

Background and recent developments in fair value measurement: From FASB's 1996 four decisions to the recent financial crisis *

Historia y desarrollos recientes de la medición a valor razonable: de las cuatro decisiones del FASB en 1996 a la crisis financiera actual

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ABSTRACT The use of fair value measurement in accounting has been recently called into question due to the advent of a major international financial crisis. In this paper, we review the background and recent developments in fair value measurement for financial instruments, which can be traced back to four decisions made by the FASB in 1996. We discuss the advantages and shortcomings of the mixed accounting model currently adopted by the two leading international accounting standard setting bodies (FASB and IASB), as well as those of a full fair value model. We argue that full application of fair value measurement to all financial instruments, although not exempt of difficulties, would significantly reduce existing complexity and limit discretion in the recognition and measurement of these instruments.

KEYWORDS Fair value measurement; International financial crisis; FASB; IASB; Financial instruments; Derivatives.

RESUMEN La reciente crisis financiera internacional ha hecho que se cuestione el uso del valor razonable en la contabilidad. En este trabajo se revisan los antecedentes y evolución reciente del uso del valor razonable para los instrumentos financieros. Dicha historia se remonta a cuatro decisiones tomadas por el FASB en 1996. Se discuten las ventajas e inconvenientes del actual modelo mixto adoptado por los dos mayores organismos internacionales emisores de normativa contable (FASB e IASB), así como las asociadas a un modelo de valor razonable. Se argumenta que la aplicación de un modelo de valor razonable para todos los instrumentos financieros, aunque no exento de dificultades, reduciría significativamente la complejidad actual y limitaría la discrecionalidad vigente en el reconocimiento y valoración de dichos instrumentos.

PALABRAS CLAVE Valor razonable; Crisis financiera internacional; FASB; IASB; Instrumentos financieros; Derivados.

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1. INTRODUCTION

Unsurprisingly, the advent of the recent international financial crisis has spurred a lively debate on its causes and consequences. Part of this debate has focused on the role in the crisis of the accounting standards prepared by the FASB and the IASB and particularly, on the role played by fair value measurement of financial instruments in firm financial statements. It has become commonplace to read in the financial press sentences such as (fair value): «introduces unnecessary volatility», «reduces the reliability of information», «has undesirable pro-cyclical effects», «increases the severity of the financial crisis», «has alerted of existing problems, not created them».

Fair value measurement has thus achieved nothing short of stardom in recent economic events. However, many of the opinions expressed are based on inadequate information.

The definition of fair value, albeit with slight modifications in the different regulations, has been sufficiently communicated⁽¹⁾. Notwithstanding technical complexities, the criteria for fair value measurement are also conceptually known: fair values are preferably obtained on the basis of market values or through their calculation with well-known and accepted formulas that use observable variables as inputs⁽²⁾.

However, some basic questions remain unanswered: 1. Does the introduction of fair value measurement to accounting regulation represents a complete revolution from the more traditional prior standards?; 2. Is the current model based on fair value measurement?; 3. What key elements are at the inception of the current model?; 4. What is the real effect of fair value measurement over current standards, and in particular, over financial instruments?; 5. Has fair value measurement played a role in the crisis?; and specially, 6. What changes (if any) are necessary in accounting regulation?

In this paper, we aim to provide answers to these questions by reviewing some recent events that despite being well known are frequently forgotten in the debate. We also present our opinion on several of the issues reviewed. In particular, we argue for full application of fair value measurement to all financial instruments to significantly reduce existing complexity and to impose limitations to the discretion currently allowed by accounting regulations. Moreover, we argue that other balance sheet items such as commodities (which can be measured objectively) should also be measured at fair value.

(1) Fair value can be briefly defined as value at which an asset could be exchanged, or a liability settled between knowledgeable, willing parties in an arm's length transaction. Although the regulation on the use of fair value measurement is not identical in the standards prepared by the US FASB and the IASB, for the purposes of our analysis, their differences are not significant and therefore, we sometimes refer to FASB and IASB interchangeably.

(2) SFAS 157, published by the FASB and the new IASB draft ED/2009/5 on «Fair Value Measurement» are good examples of fair value measurement criteria.

2. INCORPORATION OF FAIR VALUE MEASUREMENT TO ACCOUNTING STANDARDS

As argued by Cairns (2006), traditional accounting standards already incorporate fair value measurement for certain transactions. Some clear examples given in Cairns (2006) include:

- The measurement of transactions at initial recognition in the financial statements.
- The allocation of the initial amount at which a transaction is recognised among its constituent parts.
- The determination of the recoverable amount of assets.

Therefore, the only novelty incorporated to IASB and FASB regulations (and obviously, one of great relevance) is the application of fair value to the subsequent measurement of certain assets and liabilities in the financial statements. In addition, we should keep in mind that the use of fair value need not always affect the profit and loss statement.

It is straightforward to observe that the usage of fair value measurement in IASB and FASB regulations is more limited than generally believed. The majority of non financial assets and liabilities are (or can be) measured at cost and the majority of financial assets and liabilities are (or can be) measured at amortized cost. In fact, only derivatives must be measured at fair value in all cases. There are several optional mechanisms that permit classifying items discretionarily, or to compensate differences derived from changes in fair value measurement, that do not always affect the profit and loss statement. Instead, they may affect equity. Even when these differences are written off directly through the profit and loss statement, there are mechanisms to compensate these gains and losses (hedging), that permit, in certain cases, compensating those changes in fair value with differences in the opposite direction (thanks to the hedge), even when the hedged item is valued at cost as a general principle.

Therefore, despite frequent arguments that current accounting standards are based on a fair value model, they are not. *Current accounting standards are based on a mixed attribute model (cost and fair value)*, with several particularities that separate it from a pure full fair value model. Neither is it true that accounting standards use the general basis of fair value to the particular case of financial instruments, as the accounting regulation of financial instruments is also based on a mixed model⁽³⁾.

The next section briefly explains the origins of the current mixed attribute model.

3. ORIGINS OF THE MIXED ATTRIBUTE MODEL: FASB'S 1996 FOUR DECISIONS

It is common knowledge that the partial abandonment of measurement at cost and its substitution by fair value has been a consequence of the need to improve the information and presentation of derivatives in firm financial statements, and to avoid their considera-

(3) The document prepared by the JWG (Joint Working Group of Standard Setters), published by the IASB and FASB in December 2000 (although yet to be applied by either of them) is an example of a fair value model for financial instruments.

tion as «off-balance sheet» items. The particularities of these contracts, that frequently have no acquisition cost or a cost that is significantly lower than its subsequent effects, have led to the conclusion that measurement at cost is inappropriate and not representative for these instruments.

Problems surfaced, however, derived from the generalization of this fair value measurement of derivatives to other financial instruments or balance sheet items. In this section, we review the origins of current accounting regulation for financial instruments, starting from a series of early steps taken by the FASB.

Since 1981, the FASB has prepared several standards on financial instruments. The main ones are SFAS 52, on foreign currency transactions, published in December of 1981, and SFAS 80, on futures contracts, published in August of 1984. These standards gave partial answer to the problem of accounting for derivatives, without straying too far away from the traditional cost model.

From 1986 onwards, partly in reaction to financial innovations, the FASB has prepared additional documentation to improve the quality of the complementary information on financial instruments under contract that companies have to include in their financial statements⁽⁴⁾. These documents did not modify accounting for financial instruments (recognition and measurement), but they did increase the disclosure requirements.

In 1993, as a consequence of the impact of large losses from derivatives that suddenly surfaced in some firms, several organizations and users of financial information, including amongst them the SEC, asked the FASB to introduce additional improvements to the standards that regulate the recognition and measurement of derivatives (Herranz 2001).

In answer to these concerns, the FASB swiftly prepared a draft of a standard in December of 1993 that was the genesis of SFAS 119 «Disclosure about derivative financial instruments and fair value of financial instruments», published in October of 1994. However, this standard only strengthened and improved the extant disclosure requirements that already existed in prior standards.

It was not until June of 1996 that the FASB prepared its first draft on financial instruments containing new measurement and recognition criteria with the objective —among others— of eliminating the consideration of derivatives as «off balance-sheet» transactions⁽⁵⁾. *That draft was based on four decisions that nowadays govern current accounting standards issued both by the FASB and the IASB*⁽⁶⁾:

1. Derivatives are assets or liabilities and must be recognised as such in the financial statements.

(4) Some examples are: SFAS 105 Disclosure of information about financial instruments with off-balance-sheet risk and financial instruments with concentrations of credit risk, published in March of 1990, and SFAS 107 Disclosures about fair value of financial instruments, published in December of 1991.

(5) FASB Exposure draft: «Accounting for derivatives and similar financial instruments and for hedging activities». June, 1996.

(6) If we carefully review these aforementioned decisions, we can observe that they have had significant consequences for financial instruments regulation, but also have given rise to novelties in other regulations. For example, expenses resulting from company start up are no longer considered an asset.

2. Fair value is the most relevant measurement principle applicable to financial instruments, and the only relevant one for derivatives. Items covered with derivatives (hedged) must also reflect the compensatory changes to fair value.
3. Only elements that are assets or liabilities must be recognised as such in the financial statements.
4. Special accounting treatment for hedges must only be allowed for transactions that meet certain requirements and criteria, and one of them should be valuation of compensatory changes at present values or in cash flows.

Probably, this solution aimed at improving the presentation of information on derivatives in firm financial statements, but at the same time, at minimizing the volatility that would likely be introduced by a full fair value model, to circumvent criticism from those opposed to fair value measurement. In this way, the FASB delayed the implementation of its declared objective of applying fair value measurement for all financial instruments.

However, this cautious approach was insufficient, and detractors of fair value acted immediately to try to delay the changes, expressing doubts over the hypothetical improvement in information derived from the new regulation, and mainly, by manifesting their concerns that the new accounting rules could reduce the usage of risk management techniques in certain financial institutions. The letter from Alan Greenspan to the FASB in July of 1997 and the two bills introduced in 1998 by Senator Faircloth and Congressman Baker respectively are notorious examples of attempts at stopping the limited change introduced by the new standards.

Despite opposition, in June of 1998 the FASB published SFAS 133 that was not significantly different from its earlier draft and that regulated the measurement and recognition of financial instruments. This standard (with some small modifications), based on the aforementioned four decisions, is currently still in place in the US.

Although the IASB (at the time, IASC) prepared some drafts on these issues as far back as 1991, it only started to make significant headway after the agreement with IOSCO in July of 1995. This agreement bind the IOSCO to recommend the acceptance of IASB accounting standards in the major international stock markets if the IASB prepared, in a reasonable amount of time (by the end of 1998), a complete set of accounting standards.

Regarding financial instruments, the first step was a draft prepared by the IASB in march of 1997⁽⁷⁾, which proposed the use of fair value for assets and liabilities, and that finally, did not succeed, as it was considered too «enthusiastic» for fair value accounting and straying too far away from the draft under study by the FASB at the time⁽⁸⁾. The second alternative studied by the IASB was the transitory adoption of the American standard for financial instruments. This view was not successful either as it was considered that IASB standards had to be a consequence of an independent discussion process that would ease their later acceptance.

(7) Accounting for financial assets and financial liabilities: Discussion paper.

(8) See, for example, <http://www.iasplus.com/dttletr/9708fins.pdf>.

Finally, without giving up its long term objective of generalizing the fair value model for all financial instruments, the IASB decided to prepare its own standard (theoretically a temporary standard), to meet the deadline set by the IOSCO.

As a result, the IASB issued IAS 39 in December of 1998. IAS 39 is slightly different from SFAS 133, but is based on the same «four decisions». This standard, with minor changes and small exceptions incorporated during the endorsement period⁽⁹⁾, is the standard currently in place in the European Union and has served as a reference for the adaptation of local GAAP regimes in the member states.

IAS 39 also faced severe criticism, even after incorporating complicated mechanisms to avoid the effects of volatility—similar to those of SFAS 133. The most significant example was when Jacques Chirac declared that the implementation of IAS 39 in Europe could have «nefarious consequences for financial stability» (Dombey, 2003; Dombey *et al.*, 2003). This was likely the reason why during the endorsement process the European Union limited in certain ways—albeit not significantly—the application of IAS 39, creating the now famous «carve-out», which has only happened once: for this standard⁽¹⁰⁾.

To summarise, it could be argued that standards sacrificed quality—mainly objectivity—to appease the demands of companies, trying to minimise the volatility that fair value could provoke. The end result of this process is the current mixed attribute model.

4. EFFECTS OF FAIR VALUE MEASUREMENT FOR FINANCIAL INSTRUMENTS IN CURRENT INTERNATIONAL ACCOUNTING REGULATION

Fair value is generally defined as the amount for which a transaction would occur between knowledgeable, willing parties in an arm's length transaction. This can be considered a reasonably general definition. However, more detailed definitions and, mainly, technical guidance to calculate fair values and examples of applications of fair value are dispersed and not entirely consistent in the different standards issued by the IASB.

In the specific case of the standards related to financial instruments, IAS 39 in line with SFAS 157, establishes precise criteria for fair value measurement, giving priority to fair values obtained from liquid markets and those that are derived from generally accepted formulas that only require the use of observed variables. Only when these values are not available, and following the detailed disclosure requirements, can other non-observable variables be incorporated to the calculations.

Fair value measurement, as previously stated, is not the only possible criteria for measuring financial instruments, which can also be carried at amortized cost. There are several

(9) This is a process established by the EU to evaluate and approve—if applicable—IASB regulations, since the European Commission's decision of 2002 to adopt their standards from 2005.

(10) To date, there is only one «carve-out»: In relation to hedges associated to deposits that appear as liabilities in banks' balance sheets, the EU did not accept the limitation included in IAS 39 of limiting the maturity date of these deposits to the first possible date of settlement. The objective of this carve-out was to permit establishing expected maturity dates based on estimates of prior renovation patterns.

classification categories for financial instruments that, in turn, determine the application of specific accounting measurement criteria. To summarise, in general terms, we can identify the following:

1. Assets and liabilities resulting from loans and receivables are initially recognised at the fair value of the amounts exchanged, adjusted for the transaction costs directly attributable to the asset or liability. After initial recognition, these assets and liabilities are carried at amortized cost, through the profit and loss statement. In the case of asset impairments, these impairments are directly charged to the profit and loss statement.
2. The second category consists of financial assets and liabilities held-to-negotiate. All derivatives are included in this category. These assets and liabilities are initially recognised at fair value, without any adjustment for transaction costs. Subsequently, changes in fair value are recognised through the profit and loss statement, except for differences relating to derivatives designated as cash flow hedges or as net investments in foreign operations hedges, which are recognised directly in equity.
3. There is an optional category denoted «fair value through profit and loss» —which can be selected at initial recognition of assets and liabilities, if certain criteria are met— that allows identical accounting treatment to the prior held-to-negotiate portfolio of assets and liabilities.
4. For the particular case of financial assets, there are two additional categories, «held-to-maturity» (HTM) investments and «available-for-sale» (AFS) financial assets. In both cases, initial recognition is at fair value plus transaction costs. Eventual impairments are recognised through the profit and loss statement in both cases, but subsequent measurements differ. For HTM assets, measurement after initial recognition is at amortized cost through the profit and loss statement. For AFS assets, subsequent measurement is at fair value, with changes in fair value recognised directly in equity, until the financial asset is derecognised.

Additionally, for particular cases where financial assets are designated as hedge items —after meeting certain criteria— distinct accounting procedures are specified, with the objective of avoiding the volatility associated to the financial assets hedged and the hedging instrument —commonly a derivative— to compensate temporary differences that may surface if this guidance was not applied. Hedging relationships are of three types: fair value hedges, cash flow hedges and hedges of net investments in foreign operations.

In relation to financial instruments, it is therefore clear that:

- a) The majority of assets and liabilities are (or can be) measured at amortized cost.
- b) Sometimes, even though an instrument is measured at fair value, changes in fair value do not flow through the profit and loss statement, but are recognised directly in equity.
- c) There is a «fair value option» that firms may or may not apply in certain cases.

- d) Firm intentions may affect, in certain cases, the selection of one or another category; this, in turn, drives the subsequent use of fair value measurement (or not), and the recognition of changes in fair value through profit and loss (or not.)
- e) To use hedge accounting it is necessary to meet certain criteria, but also a hedge must be designated. This implies that a transaction that meets all the requirements of a hedge, may or may not be accounted as such depending on what the firm decides (to declare it or not). Additionally:
- It is not compulsory to demonstrate that the hedged item is not already hedged by other transactions (either past or future). This is a condition imposed by SFAS 80 which was subsequently abandoned due to the difficulties associated to its implementation (and not because it was technically inappropriate).
 - Differences derived from the measurement of certain financial instruments at fair value may be compensated or integrated with other measurements of other balance sheet items that are not financial instruments. For example, the measurement of inventory may be modified in a fair value hedge, when that same inventory would be carried at cost if it was not part of an accounting hedge. Also, on recognising the changes in value of a financial instrument that acts as a cash flow hedge, the cost of a non-financial asset may be modified. (This last case is an option considered by IFRS. It is not allowed by SFAS 133).

Therefore, we are far from what could be deemed as a complete fair value model, with changes in fair value through profit and loss, for all financial instruments. The opposite is true, there are many opportunities to measure instruments at amortized cost, or to measure them at fair value, but with changes in fair value not affecting the profit and loss statement, at least in the period when they arise.

Clearly, complex standards could have been issued that defined different guidance to recognise and measure different kinds of financial instruments without leaving so many options open, i.e., a certain transaction would be accounted for in a certain way on the basis of its characteristics without allowing for intentions, declarations or options. However, this is not the case of the current model.

Hence, we cannot conclude that fair value is the main characteristic of current accounting rules for financial instruments. The characteristics are other: a mixed attribute model that is complex and subjective, because of the overriding concerns to smooth volatility.

5. IASB AND THE G-20 PROPOSALS FOR IMPROVING FINANCIAL INSTRUMENTS ACCOUNTING

Among several other projects on financial instruments, the IASB recently promoted two important initiatives. One of them relates to the improvement of the definitions and calculation methods of fair value, with the objective of producing a final document that may be used as guidance for the application of fair value measurement under the different IFRS standards and their specific cases. To that end, an invitation to comment on SFAS 157 was recently issued by the IASB. The following step has been the recent publication (in May of

2009) of draft ED/2009/5 on «Fair Value Measurement», open for comments until September of 2009.

The second project refers to the possible simplification of IAS 39, by reducing categories, options, hedging alternatives, etc. The IASB has received comments for this second project and is currently studying them in order to take additional steps. In reality, the comments received do not always meet the requirements. Many relevant economic agents defend the view that it is not possible to simplify the standards, because the transactions contemplated are complex. It should be noted that the invitation to comment was issued before the financial crisis aggravated and led to bankruptcy cases and governmental intervention. The question remains that had the invitation to comment been issued later, would the answers still be the same?

In any case, with the advent of the international financial crisis, and the general consensus that there is need to rethink some rules and regulations, it is likely that this project will be reoriented in light of the new G-20 initiatives.

The G-20 meetings of Washington (15.th of November of 2008) and London (2.nd of April of 2009) saw the approval of several measures related to firm financial information, although they were presented from a macroeconomic stand point. It is therefore difficult to deduce from reading these agreements all the particularities of the direction of the improvements planned for the recognition and disclosure of financial instruments⁽¹¹⁾.

Some positive elements may be found in the G-20 conclusions, such as the recommendation to reduce complexity in current regulations for financial instruments, or to make headway in the definition of a single set of high quality global accounting standards, or confirming fair value measurement as a valuable framework for measurement.

As of November 2009 the IASB has either issued or will soon release several documents, in differing sages, with the ultimate objective of replacing IAS 39. The main novelties of those preliminary proposals are: *i)* The mixed attribute model is maintained, although it is simplified and perfected with respect to the current IASB model: and *ii)* The basis for impairment are modified, adding to incurred losses, those that are expected.

6. ACCOUNTING MODEL FOR FINANCIAL INSTRUMENT AND THE FINANCIAL CRISIS

To summarise, we have thus far argued the following with respect to the current situation of accounting for financial instruments. First, the current model is a mixed attribute model that, apparently, fails to sufficiently meet the objective of providing relevant and timely information of the firm financial position to the market. Second, the current model has been criticised—and sometimes defended—because of a characteristic that it in fact lacks: generalized measurement at fair value. Finally, despite all this, we have witnessed

(11) The Appendix to this article summarises the resolutions that relate to accounting from the G-20 meeting of 2nd April 2009.

the emergence of many opinions on the pros and cons of introducing a generalized fair value model.

It is certainly possible to have an opinion on whether the current accounting standards for financial instruments have been or not efficient in reflecting the effects of the crisis earlier (or in anticipating them or making them harsher), and whether the use of fair value measurement has been or not beneficial in these respects.

However, what should not be done is to mix up both concepts, i.e., it should not be argued that current regulations are good or bad because they are based on a fair value model. This is simply not true: The current model is a mixed attribute model.

Against this backdrop, in the remainder of this section, we provide our critical views on both models: the current mixed attribute model and a potential fair value model.

6.1. THE CURRENT MIXED ATTRIBUTE MODEL

We argue that the current model is not capable of providing adequate information of the firm financial position, not only because it is a mixed and complex model, but mainly because it is not sufficiently objective. It is clearly aimed at trying to avoid financial statements volatility and leaves too many open options⁽¹²⁾.

It is straightforward to see that there is flexibility within current accounting standards. Managers may use this flexibility inherent to accounting to best reflect their private information and to avoid inappropriate volatility in the financial statements. Managers can make use of the discretion available in classifying assets and liabilities in accordance to firm intentions, in reclassifying certain assets and liabilities, or in accounting for certain hedge transactions.

There is however ample literature showing that the problem with these accounting mechanisms (that may allow managers to best reflect firm financial information) is that they may be used opportunistically, to manipulate firm financial information (Healy and Palepu, 1999; Dechow and Skinner, 2000).

In fact, whenever there is a liquid market, fair value measurement for non-derivative financial instruments is not too complex. Neither is the measurement of derivative financial instruments, when either the derivative or its underlying is publicly quoted. Measurements based on cash flow discount models may also be reliably made, whenever cash flows are known and discount rates may be obtained from the market. It is true, however, that fair values may be difficult to obtain for certain financial instruments, when there are no market prices that can be applied and there are no observable data that may be objectively measured. Cases of particular difficulty are credit derivatives that use sophisticated valuation models based on variables that are difficult to measure objectively.

(12) For example, with the current mixed model, there are differences in treatment between a fixed rate loan (recorded at amortized cost) and a floating-rate loan combined with an interest rate swap (which economically, turns it into a fixed-rate loan as before, but in this case, recorded at fair value).

Considering these data, it might have been reasonable for accounting standards to limit the use of fair value to avoid complex and subjective measurements. However, this issue is not at the root of the limitations imposed to the use of fair value measurement. Limitations were imposed to avoid volatility, even if complexity and subjectivity in measurement persist. Moreover, it is possible that a certain degree of subjectivity is actually encouraged, so that firms may decide on the degree of volatility they want to assume.

Therefore, it is our view that limitations to the use of fair value measurement have not been driven by complexity, but to avoid volatility⁽¹³⁾.

In the current mixed attribute model, partial incorporation of fair value measurement means the recognition, in certain cases, of increases in the value of assets that are not allowed under the cost model. This is as expected. However, what is not expected is that the current model—under the «accounting for intentions» principle—permits the measurement of certain assets at values higher than market prices, something that is not permitted in the cost model, which requires impairments whenever carrying values are greater than market values. Another limitation of the current mixed attribute model is that a significant proportion of financial liabilities are measured using amortized cost instead of fair values. Valuation of these liabilities at fair value could have limited losses during the financial crisis and would not have required those institutions without liquidity concerns to repurchase their liabilities below book values (thereby generating profits) using up financial resources that could have been given other uses.

This leads us to the conclusion that the mixed attribute model is not adequate for the recognition of financial instruments in the financial statements. The model has not been efficient in responding to the crisis or alerting of its advent. Probably the current model accumulates the defects of the two models, without attaining any of their advantages. For example:

- It has delayed the incorporation of information that a fair value model would have anticipated.
- It has lost some positive aspects of conservatism that are present in a cost model.
- It has reduced the representativity and comparability of information because of the multiple solutions and alternatives allowed, leaving the door open for subjectivity.

To summarize, we argue that the current mixed attribute model should go through an in-depth revision with two clear objectives: drastically increasing its objectivity and reducing its complexity⁽¹⁴⁾. Logically, attaining these objectives will have, at least for certain economic agents, a clear cost: the volatility of financial markets would be incorporated to firm financial information.

There are tradeoffs to consider: should volatility be avoided by lowering the objectivity of financial information? Or should we avoid subjectivity and let earnings reflect market volatility (independently of firm risk management)?

(13) We focus on accounting volatility (in earnings and net assets), and not on the volatility of the financial instrument *per se*.

(14) Some of these ideas are discussed in Cañibano and Herranz (2008).

In our view, objectivity is a key characteristic of financial information⁽¹⁵⁾. As argued by Cañibano (2001), achieving objectivity is fundamental, because subjective accounting information that depends on the criteria of the preparers of firm financial statements does not reveal economic reality, but rather, it obfuscates it.

Objectivity may also be achieved using a cost model. However, the cost model facilitates «earnings smoothing» thanks to the conservative bias it imposes at the inception of assets and liabilities. As we argued previously, the problem of a cost model is not lack of objectivity, but its limited ability to correctly reflect certain transactions, mainly related to financial instruments. On the other hand, its strongest suit relates to imposing a certain degree of conservatism that might be beneficial for some stakeholders.

A fair value model is generally more able to reflect economic transactions and is more objective, although it also has its problems. For example, it may not be applied to all assets or liabilities and it is sometimes difficult to come up with fair value estimates.

A mixed attribute model could also achieve an acceptable level of objectivity, but not the current mixed attribute model, because of its previously mentioned shortcomings.

Additionally, there is no evidence that the use of the current mixed attribute model avoids volatility in a more effective and adequate manner than a full fair value model (Sole *et al.*, 2009).

6.2. THE FAIR VALUE MODEL

As was previously explained, the fair value model has been subject to severe (misguided) criticisms that actually referred to the current mixed attribute model, because of the generalized impression that the current model is a fair value model.

However, the fair value model has been subject to other fundamentally correct criticisms (that do not mistake it for the mixed attribute model). The basic argument against the fair value model relates to the introduction of volatility in the calculation of firm net income and equity. It can be argued that it is preferable to avoid large jumps in the value of assets and liabilities that are not going to be sold or settled in the short term. In those cases, fair value measurement could produce artificial profits or losses.

Although that line of argumentation is defensible, we should remember that the traditional cost model frequently uses market values—in applying the prudence principle—to correct values carried at cost, whenever the correction gives rise to a non-realised loss.

Therefore, the only objection possible to the fair value model (relative to the historical cost model) refers exclusively to the recognition of non-realised *gains*.

If we analyse the recent financial crisis, it is not without some perplexity that we can see that the most common criticism to fair value measurement has not referred to its effect on

(15) We refer to financial information objectivity as information that, through the rigorous application of accounting standards, results in accounting numbers that are relevant and reliable equally throughout the financial statements (and not partially, i.e., information about certain assets and liabilities is relevant and reliable, whilst information about other assets and liabilities is not).

the recognition of non-realised gains, but on the recognition of non-realised losses, losses that would be equally recognised under the historical cost model.

In fact, it would have been interesting to see the workings of a full fair value model at the beginning of the financial crisis. Before and since the crisis started, there have been many studies defending a more or less generalized fair value model for financial instruments.

- As previously argued, both the FASB and the IASB have long-term commitments to adopt such a model.
- The JWG document, mentioned previously (see footnote 5) is currently likely the best and more complete paper in defence of the fair value model.
- Other documents prepared by prestigious organizations have also defended the fair value model although, sometimes, conclusions reveal that they are somewhat fearful of an immediate full implementation.

We highlight among these documents a recent one prepared by the SEC, as an answer to a petition from the US Congress, that concludes that fair value has not caused the financial crisis, and confirms that the use of fair values should not be abandoned, because it improves financial information transparency. However, the SEC recommends that the model should be improved to better accommodate special cases of market turbulence. From the SEC document it is not entirely clear what «improvements» could be introduced, but what is clear is that the use of fair value measurement will not be abandoned.

The question remains of whether a full fair value model will be adopted in the lines of the proposal by the JWG in 2000. It is not easy to answer this question but, in our opinion, it would be desirable.

The fair value model, by generalizing the use of these measurement criteria for all financial instruments, with changes in value through profit and loss, would result in significant improvements in financial information. For example:

- Financial instruments classification could be made without need to be driven by the use of one particular measurement criteria.
- Fair value hedges would naturally result, as both the hedging instrument and the hedged item would be measured at fair value.
- Transaction costs would be directly recognised through profit and loss, avoiding unnecessarily bloating the balance sheet.
- Firm discretion would be drastically reduced in deciding the accounting treatment of some transactions by eliminating the alternatives of intentionality, initial recognition or voluntary disclosure of hedges.
- Cash flow hedges would be the only hedges that resulted in a certain degree of volatility that, in all likelihood, should not be considered inappropriate.

In addition to these technical aspects, other advantages can be identified.

Clearly, financial information—even information based on a fair value model—has limited predictive ability. It reflects the past and present, not the future. However, the historical cost model or the current mixed attribute model not only have limited predictive ability,

they also fail to accurately reflect the recent past or the situation of the firm at the time of preparing the financial statements.

Thus, a fair value model gives rise to more relevant information for the users of financial statements. Logically, that information must then be correctly interpreted. In expansion cycles, conservative policies are necessary to determine the compensation and dividends given to managers, directors and investors. In recessive cycles, a fair value model will provide early signals of distress.

In any case, the implementation of a full fair value model for all financial instruments would not be without difficulties that should also be addressed. Amongst them, we may mention the following:

- Objective measurement of some financial instruments is complex. However, we should not forget an argument recently used by the IASB to justify the application of fair value measurement to equity instruments that are not publicly traded, and thus, difficult to measure: If measurement difficulties are overcome when calculating potential impairments, they can also be overcome to calculate fair values.
- The measurement of market and credit risks, when the financial instrument is not quoted, could be done separately.
- The domino effect should be measured, i.e., it should be established what other items in the balance sheet should be recognised using the same measurement criteria.
 - For example, if commodity hedges are measured at fair value, should commodity inventories not be measured also at fair value?
 - If the underlying economics of certain financial instruments are the same of some insurance contracts, should they not be similarly measured in all cases?

We can only hope that major accounting standard setters: the FASB and the IASB, will join forces in creating a single unique international fair value model for the presentation of information on firm financial instruments.

It would be desirable to make progress towards one of the recommendations included in the G-20 declaration of 11.th November of 2008: «achieving the objective of having a single set of high quality global accounting standards», always, of course, with objectivity as the most important quality characteristic.

7. SUMMARY AND CONCLUSIONS

The use of fair value measurement in accounting has been recently called into question due to the advent of a major international financial crisis. In particular, the use of fair value measurement criteria for financial instruments has been questioned. Some of the arguments presented, particularly in the financial press, over-simplify the issues involved, arriving to groundless conclusions. In this paper, we contribute to the existing debate by reviewing the background and recent developments in fair value measurement for financial instruments, which can be traced back to four decisions made by the FASB in 1996. We discuss the advantages and shortcomings of the mixed accounting model currently

adopted by the two leading international accounting standard setting bodies (FASB and IASB), as well as those of a full fair value model. Finally, we argue that full application of fair value measurement to all financial instruments would significantly reduce existing complexity and impose limitations to the discretion currently allowed by accounting regulations. Moreover, we argue that other balance sheet items such as commodities (which can be measured objectively) should also be measured at fair value.

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APPENDIX: G-20 DECLARATION OF 2.ND APRIL 2009: ACCOUNTING REGULATION

ACCOUNTING STANDARDS

We have agreed that the accounting standard setters should improve standards for the valuation of financial instruments based on their liquidity and investors' holding horizons, while reaffirming the framework of fair value accounting.

We also welcome the FSF recommendations on pro-cyclicality that address accounting issues. We have agreed that accounting standard setters should take action by the end of 2009 to:

- Reduce the complexity of accounting standards for financial instruments;
- Strengthen accounting recognition of loan-loss provisions by incorporating a broader range of credit information;
- Improve accounting standards for provisioning, off-balance sheet exposures and valuation uncertainty;
- Achieve clarity and consistency in the application of valuation standards internationally, working with supervisors;
- Make significant progress towards a single set of high quality global accounting standards; and,
- Within the framework of the independent accounting standard setting process, improve involvement of stakeholders, including prudential regulators and emerging markets, through the IASB's constitutional review.