accounting data and AMF Visas (e.g., transfer to Alternext, capital increase and bonds issues).

We count more than 1000 pages of documents to study. We analyzed all of the evolutions in the financial data and in the corporate governance and submitted information to red flags. We tracked any modification in the accounting principles. We always compare these numbers with the business model presented by the Company at the time of its IPO on the stock exchange “Le Marché Libre de Paris”.

To this day, no manipulations or financial shenanigans concerning the company have come to light. Therefore, we are not using the company’s name. Furthermore, information concerning the Company was modified in ways explained below.

In this study, we only used public information that is available on the website of the Company, on the Euronext Website and on the AMF website. Similar to an investor, we operated in the position of an outside financial statement user. We never had access to private information from the Company.

We dissimulated the financial years in question by naming the year in which the Company was introduced to the Marché Libre in 20N. We modified the figures to maintain confidentiality concerning the name of the Company. We defined a unit corresponding to a certain number of euros, and all data are therefore expressed in units. Thus, the proportionality among various items is preserved. We modified the information concerning the Company’s activities.

2. Company’s business model and accounting methods

The Company offers to its customers a subscription lasting between 36 and 60 months that includes Equipment, Installation and Maintenance, as well as a flat rate defined as a function of the needs of its users. In addition to the subscription, the customers are billed for the Company’s services. Within the framework of its business activities, the Company cedes contracts to leasing companies for all services other than installation, maintenance and the billing of services exceeding the original flat rate. The product of the service is simultaneously recorded as the turnover on the day that the installation
The report is signed and as the turnover associated with the cession of the contract to the leasing company.

Thus, the Company immediately records 100% of the amount of the contract concluded with the leasing company. The items constituting the turnover are the installation, the process of making the equipment available and the delivery service. According to the Company, the turnover was calculated in conformity with the 2002-10 and 2004-06 French accounting rules. The turnover followed an agreement with the leasing company to which the equipment was sold. After the agreement was signed, equipment was installed on the premises of the service user, who subscribed to a service contract including rental and maintenance. Equipment maintenance and other services are spread out over the duration of the user service contract.

According to the financial statements of the Company, the Company presented the margins it achieved as financial costs to obtain a more “economical transcription” of the cession of the contract to the leasing firm. The leasing companies are only remunerated for financial costs, which do not include management costs or guarantee funds. In conformity with the service contract drawn up by the Company, financial costs amount to approximately 20% of the rental service contract drawn up between the leasing company and the client.

IV. CLUES, SUSPICIONS AND PRESUMPTIVE DOUBTS ABOUT MANIPULATIONS

A skeptical analysis of the Company’s financial information leads to the identification and listing of several presumptive doubts linked to potential manipulations. A comparison with the Company’s competitors reinforces these doubts. Considering those doubts and based on the competitors’ accounting methods, we restate the financial statements of the Company in a four-year period.

A. General Clues and Suspicions

The company’s business model allows for various financial manipulations (e.g., services, products spread out over different financial years and R&D). Moreover, the chronological analysis of the Company’s performance before it was floated on the stock exchange reveals a swift and clear improvement immediately before its flotation. However, the cash position, which should have been strongly positive according to the business plan, the IPO’s prospectus and the Company’s performance, has always been negative. The substantial receivables and differences in income raised doubts about how the income was generated. Lastly, the publication of substantial a posteriori corrections in the notes to the Company’s financial statements raised even more suspicion.

We identify various presumptive doubts that could be linked to potential manipulations. These potential manipulations are mainly concerned with revenue recognition (early revenue recognition, financial income recognized as revenue), expense minimization (transfer of present expenses to future periods), assets and liabilities valuation (overvaluation of assets and undervaluation of liabilities) and transactions with related parties. The results of this analytical approach are presented in Table 1.
### Table 1
The presumptive doubts

<table>
<thead>
<tr>
<th>Problem identified</th>
<th>Observations</th>
</tr>
</thead>
<tbody>
<tr>
<td>Early revenue recognition</td>
<td>The Company records all turnover as soon as the leasing company pays without accounting for the fact that the lease period lasts from 3 to 5 years. The Company immediately reports 100% of the value of the contract agreed upon with the leasing company.</td>
</tr>
<tr>
<td>Erroneous revenue</td>
<td>To obtain a more economical transcription of the cession of the contract to the leasing firm, the Company presents this margin as financial costs. The part of the contract corresponding to financial costs due to the leasing companies is included in the turnover.</td>
</tr>
</tbody>
</table>
| Operating costs generated with related parties | 1. KKK invoiced the Company for preparation and restructuring work concerning the acquisition of the firm AT in 20N. The invoice amounted to 340 units. Mr. SSS, Chairman of the Company’s Board of Directors, is also the guarantor of KKK.  
2. Since June 30, 20N+2, the date on which the Company’s annual accounts were signed off, the following relationships became current. The Company rented offices owned by DDD, whose principal shareholder is Mr. WWW, one of the Company’s Administrators, to AAA. The Company rents offices to BBB, a firm owned by Mr. FFF, one of the Company’s Administrators. |
| Overvaluation of assets; transactions with related parties | The Company purchased all of the shares in AT for 3,240 units. The acquisition price was fixed at 3,240 units, with an obligation to hold a general assembly to raise capital equal to 3,240 units (including the issue premium) to be paid to the seller.  
On January 17, 20N+1, the Company’s Board of Directors authorized the acquisition of 160 shares in GGG Ltd, which has belonged to Mr. SSS’s company since its inception. |
| Overvaluation of assets; transactions with related parties | The Company recorded a merger deficit of 8,962 units on 31/12/200N+2 during the merger with AT. This sum was equal to 79.9% of the Company’s shareholder equity. |
| Overvaluation of assets | The cash position should be reduced by the total of the daily debt cessions (or by 4,404 units). |
| Undervaluation of liabilities | The Company’s accounts from January 1, 20N3 to December 31, 20N-1 were subject to inspection by the tax office. A transaction was concluded between the tax office and the Company. The total adjustment (VAT, corporate tax, tax on Company vehicles, interest and late payment fees) amounted to 2,310 units. |
| Undervaluation of liabilities | The Company is dealing with a large number of disputes (concerning both former employees and other companies). These disputes involve a total of 6,815 units. Liabilities are likely to be underestimated by approximately 5,840 Units or 52% of the shareholder equity. |
| Transfer of present expenses to future periods | Without waiting for the tax office’s decision concerning the special agreement requested, the Company recorded losses of 32,671 units. Thus, the Company was able to reduce its corporate tax. |
Table 1 (continued)

<table>
<thead>
<tr>
<th>Risk factors</th>
<th>Post-IPO period.</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>No outside independent director. No respect for French code of governance.</td>
</tr>
<tr>
<td></td>
<td>Change of auditor in 20N+2.</td>
</tr>
<tr>
<td></td>
<td>Change in policy concerning the calculation of turnover during the course of the</td>
</tr>
</tbody>
</table>

Sources: COMPANY’s legal documents and AMF documents

Our analysis of the potential risks on the Company’s balance sheet reveals the following points: (1) insufficient provisions for 31.5% of the shareholder equity; (2) risk associated with the merger deficit to the value of 79.9% of the shareholder equity; (3) risk on the research tax credit to the value of 93.7% of the shareholder equity; and (4) corporate tax risk accounting for 31.4% of shareholder equity.

In total, if all of these risks were to materialize, the Company’s shareholder equity would be substantially negative. The capital injection of 16,000 units on September 200N+3 enabled the Company to declare the shareholder equity to be valued at 700 units.

B. Many Changes to the Accounting Methods

The Company changed its accounting methods three times in four financial years: the first time on June 30, 20N+1, the second time on June 30, 20N+3 and the third time on December 31, 20N+4.

1. Change of methods in the financial year ending on June 30, 20N+1

At the end of the 20N/20N+1 financial year, the turnover amounted to 53,200 units, which represents an increase of 20,640 units (or 153.40%) over the turnover as of June 30, 20N (31,660 units). The percentage of turnover generated with the leasing companies during the financial year ending on 30/06/20N+1 was 68%.

Furthermore, changing the accounting method to recognize income introduced during the course of the financial year resulted in an increase of 385 units. The income from funded contracts changed in the following ways: 80% (instead of 60% in preceding financial years) was directly expressed as income representing the cost of equipment and its installation, and 20% (instead of 40% in preceding financial years) was spread over the duration of the contract.

In total, the financial income accounted for 2 units as of June 30, 20N+1 and 247 units as of June 30, 20N. The financial costs accounted for 7,768 units as of June 30, 20N+1 and 135 units as of June 30, 20N. Therefore, the financial results produced a loss of 7,766 units as of June 30, 20N+1 and a profit of 111 units as of June 30, 20N.

The losses can be explained by two factors: (i) the increase in the number of clients and the greater use of leasing companies generating assimilated costs and interests and (ii) the absence of financial income deriving from investment, which was at the origin of the positive financial result as of June 30, 20N.

2. Change of accounting method for the financial year 20N+2/20N+3

According to the last financial memorandum, the Company changed its accounting methods, which had two impacts on the 20N+3/20N+4 accounts: the published turnover
figure is now the net of the costs associated with the refinancing contracts, and the costs associated with the deployment of clients are now smoothed out over the entire duration of the contracts.

Therefore, the Company published a turnover figure that excludes the financial costs due to lessees.

3. **Change of accounting method for the financial year 20N+3/20N+4**

According to the obligation issued on 20N+4, the Company again decided to change its accounting methods, which had many impacts on its accounts: (1) R&D expenses will be capitalized on the balance sheet, and (2) turnover will be recognized according to the French GAAP. The Company provides financial information in the notes on its financial statements, which show that the methodology for restating historical accounts is efficient. The Company explains that its 20N+2/N+3 turnover is overstated by 35%. Our estimates of overestimation are approximately 40% (see the next several sections).

After many changes to its accounting methods, as of the last period, the Company’s financial statement complies with the industry’s accounting methods and standards. However, the Company does not disclose its historical restated financial statements. Even after three changes in its accounting methods, the Company has not published its restated historical accounts for the years 20N-1/20N, 20N/20N+1, 20N+1/20N+2, 20N+2/N+3 or 20N+3/N+4, a fact that makes the records difficult to analyze. This lack of financial restatements is quite rare for a listed firm that has changed its accounting principles each year and is prejudicial to investors: four years after the IPO, investors still do not have an economic vision of the Company in which they invested. The fact that our restated turnover resembles the Company’s new accounting methods gives credit and proof to our research.

C. **Knowledge of the Industry’s Accounting Standards and Practices**

Revenue recognition under French GAAP and IFRS (IAS 18) is quite similar. IAS 18 stipulates that if the outcome of a transaction involving the rendering of services can be estimated reliably, the revenue associated with the transaction shall be recognized by referring to the stage of completion of the transaction at the end of the reporting period. The outcome of a transaction can be estimated reliably if all of the following conditions are satisfied: (1) the amount of revenue can be measured reliably; (2) the economic benefits associated with the transaction will most likely flow to the entity; (3) the stage of completion of the transaction at the end of the reporting period can be measured reliably; and (4) the costs incurred for the transaction and the costs of completing the transaction can be measured reliably.

It seems clear that in the case of the SME studied here, the four criteria were not met because turnover was entered some time before the services were provided to the Company’s clients. Moreover, the two comparable companies listed on Alternext use a method for calculating their turnover that conforms to IAS and US GAAP norms.

We investigated the accounting methods used by the two main competitors of the Company: firm Alpha and firm Beta, both of which are listed in Paris. Both firms comply with the revenue recognition rules under IAS 18. Whereas competitors Alpha and Beta report revenue under IAS 18, the Company does not comply with IAS 18. The company recognizes revenue without referring to the stage of completion of the
transaction at the end of each reporting period. Therefore, to apply our methodology, we will explain our proposed restatements.

D. Restated Financial Statements

1. Restatements to published accounts

After describing the financial shenanigans used by the Company, we will now present our financial restatements and attempt to present a different image of the Company’s financial accounts in the following paragraphs.

2. Revenue Restatement

With respect to the Company’s revenue figure and according to both international accounting standards and the industry competitors’ methods, we spread the revenue of the contracts funded with the leasing company (actual revenue in Table 2) over a period of 4 years instead of recognizing the entire revenue at the date on which the contracts were signed.

<table>
<thead>
<tr>
<th>Year End</th>
<th>N</th>
<th>N+1</th>
<th>N+2</th>
<th>N+3</th>
</tr>
</thead>
<tbody>
<tr>
<td>Turnover</td>
<td>20,640</td>
<td>52,300</td>
<td>78,485</td>
<td>91,300</td>
</tr>
<tr>
<td>Including leased sales</td>
<td>7,110</td>
<td>29,192</td>
<td>46,671</td>
<td>73,400</td>
</tr>
<tr>
<td>Including non-leased sales</td>
<td>0</td>
<td>2,271</td>
<td>4,128</td>
<td>4,400</td>
</tr>
<tr>
<td>% of leased sales out of total sales</td>
<td>93%</td>
<td>92%</td>
<td>93%</td>
<td></td>
</tr>
<tr>
<td>Including leasing companies</td>
<td>0</td>
<td>7,536</td>
<td>14,274</td>
<td>0</td>
</tr>
<tr>
<td>% of leasing companies out of total sales</td>
<td>24%</td>
<td>28%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Including other turnover</td>
<td>13,530</td>
<td>13,294</td>
<td>13,372</td>
<td>13,500</td>
</tr>
<tr>
<td>% of other turnover on turnover</td>
<td>25%</td>
<td>17%</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Sources: Company’s legal documents and authors

More precisely, we subtracted the contracts financed by the leasing companies from the turnover figure until we reached a value of 130% of the cost to purchase the equipment (i.e., a margin of 30% on the equipment). We then spread the turnover of those contracts over a period of 4 years (as the financed contracts last from 36 to 60 months). During the financial year ending on June 30, 20N+3, the ratio of the equipment purchased to the turnover of funded contracts was 5.6% or 2,530 units out of 45,380 units. During the financial year ending on June 30, 20N+2, the ratio of the equipment purchased to the turnover of funded contracts was 7.2% or 2,072 units out of 28,805 units. Therefore, we isolated a relationship between the equipment procurement and the turnover of funded contracts (6.4%), to which we added a margin of 30% or a total of 8.3%. Restated according to this method, the turnover sequence should be as follows in Table 3.
We then applied this method to the turnover of the three previous financial years, which ended on June 30, 20N+1, June 30, 20N+2 and June 30, 20N+3 (in other words, after the change in the accounting method). We obtained the following table, which expresses the restated turnover in Table 4.

**Table 4**  
Presentation of turnover restated by the authors

<table>
<thead>
<tr>
<th>Year End</th>
<th>N</th>
<th>N+1</th>
<th>N+2</th>
<th>N+3</th>
</tr>
</thead>
<tbody>
<tr>
<td>Turnover of leased sales over 4 years</td>
<td>1,479</td>
<td>1,778</td>
<td>1,778</td>
<td>1,778</td>
</tr>
<tr>
<td>30/6/N</td>
<td>0</td>
<td>6,072</td>
<td>7,298</td>
<td>7,298</td>
</tr>
<tr>
<td>30/6/N+1</td>
<td>0</td>
<td>0</td>
<td>9,707</td>
<td>11,668</td>
</tr>
<tr>
<td>30/6/N+2</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>12,115</td>
</tr>
<tr>
<td>30/6/N+3</td>
<td>0</td>
<td>2,271</td>
<td>4,128</td>
<td>4,400</td>
</tr>
<tr>
<td>Turnover of non-leased sales</td>
<td>13,530</td>
<td>13,294</td>
<td>13,372</td>
<td>13,500</td>
</tr>
<tr>
<td>Other turnover</td>
<td>15,010</td>
<td>23,416</td>
<td>36,284</td>
<td>50,760</td>
</tr>
</tbody>
</table>

Sources: Company’s legal documents and authors

For the financial years of 20N-1/20N, 20N/20N+1, 20N+1/20N+2 and 20N+2/20N+3, our restatement shows that turnover is 15,010 units, 23,416 units, 36,284 units and 50,760 units, respectively, instead of the figures declared by the Company (i.e., 20,640 units, 52,300 units, 78,485 units and 91,300 units, respectively). Thus, the disparities are substantial and are close to 40% lower for the restated turnover than for the reported turnover.

3. Restatement of financial costs

We think that the posting of the financial costs associated with the leasing companies for turnover equates the approach used by Xerox for the financial years from 1997 to 2000. It should be pointed out that Xerox was asked by the SEC to restate all of its financial accounts over a five-year period and to exclude the financial costs associated with leasing companies from its turnover.

Therefore, we are applying this method to the Company and subtracting the financial costs associated with the lessees from the turnover figure. We are also
simultaneously subtracting the financial costs reported in the Company’s financial statements. The accounting method used by the Company has no impact on its net profit or loss. Nevertheless, the turnover, EBITDA and operating results are largely overestimated.

The overestimation of these balances has an important impact on the image of the Company and on its valuation according to the stock exchange comparables method (often involving multiples of turnover, EBITDA and trading income). Below, we present a table outlining the Company’s turnover and operating results with only the financial costs subtracted (see Table 5).

<table>
<thead>
<tr>
<th>Year End</th>
<th>N</th>
<th>N+1</th>
<th>N+2</th>
<th>N+3</th>
</tr>
</thead>
<tbody>
<tr>
<td>Turnover (as disclosed by the COMPANY)</td>
<td>20,640</td>
<td>52,300</td>
<td>78,485</td>
<td>91,300</td>
</tr>
<tr>
<td>Including leasers</td>
<td>0</td>
<td>7,536</td>
<td>14,274</td>
<td>0</td>
</tr>
<tr>
<td>Turnover without leasing companies</td>
<td>20,640</td>
<td>44,764</td>
<td>64,211</td>
<td>91,300</td>
</tr>
<tr>
<td>Operating results</td>
<td>-7,270</td>
<td>10,455</td>
<td>18,265</td>
<td>12,700</td>
</tr>
<tr>
<td>Restated operating results (without leasing companies)</td>
<td>-7,270</td>
<td>2,919</td>
<td>3,991</td>
<td>12,700</td>
</tr>
<tr>
<td>Operating margin</td>
<td>-35%</td>
<td>20%</td>
<td>23%</td>
<td>14%</td>
</tr>
<tr>
<td>Restated operating margin (without leasing companies)</td>
<td>-35%</td>
<td>7%</td>
<td>6%</td>
<td>14%</td>
</tr>
</tbody>
</table>

Sources: COMPANY’s legal documents and authors

V. DISCUSSION AND RESULTS: A DIFFERENT FINANCIAL IMAGE OF THE FIRM

We present in this section the restated financial statements and analyze the main differences between the restated statements and the reported statements presented by the Company. Next, we show that the last accounting principles used by the Company are consistent with our estimates. Lastly, we discuss this live case with respect to the academic literature on accounting fraud and investor watchdogs.

A. Huge Differences between the Restated Financial Statements and the Financial Statements Presented by the Company

In this paragraph, we outline the financial statements presented by the Company every year since it was introduced on the Marché Libre and the financial statements of the Company restated in previous sections (see Table 6).
It transpires from these modifications that, although the Company’s financial accounts suggest that it has been making substantial profits since the financial year ending on 30/6/N+1, it has, in fact, been making a net loss since the financial year ending on 30/6/N. The restated operating margin rates have all been clearly negative since the financial year ending on 3/6/N. For example, the Company’s rate of operating margin for the financial year ending on 30/6/N+2 was 23.2%, whereas the restated operating margin rate was -66% (see Table 7).

Table 7

<table>
<thead>
<tr>
<th>Reported margins vs. restated margins (by the authors)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Year End</strong></td>
</tr>
<tr>
<td>Reported operating margin</td>
</tr>
<tr>
<td>Restated operating margin</td>
</tr>
<tr>
<td>Reported net margin</td>
</tr>
<tr>
<td>Restated net margin</td>
</tr>
</tbody>
</table>

Sources: Company’s legal documents and authors
In total, over the last four financial years, the Company’s accumulated losses amounted to 72,614 units in our view. This figure contrasts with the actual reported profit of 11,320 units.

B. A Company Close to Bankruptcy

However, the Company’s net cash flow is most impacted by this disparity. While the IPO document presented to the investors in 20N claimed that the Company’s business model is a “cash generator”, our analysis of the accounts presented by the COMPANY since the financial year ending on 30/6/N+1 shows that it has been accumulating an increasing amount of financial debt every year. The total net financial debt on the balance sheet as of 31/12/N+3 is 14,169 units.

Our estimate of the Company’s net cash position is consistent with the total that appears on the balance sheet as of 31/12/N+3. As a matter of fact, by calculating a theoretical net annual cash position as the difference between the cash received (80% of funded sales) and the operating costs, excluding contributions, investments and the research tax credit, we obtain an accumulated total of 15,095 units as of 30/6/N+3.

This analysis reveals that the Company “burned” the cash inflows from its customers over a period of four years and was forced to take on financial debts to balance its books.

<table>
<thead>
<tr>
<th>Table 8</th>
<th>Analysis of net cash position reported by the company and authors’ estimates</th>
</tr>
</thead>
<tbody>
<tr>
<td>Year End</td>
<td>N</td>
</tr>
<tr>
<td>Cash income</td>
<td>20,640</td>
</tr>
<tr>
<td>Operating costs exc. amortization &amp; depreciation</td>
<td>25,745</td>
</tr>
<tr>
<td>Investment</td>
<td>3,455</td>
</tr>
<tr>
<td>Research Tax Credit</td>
<td>0</td>
</tr>
<tr>
<td>Restated net cash position</td>
<td>-8,560</td>
</tr>
<tr>
<td>Actual net cash position</td>
<td>-895</td>
</tr>
</tbody>
</table>

Sources: Company’s legal documents and authors

To conclude this analysis, there is a large disparity between the financial statements issued by the Company and the figures restated by us. On the one hand, the Company has declared substantial annual profits for the last two financial years, but on the other hand, it has reported heavy losses every year. Moreover, it is now easy to understand why the Company declares net financial debts instead of a substantially positive net cash position, which was expected given the economic model of the Company and the presentation to investors during the IPO of June 20N.

The economic and financial image of the Company seems to have been considerably improved by the financial practices (or manipulations) used to prepare its financial statements. Changes to the accounting methods used by the Company validate our restatement hypothesis and reinforce our presumptive doubts.
C. No Clear Manifestations of Investor Skepticism through the Market: A Declining Share Price and An Under-subscription during the Last Bonds Issue

Since the IPO in 20N and until the third quarter of 20N+4, the Company’s share price ranged from 4 € to 7 €. At the time of the first capital increase in 20N+3, the share price was at its high and reached more than 8 € per share. The market capitalization began to strongly decline during the fourth quarter of 20N+4. Since the fourth quarter of 20N+4, many press articles have described the Company as being in financial difficulty. The Company did not pay its salaries or its rentals in many of its subsidiaries in France for the second and third quarters. In January 20N+5, after a long silence, the Company disclosed information indicating it was closing many subsidiaries in France because of operational problems. In mid-March 20N+5, the Company’s share price was below 1 €!

The full capital increase was subscribed by a professional investor in September 20N+4 who manifested no investor skepticism. The first time an investor seemed to have suspicions was during the bond issues in March 20N+5. The Company wanted to obtain approximately 5 m€ in bonds to finance its regional development in France, but investors had only 1.4 m€ at that time.

VI. CONCLUSION

The management of accounting data leading to the publication of improved financial statements, whether manipulations or fraud, is more easily dissimulated in an environment that is characterized by rapid change. The strong growth of a developing startup company, the increasingly complex nature of dematerialized and high-tech products, and the destabilization provoked by the economic crisis are all factors facilitating the management of accounting data in companies, regardless of their size. Beyond the moral and financial prejudices engendered by such practices, it represents a major risk for investors, especially if watchdogs remain silent. By misleading users of financial statements, financial shenanigans make markets less efficient and render the task of effectively allocating financial resources more onerous. All investors profit from knowledge of the intricate details of creative accountancy. The ex-post revelation of accounting frauds and manipulations weakens the positions of both companies and investors. Ex-ante detection would benefit various stakeholders and would probably ensure that illegal practices occur less often.

Thus, a detailed understanding of the business plan and an attentive reading of the financial statements and their notes may make it possible to at least adopt an approach characterized by reasonable doubt and skepticism, if not one that uncovers questionable practices. The company we analyzed provides a good illustration of the various stages of the approach to be applied and of the effects of managing accounting data. The firm’s business plan and the various pieces of information supplied in the appendices lead us to think that the financial statements may have been manipulated. These manipulations are fairly traditional. Essentially, they are based on a false recognition of income linked to transfers of costs to future periods and on the presentation of overvalued assets and undervalued liabilities.

The efficiency of accounting professionals is based on three sources: research, training and practice. For some years now, a number of researchers have been focusing
on various accounting manipulations and frauds. Efforts have been made to elaborate a
typology of practices and to analyze the way in which such practices are implemented.
All of this work has been performed on ex-post cases. In our view, research can help to
develop a more efficient approach to detecting accounting data management techniques
ex ante. Researchers should concentrate more on elaborating ex-ante detection models.
Certain countries, such as the US, have introduced courses on detecting and
investigating fraud and creative accountancy. These courses have led to diplomas such
as the Certified Fraud Examiner (CFE) and a Certification in Financial Forensics. More
wide-ranging training on the subject is needed upstream of professional activity to warn
future managers, investors and financial analysts of the risks involved. Accounting and
financial information is becoming increasingly central to contractual relations in the
economic world (investments in the stock exchange, mergers and acquisitions,
shareholder agreements, assessments and valuations, financing and guarantees,
insurance, and management under mandate). Consequently, practitioners (managers,
auditors, accountants, analysts, lawyers, and regulatory bodies) are increasingly faced
with the task of managing accounting data and their direct and indirect effects.
Confronted with more rigorous legislation and greater risks of manipulation,
practitioners are timidly beginning to discuss their respective experiences in
associations and to utilize ex-ante detection techniques (e.g., training courses,
procedures, and sanctions). Such activities are sorely needed if financial statements are
to retain their validity. Skepticism must be enhanced and ingrained more deeply via
training to allow watchdogs to bark and assume greater protection of the investor.

ENDNOTE

1. In this regard, see the ACFE report, Occupational Fraud: A Study of the Impact of
an Economic Recession, published in 2009. The report forecasted that the
economic recession would lead to a 35% increase in fraudulent financial statements
in 2010 (ACFE, 2009).

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