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The impact of accounting standards on hedging decisions

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## Abstract

*Purpose*: The purpose of this paper is to study the effects of financial accounting standards on the economic decisions of managers. The primary research question addressed in the paper is whether the hedging behavior of corporate treasurers in France has been affected by the issuance of International Accounting Standard No. 39 and International Financial Reporting Standard No. 9 dealing with financial instruments and hedging

*Design/methodology/approach*: Forty-eight semi-structured interviews were conducted with French corporate treasurers. The interview instrument is included as an exhibit to this paper. The interviews were recorded and transcribed. In addition, three interviews were conducted with representatives of Big 4 audit firms who are experts in accounting for financial instruments. Our empirical findings are interpreted using a theoretical framework derived from Jean Baudrillard who argues that the "map" (accounting results) tends to define the "territory" (economic decision-making) in a period of "hyperreality" (when the underlying economic reality is confused). In other words, accounting standards, and the reported numbers that result from such standards, can influence the economic decisions of managers and not merely represent the outcome of economic decisions already taken.

*Findings*: Corporate treasurers often make decisions based on earnings impact. This finding is similar to findings in prior literature regarding the effects of accounting standards on economic decisions taken by managers. A fear of increased earnings volatility is central to the treasurers' concerns. Also key is the complexity of the process for qualifying financial instruments for hedge accounting treatment. We also find that the behavior of corporate treasurers is neither stable nor homogeneous. The behavior appears to be the outcome of a collective learning process in which the corporate treasurer is only one actor.

*Originality/value*: This paper is a qualitative research study conducted in an area of research where there have previously been only quantitative studies. Our access to a large number of French corporate treasurers is unique. Our study supports prior findings regarding the influence of accounting standards on managerial behavior, but with an added theoretical interpretation related to Baudrillard's arguments regarding the nature of the "map" and the "territory" in complex economic systems.



**Key words:** corporate treasurers, IFRS, accounting standards, hedging, map, territory

# The impact of accounting standards on hedging decisions

## Introduction

Beyond its stated objective of representing the economic reality of business transactions, accounting can also act in a reverse manner. This observation is encapsulated in the phrase by Hines (1988) which states that: "in communicating reality we construct reality". This constructivist interpretation of accounting has been investigated in the accounting literature by various authors who often refer to "postmodern" thinkers (e.g. Chiapello and Baker, 2011). For example, Jean Baudrillard’s theoretical notion of “hyperreality” has been applied to the notions of income and capital, which can be seen as self-referential signs where "the map begets the territory" (Macintosh et al., 2000, p. 32). Interestingly, however, this theoretical approach has resulted in little or no field-based empirical research. The present paper aims to fill this gap by providing an empirical example of the impact of accounting standards on the economic decisions of field managers.

In our study, the field managers are corporate treasurers. In specific terms, we investigate how a mandatory change in accounting standards for derivative instruments – principally IAS 39 and IFRS 9 (IASB, 2010) – has redefined the accounting "model" (i.e. the accounting standards) that must be followed when preparing the "map" (i.e. accounting results) of the economic "territory" (i.e. economic decisions). Our research provides support to those who argue that international accounting standards mandating fair value accounting have had a negative pro-cyclical impact on the real economy[1]. Our study provides some

[1] This thesis, disseminated in political circles where accounting standards are accused of inflaming financial crises, has been expressed in the following way: "*One sees this future devaluation in accounting policies that value assets at market prices, which change constantly with the whim of the market. When euphoria reigned over the markets, balance sheets were revalued upwards and the revaluation in its turn boosted equity prices. When fear took over, balance sheets were written down and this devaluation in its turn reduced equity prices. (…) To understand how absurd this accounting effect is, it is sufficient to recognise that with the market value system, a company in difficulty can record an accounting profit simply due to the fact that the deterioration in its reputation reduces the market value of its debt*!" This is not the stance of a critical accounting theorist who dislikes the concept of fair value but that of the former French president, Nicolas Sarkozy, in his speech at the

support for this thesis in that we find an impact on corporate treasurers' economic decisions arising from accounting standards. The impact appears to be related to a fear of earnings volatility. In addition, we find a complex and nuanced process, with heterogeneous behaviors and dynamic learning processes. Once they have acquired agility in dealing with the new accounting standards, some treasurers are in a position to engage in earnings management to reduce earnings volatility.

The approach of this paper is original. Whereas most prior literature has studied the influence of accounting standards on the users of financial information – especially investors and financial analysts – our purpose is to study the impact of accounting standards on the economic decisions of managers. We have used semi-structured interviews to elicit responses regarding the hedging practices of corporate treasurers subsequent to the implementation of IAS 39 and IFRS 9. We find that the treasurers perceive an impact of the accounting standards on their hedging practices, even if there is no consensus about the nature of this impact. We show how the "model" (i.e. accounting standards) that prescribes how the "map" (i.e. accounting results) ought to be drawn influences the "territory" (i.e. economic decisions) in which the treasurers operate.

The remainder of this paper is organized into five parts. To begin with, we illustrate our theoretical framework derived from Baudrillard’s concepts of “model”, “map”, and “territory”. In explaining these concepts we mobilize prior literature related to the topic and show how previous research has studied the ways in which changes in accounting standards impact upon managers’ decisions. The second part focuses on the specific case of corporate treasurers and discusses our research methodology. In the third part, we present our findings and the fourth part we discuss our findings in relation to the theoretical framework. Limitations and extensions of the research are discussed in the conclusion.

40th World Economic Forum in Davos, January 27, 2010. Gaynor and al. (2011) empirically confirmed such a potential perverse effect of liabilities measured by fair values.

## 1. Theoretical framework: The territory, the model and the map

### *1.1 The relationship between financial accounting and financial markets*

Can a territory be represented faithfully by a map? This logical puzzle — reflected in works such as those of Lewis Caroll (1893) or Laura Riding[2] — addresses the timelessness of the signified/signifier relationship and is sometimes referred to as "*the quintessence of Anglo-American philosophy of common sense*" (Siegert, 2011). Authors like Jorge Luis Borges (1949) and Umberto Eco (1992) have discussed the challenges involved in creating maps to embody physical and social realities and they have criticized the attempt to draw a map which purports to represent a territory.

From another perspective, that of academics in geography and anthropology, the conundrums of the map-territory relationship have been classical questions. Academics in these disciplines typically consider maps either as social constructions (Crampton, 2001), narratives (Wood and Fels, 1986) or metaphors (Harley, 1992). Their research concentrates less on the relationship between the map and the territory than on the unachievable ambition of using a map to faithfully represent a territory: a map needs to be understood as more than an attempt to represent reality; it must tell its own story.

It is precisely this fuzziness between faithful representation and reality, which the French author Michel Houellebecq (2010) explored in his novel "*The map and the territory*" which blends references to real events with fictitious narratives in order to shape a hyperreal story. The main character of the novel — an artist — owes his celebrity to photographing Michelin maps, convinced that "*the maps are more interesting than the territory*". This interesting notion reflects the prior ideas of René Magritte, a Belgian painter, who coined the phrase: "*This is not a pipe*", several years before his famous aphorism reached its most commented

[2] http://givingmirth.blogspot.fr/2009/08/map-of-places.html

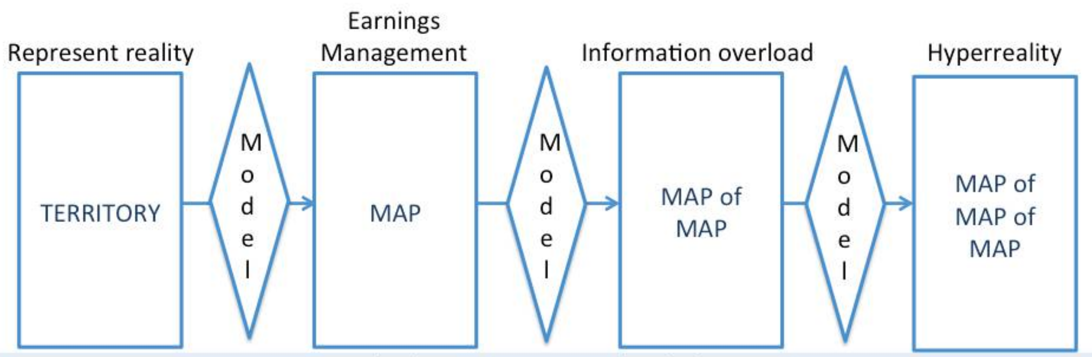
upon status through Korzybski's dictum (2007 [1933]): "*The map is not the territory*". For Korzybski, a map needs to take on a structure that is comparable to the empirical world, but the map also needs to explain how it must be interpreted. These constraints can be expressed in three sayings: *a map is not the territory* (words are not the things they intend to represent); *a map (words) cannot exhaustively cover the whole territo*ry; *a map is auto-reflexive* (it is possible to use a language to speak about language) (Korzybski, 2007).

Pursuing these ideas further, the French social philosopher Jean Baudrillard (1929-2007) coined the concept of "hyperreality" in which he argued that there may be no reality underlying the map. Originally interested in semiotics, Baudrillard developed a sociological approach to mass communication, and he specifically argued that the communication methods prevalent in a particular society shape the social relationships in that society. His analysis of the famous Beaubourg Museum in Paris and Disney World illustrate that beyond the blending of the map and the territory, there appears to be an emergence of signifiers referring to no reality at all. Baudrillard theorized the existence of four successive phases of signification (i.e. orders of simulacrum): (1) "brut reality", "*when images reflect what is considered to be real*"; (2) "counterfeit reality", "*when images pervert the basic reality*"; (3) "mass production" of images, "*when images hide the underlying reality*". Finally, references to the original reality are lost, *"the image bears no relation to any reality at all: the image is its own pure simulacrum*" (Baudrillard, 1981 p. 17).

"*Today, abstraction is no longer that of the map, the double, the mirror, or the concept. Simulation is no longer that of a territory, a referential being or substance. It is the generation by models of a truth without origin or reality: a hyperreality. The territory no longer precedes the map, nor does it survive it. It is the map that precedes the territory – that engenders the territory.*" (Baudrillard, 1981, p. 10; 1994, p. 1).

Baudrillard's work has drawn the attention of various accounting academics. For example, Macintosh et al. (2000) described the evolution of financial accounting as moving through the phases hypothesized by Baudrillard.

*Figure 1: The evolution of financial accounting pursuant to Baudrillard's orders of representation according to Macintosh et al. (2000) – our synthesis.*

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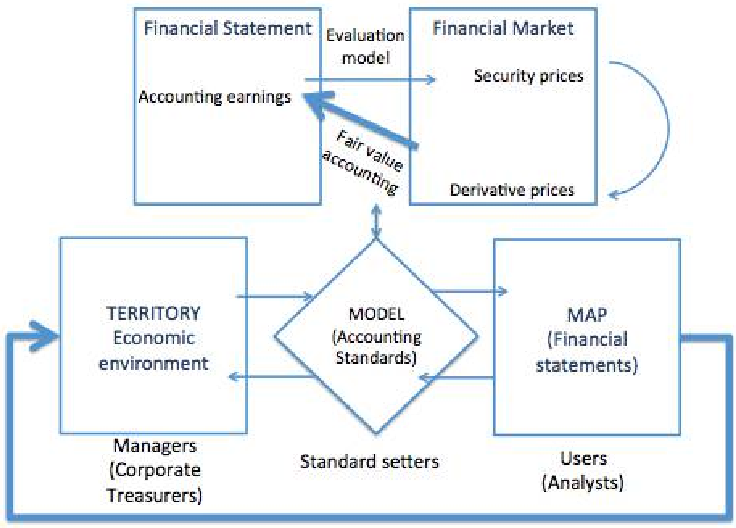
|---|---|---|---|---|
| **Signs** | Refer to real objects | Concil ordistort objects | Absorb objects into mass information | Pure simulation |
| **Law** | Natural rights | Common Law | National Law and standards | Golbal law |
| **Basis of Accounting** | Cash Flows | Balance sheet | Income measurement | Market values |
| **Income** | Liquidation Proceeds | Difference between two balance sheet dates | Serialized periodic return, Realized profit | Change in Market Values |
| **Profit** | Distributed to owners | Retained in entreprise or distributed as dividend | Retained in entreprise | Change in share value |
| **Capital** | Liquidation proceeds | Proprietary investment retained earnings | Future earnings capacity | Capacity to earn the market rate of return |

Macintosh et al. (2000) argued that accounting for financial instruments has arrived at a stage of hyperreality. This argument is illustrated through a feedback loop in which information extracted from financial statements is used by financial analysts to estimate share values, which subsequently drive share prices. This latter information re-enters the balance sheet as marked-to-market values. The feedback loop (see Figure 2) illustrates the dual relation between the sign and the object, similar to what Baudrillard describes as a "simulacrum". To Macintosh et al. (2000, p. 36) "*The market uses accounting earnings, along with other information, to value company shares and other securities. The prices of the securities then become the "underlying" that sustains the derivative prices and the self-referential sequence is complete*".

The user of the map is the analyst or investor. The standard setter/regulator (IASB, FASB, SEC etc.) prescribes the map's "model" through the issuance of accounting standards. The standard setters attempt to create a model based on representational faithfulness, but this attempt is unsuccessful, because the managers modify the "territory" (i.e. economic decisions) in order to influence the outcome of the "map" (i.e. accounting results).

*Figure 2. From the territory to the map and back (adapted from Macintosh et al., 2000).*




Macintosh *et al*. (2000) propose a feedback loop which produces a continuous update of the model[3]. If, however, the territory enters a crisis phase, unreliable maps may be the result, which causes users to make erroneous decisions, either in an overly conservative manner or in an overly exuberant manner. Naïve interpretations of optimistic maps can lead to irrational investment decisions thereby contributing to economic bubbles. At the same time changes in the rules for mapping (i.e. the accounting standards) may lead to instability in the territory (i.e. economic decisions). An example of this instability occurred with the adoption of IFRS 9 which might have amplified the financial crisis of 2008 by contributing to the creation of a bubble when the market was buoyant and accentuated crises of confidence when market

[3] See for example, November et al. (2010).

liquidity was limited[4]. On this topic, there is however no clear consensus (e.g. Barth and Landsmann, 2010; Badertscher et al., 2012; Brüggeman et al., 2013).

Pursuing this idea further, Macintosh and Hopper (2005) have argued that corporate economic performance no longer relies on the exploitation of tangible resources, but rather on the ability of managers to manipulate the images of intellectual capital. Libby and Seybert (2009) confirm this idea with a focus on accounting choices as vectors of earnings management.

*1.2 Prior research on the impact of accounting standards*

Many prior empirical qualitative studies have examined the influence of accounting standards on managerial decisions. For example, the implementation of SFAS 106 '*Employers' Accounting for Post-retirement Benefits Other Than Pensions*' in 1992 resulted in private sector employers reducing their commitments to health care coverage for their retired employees (Fronstin, 2000), because the new standard required the recording of the present value of future liabilities in financial statements.

More trivial accounting choices may include, for example, amortization methods. Jackson (2008) and Jackson et al. (2010) shed light on the distorted representation of assets depreciated on a straight-line basis versus accelerated basis: when accelerated depreciation was applied, fixed assets were sold at lower prices than similar assets that were depreciated on a straight-line basis.

More closely related to the theme of our paper, Kim and Kross (1998) found that a 1989 regulation had divergent impacts on loan provisioning based on whether banks had high or low capital ratios. In the same vein, SFAS 114 (dealing with problem loans) was found to

[4] The issue has also led to discussions within the IASB (ITAC 2008, IASB 2008, Fiechter, 2011).

have an impact on decisions according to size and types of banks (Alali, 2005; Alali and Jaggi, 2011).

These findings are consistent with earlier findings such as those of Wilner (1982) who designed an experiment to evaluate the impact of SFAS 8 on the behavior of treasurers in order to assess information inductance[5] (Prakash and Rappaport, 1977). Pursuant to SFAS 8, which requires using the temporal method for consolidating the figures of subsidiaries operating in foreign currencies, the author found that treasurers engage in hedging transactions which sacrifice cash flows for the benefit of earnings, because the latter are more crucial to maintain their positions. More recently, Zhang (2009) points to an interesting impact of a change in the SFAS 133 standard on derivatives, a 1998 standard which anticipated, for U.S. firms, several changes later introduced by IAS 39. SFAS 133 distinguishes between financial instruments that create an effective hedge of interest rate and foreign exchange risk and those that do not, and applies a different accounting treatment for effective hedges. Zhang (2009) found that only firms whose exposure did not decrease after the implementation of the derivatives program significantly reduced their risk exposure following the issuance of the new standard. In addition, Lobo and Zhou (2010) point to an impact of the US Sarbanes-Oxley Act (SOX) on financial reporting for a panel of Canadian companies listed in both Canada and the United States. Their study found that firms are more conservative after the implementation of SOX, as evidenced by smaller amounts of discretionary reserves. The effect is even more pronounced for firms that previously had aggressive behavior.

Our paper contributes to the findings of the prior literature, but it is also different from the prior quantitative empirical papers through its effort to examine actual behavior. While most

[5] Information inductance implies that managers may make economic decisions based on the accounting impact rather than the economic impact.

empirical studies lead to weak inferences, we adopt an explanatory approach (Creswell and Plano Clark, 2007). Our underlying premise is that differences in attitudes of managers may be due to differences in perceptions and representations, the latter being influenced by a learning process. In accordance with this premise, we interviewed a panel of corporate treasurers whose corporations adopted IFRS. These treasurers were working in various contexts in terms of the size and the sector of their corporations. Our methodology and the context of our research are detailed in the next section.

## 2. Context and methodology

In this section, we present the methodology of our study. First, we provide some context about the job of the corporate treasurer. In particular, we clarify the linkage between his/her daily activity and accounting standards. Then, we introduce our research methodology.

### *2.1 Treasurers and Accounting Standards*

The opportunity for this research came from the relationship of one of the co-authors with the AFTE, the French Association of Corporate Treasurers. With around 1400 members, making it the largest association of treasurers in the world, the AFTE acts as an intermediary between corporate treasurers, market regulatory authorities and governmental bodies.

The corporate treasurer is the operational manager of a company's financial commitments. He/she is in charge of maintaining the corporation's ability to face its financial commitments, especially in terms of liquidity. The treasurer is also responsible for implementing hedging policy by buying and selling derivatives (via banks) on financial markets, a task generally conducted under the supervision of the Chief Financial Officer (CFO) who is in charge of the overall solvency of the corporation.

Since 2005-06, French companies have been required to present their consolidated accounts in accordance with IAS/IFRS. This change was significant because French GAAP has been based more on historical values and fiscal rules than on fair value. IAS 39 and IFRS 9[6] set the rules for the recognition and measurement of financial assets and financial liabilities. The introduction of these standards changed the accounting rules for derivatives (e.g. forward exchange contracts, swaps, options, etc.). Until 2005, derivatives appeared off-balance sheet. The introduction of IAS 39 resulted in the reporting of these instruments on the balance sheet at their fair value – i.e. either their market value (mark-to-market) or on the basis of a financial model (mark-to-model) in the case of illiquid markets. Throughout the life of the instrument, the variation in fair value can lead to volatility in the balance sheet and in the P&L. To limit this volatility, the standard setter offers an alternative called “hedge accounting”, which requires a demonstration that the hedging position is highly efficient. The efficiency is measured by the sensitivity of the fair value of the hedging instrument in relation to the value of the underlying hedged item, and must fall in the range [80% - 125%].

In this paper we investigate whether the introduction of IAS 39 may be more than merely an accounting choice, since the economic decisions of the treasurers may also be affected. Basically, the treasurer faces a tradeoff between the economic optimization objective and the accounting result. The treasurer’s actions can be considered “real earnings management” rather than accruals manipulation**.** The treasurer is not the only agent affected by accounting rules. The treasurer's superiors – especially the CFO – are likely to interpret the constraints and opportunities in their own way, and auditors – internal and external – might also advise, if not impose, their own perspective. However, the treasurer is likely to be

[6] The mandatory adoption of IFRS 9 began on 1 January 2013. In November 2012, the IASB issued a new Exposure Draft on the matter (IASB, 2012), open to comments until 28 March 2013. It proposed “limited amendments” to IFRS 9 and the deadline for implementation was postponed, until 1 January 2015. In July 2014, the decision was made to postpone once more to 1 January 2018, with "early application permitted". See http://www.ifrs.org/Alerts/PressRelease/Pages/IASB-completes-reform-of-financial-instruments-accounting-July-2014.aspx

the person who defines the way to deal with these issues, especially in smaller entities where the treasury function is combined with the overall financial responsibility. Consistent with previous studies, one can therefore expect to find different reactions to the standards and differences in the demographic characteristics of the surveyed companies. This is where the potential richness of our research lies.

*2.2 Research methodology*

Our literature review shows that most academic work on this topic is either quantitative or experimental. Although these methods are rigorous, they do not provide an understanding of the actors' motivations. We seek both to fill this gap and to better understand the treasurers' behavior. To do so, we chose to conduct qualitative research, in line with the call by Arnold (2009, p. 804): "*The need for financial accounting research to reduce its dependence on quantitative databases and develop the methodological tools, institutional knowledge, and links to practice needed to bridge the gap between academic research and the world of 'accounting in action' is one of the most significant challenges posed by the current crisis to accounting research*".

In a preparatory step, we asked the members[7] of AFTE the following question by e-mail: "Do IFRSs have an impact on your hedging strategy?" 56% of the 211 respondents answered positively. Such an observation confirmed our initial intuition of significant but non-homogeneous perceptions regarding this issue. Thus we moved to a second step, based on individual interviews (see Appendix 1 for the interview guide). Between June 2011 and March 2012, we surveyed 57 firms, with a sample designed to obtain cross-sectional differences in firm size. Because of the support of the AFTE, the response rate (91%) was

[7] These are only non-financial institutions because treasurers working in the banking and insurance sectors have their own association called the AFTB (*Association Française des Trésoriers de Banque*). This is in line with the literature which tends to study these sectors separately.

very high with 52 treasurers agreeing to be interviewed. Forty-eight usable interviews (84%)[8] (listed in Appendix 2) were obtained, thus insuring against a non-response bias (e.g. Baker, Singleton and Veit, 2011). The 30 minutes to one hour interviews were conducted either face-to-face or over the phone and were systematically recorded and transcribed before being analyzed.

Most of our interviewees were Chief Treasurers whom we met in person. In some cases – particularly in smaller firms – financial managers responded. Sometimes, at the initiative of the respondents, we met two interviewees simultaneously: the treasurer accompanied either by the accountant in charge of the treasury operations, the person responsible for consolidation or the CFO. The 48 interviews resulted in a saturation effect as defined by Glaser and Strauss (1967).

We adopted a semi-structured approach for our interviews. Frequently used by scholars in management and strategy (Eisenhardt and Graebner, 2007; Kownatski et al., 2013), in-depth interviews are likely to identify the motivations of the treasurers with respect to their decision-making processes. A semi-open discussion also enables a better understanding of the perceptions of treasurers about their profession and its evolution. We are not observing the influence of a standard on practice but rather the impact of the standard, as it is perceived by the actors. For instance, several respondents who checked "No" to the initial question nevertheless confirmed during the interviews that their practices had changed. It is worth mentioning that the greatest care was taken during the interviews not to induce bias in the responses by avoiding words such as speculation, pro-cyclicality or volatility.

During the interviews, three main issues were addressed:

[8] Amongst the 52 treasurers who agreed to meet the researchers all but two had worked used the new IFRS standard while two others were working in corporations using the French standards only. These interviews were excluded from the panel.

- The respondent's opinion about the influence of IFRSs on the evolution of the profession of treasurer: this question was asked in order to prompt the treasurers to reflect upon the relationship between accounting standards and the economic decisions they made. We also wanted to investigate the impact of the standard on the treasurer him (her) self in order to study the learning process.
- The relationship with his/her supervisors was discussed in order to assess the treasurer’s personal perspective on the constraints and guidelines imposed by his/her supervisors with possibly conflicting goals.
- The role of internal and external actors involved in the implementation of IFRSs: this question was asked because IAS 39 and IFRS 9 deal specifically with hedging decisions. It was therefore important to understand how the internal actors implemented the standards. Again, this relates to the learning process. The external actors that we had in mind were external auditors, who also play a role in implementing the standards. We also wanted to discover whether the reaction to the standards was voluntary or proposed/imposed by the auditors.

We also used follow-up questions “to elicit richer and more detailed descriptions” (Kownatski et al., 2013, p. 1301). Beyond the previously mentioned issues, more technical issues were discussed, such as: collateralization, standardization, training modalities, hedging instruments etc. During this final phase of the interview, the treasurers frequently came back to the issue of accounting standards. Finally, we met three partners from Big Four French audit firms, all of whom were considered to be experts in the field of accounting for financial instruments. Despite their desire to keep their comments anonymous, they generally confirmed the relevance of the material that we submitted to them.

## 3. Results

This section discusses our findings. We present the primary themes raised by our respondents, based on coding and analysis made by three different persons (two researchers and an assistant). Interpretation and discussion of these results are left for the fifth section.

From a demographical point of view, descriptive statistics suggest that respondents can be categorized into four types: the largest corporations belong to the French CAC40; the mid-size corporations belong to the Mid100; the small ones belong to the Small90; and the privately held companies (considered in a separate category called NL). Descriptive results suggest that the transition to IFRSs has affected financial risk management for 91% of CAC40 companies against only 50% for the other categories[9]. Within our sample, this difference is statistically significant. Conversely, there is no significant difference between the categories Mid100, Small90 and NL. Large firms of the CAC40 are more exposed to financial communication issues, because they are closely followed by analysts (Lang and Lundholm, 1994; Yu 2008). Hence their CFOs are probably more sensitive to changes in accounting standards. As a consequence, their treasurers may internalize this sensitivity by modifying their behavior.

*3.1 A perceived increase of earnings volatility*

Our first finding is that there is a general acknowledgement of the impact of the accounting standards on their hedging behavior[10], however various justifications were advanced. The belief regarding an increased risk of volatility in the earnings statement appears to be quasi-universal, and mostly expressed as a fear: "*We have been surprised about the effect of the time value of money and the obligation to account for this in the P & L. So we do not wish, in fact, to bring volatility into the accounts* (Interview 1 – treasurer at a large

[9] We find very similar proportions in the sample of 211 answers to the questionnaire.
[10] This is probably the case because the share of corporations belonging to the CAC40 is significantly higher in the smaller panel of interviews.

corporation)[11]." "*Our role here is to eliminate risk, not to increase it. So anything that introduces volatility in the earnings is excluded* (Interview 2 – treasurer at a large corporation)." Also, "*It is somehow cultural, but I know that we are particularly allergic to volatility of the income statement* (Interview 3 – treasurer at a large corporation)."

Sometimes our respondents internalized the views of analysts who were thought to be averse to any form of volatility: "*We could not afford to leave it in the P&L because, for analysts, it completely distorts the analysis. We were forced to put it in the non-operating income. Obviously, in the non-operating income, analysts do not like it either and they want you to explain it. They prefer you to say: 'Here, there was a particular event during the period that caused the non-operating income to be this'* (Interview 4 – treasurer at a large corporation)."

Sometimes volatility is seen as a managerial failure which distorts budgeting: "*We are in a group led by a budget cycle, where all the entities have budgetary commitments and do everything they can to meet these commitments. In this context, volatility is very unpleasant. Because we may not be able to ... uh, the manager may not be able to meet his targets (...)* (Interview 4 – treasurer at a large corporation)." In the latter case, the treasurer internalizes the concern of the operational manager who is keen on meeting his/her targets, and who might not be able to do so due to the effect of an accounting standard on hedging that is beyond his/her control: *"(...) everyone tends to look at what has an impact on the income statement rather than on equity. We can criticize this, because everything relates to the value of the company. But in fact, there is much more focus on what is happening in the P & L* (Interview 14 – treasurer at a mid-size corporation)." In such cases, the treasurers tend to impute to third parties – especially operational managers and analysts – a functional fixation

[11] In this part of the paper, we extracted quotations from 16 interviews among the 48 carried out. They are the most representative ones. These interviews have been ranked from 1 to 16.

bias (Hand, 1990) leading them to have a naïve interpretation of accounting results. Thus the treasurer – supposedly focused on economic risks, focuses instead on the volatile P&L.

*3.2 A perceived increase in complexity*

In many interviews, IFRS were criticized for their deleterious effect on the treasurer's mission: "*We have become accountants* (Interview 5 – treasurer at a large corporation)" and "*It becomes more and more complex and we waste a lot of time in discussion with the auditors. Last year, we had a significant contract on yen. The accounting was so complex that we promised not to do it again* (Interview 6 – treasurer at a non-listed corporation)." And "*The accounting brings nothing to the treasurer. It is a total inconvenience* (...) (Interview 11 – treasurer at a mid-size corporation)."

The complexity and the demand for documentation generated by IAS 39 and IFRS 9 are another effect deplored by respondents. This was even more pronounced in companies that have only limited accounting and financial expertise: "*Even if it could be defined as hedging, we did not develop a justification scheme because it risked becoming too long and, indeed, we feared getting entangled* (Interview 7 – treasurer at a small-size corporation)." In these cases, avoidance of complexity led to the treasurer accepting volatility.

As a corollary to this complexity, the standards create uncertainty due to the risk of having operations not qualified for hedge accounting. Interestingly, the auditor is the most cited partner in the process of implementation of the new accounting standards. However experiences are sharply divided on this matter: some mentioned conflicts and considered the auditors to be overly rigid, while others described good relationships with the auditor. Therefore the relationship with the auditors becomes critical especially because it is not static and can evolve favorably over time with experience and the provision of support in the interpretations of the standards. *"(...) The fact that we use standard accounting throughout* *the year and then do the regularization based on foreign exchange transactions is thanks to our auditors because, in theory, we should account for our operations on a daily basis - that is what our American colleagues do* (Interview 6 – treasurer from a non-listed corporation)."

A flexible relationship was confirmed by two of the three Big 4 auditors whom we interviewed. One acknowledged: *"The text requires documentation and effectiveness assessments to be made concomitantly with the operation (...). But there is room for auditor's judgment, on a case by case basis, when things have been done by the client who just forgot documentation. If everything else is OK, should we stand there and refuse to qualify afterwards? In fact, I personally agree (...) when I feel it is an omission and I tend to refuse it when it seems to me there is intentional earnings management* (Auditor 1).*"*

Our results also suggest that there is room for discretion on decision making about qualifying an operation as hedging instead of speculation. However, the auditors we met showed some discomfort when addressing such issues. The relationship between the treasurer and the auditor has thus intensified: "*We are obviously more in touch with our auditors who will come to analyze what we did* (Interview 2 – treasurer at a large corporation)."

It is through the relationship with the auditor that some treasurers accepted the changes: "*I think that IFRSs are a necessary evil, in the sense that there are some companies who abused derivatives and there was a need to put a little order in everything. (...) We could not afford to let companies set up trading portfolios or hedges, or hedges that are not hedges. So it was normal to impose a framework that allows us to get closer to accounting and to put all financial products in the balance sheet and the income statement* (Interview 1 – treasurer at a large corporation)." This is also the case when accounting issues are explained to superiors: "*The important thing is that our Chief Financial Officer knows how to explain; when there is an impact he explains it as if it is a non-cash impact* (Interview 8 – treasurer at a small-size corporation)." This illustrates the role of the financial management function, which is expected to reconcile the concerns of managers (including general management) and those of the auditors (internal and external).

Even when giving positive opinions, the respondents tend to note that discussions and negotiations become necessary when they want to consider a transaction for hedge accounting: "*In some cases, we have to explain and discuss, and then decide together on the trade-off between the impact of volatility on the accounts and the economic importance of the hedge, (...)* (Interview 9 – treasurer at a large corporation)." This tends to slow down the decision-making process, and may cause interesting hedging opportunities to be passed up. Some treasurers explicitly acknowledge this dilemma and admit that they come across situations in which they prioritize accounting results over the economic interests of the company. Interestingly, in our sample we find that the ways of adapting to the constraints imposed by the standards[12] are diverse.

*3.3 Diverse ways of adapting*

First, our results indicate avoidance behavior: "*(...) the strategies that we had always practiced and that seemed economically viable, all of a sudden became impossible because of the presence of volatility in the P&L that was no longer bearable* (Interview 4 – treasurer at a large corporation)." "*Sometimes we say 'no, we will not do the operation this way because we will have problems with these rules and then we will waste a lot of time, and therefore (...) we just get involved in traditional forward exchange transactions, whereas before we had practiced a few options with tunnels* (Interview 6 – treasurer from a non-listed corporation)." Some companies decided to use simple options ("vanilla" in professional jargon), and gave up

[12] The behavior of managers (in our case corporate treasurers) is not a static variable. It evolves over time in a process that is changing due to collective learning. Therefore it would be misleading to provide any frequency of observation of each category. It is also important to mention that these categories are not exclusive: one treasurer might belong to several categories, especially when he/she passes from one to another.

on more speculative operations. Macro-hedging strategies or dynamic management were less common because of the documentary complexity that they require: "*We have to cover fifteen to twenty currencies and it is true that constraints imposed by IFRSs have led to a simplification of the hedging instruments used by the group* (Interview 12 – treasurer at a large corporation)."

Less frequently, corporations dealt with the standards by publishing two sets of accounts: one that would be purely IFRS – including operations that have an impact on the P&L – the other set is adjusted. In one of those cases, the company had to convince the Financial Markets Authority (AMF): "*The AMF, in fact, criticized us every time for the fact that we reported and communicated on adjusted accounts. And we had to fight, but they finally accepted it.*" (Interview 5 – treasurer at a mid-size corporation). Most often, this type of positioning reflected a collective learning process that involved higher level management, the authorities and auditors: "*(...) there was some flexibility from the auditor, there were some differences in understanding from different parties, and as a consequence some behaviors were adapted a little bit.*" (Interview 1 – treasurer at a large corporation). "*There was quite a lot of learning by the operational staff, and then learning at the senior management level, who also had to learn to read the accounts from a new angle and to be able to explain it to the investment community* (Interview 14 – treasurer at a mid-size corporation)." In this context, the treasurer was never the sole decision maker.

A third category of respondents included firms that could be considered pragmatic or opportunistic. These firms were able to take advantage of IFRS in order to structure and standardize practices within the group, or to manage earnings, or to adapt themselves to events. This was present in a firm that voluntarily adopted IFRS in order to standardize accounting procedures and cash management in all of its subsidiaries (via the creation of a cash pool): "*I think it's still safer to be in a standardized environment in which each* *participant knows, applies and respects the standards. This helps greatly to clean up the entire system* (Interview 11 – treasurer at a mid-size corporation)." In doing so, the group leader succeeded in reducing earnings volatility. This structuring effect is recognized as a positive result of the transition to IFRS: "*The first effect was beneficial because it was a requirement for all units to report their exposures in order to be able to hedge them* (Interview 15 – treasurer at a large corporation)."

Finally, a fourth category of respondents said they had not significantly changed their behavior following the introduction of IFRS. This may be related to the economic situation of these companies or to their capital structure: "*At first, it did not change much since it was considered that the issue was still restricted at our level. We have not implemented hedge accounting, so we actually continue to do as we did. (...) We are definitely a listed company, but with family control, so stable in terms of financial reporting; we are not in the same situation as a company that really needs to justify in detail (...)* (Interview 10 – treasurer at a small-size corporation)." Volatility seems acceptable as long as the firm does not feel obliged to explain it, especially since it saves the administrative costs of hedge accounting. It should be noted, however, that when this group became more internationalized and the treasurer had to deal with more exotic and volatile currencies (Russian ruble, Brazilian real), the attitude was revised: "*The ruble fell flat. One year, it took 1.5 million unrealized mark-to-market gain. So it inflated our result with 1.5 million in one year. This was cancelled the following year by the accounting mechanism. These events brought significant volatility into the income statement. So, we asked ourselves whether it would not be interesting to look at this part of hedge accounting. In fact, we worked on it and we will put in place this year. It is being put in place in 2011* (Interview 10 – treasurer at a small-sized corporation)." Thus, indifference to the standards may be temporary and difficult to maintain when volatility increases.

### *3.4 Other findings*

Although the goal of earnings management is never explicitly admitted, it appears implicitly in several interviews: "*The ultimate aim of going into hedge accounting is because this is what will enter into the operating income of the subsidiary, and this is what we at the central level present when we publish our results. The goal is not to make financial income… We do not take that approach. We think that many groups do this ... That is to say they take a fairly aggressive approach and then might impose it on their auditor or, at least, convince their auditors that such positive operations will be considered hedging and will therefore enter into operating income, whereas other operations - those that are losing – will go into other income* (Interview 12 – treasurer at a large corporation)." So there is a potential to delay or anticipate earnings and to transfer between operational and non-operational levels. In other interviews, Other Comprehensive Income (OCI) is evoked as an alternative for hosting temporarily undesirable volatility. At the same time, one respondent tried to draw a line: "*(...) in most cases we do not want to intervene in the operations, we don't want to influence the business. Although, in some cases, we may show the potential impact in the accounts and it is said that it is not acceptable and undermines one transaction – this can happen* (Interview 3 – treasurer at a large corporation)." Expressed negatively, we can see that even if the concern for the impact on income is not internalized by the treasurer, there is a risk that it will be imposed by the accountants: "*Finally, I cannot say that accounting decides, but let's say we will never initiate a transaction without checking on its impact* (Interview 13 – treasurer at a large corporation)," and "*(...) there are times when budgets are extremely tight, then accounting decides. At least it is the accounting logic that decides. So it is the standard that will drive the decision* (Interview 11 – treasurer at a mid-size corporation)..." Thus, while the fear of earnings volatility seems to be the motivating factor, there may also be room to maneuver in terms of earnings management.

A sub-category can be distinguished here: firms which experienced significant events in addition to changes in accounting standards. As an example, among our respondents was an industrial company, family-run at first, later absorbed by an American group – and therefore subject to U.S. GAAP – before regaining its independence. Each time the general management and the auditor changed. In this case, the behavior of the treasurer was more influenced by the context than by the standards themselves.

Finally, two other themes emerged from these interviews. The first is that of competencies. Within large groups that are part of the CAC40, accounting, financial communication or consolidation services seem to be able – with the assistance of Big Four auditors – to provide a technical framework that matches the complexity of the standards. This is even more the case when external expertise is solicited. However, even in such groups, lack of available skills is sometimes singled out as an obstacle. In companies with less structured financial and accounting services, lack of skills is even more critical. This appears to be more organizational than individual. The process for structuring and documenting with respect to hedge accounting qualification involves the whole organization: "*IFRSs consider the possibility to hedge future transactions provided that they are highly probable. So one way to demonstrate high probability is a budget supported by realistic historical sales* (Interview 16 - treasurer at a mid-size corporation)." In all cases, the treasurer has to rely on an administrative structure on which he or she becomes dependent.

A final aspect seems to be the desire, expressed by several respondents, to change the standards. "*So this is a typical example of what we expect for the evolution of IFRS: a move from very quantitative accounting criteria to more qualitative economic criteria in the new version of IFRS 9* (Interview 9 – treasurer at a large corporation)." The question is not new: in the United States, under pressure from issuers, regulators replaced SFAS 8 on foreign currency translation with SFAS 52, without ending controversies on the issue (Hoyle et al., 2011). The IASB has also, through amendments of the standards (see, e.g., IASB, 2008), agreed to meet certain requests from practitioners. Through the influence of IFRS, the treasurer became an active participant in the standard setting process through his appropriation of the accounting issues. The postponing of the effective date of IFRS 9 is a proof of the participants' involvement in lobbying the IASB regarding this issue.

## 4. Comments and discussion

Similar to Macintosh et al. (2000), in this study we have found that accounting for financial instruments appears to have become a realm of hyperreality in which accounting results seem to become detached from underlying economic reality. Together, we build on Macintosh's et al. (2000) description of the evolution of the phases of financial accounting, by suggesting in the following paragraph that there is also an evolution of financial instruments and hedging strategies in the direction of greater complexity. In turn, this complexity may generate, in the accounting results, especially under IAS 39, volatility somewhat detached from the one of the underlying asset. The fear of earnings instability among corporate treasurers has caused them to take actions to reduce earnings volatility despite the potentially negative impact on the economic reality as exemplified by cash flow. Based on our interviews, we have identified several types of reactions to the standards.

### *4.1 Confusion between the real economy and financial accounting*

IAS 39 can be understood as a model that can represent different types of economic reality related to financial instruments. Initially, a hedging transaction in an over-the-counter (OTC) market was intended to reduce the risk of holding a "real asset" (e.g. a bushel of wheat); in other words, the hedge was a type of "insurance" for farmers that was directly linked to the potential volatility in the price of the underlying asset (i.e. the bushel of wheat). This initial stage in the use of derivatives was followed by a "mass production" stage in which the use of hedges and derivatives was commodified thereby allowing the derivatives contracts to be traded in large volumes. The organization and standardization of the derivative markets allowed agricultural derivatives such as futures and options to be traded not only by farmers and cereal products manufacturers, but also by speculators. The large number of monetary settlements before maturity of the contracts for the purpose of settling the transactions indicated that the derivative instruments were being traded independently from the underlying "real assets". Finally, investors and speculators have been able to combine derivatives to hedge the risk of owning real or financial assets or even the volatility implied by these derivatives (e.g. VIX options and futures). This stage of the use of derivatives can be understood as a type of hyperreality, in which sophisticated instruments hedge derivatives positions rather than real assets. At this stage, "*the image is unrelated to any sort of reality: it is its own pure simulacra. (...) the image is not that of appearance, it is the one of simulation*" (Baudrillard, 1981, p. 17).

These levels of derivative activity can be contemporaneous with one another, resulting in different accounting representations (Macintosh et al., 2000). IAS 39's specifies three possible accounting methods, which can lead to different maps (i.e. accounting results), and thus the shift from one map to another can increase confusion (Houellebecq, 2010). As anticipated by Baudrillard (1981), there is confusion between the map and the territory and this confusion becomes evident in the volatility induced by the accounting model. The fixation on earnings underlined in Interview 14 (see Section 3.1) confirms that the accounting results may have entered a period of hyperreality.

We can interpret our findings from a traditional accounting perspective as well. Our respondents recognized that they give priority to reported accounting earnings numbers rather than following the economic logic of cash management. This finding is similar to the results of Wilner (1982) and can be interpreted as an internalization of a belief in functional fixation. These users apparently are unable to see accounting information in a broader context. They have an "unsophisticated" understanding of the volatility of earnings and equity. In response to this concern, treasurers implement various earnings management strategies. This illustrates the feedback loop between the map and the territory. A treasurer admitted such anticipatory strategies: "*Once the impacts are the expected ones, and once the auditors have validated them, we are fully satisfied* (Interview 1, treasurer at a large corporation)."

### *4.2 The fear of earnings volatility*

Our findings highlight a fear of earnings volatility which resonates with Baudrillard's (1981, p. 221) observations: "*This panic (...) is the one of seeing value dissociated from its content and functioning alone. Values will proliferate and continue to circulate, like the floating capital, or eurodollars, they will spin free of reference marks, completely devalorized but it doesn't matter: their circulation is sufficient to define a social horizon of value, and the obsessive fear of the ghost value will grow even bigger. Consequently, there is unprecedented terror of value* (our translation)". This terror is characterized as an internalization of risk, coupled with an increased consciousness of the volatility. The process is however not perceived to be negative but only uncertain because "*Implosion is a specific process with incalculable consequences* (our translation)". Indeed "*There is more and more information and less and less sense* (our translation)" (ibid, p. 119) and "*Instead of communicating, information wears itself out in the production of communication. Instead of producing sense, it wears itself out in the production of sense* (our translation)" (ibid, p. 119). Inevitably, this fear also permeates the audit process (Guénin-Paracini et al., 2014) and the tensions in the relationship with the auditor may increase the fear, when paradoxically it was expected to bring comfort. Eventually though, there is a transfer of the control over the accounting reporting decision to the auditor.

Our interviews indicate that the map (accounting results) affects the territory (economic decisions), in the sense that the impact on earnings arising from a modification of the model (accounting standards) affects decision-making (the territory). This finding challenges the accountant's claim to emphasize "substance over form" in that the form is revealed as influencing the substance.

*4.3 Adaptive behaviors*

Our interviewees share a global consensus about the impact of the IFRS standards on the treasurer's activity. There is an indisputable unanimity in the perception of an increased work-load with respect to both disclosures (Interviews 16, 17) and simulations (Interview 18), both were deemed time-consuming "*our work is now dedicated to writing* (Interview 11)". In addition, some respondents were convinced that opportunities are being lost through delayed validation (Interview 3). Their temporal horizon is perceived as being modified (Interview 11) and becoming more remote from economic issues. Disoriented by the required compliance with standards, the feeling can be the one of a loss of flexibility (Interviews 11, 16). However, the extra work-load requires more connections with operational functions and the treasurer has gained greater visibility within the organization (Interviews 15, 17, 19), i.e. transparency (Interview 38).

Another concern shared by about half of the interviewees is the renunciation of practices not eligible for hedge accounting, which has reduced the numbers of usable instruments (Interviews 18, 19, 31, 45). The goal of reducing volatility is not a treasurer's decision but originates with the management who wants to simplify the discourse targeted towards shareholders (Interview 45), without simultaneously renouncing profitable opportunities (Interviews 14, 42). The resulting behavior is sometimes described as more prudent (Interview 28). In summary, standards are considered to influence strongly the function of treasury management, but also decision-making and hedging for foreign exchange risk (Interview 3). However, while treasurers share common views towards the standards, there is no uniformity in their behaviors. Our study revealed four adaptive behaviors, which are similar to those of Rogers (2003). These adaptive behaviors include: "semi-reluctant adopters", "ubiquitous adopters", "full adopters" and "indifferent" (see also in Figure 3):

1. The *semi-reluctant adopters* avoid complexity by at least partially rejecting any speculative activity in order to concentrate on simple hedging. Volatility avoidance is here synonymous to a better control of earnings. In this category, treasurers comply, yet give up some of their practices, because some of their familiar instruments are not eligible for hedge accounting. Amongst those, one finds variable rates (Interviews 3, 11), foreign exchange swaps, caps, complex derivatives, exotic products, options - especially when combined - (Interviews 1, 5, 12, 19, 24, 31, 37, 42, 48). Such instruments were in some cases dedicated to the hedging of recurrent flows emerging from well-known industrial cycles: dividends paid or catalogues revenues are of that kind (Interviews 3, 28, 40). The lack of recognition of those cash flows hampers the ability to hedge prior to their official recognition by the General Meeting of shareholders, for example. What is at stake in those cases is the existence of an underlying asset. Another case is the netting activity of companies working in dozens of countries and currencies which prevents systematic hedging (macro-hedging). Interviewees are depicted as semi-reluctant as they share the sentiment of being constrained, but sometimes admit that it is for their safety (Interviews 11, 12, 14, 32).
2. The second category of behavior displays a double perspective. In this category, the "*ubiquitous*"[13] adopter is unsatisfied with the earnings resulting from the application of

[13] Ubiquitous refers to users who are able and willing to be present in more than one place at the same time, in our case, willing to project more than one image.

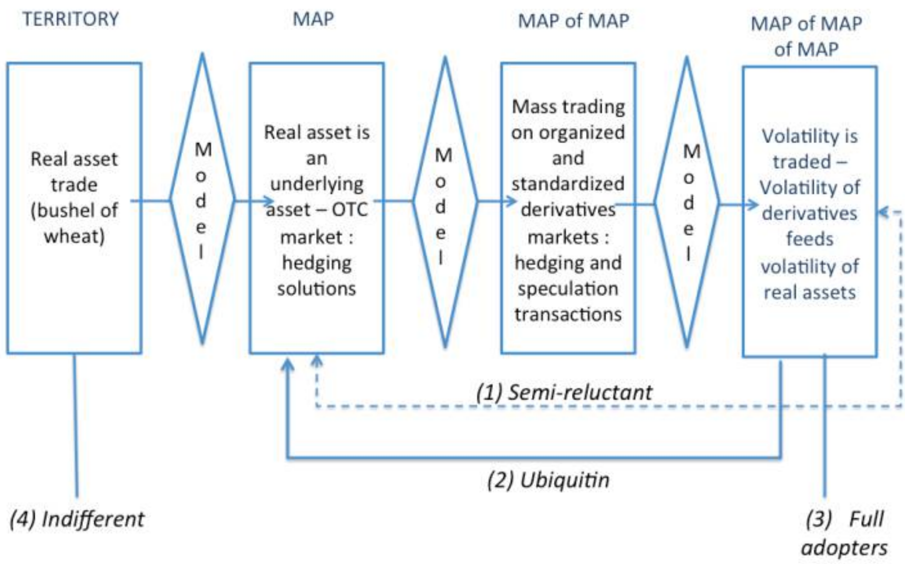
the accounting standards, and therefore produces a set of two results: one in accordance with the standards and a different one for internal use based on cash results (Interview 5).

3. The full adopters entirely abide by the new standards; they accept the multi-layers in derivatives markets and their embedded volatility and seize the opportunity for earnings management. This betrays a willingness and capacity to outsmart the model in order to develop a model of the model. Proponents of this category may utilize a business model generating a negative working capital requirement and following a service activity approach rather than an industrial one (Interviews 35, 36, 37). They can even raise the question: "*How can we benefit from the regulatory change*? (Interview 37)". For the respondents is this category IFRS may provide the occasion to obtain a better understanding of complex products that were poorly or not understood before (Interviews 38, 46).

*4.* The *indifferent* choose not to display a specific representation. This is because they are not accountable to anyone but themselves; therefore they do not care about their representation to others. This category includes the firms that consider the treasury department as a profit center. They do not fear volatility if this can boost their financial result[14].

[14] In our sample, these firms account for 6% of the total. This seems in line with other samples. For instance, Stulz (1996) reports that 7% of the firms in the US consider the treasury department as a profit center. Also, in a survey made by e-mail in 2010, the French Association of Corporate Treasurer found 9% for the French firms.

*Figure 3: The four responses to increasing complexity*




Interestingly, our findings suggest that in the same environment, agents or organizations may be able to define which type of representation they want to present in their financial statements and accordingly, produce the corresponding image or images. We also observed significant differences in the viewpoints of the participants. These viewpoints are far from stable, in that the appropriation of the accounting standards is a learning process where individuals and organizations are likely to evolve from defensive (avoidance) to more offensive (opportunistic) attitudes, some former semi-reluctant have later become full adopters. Over time the understanding of the standards tends to be more subtle with a dynamic dialectic between the map and the territory. Hyperreality may then become a new social reality. The main challenge for managers remains in identifying the discretionary space offered by the new standards, where room for maneuver is likely to bring opportunities for earnings management.

Thus, we extend Macintosh et al. (2000) when showing how the confusion brought about by maps, hitherto limited to financial reports and analysts, may penetrate into the organization. In this sense, we contribute to the clarification of the socio-economic debate on the hypothesized link between standard setting and financial crises. We tend to see here the elements of hyperreality as collective representations carried by managers who internalize the map. Driven by their fear of earnings volatility, treasurers tend to adopt defensive attitudes, and only later develop more subtle behaviors.

The question is no longer about whether accounting – through its major concepts, like income and capital, represents social reality or not, but to understand how managers (here treasurers) in their re-interpretation of "accounting numbers" tend to create their own representations. Income and capital tend to replace performance and economic value, and achieve the status of totems in treasurers' mindsets. Moreover, shifts in accounting standards-setting have concrete effects – at least temporarily – on actual practices. Thus, if numerous treasurers simultaneously adopt an avoidance strategy towards speculative instruments this could actually cause a downturn in the value of such instruments.

In July 2014, the IASB issued an amended version of IFRS 9 with a "substantially reformed approach to hedge accounting". In their justification of this amendment, the standard-setters acknowledge: "*During the financial crisis, the delayed recognition of credit losses on loans (and other financial instruments) was identified as a weakness in existing accounting standards*". Hence the IASB admits to some perverse effects arising from the IAS 39 and the IFRS 9 projects. The decision is a proof of the impact of lobbying (Noël et al., 2010). The arguments of circularity and the fear of volatility probably played a role here. One might also expect greater articulation between the map and the territory. For instance, it might be interesting to observe the behavior of the avoidance category. Also worthy of attention would be the observation of the pace of early adoption for the revised IFRS9.

## Conclusion

Our research question focused on the impact of accounting standards on treasurers' hedging decisions. Towards that aim, we conducted a qualitative research project involving forty-eight semi-structured interviews. Our findings confirm the impact, both on the activity of the treasurer and on his/her relationships with professionals in the area of finance, control and auditing. Furthermore, the interviews confirm the phenomenon described by Baudrillard, that of confusion between the map (the accounting results) and the territory (the economic decisions).

The interviewees pointed to fear of increased earnings volatility and excessive complexity of the regulation as sources of confusion. This is consistent with the literature on similar changes in the US environment (Evans et al., 1978; Wilner 1982; Zhang, 2009). Our observation of the actual process (van de Ven, 1992) provides a double contribution. Firstly, our approach focuses on perceptions and practices rather than the variables that are studied through statistical analysis and experiments. On the other hand, we complement early works to highlight the complexity of the economic decisions. The behavior of corporate treasurers is multiple and is not a static variable. We have seen that in face of the fear of volatility, which is perceived as a real problem by most treasurers, attitudes are not homogenous. The outcomes are often the result of negotiation, compromise, or trial and error, a process in which the treasurer is one actor among others. We have represented this dialectic using a scheme that links the territory to the map via modeling through the standards, and where the map influences the territory.

We also have shown that the accounting results have a totem status. There is a paradox, in the sense that the new standards were presented as being based on a "cash culture". In our case, treasurers focus on accounting results despite their activity which is supposed to focus on cash flows. As we have seen, this may be the consequence of functional fixation towards accounting information which leads to information inductance among treasurers. Standard setters ought to pay attention to such potential effects. Even if the IASB does not insist on the use of IFRS other than for users of financial statements, they should acknowledge the fear of earnings volatility, especially through an increased use of OCI (other comprehensive income) as an alternative to net income. As mentioned above, the OCI figure is an intermediary, but also an ambiguous sign. According to Macintosh et al. (2000), through OCI "*in Baudrillardian terms, the difference between income and capital implodes*" (p. 37).

Our findings also led us to more unexpected observations. From a broader perspective, we observed the influence of financial statements on economic decisions in general. While creating new standards, standard setters tend to create a world where substance and form are more and more intertwined. Adaptation to this new world requires a learning process. Hence there may be a new paradigm of use of accounting information; not by users, but also by managers.

The type of qualitative research undertaken in this study has its limitations. It cannot be demonstrated that our findings are universally generalizable. There is a contextual specificity to the treasurer's function, which reinforces a particular focus on accounting results. The CFO is simultaneously the superior of the treasurer and responsible for financial reporting, and consequently subject to a conflict of interest that does not necessarily apply to other managerial levels. Therefore our findings cannot apply to all managerial functions.

We have taken an exploratory perspective in this paper, "without an *a priori*", but perhaps we could also have referred to the sociology of translation (Akrich et al., 2006). Another potential axis would be to extend the interviews to the auditors, a professional group that plays a key role. As mentioned above the adoption of the new version of IFRS9 may also generate behavioral change and learning. This is perhaps the main limitation of our research: the process of formulating applicable standards is on-going. At the same time, this leads to great potential for extending the study. As an example, a study of actual volatility in connection with earnings management would be another approach, difficult to implement but promising.

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## Appendix 1 – The interview guide

**Question 1:** In our questionnaire distributed to corporate treasurers, slightly more than half stated that developments in international financial reporting standards influence their hedging behavior. What do you think? More generally, do you think that international financial reporting standards have changed the treasurer's job?

Follow-up questions:

1a. In either case, have you personally been influenced or not?

1b. Can you give us examples that you have witnessed or in which you have taken part?

1c. In what circumstances do you foresee an influence?

1d. Outside IFRS as such, are there any other recent developments that could have affected the behavior of managers?

**Question 2:** In your view, has the introduction of new standards altered responsibilities and/or working practices within your management structure?

Follow-up questions:

2a. Please provide details.

2b. In which areas exactly (e.g. report formats, control systems, bonuses, evaluation)?

2c. It appears that new standards have not changed your role at all – is that correct?

2d. In your view, have these developments been mainly positive? Were new standards a necessary part of the process or could these developments have taken place without new standards?

**Question 3:** With regard to your organization, who – internally and externally - has been instrumental in the introduction of new standards?

Follow-up questions:

3a. External auditors? Internal auditors? Consultants? IT department?

3b. Have some of these bodies explicitly required you to change your behavior?

3c. It appears that it has been left to you to interpret new standards – is that correct?

3d. Do you feel the need to be better supported, for example, by additional training?

**Appendix 2. List of company treasurers interviewed**

| | | |
|---|---|---|
| ADP | Carrefour | Pernod-Ricard |
| Air France | Cegid | Petzl |
| Air Liquide | Comap | PPR (Kering) |
| Akka | Danone | Rossignol |
| Alcatel-Lucent | Dassault-Aviation | Saint-Gobain |
| Alstom | EDF | Safran |
| Alten | Eramet | Sanofi |
| Angst-Pfister | GDF-Suez (Engie) | SEB |
| ArcelorMittal | Hermès | Sodexo |
| Arc-International | JC-Decaux | Soitec |
| Ariane-espace | L'Occitane | Somfy |
| Auchan | L'Oréal | STMicroelectronics |
| Bic | Mersen | Tarkett |
| Biomérieux | Norbert-Dentressangle | Total |
| Boiron | Orange-France Telecom | Ubisoft |
| Bourbon | | Veolia Environnement |
| | | Vivendi |

Specialized auditors from Deloitte, Ernst & Young and KPMG were also met.