*Fair value: actuarial accounting for the markets... or for the accountants?*¹

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Abstract

Fair value accounting under IAS-IFRSs is often presented as market accounting that results from expression of the financial requirements of business management and accounting practice.

By showing that fair value has the features of actuarial accounting, and is the product of a conceptual shift made necessary by the contemporary context and thus in dissonance with certain aspects of current accounting practice, this article demonstrates that fair value accounting in fact represents an opportunity for the international accounting standard-setter, seen as a legitimate body for European standardisation, and for financial statement preparers as regards financial statement users, by creating new margins of discretion for them.

To support this argument, the article particularly emphasises that fair value, because it corresponds to actuarial accounting, brings about a surplus of information for investors without actually raising the transparency of financial reporting.

Introduction

Since 2005 when IAS-IFRSs were adopted by the European Union as the mandatory standards for Euro-list companies' consolidated financial statements, fair value, often presented as a revolutionary change in the field, has taken centre stage in the public debate over accounting. Fair value accounting is associated with interference by financial markets and investors in accounting practices; or else it is seen as one way of expressing the monetary demands made on the firm by shareholders and institutional actors, who are particularly interested in market values for the purpose of assessing the profitability of assets.

Fair value accounting is indeed radically innovative, but the innovation lies not in its introduction of market values but in the introduction of actuarial accounting (Richard 2004; Ding et al. 2008) derived directly from the concepts and methodologies of post-war financial macroeconomics (Omiros and Jack 2008; Ravenscroft and Williams 2009; Power 2010). What constitutes the modern specificity and analytical importance of fair value accounting under IAS-IFRSs is precisely its actuarial nature. The hegemony of complex valuations based on cash flow estimation models is a significant departure from past practices and has brought about radical innovations for both the accounting profession and accounting practice.

This change has not happened by chance; it results from a twofold historical necessity.

The first of these is the financialisation of our economies (Epstein 2005; Krippner 2005), which by assigning greater importance to institutional investors' information needs and considering disclosure of future cash flow potential relevant to be relevant information, sharply raised the question of whether traditional accounting information, which is by nature non-prospective, is useful for financial communication. Moreover, in the wake of development of new information technologies over the last twenty to thirty years (El Mouhoub and Plihon 2007; Guttmann and Plihon 2010), the rise of immaterial capitalism concomitantly with this financialisation movement has tested the capacity of the accounting system, which is by nature tangible, to represent a new meaning of value conceived as more immaterial.

To ensure that accounting would interest a broader audience than the tax authorities alone and prevent it from being consigned by these new circumstances to the mere status of archives, the US accounting standard-setter and then the IASB considered fair value, in this

type of actuarial accounting based primarily on model values, an effective way for financial statements to retain relevance as financial information in our economies.

But a simple visit to an accounting department, or participation in the preparation of a large group's financial reporting, reveals a surprising contrast between the theoretical mutation driven by fair value accounting, and the everyday production of figures in the firm. Through a six-month period of participant observation as a team member of a Big 4 audit firm, I went into large firms' accounting departments and was surprised to see how crammed full they were with papers, invoices, tax proofs, and supporting documents for the accounts; all material items that more than a century of administrative, tax and bureaucratic requirements have made a necessary part of the firm's business. I also attended the negotiations involved in a closing, and observed that introducing fair value accounting while making no changes to accounting practice does not appear to have affected the underlying agency conflict between financial statement users and financial statement preparers, who are by nature subject to the temptation of discretionary presentation or management of results. This paradoxical situation bears all the hallmarks of a discrepancy between IAS-IFRSs, that are supposed to bring accounting into line with the specificities of contemporary capitalism, and the actual practical work of preparing the accounts. It suggests that the advent of the actuarial accounting that is fair value accounting needs more detailed scrutiny.

Several articles have shown how far the emergence of a new accounting technique or system is directly dependent on the social and economic context surrounding the expectations of the various actors in financial communication (Miller et al. 1991; Miller and Napier 1993; Mills 1993; Napier 2006). I therefore believe it is possible to demonstrate that the reason the actuarial system of fair value accounting under IAS-IFRSs has become established as mandatory for consolidated financial statements, and potentially applicable to more entities in the future, is because this system is sufficiently satisfactory for accounting standard-setters and preparers in their new macroeconomic environment.

Through participant observation research in a "Big 4" audit firm that enabled me to directly assess the links between accounting technique and its context, and by concentrating on the internal valuation models which are decisive in fair value accounting, I seek in this article to determine the extent to which fair value, through its actuarial nature, has succeeded in solving the accounting paradox observed earlier by forming an opportunity for the accounting standard-setter and the preparers of financial statements. The demonstration will be presented in three separate parts. First, the article looks back at the way the rise of financial, immaterial capitalism has turned out to be the decisive factor in the emergence of fair value accounting and therefore the promotion of actuarial accounting. After presenting the methodological specificities of the participant observation, I next focus on the dissonances between accounting practices and this promotion of this actuarial accounting. These two factors are then used to highlight the extent to which fair value, by massively increasing the possible instrumentations of accounting in firms, and making it possible to provide new information for financial statement users without actually increasing the transparency of financial communication, is an innovation that primarily serves the interests of the accounting standard-setter and the financial statement preparers, rather than the result of influence by investors and financial markets.

1/ Actuarial accounting: expulsion of the old system to meet a dual economic need

Although semantically, actuarial accounting is still accounting, the actuarial methods that shape it are in many respects foreign to the historical development of accounting, to such an extent that actuarial accounting can be seen more as an economic valuation system than a new accounting archetype. If accounting is considered as a social practice (Burchell et al. 1985; Neimark and Tinker 1986; Miller and Rose 1990) that necessarily develops in connection to changes in its context (Miller et al. 1991; Miller and Napier 1993; Mills 1993), then it is vital to examine the context in which fair value accounting has become an actuarial accounting.

First of all, I shall seek to show how the accounting system has changed in parallel to the rise of financial, immaterial capitalism over the last thirty years. In particular, it is important to note that the shift in our concept of value towards items with no material existence requires adoption of a valuation system that is more economic than strictly accounting in nature (1.1). The article then continues by explaining how, once the accounting meaning of value had been changed by the growth of immaterial capitalism, it was easy to turn accounting into a prospective instrument, which was therefore obliged to use economic concepts and methodologies (1.2). Finally, I show that accounting, since it could not draw on an established corpus of immaterial principles external to its own practice in order to determine a good accounting standard, or a good way of recording an economic operation (West 2003; Ravenscroft and Williams 2009; Power 2010), drew largely on the conceptual structure of macro-economics and financial economics that has been developed since the end of World War II (1.3).

1.1/ Accounting and capitalisms: between adjustments and contingencies

It is important in this section to understand the connection between the emergence of fair value accounting and the two basic trends in modern-day capitalism, namely the omnipresence of an economy based on financial operations and immaterial wealth. But before taking these considerations further, more discussion and precision is needed as regards what I mean here by the terms financial, immaterial capitalism, so that the connections made in this article between this modern capitalism and fair value accounting will be totally clear.

1.1.1/ Financial, immaterial capitalism

These fairly general thoughts on the accumulation regime could suggest that this article is deviating from its more specifically accounting focal point, i.e. the internal valuation models defined by IAS-IFRSs, but they are fully relevant here. The financialisation of our economies is visible in a number of different symptoms, whether macroscopic – concerning the entire economy, microscopic – concerning the actors in organisations – or mesoscopic – at the level of a business sector (Morales and Pezet 2010). The impact of financialisation on business activity has been widely studied. Epstein (2005) stresses the importance corporate governance now places on financial motivations and financial markets in this new environment, at both local and global level. Krippner (2005) highlights the central role monopolised by shareholder value in this context, and how maximisation of shareholder value is becoming the chief concern for corporate managers.

Concerning accounting more directly, several authors emphasise the determinant role this view assigns to the investor, designated in the FASB and IASB conceptual frameworks as the main user of accounting information (Biondi et al. 2011). Fair value is the technical consequence of this. The decisive importance that financial capitalism places on the investor, as illustrated in the standard-setters' conceptual frameworks, is thus reflected in a reorganisation of the accounting representation of the economy; in accounting, the economy is no longer seen as a chain of material operations, but rather a configuration similar to that described by Markowitz (1952) in his portfolio selection theory.

Fair value accounting, the main structures of which are inspired by the *Continuously Contemporary Accounting* (CoCoA) model (Chambers 1967; Gaffikin 1990; Wilson 2011), embodies the adjustment of accounting standards to our financialised economies. For IAS-IFRSs, these economies are seen as a set of monetary and financial assets, exchanged between various actors presumed to be rational², whose main concern is to determine over what time horizon and for what risk level they should invest. Using internal valuation models and cash flow projections, the accounts show the timing and risk of the operations carried out by a firm: these are two fundamental pieces of information for a manager who is by nature associated with a rational investor with an absolute need to know, at all times, whether he should hold on to or sell an asset.

Clearly, fair value accounting is part of the endogenisation of the concerns of capital providers in accounting representation, through its incorporation of the timing of transactions and the business risk. It is also necessary to understand that fair value accounting is the accounting consequence of a redefinition of value in our economies.

It has become relatively easy since the recent crisis to grasp the major points of the modern advent of financial capitalism because they are often discussed; but it is much less often associated with the emergence of immaterial capitalism based on the idea that value belongs not so much to the tangible objects held or used for industrial purposes, as to the production of services and the intangible experiences they can generate (Rifkin 2000). Yet the combination of this financialisation of our economies and the recently-emerged predominance of intangible services, made possible by modern information and communication technologies (ICTs), is what shapes the capitalism of today – this globalised “new capitalism” (Guttmann and Plihon 2010) embodied in the everyday activities of firms and organisations. Several works of academic research have sought to analyse and categorise the significant shifts in ways of accumulating capital and the game rules of competition, which are parallel and complementary to the general financialisation of economies (El Mouhoub and Plihon 2007).

What I call immaterial capitalism here thus corresponds to the predominance of two new dynamics that are of crucial importance to economic activity: the sudden emergence of innovation as the fundamental new rule in developed economies, and the resulting unprecedented importance of individual and organisational skills in firms' real or perceived competitive advantages.

Baumol (2002, 2004) argues that innovation has been the key to market operation for several decades, showing how market prices no longer act as vectors of differentiation at macroeconomic level; in fact it is firms' research and development expenses that are the decisive drivers of growth in our economies. As a result, certain costs required for innovation expenditure with uncertain future effects are the basic factors of competition, affecting the

² i.e. optimisers.

management and monitoring systems used in organisations (Hatchuel and Weill 1992), and ultimately governing entrepreneurial strategies. From this perspective, endogenous growth theories (Grossman and Helpman 1989; Barro and Sala-i-Martin 1995; Aghion and Howitt 1998) all, according to their specificities, consider positive and negative externalities associated with production of knowledge and innovation as the foundations of long-term economic growth, and therefore of growth in our developed economies. Knowledge and skills, the human capital (Becker 1993) necessary for this long-term accumulation, have thus become formally established as determinants of accumulation in our economies by western economic thought, and by lawmakers through the European Union's Lisbon Strategy. Updating the analyses by Penrose (1959), formalised or tacit skills and knowledge (Polanyi 1966; Nonaka and Takeuchi 1995) are now seen as the most universal critical success factors of modern capitalism, such that the current principles of management no longer consist of a science of physically allocating work, but the science of permanently spreading knowledge and learning (Argyris 1977; Argyris and Schon 1978; Baumol 2005) within organisations.

According to these paradigms characteristic of our modern economies, the source of value is becoming financial or intangible, i.e. always immaterial, sometimes even virtual because in the future, and undeniably a factor of complexity for accounting representation.

1.1.2/ The immaterial: a challenge for accounting representation

To act as accounting for economic reality, fair value accounting must thus incorporate these intangible sources of value whose macroeconomic visibility has become indisputable over the last twenty to thirty years. After all, how can a system for representing economic activity claim relevance if it does not incorporate all the fundamental dimensions of that activity? For example, if it does not reflect the competitive advantage represented by a well-known worldwide brand? Clearly, fair value accounting could not become the accounting system for economic reality without taking the importance of these intangible sources of value into consideration alongside purely financial values.

Although fair value accounting is often considered as mark-to-market accounting, one look at large firms' published registration documents and financial statements, and the reported assets in particular, is enough to show that their sources of economic benefit are in fact largely immaterial or virtual. The registration documents published by a century-old industrial group such as Saint-Gobain, for example, surprisingly show that in 2010 slightly more than 32% of its €44 billion of assets consisted of intangible assets, i.e. immaterial items, mainly goodwill on acquisitions (Saint-Gobain 2011, p. 108). In comparison, 33% of the €25 billion of assets reported by the L'Oréal group in 2010 were intangibles (L'Oréal 2010, p. 10) – goodwill, brands, licences, etc – despite the presumably enormous difference between the two groups' businesses. This clearly indicates that fair value accounting, with its aim of embodying the accounting system for economic reality as discussed earlier, i.e. a system of information that is relevant to its economic and social setting, assigns considerable importance to immaterial items and automatically reflects a displacement of the determinants of value (Richard 2004).

The limitations of accounting technique are clearly displayed in this representation of immaterial wealth. Cash flows associated with possession of a brand are difficult to quantify, since it is impossible to accurately and definitely associate sales with each intangible asset. No document or material evidence exists that could provide acceptable accounting evidence

for these cash flows. There are also inherent difficulties in incorporating the time factor into the accounting representation of value by discounting, because accounting documents are traditionally based on sequential presentation of information – the financial statements only present the firm's position annually – rather than dynamic representation. Accounting valuation thus changes nature in this context, and in the case of cash flows generated by intangible items it becomes a technique for estimating and allocating profits attached to a group of assets that cannot easily be split into separate items.

Which valuation tools and methodologies are available to accounting? It must be admitted that before the incorporation of economic valuation methods – net present value, internal rate of return, CAPM, etc – accounting had no methodology able to meet these new representation needs, even though, since Herman Veit Simon (Richard 2004), it appears to have had the conceptual bases to design its own valuation methods. Fair value accounting thus appeared to offer a solution, because through internal valuation models such as the level 2 and 3 fair values promoted by the FASB and later the IASB, it could embody prospective, actuarial accounting as will now be demonstrated.

1.2/ Prospective accounting and discounting

If ever there were two approaches that initially appear contrary on all points, then they would be accounting and the prospective approach. Following doxatic opinion for a moment, how is it possible to account truthfully for something that has not yet happened? Why record a monetary operation that has not yet taken place? How can statements be drawn up of things that do not yet exist and may perhaps never exist? And finally, why seek to include future operations with only virtual reality alongside the significant financial events that it is accounting's main duty to reflect (Tosetti et al. 2001, p.247)? Yet all these questions, posing paradoxes that border on the absurd, have been answered by fair value accounting, and all reduced to the introduction of actuarial accounting. Since discounting is supposed to have nothing to do with accounting recognition of monetary operations and since accounting recognition is in principle limited to the activity of a single financial year, development of actuarial valuation methods in the field of accounting was obliged to refer to the relevant economic theory in order to build up a relatively coherent system.

While one of the decisive early steps in accounting history is often placed in 15th century Italy with Luca Paccioli (Yamey 1967, 2010), the technique of discounting appears to be more recent: for a real conceptual analysis on the time value of money, we need to look to the 16th and 17th centuries (Pezet 1997, p. 367; Biondi 2006, p. 312). The earliest discounting techniques appeared at that period, but were only used to assess the relative advisability of a loan or financial investment. There was nothing financial at the time about the agents for royalty or the wealthy classes interested in using these methods; they were considered more as legal specialists who were mainly concerned with putting a fair price on the risk underlying a financial operation (loan or borrowing) (Daston 1988, p. 112; Biondi 2006, p. 312). Discounting is not strictly speaking a non-accounting technique, as the above doxatic view suggested. It derives from the same origins as accounting, in the persons of the lawyers and civil servants who, almost two centuries after first taking an interest in discounting, forged the traditional accounting model and installed it as an instrument to serve the law.

Despite this background, however, actuarial accounting does not exactly use the same discounting techniques devised by the lawyers of the past. To clarify the following discussion,

it is important to briefly analyse the context surrounding changes in discounting techniques up to the modern day, and actuarial accounting for complex valuations. The aim is to show that far from being simply a mathematical ramification of the modern financial paradigm, discounting is well and truly a technique, as well as a sum of theoretical concepts that are deeply rooted in the ways we understand economic transactions.

With the new industrial and economic practices that emerged in the 18th century and the successive industrial revolutions of the period referred to above, came new ways of conceiving finance and the economy; but new ways of understanding their interactions also arose (Porter 1995; Wise 1995; Biondi 2006). As a result, in the late 19th century neoclassical economic research was able to draw together into a single, coherent theoretical corpus new concepts which still appear to structure all our current ideas and debates on discounting (Parker 1968, p. 64). First Walras (1900) with his determination to mathematise economic analysis, then afterwards Marshall, Böhm-Bawerk, Wicksell and I. Fisher seem to have broadened the field of matters that require actuarial techniques (Pezet 1997, p. 368), mainly by a more detailed examination of the relationships between interest, capital and time.

Biondi (2006) referred to economic analysis' longstanding enthusiasm for discounting as one of the main reasons for the spread of actuarial techniques in the field of management and organisations' practical activity. Due to its contributions to the conceptualisation of costing in the railways and industry at the turn of the 20th century (Jones and Smith 1982, p. 104-105; Biondi 2006, p. 321), discounting gradually extended into company management and production management. The earliest identifiable actuarial accounting in history is thus more a kind of cost accounting or management accounting, for use by the company's decision-makers only, than an instrument for financial communication. This continued to be true, and gradually the post-war conceptual developments in discounting related its use to assessment of the investment decision, in parallel to the progressive financialisation of developed economies that made it necessary to rationalise those decisions – with all the ambivalence and discursive strategies such an aim suggests (Miller 1991) – given the underlying agency conflict between capital owners and managers over allocation of profit in organisations.

While pointing out how embedded discounting technique and investment decision-making are in their economic and social context, Pezet (1997) highlights how as a management tool, discounting can engineer persuasion for the decision to invest in organisations. If this rhetorical function is likely to affect decisions in the firm between people with a more or less equivalent level of information, then obviously it can easily succeed in convincing parties external to the firm who have more limited access to the available information.

Supporting these points, several empirical studies have looked at the practical use of actuarial techniques in assessing corporate investment decisions. While Bierman and Smidt (1993) show that prior to the 1960s, very few firms used discounting techniques to value their investments, Gitman and Forrester (1977) show that as early as 1976, 67.6% of US firms were using the internal rate of return as the main method for selecting investments, and 35.7% of firms were using net present value. Sangster (1993) shows that actuarial methods have been very widely used in firms since the 1990s to assess investment decisions, but also that firms use a wide variety of differentiated actuarial techniques for decision support.

Nonetheless, wider use of the practice of discounting was not accompanied by any significant testing of the basic features of actuarial methods. This is some indication of the firmly non-accounting nature of use of this technical knowledge, since in the end discounting leads to an estimation rather than a valuation; and in this it remains non-accounting, i.e. external to the recording of the operations and flows that punctuate an organisation's activity.

Any actuarial technique is always expressed as a theoretical complex, structured around a specific axiom that indisputably places it in the field of financial modelling. Whatever treatments are used for the rate of reinvestment of future cash flows, the degree of individual risk aversion, the preference for the present or the level of market efficiency, even though both practitioners and theorists of discounting refer to all these factors for elaboration of increasingly sophisticated methodologies (Hirshleifer 1987), financial valuation of time always remains an estimate, and its relative accuracy depends greatly on the firm's future states and contexts (Fama 1996, p. 427).

All these historical and theoretical developments in discounting thus fostered the emergence of actuarial, prospective accounting, through a shift from the status of accounting initiatives and practices used by only a small number of people (Miller 1998) and primarily confined to investment decisions, to the status of a set of integrated, diversified techniques. I see these developments as the corollary of the emergence of a financial, immaterial capitalism which, considered in parallel to the discounting dynamic described above, can shed light on one of the fundamental features of fair value accounting. Fair value accounting is economically-inspired, but as shown below, that is not necessarily its only dimension, due to its promoters' blind enthusiasm for the financial ideology since the end of World War II. Much more importantly, it is needed to protect, as much as to provide, relevance in financial communication in today's economic activity.

1.3/ Financial reporting, or the absorption of financial practice by the conceptual foundations of accounting

Through successive declarations by members of the IASB and conferences on standards, international accounting standards and fair value accounting have become established as norms that are favourable for finance and financiers. However, as noted earlier, once we start examining the reasons why fair value accounting has become economic accounting, a much more diverse, ambivalent range of possibilities opens up.

Academic research into this question is generally inspired by a critical approach, and provides the beginnings of an answer by attributing the economic tone of fair value accounting to the conceptual influence of several principles that have structured economic thinking since World War II.

Just as pure, perfect competition, and all the principal foundations of neoclassical theories can look like myths (Guerrien and Benicourt 2008), some authors (Casson and Napier 1997; Bromwich 2007) have argued that fair value as an idealised or imaginary concept has been similar in nature to economic thinking from the outset. Similarly, fair value accounting is fairly broadly part of the transformation of corporate finance into financial economics, a theoretical corpus aspiring to recognition for its scientificity (Whitley 1986), at the risk of losing touch with all the complexities that give substance to accounting practice (Hopwood 2009).

Fair value can nonetheless become a performative illusion in the same way as the *homo oeconomicus*, by forming a concentrate of rhetoric or metaphors (Walters and Young 2008), or by supplying rationalisation for professional practices (Abbott 1988). Fair value's sudden appearance in the arguments over the factors behind the recent economic and financial crisis, and the actual assertion that fair value accounting played a role in triggering the crisis³,

³ Alexandre de Juniac, chief of staff for Christine Lagarde, France's Minister for the Economy at the time, declared on April 27, 2011 at a symposium on fair value held by the *Académie des Sciences et Techniques*: "Fair value is a key question in economic policy, because it has an impact on financial stability (...). The volatility caused by fair value is driving us to question its appropriateness for our modern economies."

reflect the general association between this accounting system and financial economics as a whole. This is largely abetted by the standard-setters and the accounting standards themselves, which can give the impression that they are trying to pass off accounting as finance (Power 2010, p. 203).

While all these arguments have some degree of acceptability and undeniably help to enlighten our view of the various dimensions of fair value, I believe that the influence of purely theoretical principles is obscuring the influence of changes in the economic system and the resulting accounting practices. The financialisation of our economies combined with their immaterial aspect, which has caused an unbelievable reduction in the time it takes for orders to be issued and for the financial markets to respond, and makes it easier than ever to disseminate a growing volume of increasingly diversified financial information, sharply raises the question of accounting information obsolescence. After all, when transactions can be initiated and settled on the markets in less than a millisecond thanks to ever more sophisticated trading algorithms and highly-developed IT infrastructures, why waste time on a firm's past business, what is the point of spending time looking at its financial statements, whose ample volume and detailed contents contrast with the succinct diagnoses issued by financial analysts and financial statistics?

To retain relevance as well as social utility, accounting in this financialised, immaterial world could no longer do without an economic approach; could no longer remain ignorant of the economic and financial mainstream if it were to continue to matter. The reason fair value accounting claims to be accounting for economic, actuarial and prospective reality that meets the supposed needs of capital providers is to keep its status as legitimate financial information. The standard-setter no longer talks of "accounts" but of "financial statements" (Bush and ANC 2012), to mark how clearly accounting has endogenised the expectations and practices of financial actors.

Seen from this angle, introducing actuarial techniques into the field of accounting valuation, i.e. promoting complex valuations based on discounted future cash flows, results from a desire to conform to structural trends in the economy as much as to the practices and references of financial actors. Extracts from the standards themselves support this view when they allow use of actuarial, prospective methodologies to record a level 2 or level 3 fair value. For example, IAS 39, "Financial instruments: recognition and measurement" (EU 2008, p. §48A, AG74), states as follows:

"If the market for a financial instrument is not active, an entity establishes fair value by using a valuation technique. (...) If there is a valuation technique commonly used by market participants to price the instrument and that technique has been demonstrated to provide reliable estimates of prices obtained in actual market transactions, the entity uses that technique."

And in a more recent version, in IFRS 7 (EU 2008):

"If the market for a financial instrument is not active, an entity establishes its fair value using a valuation technique (see paragraphs AG74–AG79 of IAS 39)."

The standard's reference to valuation techniques covers a wide spectrum of methodologies with varying degrees of intangibility, from precise valuation to simple estimation. Consequently, it is vital to link the economic nature of fair value accounting with the question of the accounting standard's legitimacy. The reason there is no longer any room for strictly accounting technique in this actuarial accounting is because the accounting standard does not need to include it to gain acceptance. In fact, its absence is an argument in favour of use of financial statements by the financial community. The practical question of introducing internal valuation models into organisations thus echoes the reflections on the

legitimizing processes used by the accounting standard-setter (Burlaud and Colasse 2010), but from the perspective of a necessary connection to the structural trends in our economies.

The factors discussed above suggest that in becoming an actuarial, prospective type of accounting, fair value accounting and its internal valuation models have lost any real conceptual link with the traditional continental accounting model. What about the changes brought about by accounting practice? How has practice evolved so that production of accounts reflects the new theoretical inspiration of standards promoting fair value, particularly since those standards have been mandatory for consolidated financial statements published by Eurolist companies?

2/ Practice-based review of how fair value accounting has changed the nature and function of accounting

As accounting cannot be reduced to a pure abstraction or pure theory, it is now vital to apply the above discussion to the practical reality of the upheaval fair value accounting has brought to account preparers' work; not only the work of the central divisions ultimately responsible for producing the financial statements, but also the "minions", actors who may be at the bottom of the hierarchy but whose everyday activity actually makes a greater contribution to production of accounting figures.

Through a period of participant observation in a "Big 4" audit firm, I was able to enter the accounting departments of various industrial and service companies as a member of an audit team rather than a university researcher. This gave me a "team member's view" of the way accounting departments work, a chance to study their procedures not as an academic entering an unknown, foreign environment but as an accounting practitioner. Of course, this methodological orientation involves several issues of reflexivity and scientificity that will be outlined later, but even before presenting and analysing them all I can state that it gave me access to management systems and accounting practices not through hearsay, but entirely by direct visual observation.

After a presentation of the methodology's specificities (2.1), comparison of my observations with the preceding theoretical discussion is instructive and examines two important points in detail.

First of all, the dematerialisation of accounting and the obsolescence of the accountant that go with the conceptual construction of actuarial, prospective accounting described earlier are in striking contrast to the characteristic features of an accounting department today. As mentioned earlier, the first thing that strikes anyone entering an accounting department is the omnipresence of paperwork and, without question, accountants. As we shall see, this contrast has many consequences, and can be considered as a fundamental dissonance – the first component of a certain "schizophrenia" – between the inspiration behind the standards and what the accounting departments produce in practice, as described below. After highlighting this first dissonance, I shall show that one of its immediate results is the outsourcing of a substantial portion of the production of figures required by international standards, particularly figures based on internal valuation models (2.2).

In describing the conditions of this outsourcing, I seek to highlight a second major dissonance that affects fair value accounting, this time between the internal relevance – i.e. for the company itself – and external relevance – i.e. for users of financial statements external to the company – of accounting figures (2.3).

In the light of these two fundamental dissonances, the next section of this article shows that fair value accounting is in fact a vector for significant organisational consequences

that are likely to affect both the informational and organisational relevance of the management systems and tools that are a channel for the internal valuation models.

2.1/ Details of the participant observation

I spent the period from November 2011 to May 2012 at one of the big audit firms for six months of the training period required to complete qualification as a French chartered accountant. This involved participating in the audits of large groups of companies.

As a junior auditor, I was a “minion” in accounting practice at the same time as being a researcher conducting an ethnographic field study (Sanday 1979; Van Maanen 1979; Morales and Pezet 2010). This enabled me to use an inductive approach (Glaser and Strauss 1967) for direct observation (Mintzberg 1979) of the features of everyday accounting practices that were the focus of the study.

As a member of the audit team, I took part in the audit of twelve European companies in the industry, media, retail and services sectors that were either parent companies of the consolidated group or of subgroups, for audits of either the individual financial statements under French GAAP or the consolidated financial statements under IAS-IFRS. Comparison of the audits of individual and consolidated financial statements enabled me to assess in detail how far fair value accounting has shaken up accounting practices, and observe the new management systems and new accountant profiles required by the move to actuarial accounting. Also, since my work for the audit firm involved permanent interaction with client firms’ accounting departments to request supporting documents or confirm the amounts shown in the financial statements, I found myself ideally placed to have real conversations with my contacts about their work and their everyday activity, and hear about the main developments that affected them.

Undertaking research into accounting is always a relatively incongruous idea for practitioners, who find it puzzling rather than threatening, and do not appear to change their behaviour around a researcher. I had no difficulty in attending all the situations of potential interest, and I collected a wide range of data throughout the ethnographic study. I am in fact still in contact with some of the people I met during that period, and was able to conduct interviews with them to test the degree of internal validity (Lincoln and Guba 1985) in my analyses.

2.2/ Dematerialisation and accounting obsolescence

Although managers clearly have great power in establishing firms’ accounting documents, the fact remains that the people who busy themselves in the accounting departments every day also make a considerable contribution to the production of accounting figures. No study of actuarial accounting’s introduction through fair value accounting that intends to identify the issues at macro, meso and micro levels can afford to ignore the work done by these people. Care must be taken to examine the consequences of changes in the accounting paradigm for their activity, and thus ultimately for the financial statements themselves.

What does the work of an accounting department actually involve in the French firms visited now that the IAS-IFRSs are in place? What, in practice, do the department and its members do every day?

First of all, as mentioned earlier, an accounting team’s activity primarily consists of handling paperwork, files, invoices and other types of supporting document, or their digital equivalents, which only exist to be printed and inserted into in the ordered sequence of files.

This means that accounting practice in any firm is above all a sum of materialities and physical documents that are supposed to be concrete reflections of the firm's transactions and commitments with external parties. This situation has several explanations; first and foremost is naturally accounting's longstanding status as an important auxiliary of the law. This gives it a mapped-out role as compiler of evidence that will be binding for all third parties, starting with the tax authorities, to which it must prove the existence and completeness of the deductible expenses recorded. But it also relates to accounting's role in the firm's internal operation, since collecting, and storing, documents and invoices demonstrates the existence of a profit that can later give rise to distribution of dividends or pay.

Although, as stressed earlier, the way accounting is approached at macroeconomic level has changed, the tax authorities and some of the firm's stakeholders still attach great importance to storing material documents. Even a large European group that applies IFRSs and makes extensive use of valuation based on projected cash flows is required to keep all the relevant documentation, and the painstaking collection of these papers clearly separates accounting from finance.

In addition to these historical explanations, actors in the firm often feel the need to be able to rely on realities that are perceptible without reference to figures. For example, physical inventories are still carried out year after year, despite the apparently old-fashioned nature of the practice in a world dominated by sophisticated information and communication technologies, because they enable people to associate direct observations and perceptions with figures whose abstract nature can sometimes make it more difficult to grasp the firm's position.

I took part in one physical inventory in a north Paris warehouse full of armchairs and office furniture, spending the day counting with the chief accountant from one establishment of the client company (a multinational office furniture specialist). He told me:

"It's true it's no fun being here, spending all day counting what we've got for our exhibitions in Paris, chair by chair; especially in this warehouse, even though this time it looks a bit tidier than usual; ... but at least it's useful. We spend all our time in the office with our figures and our Excel sheets, and it's good to see what's behind the figures; to see that they really do relate to something."

In the opinion of many actors, starting with the statutory auditors, the materiality of accounting is what tells the truth about a company's activity. The auditors' annual examination of the accounts is still simply the selection, by sampling methods, of accounting documents that have been stored by the firm, for comparison with the information presented in the various accounting statements.

The material document thus occupies a central role in solving disagreements between the firm's accounting department and its auditors over items included in or omitted from the accounts; by providing proof with enough objectivity for all actors, it enables one party to win the argument and is the main vector for recording accounting adjustments.

The work of accounting departments and accountants still consists entirely of this ceaseless movement of comparison, to-ing and fro-ing between the accounting document and the accounts and financial statements themselves. To organise the painstaking collection of material documents and their processing to establish the accounts, everyday work is based on a set of procedures which in turn shape management systems.

At this stage in the accountant's work, the vague rule of ERP (enterprise resource planning) takes over. An ERP system is an integrated management software package whose workings are totally mysterious to the people who actually have to use it day after day, but which can be used to list the documents collected so they can be referred to if required. Furthermore, as it is naturally impossible in a large group or large firm for a single person to

supervise all the work of preparing the accounts, the division of work can be applied to the work of these departments; each person can be specialised in a given task, or more usually a specific section of the balance sheet or income statement.

The following schematic representation of the most common structure of an accounting department clarifies these ideas further:

Figure 1: Typical organisation of an accounting department in a large group of firms

As this schema illustrates, the typical structure of an accounting department is as follows: horizontal specialisation of accounting staff, headed by a manager in charge of coordinating the different components of his department and therefore responsible to his superiors for production of quality financial statements. It should be noted that the principle of specialisation also applies to departments, for production of the individual and consolidated accounts. The consolidated accounts are generally prepared by a dedicated department that collects and processes the information reported by consolidated subsidiaries, and uses that information to draw up financial statements that comply with international standards.

This general description of the archetypical architecture of a large firm's accounting department thus provides a striking contrast to our previous discussions on the actuarial specificities of fair value accounting, and the complex valuations under IAS-IFRSs in particular. What material proofs should be collected, categorised and ultimately used to support the actuarial valuations described earlier? Which invoices must be kept, which material evidence should be supplied to the auditors to prove the relevance of future cash flow estimations? The aim of gathering material documents to support complex 'mark to model' valuations, for example, is particularly problematic, suggesting that Warren Buffet and others were right during the financial crisis to liken this more to 'marking to myth'.

The French setting is therefore particularly appropriate for this research. The coexistence of two different sets of accounts, for firms and groups of firms, produces a fundamental dichotomy between a firm's accounting departments. The departments in charge

of individual financial statements are still busy with the ballet of material documents and papers as described earlier; while the departments in charge of the consolidated financial statements – even though those accounts derive from a collection of individual financial statements – are focused on their coordination and calculation work, some distance from the specificities of the preceding accounting work. The coexistence of these fairly different working worlds makes it possible to assess all the subtleties of the revolution brought about by fair value accounting through the introduction of largely immaterial actuarial accounting.

Panel 1: Two different working worlds – extract from accounting practice

TOPCO is a company that trades in electric materials, energy and retail in electronic tools. It forms a subgroup in a multinational group's consolidation, and includes some twenty subsidiaries in its own consolidated financial statements.

Two different departments, separated only by a corridor in the Paris offices, respectively handle preparation of the company's individual financial statements and preparation of the consolidated financial statements. The main features of these two departments seem to define two different professional worlds.

The area allocated to the "parent company accountants" is a standard open plan office, although this one, unusually, is organised around a shelf near the door, bearing pigeonholes with mysteriously-coded labels. The desks are arranged in a circle next to this shelf, such that a person can easily pick up the mail placed there, hand it on to colleagues, then put documents to be filed in the boxes provided for the purpose.

The five team members in the office have a relatively high average age, and hold technical accounting qualifications. They are all over forty, except for a recent arrival who is in charge of distributing the paper documents received by the department. Both men and women are informally dressed in jeans and shirts, except for the head of department. He works in the same office but has his own space and is able to work in privacy simply by closing the door between him and his team. He takes no part in the practical work of collecting and filing documents; instead, he coordinates the tasks assigned to team members, and handles the department's relations with its contacts in other parts of the company.

Just next to this private workspace, in a little area too small to assign to a team member, there are cupboards full of files containing a collection of supporting documents, while the files relating to the audit are stored in the head of department's workspace.

Across the corridor is the "conso department". Its four members are younger, joined the company more recently and have not held any other positions in the organisation. They have diverse backgrounds, but all in connection with the IT consulting, financial communication or audit sectors. Every day they wear formal suits (with ties for the men), with carefully chosen glasses and accessories.

Each person working in this open plan office has a seat at desks arranged in the middle of the room such that everyone has a colleague sitting opposite. The head of consolidation, an old friend of Topco's CFO, sits among them like any other team member and still carries out operational tasks contributing to preparation of the consolidated financial statements.

While there are some cupboards in this team's office, they are mostly used to file printouts from the information system which the consolidation department are the only people to use daily, for the purposes of preparing the group's consolidated financial statements. The consolidation team use an interface specially designed for their consolidation work. Parameters set at group management level are directly entered and updated by the software, and the data from consolidated subsidiaries are sent electronically through this interface as well as being sent in aggregate form (intermediate versions of the financial statements, details of the notes to the individual financial statements) to the members of the consolidation department.

Much of their work consists of reconciling these aggregate documents with the figures entered into the system both before and during ends of accounting periods, then combining them via the digital interface programmed to perform the work and make the restatements required for consolidation, in order to arrive at the group's consolidated financial statements.

During one of my verifications of the group's off balance sheet commitments, the manager told me how he produced these values. He explained that "*Sophie* [one of his team, who was sitting just opposite us at the time] *spent two weeks in December reconciling the figures in the consolidation software with the values reported by the subsidiaries...*" – "*Yes, I spent all that time carrying out reconciliation with Excel spreadsheets for each company, so I could be sure;... because sometimes, with the software... there are variances because of IT routines that have trouble handling the formats subsidiaries sometimes use for their data. So we always have to check the amounts based on the files they send us directly, and not just rely on the software printouts.*"

The head of consolidation monitors this work, as well as personally carrying out some of the procedures required by the system. But his chief duty is being in direct contact with the financial management, to supply data that is useful for financial decisions at group level or incorporate requested adjustments into the accounts.

The activity of accounting departments, described above for the units in charge of the individual financial statements, is significantly different from the everyday tasks of the consolidation departments.

To establish the consolidated financial statements of a group of companies, consolidation departments work more like central coordinators of information than as an accounting department. They are experienced users of the software packages designed to organise and store all the accounting figures reported by the entity's subsidiaries, and are used to checking that the valuation rules adopted by the group (discount rates, useful lives, rules for calculating provisions, etc) have been properly applied. Their work is thus completely dematerialised and consists of a procedural role as calculator and catalyst of information, a far remove from painstaking collection of accounting documents.

In this group accounting, due to the size of the group and the vast number of underlying operations⁴, the actual recording of accounting entries is largely automated and executed by management software packages designed specifically for the major types of operation. Like the case presented in panel 1, an ERP system handles the importation of data concerning the net assets of consolidated companies, and uses those data to calculate the group's total equity. The principal occupation of the consolidation team member in charge of the equity item is thus solely to check the imports and calculations performed by the software, and ensure, by comparing those data with the subsidiaries' individual accounts, that there is no discrepancy with the accounts included in the consolidated financial statements.

As a result, the truly "accounting" tasks do not really concern the consolidation department; they are carried out "upstream" by the subsidiaries when accounting values are calculated, or through automated operations by the software packages whose algorithms are able to perform the same calculation routine for an indefinite number of items.

Just as, in the past, machine controllers came to replace production chain workers in recently automated factories, the controller of decentralised calculation processes is replacing the accountant in the modern accounting department.

The above observations and discussions clearly show the obsolescence of the accountant in group accounting, and in fair value accounting, which no longer has any room for painstaking collection of accounting documents and evidence. During my participant observation, I was able to work with the head of consolidation of a major industrial group. He

⁴ The following abstract idea gives some indication of the volume: the number of operations to process for consolidation is the product of the number of operations per company and the number of companies in the consolidation.

was by no means the sort of manager who takes no part in operational tasks, and visibly still performed a large number of tasks for production of accounting figures to be used in the consolidated accounts. It was thus interesting to find out that he had no real experience as an accountant; before taking up this post, he had been a consultant in a large IT systems consultancy.

Fair value, then, assigns no importance to the material document or accounting value, and leaves no room for the accountant. Its actors are the actuary, the statistician, and the systems engineer, alongside the management and strategists who ultimately finalise groups' consolidate financial statements. Fair value accounting, seen as actuarial, prospective accounting, thus signals the obsolescence of the accountant, in addition to its principal trademark of expelling the major principles of accounting. The step from irrelevance and obsolescence to straightforward disappearance is only small, and relatively easy for an organisation to make.

The mechanisms presented above mean that the advent of fair value accounting has resulted in a substantial share of production of accounting figures being outsourced. I shall now examine this point in more detail, to bring out more clearly what I call the "schizophrenia" of fair value accounting.

2.3/ Outsourcing and dissonance

International standards, by requiring a large number of disclosures that go beyond the strictly traditional field of accounting, have increased the workload involved in preparation of financial statements that comply with the standards. As argued earlier, most of these requirements can be met with no need for accounting staff, and in many cases are better outsourced.

One standard provides the perfect illustration of how easy it is to outsource actuarial accounting. IAS 19, "Employee benefits" (EU 2008) requires groups to report in their financial statements the amounts that the entity will have to pay out as employee benefits, including all future retirement bonuses and pensions payable to employees. This clearly indicates the actuarial and prospective aspect of fair value accounting, since consideration of future items gives an economic representation of the company's liabilities past, present but also, and most importantly, future. This means any investor can verify that the company he wishes to invest in will not be exposed in the medium or long term to serious economic difficulties due to its benefit commitments.

As the estimated amounts consist simply of a sum of actuarial calculations, and are not of key strategic importance because they can easily be estimated by any interested party, many groups engage external specialist actuarial firms to produce these accounting figures for them. This outsourcing can be considered simply as a ramification of the division of work, but I believe this approach to producing accounting figures should be given closer examination.

During my participant observation, I had to work on actuarial reports for the consolidated subsidiaries of a large French industrial group specialising in the sale of building materials. Following the standard organisation of a consolidation department described earlier, these reports are all reviewed and checked individually, then automatically aggregated by a dedicated software package to arrive at the final value of the group's pension obligations to be reported in the consolidated financial statements. In this particular group, a single outsourcer was in charge of estimating these obligations for all subsidiaries included in the consolidation, under the discounting parameters used by the group's parent company.

For all subsidiaries, the actuary's report was presented in the format shown (with names removed) in Appendix 1⁵. This type of format calls for several comments.

First of all, the standardised nature of the information is striking. The same report structure was used for all subsidiaries included in the group's consolidation. This could be because the actuary wanted to rationalise production of figures, or intended to clarify quantitative information that is initially difficult to understand, and make it more accessible.

Second, even though they make frequent references to international accounting standards, these reports are not accounting reports. In structure they are more like a mathematical demonstration, presenting first the axiom used, then the features of the sample, and finally the results. This clearly indicates that for the actuary, the figures produced are not accounting valuations – in the sense of numbers corresponding to final operations recognised and recorded – but estimations, whose relevance must be demonstrated.

Third, the body of assumptions used as a basis for the valuations is extensive and very detailed. This is largely because the actuary wishes to explain the valuation choices made to the auditor, so that the auditor can, for example, test the soundness of the assumptions. Nonetheless, through this detailed description of the assumptions the actuary again presents himself solely as a calculator at the service of the company, and attentive to the needs of the auditor.

As the passages highlighted in the report in Appendix 1 show, the actuary always attributes responsibility for the valuation choices made to another party. He presents himself as dependent on the management for setting the discount rate and retirement age; dependent on international accounting standards for elaborating the valuation method; and finally, “the mouthpiece of the law” for integrating the underlying tax issues into these values.

This outsourced production of accounting figures (in this case for pension obligations), and perhaps more broadly all the production of figures assigned to the specialist knowledge of external parties, raises two important questions concerning fair value accounting.

First, fair value accounting involves complex valuations based on projections of cash flows: these valuations, being non-accounting by nature, are delegated to actuaries, real estate experts, financial valuation experts, etc, who are presented as the best able to assess future commitments that are difficult to model⁶. The presentation of the detailed calculations, as clearly illustrated in the standard actuary's report attached in Appendix 1, is intended to intimate that the sophistication of the calculation and its precision in modelling the complex obligation to be valued is a faithful representation of the economic phenomenon it seeks to represent. This point, already identified by Barth (2007; Power 2010, p. 200) is further reinforced when an external expert's assessment, which arguably has substantially more social prestige than accounting expertise, is included in the complex evaluation of these phenomena.

The auditors are the most obvious subjects of this illusion, since their work always focuses on the probability of the assumptions adopted by the actuary and the company; they carry out in-depth verifications of the accuracy of the calculations (Power 2010), but never test the foundations of the valuations, which in any case are supplied with practically unassailable justification by accounting standards.

⁵ Cf. Appendix 1, pp.36-37.

⁶ With the variability of economic activity, its different cycles, and the “turbulent” (Emery and Trist 1965) world firms operate in today, it can be argued that even the valuation of future pension liabilities is by no means straightforward, given the frequent changes in the law, and doubts over the stability of the discounting parameters used and benefit valuations calculated.

To illustrate this point, I have attached in Appendix 2⁷ a professional instruction memo issued by one of the big accounting firms, concerning testing of the parameters used to estimate pension obligations at the 2011 financial year-end. This document clearly shows how the auditor's professional methodology focuses much more on verifying the accuracy of the calculation than the foundations of that calculation, which are always specific to the firm and consequently difficult to grasp.

Outsourcing production of accounting figures and associating it with the calculation expertise of engineers, actuaries and other quantitative experts, thus appears to give management a solid, implacable argument to support the parameters chosen to value their obligations, despite their arbitrary nature of those choices. Outsourcing these complex valuations to an expert suggests that precision in a calculation is synonymous with accuracy and well-foundedness, and provides an indisputable margin of discretion for a firm's management. The international standards are thus having effects that were presumably unexpected. Arguably, the intention behind international accounting standards' requirement to report items such as future pension obligations and other unrealised items was to take these operations away from management discretion, and make the financial statements more informative by their compulsory disclosure; rather than to encourage relatively biased, unfair presentations of accounting information (Ronen and Yaari 2002).

It is also important to note that outsourcing part of the production of accounting information, in encouraging the intervention of discretionary management of accounting figures by legitimising calculation expertise, also tends to create a disconnection between the internal and external relevance of accounting valuations. If management needs a clear view of the financial consequences of future obligations to oversee a company's business, it will make more use of information specifically prepared internally for the purpose, for which it has comprehensive knowledge of the methods used, rather than standardised information prepared for external communication purposes by a firm of actuaries that do not belong to their company. And if the company outsources some of the production of its accounting figures, that may also be because, as in the case of pension obligations, its own personnel does not have the necessary expertise to value those items. This can only accentuate the divergence between the relevance of financial statements for managing the company's business and its usefulness for communication with external stakeholders.

All these factors thus appear to feed what I previously called a dissonance introduced by model-based values, ultimately establishing a certain schizophrenia in fair value accounting. By making the figure of the accountant obsolete in production of the financial statements, and by opening up the possibility of outsourcing the construction of accounting figures for reasons that are as much technical as political, internal valuation models contribute to confusion over the purposes for which accounting information is established.

There can thus be compatibility problems between production of financial statements for external communication purposes and production of financial statements for use in internal business management. And accounting information produced for institutional communication, based on relevance for internal management purposes, makes the financial statements look more like rhetorical instruments for business managers, rather than pure business management systems that scrupulously reflect the firm's activities over a year.

So contrary to the suggestions of doxatic opinion, accounting information is not simply a means of reducing information asymmetries between the firm's stakeholders in a

⁷ Cf. Appendix 2 p.38.

situation of latent agency conflict; instead it is becoming a signal emitted by the firm for, and to, the outside world. With these complex valuations, in line with previous discussion, accounting information is becoming a new flow of information, a new variable affecting distribution of information between the various external and internal stakeholders, and just as likely to increase information asymmetries as to reduce them.

Yet in parallel to this deep-rooted change, the activity of accounting departments and the internal usefulness of accounting documents and information have remained unchanged for firms' individual financial statements, as seen previously, but also for the consolidated financial statements, which are an aggregate of data extracted from the individual financial statements; and the operational staff, the auditors, the tax authorities and many other parties still need financial statements to monitor a firm's business. Consequently, we need to look in more detail at how fair value accounting, by establishing itself as much as a signal – through its nature as an actuarial, prospective type of accounting – as a medium for information – through historical concomitance with the management needs of various parties in the firm – open to use by all stakeholders in the economy, is exposed to the uncertainties and grey areas of its dual nature.

Based on these recent observations, I shall now show that fair value accounting represents an opportunity for account preparers, rather than a constraint deriving from financial requirements, both for resolving internal conflict situations and for maintaining discretionary margins for management in relation to shareholders.

3/ Schizophrenic accounting: an opportunity for the standard-setter and account preparers

Fair value accounting as actuarial accounting corresponds to a conceptual shift deriving from transformations in our economies, in dissonance with the conditions of its practice, as highlighted above. This section shows how fair value accounting is in fact a type of accounting representation that is capable of solving disagreements inside the firm, by meeting stakeholders' demands at a lower cost (3.1), and that it thus corresponds to an accounting system that allows more discretionary organisation of the financial statements by management, by providing additional disclosures that are not associated with additional transparency (3.2).

3.1/ Fair value: a multifaceted opportunity for the preparer

While for the IASB there is only one "preparer" of financial statements and that is the company itself, in practice the difficult-to-grasp complexity of the economy reveals different types of preparers, or what I call a multiple preparer. Any conference that brings together in the same place on the same day an assembly of accounting practitioners from different firms in various sectors illustrates how the *preparers* category invented by the accounting standard-setter is in fact a heterogeneous reality – like its corollary the *users* category – made up of many different needs, and therefore many different preparers.

Taking for example the question of the accounting representation of performance, it is possible to see how far the same accounting number can, and must, have a multifaceted reality for a given decision-maker in the company, and for different departments in an organisation. A rate of return, ROI or ROE for example, will have different uses and several

meanings depending on whether it is being used by a manager, a management controller, or a CEO.

Examination of the everyday work done by a consolidation department and an accounting department in charge of the individual company's financial statements shows how much the former will see a rate of return as a benchmark to which the discount rates or rates of return used by the subsidiaries must verifiably correspond, while the latter will see it rather as a financial ratio of more dubious accounting importance than operational relevance. These differences in representation and signification between departments inside the same organization, even when those departments are close and independent, are becoming the vectors of new social interactions due to the features of fair value accounting practice highlighted in the previous section.

For example, during my participant observation in a large French industrial firm specialised in the construction sector, I was able to observe several points of interest from this perspective. The entity concerned develops several management softwares and systems in-house, to facilitate the activity and supervision of operational staff who travel to customers' premises throughout France, and at the end of the 2011 financial year, the group recorded a significant increase in intangible assets and development in process. This reflects the Group management's concern for practical, communicable accounting expression of the most important capitalised expenses: only an unfavourable impact on group cash flow was noticeable at the time of the audit, while the resulting economic benefits for the entity remained imperceptible.

In this case it is clear that the accounting number has several realities for a preparer. While the everyday account preparers, i.e. the accounting departments, are concerned with whether expenses incurred over the year are capitalisable or non-capitalisable, the management are more interested in ensuring that the economic opportunities underlying the expenditure are perceptible in the accounts. In this perspective, actuarial fair value measurements with their range of possible applications are presented as the ideal way of reconciling the sometimes contradictory views held by account preparers.

The capacity of such measurements to solve disagreements in account preparation is obvious in the above example. The departments in charge of developing software can, through internal valuation models and cash flow projections based on actuarial techniques and valuations based on the economic benefits associated with those expenses, use accounting entries as a justification for the relevance of projects whose operational virtues are more apparent to the software developers than management. Also, as fair value measurement of softwares based on favourable cash flow projections makes it possible to record unrealized gains in the assets, fair value accounting could be attractive to management because it means they can report higher total assets that will help the company make future acquisitions at a lower cost⁸.

This type of observation, which can be complemented, diversified or replicated in any large company, leads to an important observation, in line with the earlier discussions.

The reason why fair value accounting can reconcile conflicting or contradictory views between different parties in the same company is largely, as the case presented outlines, because it offers new discretionary margins; or more specifically, because in its wake new zones of uncertainty (Crozier 1964 ; Crozier and Friedberg 1976) are created in organizations. As it consists of a certain abstract presentation of the firm's present – but above all, future – activity, actuarial accounting based on internal valuation models is in fact a more asymmetric

⁸ All other things being equal, in a business combination a higher total asset value results in a more favourable share exchange ratio for a firm taking over another firm.

system internally than the traditional accounting model. Based from the outset on formal techniques with varying degrees of complexity, on a non-trivial axiom, and several founding assumptions, it creates an *ex ante* imbalance in the distribution of information between its experts and others in the firm; whereas a register of the firm's past operations simply has *ex post* information asymmetry resulting from the conventions and compromises of accounting entries.

Consequently, fair value accounting, by acting as a vector of new discretionary margins for account preparers, also represents a certain "slack" (Cyert and March 1963), i.e. both a way of absorbing exogenous shocks (Meyer 1982) deriving from financial statement users' expectations, and a way of dealing with change and internal conflicts (Zajac et al. 1991). Although it is largely foreign to accounting's conceptual traditions and despite its significant contribution to the progressive obsolescence of the accountant as noted earlier, by embodying a break from traditional accounting practice (which is nonetheless a vector for management opportunities) fair value accounting does indeed consist of a transfer of resources in the organisation, and its non-accounting nature is likely to be accepted.

Depending on the discretionary margins it offers different parties in the account preparation process – the departments in charge of the individual company accounts, the consolidation departments, the internal control departments, finance management, general management, etc – the impact of complex valuations on the quality of financial communication is unpredictable, and ambivalent. The needs of account preparers may be fully expressed thanks to fair value accounting; or they may be denied. The resulting accounts are thus just as likely to reflect more misunderstandings and conflicts between operational staff, general management and support functions as to encourage adoption of a common language around the cash flow concept.

In this section we have seen that complex valuations, because they affect the various needs of account preparers, are reconfiguring relations between the departments and actors involved in production of accounting figures, by creating new zones of uncertainty; but we should not forget that the *preparer* is inseparable from the *user* of financial statements. This again shows that the advent of actuarial, prospective accounting is clearly reshaping the agency relationship between the holders of capital and the account preparers. This will now be examined further.

3.2/ Fair value: an opportunity for the preparers in relation to financial statement users

In direct line with Fama's (1965) efficient market hypothesis, accounting appears to be considered by the financial community as a good way of improving information on the capital markets. Fama (1965) argues that a market is efficient when the price of an asset is equal to its fundamental value as determinable from all available information.

By reflecting a firm's past activities, dissecting its performance into a diverse range of aggregates and thus explaining some of the private information held by management for current and future shareholders (providers of capital), the financial statements are presented as an aid to "strong" market efficiency, because they reduce the amount of private information that is useful for forecasting future developments in the price of an asset. In this view, accounting information is presented as a vector for reducing the fundamental information asymmetry in the agency relationship between the firm's management and the providers of capital, since an efficient market is a market in which agency conflict is by definition low or non-existent.

This argument is certainly applicable to fair value accounting understood as market accounting, or even to traditional accounting based on historical cost, since both systems, in their own different ways, retrace the activity of a firm in definite terms. However, I do not consider it can be applicable to actuarial fair value accounting. As highlighted in the earlier parts of this article, fair value as actuarial, prospective accounting does not relate to private information, and is not a true and fair representation of certain operations with objectively-proven existence. It is more of a system for valuation of the unknown, the future, the non-monetary, the time and the risk of economic activity; a system of estimation rather than a set of accounting valuations; and must be understood both as a mode of accounting representation and a signal of information that is far removed from that representation.

As a result, the impact of fair value accounting on the quality of financial communication, i.e. its degree of asymmetry and discretion, is highly complex and ambivalent. The paradoxical and often contradictory nature of many studies focusing on fair value accounting's influence on the quality of financial communication (Barlev and Haddad 2007; Landsman 2007; Zeff 2007; Carmona and Trombetta 2008; Jeanjean and Stolowy 2008; Laux and Leuz 2009; DeFond et al. 2011; Jones and Finley 2011) is completely coherent with the above ideas. All those studies show that since fair value accounting is an informational signal, i.e. a vector of information unrelated to the actually-occurred realities of the business or solely intended to shape the external image of the entity or its management, as well as being a system for retracing certain, past operations, it reconfigures rather than solves the agency conflict between financial statement preparers and financial statement users.

By forming a system for actuarial, prospective estimates, fair value accounting can even provide a new discretionary margin for management in the financial communication game (Landsman 2007). As signalled by the infinite diversity of cash flow projections, investment horizons defined to justify the different discounting rates used, or all the parameters that may be included in internal valuation models; by identifying the various cash-generating units used to categorise the firm's assets, according to obscure or shifting logics, or more generally by valuing unknown, future items, complex valuations in principle give account preparers more room for manoeuvre in producing the financial statements. Top management can thus use accounting information as a malleable economic signal that can be manipulated to best serve their interests. But at the same time, model-based valuations can in some cases be ways of obtaining accounting information that is less dependent on the preparers. If the management use their consolidated financial statements to coordinate or monitor the firm's activities, then in theory they will have no reason to manufacture and use accounting information in a discretionary way, because that information is vital for managing the organization and achieving their objectives.

Accounting for complex valuations, with its dual nature as a management system and an economic signal, can thus, depending on the circumstances, business sectors, actors or organisational routines, variously act as a multiplier or divider of agency costs characterising the informational relationships between a firm's management and its owners. Nonetheless it will always be impossible for institutional investors and financial statement users to know for certain whether the fair value accounts presented to them correspond to documents used by the management to monitor the firm's business.

Panel 2: Extract from complex valuation practices – fair value accounting serving account preparers' interests

In late April 2012, I was part of the annual audit team for Topcom, an entity at the head of a large group operating in the telecommunications, communication and media sector, with more than ten thousand employees.

More than four months after the financial year-end, the audit of the parent company's individual financial statements and the group's consolidated financial statements was still unfinished because of a complicated economic climate and a change in the company's accounting system at the end of the year. This was the year that the terms of the two firms of statutory auditors were due for renewal.

I participated in a week of auditing that followed more than two months of continuous audit work by the firm I was with and their co-statutory auditors. The parent company's financial statements were finally taking shape. However, the accounting departments were reluctant to give us versions of the files containing all the consolidated accounts and the associated notes, even in provisional format. After several requests from the managers heading the annual audit, the company's head accountant slipped into the rough-and-ready windowless office where we were working, closed the door and said:

"Here's the thing, off the record, I can't give you the reports or notes because the management has called the financial management, and there's absolutely no way the group can report a result that's too positive. So I can't give you the documents officially, because we've got to lose up to 8-10 million euros, depending on how deferred taxes affect group profits, in order to cancel the consolidated profit we've got at the moment... But, if you promise that Mr Dupont [the group's CFO] won't see, I can give you our first pre-adjustment versions, so you can get ahead with your audit; if you're interested, that is."

All our managers said yes, and we were given an initial version of the consolidated financial statements which sure enough showed consolidated profit of close to €10 million for the year. The managers and partners from the two firms of auditors had informal discussions on the question of where in the accounts this consolidated profit could be made to disappear; and the audit teams got on with their work, taking great care to hide these "off the record" versions of the financial statements under a pile of files or our laptops whenever a member of the financial management came into our workroom.

A week later, mid-May by now, the finance and accounting management finalised the "last adjustments" to be made to the group's financial statements. The CFO himself came to the room where we were working and said:

"In anticipation of the comments I'm sure you're bound to make at the next audit committee meeting, we've decided to record impairment on certain assets. First of all, the fair values of some of the programmes in our catalogue, 4 million for the 'Italian village', half a million on a component of 'Fishing and sea'; and finally 4 million on the fair value of our transmission facilities installed a little while ago as part of the group's capital expenditure programme. We don't feel the future economic benefits expected of these items are still at the levels currently shown in the consolidated accounts, and we'd rather act on that before you ask us to."

"Ah, right, very good. Well, we'll take a look at that. And you won't forget to give us details of the evidence for this impairment?" answered one of the audit managers.

"Quite honestly, I think you must already have a lot of them... but, of course, we'll give you all the evidence for documentation of your audit."

Several weeks later, the financial management sent all the information to "document" this decision, but it was impossible for the auditors to test whether it was well-founded.

After my participant observation had ended, I noted that the results published by Topcom were in the end €1 million higher than announced during our audit, probably as a result of the auditors' discussions with the financial management.

Despite generally accepted ideas, fair value accounting with its dual nature is an opportunity for account preparers rather than a mode of accounting representation that benefits financial statement users only. Valuations based on cash flow projections represent new information, but do not necessarily reveal previously private information about the company's activity. Instead they form a new informational signal that does not automatically lead to improved transparency in financial communication. The prospective nature of fair value potentially makes the accounts a monitoring instrument, thus giving financial statements a greater intangibility that is theoretically of benefit for users, but in fact preparers are under no obligation to use fair value as a management instrument.

Contrary to the proposals of positivist studies that seek to perceive the impact of international accounting standards, fair value or any other accounting system on the quality of information and financial communication, the wide range of possible agency relationships associated with disclosure of accounts prevents us from conclusive research findings when studies take a purely macroscopic or microscopic approach. It is clear, on the contrary, that fair value accounting, by totally reconfiguring the features of the agency relationship between financial statement preparers and users, and by bringing ambivalence to any normative option intended to reduce agency costs as described earlier, generates a vital need to consider financial communication in all its aspects (macro, meso and microscopic) by direct observation of its practical implementation.

Discussion and conclusion

This article makes a dual contribution: first, it underlines how fair value accounting represents an astute use of the macroeconomic context by the accounting standard-setter to enhance the importance of accounting in financial communication; additionally, it shows that the constant search for sophistication by fair value accounting creates new zones of uncertainty in preparation of group financial statements. Finally, it raises questions over the redefinition of each financial communication actor's duties in the production of transparent, sincere financial statements.

As expressed in the first section, the displacement of the concept of value towards more intangible, financial, in short immaterial meanings is reflected in the advent of fair value accounting, which is supposed to provide a more detailed representation of economic reality through its complex valuations and cash flow projections. The increasing sophistication of the standard and therefore accounting technique is now making several of its components – such as the valuation of pension obligations discussed in the article, but also financial instruments and other items – the prerogative of specialists in valuation techniques or what we could call accounting interpreters able to decode the texts of standards to identify the appropriate valuation methods for production of the consolidated financial statements.

Meanwhile, the part of accounting practice that is not outsourced to specialists in valuation methods, particularly consolidation as highlighted earlier, resembles coordination and compilation of information through management of digital interfaces designed for the purpose, but which in practice operate differently according to the circumstances in which they are used, and the closeness of relations between the consolidation departments and their financial management.

It would thus be interesting to extend this analysis through relevant theoretical frameworks, to examine the relations between the consolidation practitioner and these systems, which are sometimes only comprehensible to experts, and can create conditions for chaotic interaction likely to give rise to standards with potentially different consequences from those intended by the standard-setter. This would enable a more detailed assessment of

how far the technical sophistication introduced by fair value accounting is rhetorical rather than conceptual for financial communication.

The article shows the extent to which discounting cash flows and its traditional accounting applications before the arrival of fair value – particularly for investment decisions (Pezet 1997) – could in fact be a rhetoric of persuasion in organizations. The “foreignness” of complex valuations regarding the principal features of accounting practice, and the non-transposition of the conceptual links between standards and economic science in accounting practice, mean that the conceptual shift brought about by fair value accounting at the expense of the traditional accounting model is a rhetorical operation between the firm and its external parties, current or potential investors.

By taking on the features of a financial discipline through eliminating, or downplaying, its accounting ancestry, and by embodying an actuarial type of representation of risk, timing and immateriality of the modern sources of value, fair value accounting has succeeded in forging a new information signal rather than a way of reducing information asymmetry in financial communication. Far from resulting from financial interference in accounting, it is an innovation that has allowed the international accounting standard-setter to consolidate its position in the current context, as well as providing a real opportunity for account preparers because its actuarial nature allows them to elude the most coercive demands for financial information by providers of capital.

While these points clarify how fair value accounting is an opportunity for the accounting standard-setter and account preparers, we must not ignore the macroscopic view of the importance of this accounting representation for financial regulation and corporate governance. Fair value accounting, with its new scientificity and prospective nature, prevents tangible representation of a firm’s activity and results, without providing a truly objective representation; it no longer imposes one particular valuation methodology for the different objects of accounting representation, and requires auditors to test the bases of the valuation compromises used by firm management; through its actuarial, prospective nature it reformulates the question of financial communication actors’ responsibility for the transparency and sincerity of financial reporting.

If, as highlighted, the expertise of the specialist or actuary is in practice subject to direction by the company’s management, although the management and the standards consider that it is the specialists and their methodologies that guarantee the quality of the values produced and its financial communication, while the auditor is simply asked to reproduce the valuation calculated; then it is crucial to examine the way the accounting standard can, still using fair value, create a situation that clearly identifies responsibility for producing financial information, and thus ensures its transparency.

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Appendices

Appendix 1 – Anonymous example of an actuary's report

SUMMARY

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III/ Valuation assumptions

1/ Common principles followed for the selection of demographic, economic and financial assumptions

The assumptions used at December 31, 2011 must be selected on the basis of actual experience of the company and the economic conditions prevailing on the valuation date, **in accordance with the principles of the IAS 19 standard**. In fact, IAS 19 requires using objective and mutually compatible actuarial assumptions about demographic variables (such as staff turnover and mortality) and financial (such as future increases in salaries, or changes in mandatory regimes). Financial assumptions should be based on the expectations of the market on the date of closing of the fiscal year in which obligations must be adjusted.

2/ Table of assumptions

Discount rate of pension commitments:

The discount rate is 4.75% (compared with 4.15% for 2010). **This rate was communicated to us by the management of XXX.**

Age of retirement:

For the assessment to 31 December 2011 **in accordance with the group management and the auditors**, we took into account the law of 9 November 2010 dealing with the pension system reform.

For the assets, it is function of the assumed age of early career and the minimum duration of career needed to liquidate pension rights at full rate.

	Birth date	Early career age
Non-executives	< 1944	20 years
Non-executives		22 years
Executives	< 1944	22 years
Executives		25 years

If it is less than the above hypothesis, this is the entrance age in the group that is selected.

Rate of pay adjustment:

Pay adjustment rates depend on the age of the participants. They were communicated by the management of the group.

Age	Annual rate
< 60	2.4 %
> 60	1.8 %

IV/ Sample characteristics as at December 31, 2011

The individual data of the participants/beneficiaries to benefit defined pension plan suffered some consistency checks to ensure their validity for the purposes of the assessment. Testing is done on all in the population. The different tests are described below.

- **Validation of the scope of the study:** Verification of the presence or not of the 2010 study corporations.
- **Differences on date of birth, group integration date, date of birth of the spouse:** verification of non-variation in the date between 2010 and 2011. Check of some dates. Correction of others. The differences are generally less than one year.
- **Gender differences:** check the gender non-variation between 2010 and 2011. There is no difference.
- **Wage gaps:** Greater than 15% changes in absolute value of compensation are subject to XXX validation. Wages are either modified or confirmed.
- ...

The discrepancies or anomalies identified following these tests were submitted for validation or correction to the management of the group. Final data for the end-of-year assessment therefore incorporate corrections made.

Appendix 2: Instruction memo from a “Big 4” firm (January 2012)

Euro zone discount rate for calculation of pension obligations at December 31, 2011

Please note that the discount rates taken from the IBOXX and Bloomberg indexes, determined based on samples of top-quality bonds, have changed significantly in the last few months of the year, particularly December 2011. Apart from movements in interest rates, we also draw your attention to the fact that the composite IBOXX sample has been modified from January 1, 2012. It now excludes non-AA rated stocks and as a result the value of the composite index at January 3, 2012 is quite substantially lower than at December 31 based on the previous sample (down from 4.6% to 4.31%).

All these developments have led us to revise the rate ranges provided at the workshop of December 12, 2011. Instead of the 4.25-5.25% range at November 30, at December 31 it is 3.6-4.75%. The top value in the range is slightly higher than the indexes observed, to reflect the generally longer duration of certain commitments (retirement bonuses or life annuities) than the duration reflected by the IBOXX sample.

For companies using a rate outside this range, the acceptability of the rate must be assessed in the light of any specificities and the materiality threshold.

For groups that use “proprietary” models, the sample composition (AA bonds) must be documented, and we must check that the maturity used is coherent with the residual term of obligations.

Finally, remember that the choice of the rate from within the range should be coherent with the rates used during previous years (a top-end rate should not normally be used if a bottom-end rate was used previously). For information, the range at December 31, 2010 was 4.25-4.75%.

If you have any difficulties, particularly in the event of a divergent viewpoint with your co-auditor, please consult the [group policies] or the actuarial department of XXX.

You will find attached the two slides from the workshop, updated based on the most recently-published rates.