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# Content

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<b>The Paradoxes of Growth: toward a Systemic Approach to Economic Theory</b> _____	<b>135</b>
Mauro BONAIUTI	
<b>Performance des universités et évolution des mentalités : de la prise de conscience à l'action</b> _____	<b>147</b>
Laurence SAGLIETTO, Guy SOLLE	
<b>Perspectives in Food e-Tailing – is Logistical Performance Always Essential to Develop a Sustainable Competitive Advantage ?</b> _____	<b>163</b>
Gilles PACHÉ	
<b>Informal Economic Estimation Models at Macroeconomic Level. Some Theoretical and Methodological Considerations</b> _____	<b>177</b>
Lucian Liviu ALBU, Ion GHIZDEANU, Mărioara IORDAN	
<b>Fair Value Accounting for Financial Instruments – Conceptual Approach and Implications</b> _____	<b>191</b>
Dumitru MATIȘ, Carmen Giorgiana BONACI	
<b>The Foreign Direct Investments and Economic and Politic Freedoms or Could We Trust the Words of the Local Landlord ?</b> _____	<b>207</b>
Marilen PIRTEA, Bogdan DIMA	

# FAIR VALUE ACCOUNTING FOR FINANCIAL INSTRUMENTS – CONCEPTUAL APPROACH AND IMPLICATIONS

Dumitru MATIȘ \*

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*This study complements the growing literature on the value relevance of fair value by examining the validity of the hypothesis that fair value is more informative than historical cost as a financial reporting standard for financial instruments. We therefore compare the relative explanatory power of fair value and historical cost in explaining equity values. In order to reflect fair values' role in offering the fair view where financial instruments are concerned we briefly reviewed capital market studies that examine the usefulness of fair value accounting to investors, and discuss marking-to-market implementation issues of determining financial instruments' fair values. In doing so, we identified several key issues, which need to be analyzed. More importantly, our results suggest that simply requiring fair value, as the reported measure for financial instruments may not improve the quality of information unless appropriate estimation methods or guidance for financial instruments that are not traded in active markets can be established. In contrast, fair value of available-for-sale securities, which are more actively traded in well-established markets, explains equity values more than historical cost. Taken together, our results are consistent with the notion that fair value is more (less) value relevant when objective market-determined fair value measures are (not) available.*

## 1. INTRODUCTION

The major functions of company accounting identified by the IASB and the FASB are (1) reporting on 'the custody and safekeeping' of the company's resources and (2) reporting on 'their efficient and profitable use'. The joint IASB/FASB project for improving the conceptual framework for financial reporting is directed towards better performance of both functions within the conventional 'accrual' system of accounting using "fair value".

In this paper, firstly the present-day fair value accounting for financial in-

struments is placed in a proper historical perspective by outlining various specific forms of what may generally be regarded as "value-based accounting." This is followed by an argument to distinguish between inherently different concepts of capital in economic theory, e.g. real capital and loan/fictitious capital, in order to identify the economic foundations of the contemporary form of value-based accounting. The paper goes on to explain that the contemporary accounting problems concerning financial instruments/derivatives are but a manifestation of the failure of the traditional framework of corporate ac-

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counting to adapt to the accelerating development of fictitious capital, finally underlying the importance of economic and historical perspectives in addressing the issues of contemporary value-based accounting as a social science of accounting.

In 1997, the International Joint Working Group of Standard Setters (hereafter JWG) was formed to develop an integrated and harmonized standard on financial instruments. The JWG comprises representatives or members of accounting standard setters or professional organizations in Australia, Canada, France, Germany, Japan, New Zealand, five Nordic countries, the UK, the United States, and the IASC. In December 2000, the JWG (2000) issued a Draft Standard with the primary objective of reflecting, in an enterprise's balance sheet and income statement, the effects of events on the fair value of the enterprise's financial instruments, and certain similar items, in the periods in which those events occur. It establishes principles for recognition, measurement, presentation and disclosure of financial instruments and similar items in the financial statements of all enterprises. The proposed principles in the Draft Standard could contribute to eliminating some of the comparability problems arising from the application of other International Accounting Standards. Nonetheless, the implementation of the provisions of the JWG could create other additional problems.

Accounting standards setters in many jurisdictions around the world, including the United States, the United Kingdom, Australia, and the European Union, have issued standards requiring recognition of balance sheet amounts at fair value, and changes in their fair values in income. For example, in the United States, the Financial Accounting

Standards Board requires recognition of some investment securities and derivatives at fair value. In addition, as their accounting rules have evolved, many other balance sheet amounts have been made subject to partial application of fair value rules that depend on various ad hoc circumstances, including impairment (e.g. goodwill and loans) and whether a derivative is used to hedge changes in fair value (e.g. inventories, loans, and fixed lease payments). The Financial Accounting Standards Board and the International Accounting Standards Board (hereafter FASB and IASB) are jointly working on projects examining the feasibility of mandating recognition of essentially all financial assets and liabilities at fair value in the financial statements. In the United States, fair value recognition of financial assets and liabilities appears to enjoy the support the Securities and Exchange Commission (hereafter SEC). In a report prepared for a Congressional committee (SEC, 2005), the Office of the Chief Accountant of the SEC states two primary benefits of requiring fair value accounting for financial instruments.

First, it would mitigate the use of accounting-motivated transaction structures designed to exploit opportunities for earnings management created by the current "mixed-attribute" – part historical cost, part fair values – accounting model. For example, it would eliminate the incentive to use asset securitization as a means to recognize gains on sale of receivables or loans. Second, fair value accounting for all financial instruments would reduce the complexity of financial reporting arising from the mixed attributed model. For example, with all financial instruments measured at fair value, the hedge accounting model employed by the FASB's derivatives stan-

dard would all but be eliminated, making it unnecessary for investors to study the choices made by management to determine what basis of accounting is used for particular instruments, as well as the need for management to keep extensive records of hedging relationships. Nevertheless, as noted in the SEC report, there are costs as well associated with the application of fair value accounting. One key issue is whether fair values of financial statement items can be measured reliably, especially for those financial instruments for which active markets do not readily exist (erg specialized receivables or privately placed loans). Both the FASB and IASB state in their Concepts statements that they consider the cost/benefit trade-off between relevance and reliability when assessing how best to measure specific accounting amounts, and whether measurement is sufficiently reliable for financial statement recognition. A cost to investors of fair value measurement is that some or even many recognized financial instruments might not be measured with sufficient precision to help them assess adequately the firm's financial position and earnings potential. This reliability cost is compounded by the problem that in the absence of active markets for a particular financial instrument, management must estimate its fair value, which can be subject to discretion or manipulation. Assessing the costs and benefits of fair value accounting for financial reporting to investors and other financial statement users in particular reporting regimes is difficult.

Therefore, the Financial Accounting Standards Board (FASB) made a fundamental decision that fair value is the most relevant attribute for financial instruments (FASB, 2000, p. 8). Although the quoted market value is the prescribed measure of fair value, the FASB

adopted the term "fair value" instead of market value to encompass estimated values for financial instruments that are not traded in active markets. The decision to mandate fair value disclosures was made amidst a long-standing debate between the advocates of fair value accounting and advocates of historical cost accounting. The basic premise underlying the FASB's decision is that fair value of financial assets and liabilities better enables investors, creditors and other users of financial statements to assess the consequences of an entity's investment and financing strategies. Advocates of historical cost, on the other hand, point to the reduced reliability of fair value estimates relative to historical cost. Their arguments suggest that investors would be reluctant to base valuation decisions on the more subjective fair value estimates (Barth, 1994, p. 3). Given the FASB's stated long-term goal of having all financial assets and liabilities recognized in statements of financial position at fair value rather than at amounts based on historical cost, the purpose of this study is to test claims that fair value is more informative relative to historical cost.

## 2. THEORETICAL BACKGROUNDS

### 2.1 Literature Review

Our research is motivated by the ongoing shift of financial reporting standards for listed companies towards fair-valued-based reporting, notably the increasing importance of fair value as an accounting measurement attribute. Since the mid-1980's, the US Financial Accounting Standards Board (FASB) and the International Accounting Standards Board (IASB) have systematically substituted market-based measures for cost-based measures. Starting out as a specific remedy for the inequities of the

reporting model for certain financial instruments, fair value has manifested itself as the dominant measurement paradigm for financial instruments and, more recently, has increasingly been implemented for measurement of non-financial items. The cost and transaction-based reporting model is in decline, a new market value and event-based model is rising, with dramatic implications for the role and properties of balance sheet measurement and accounting income.

The shift in measurement paradigms is driven by the presumed decision relevance of market-based measures. Both FASB and IASB stress the capacity of market values to incorporate, in an efficient and virtually unbiased manner, market consensus expectation about future cash flows. Opponents of fair value measurement, on the other hand, criticize the questionable reliability of fair value measures, especially for model-based estimates relying on management's expectations and projections. In particular, the implementation of fair value as a balance sheet measure is the subject of intense discussion and debate. The controversy regarding fair value accounting for financial instruments as recently highlighted by the rejection of IAS 39 (revised 2003) for full EU endorsement, illustrates both conceptual and technical issues involved. Apparently, the debate is far from resolved.

Prior empirical research on fair value measurement is mostly limited to financial instruments. Results so far support the incremental value relevance of fair value disclosures for securities (Petroni and Wahlen, 1995; Barth et al., 1996; Eccher et al., 1996; Nelson, 1996) and derivatives (Venkatachalam, 1996) held by banks and insurance companies. Park et al. (1999) find value relevance of recognized fair values for

available-for-sale securities under SFAS 115. While all these studies focus on financial sector firms, Simko (1999) finds no significant sign of incremental value relevance for SFAS 107 disclosures, for a cross-industrial sample, these being attributed to the insignificance of financial activities for the analyzed firms. With respect to other financial instruments, notably loans held by banks, results differ, which can be interpreted as lack of reliability due to private information. Even though, Beaver and Venkatachalam (2000) find value relevance for the discretionary component of loan fair values. Prior research on value relevance (defined as the association between accounting numbers and security market values) has focused on whether fair value disclosures in the banking industry have incremental information content over and above historical cost. Tests for incremental information content assess whether one measure provides information content in addition to that of another measure and are often used when one or more measures are given or required and another is supplemental (Biddle et al., 1995; Jennings, 1990). Biddle et al. (1995, p. 3) point out that in the absence of an explicit test to examine whether one measure (e.g., fair value) alone is equally, less, or more informative than another measure (e.g., historical cost), incremental information content tests of fair value over historical cost measures can imply several different outcomes. Finding that fair value is incrementally informative can imply that fair value is as, more, or less informative than historical cost.

Alternatively, finding that fair value is not incrementally informative can imply fair value is either equally or less informative than historical cost. Therefore, the mapping between an incremental and a relative information

content test is not one-to-one. While incremental comparisons assess the incremental contribution of one measure over the other, relative comparisons reflect differences in incremental information content of the two measures.

A natural question to ask is whether bank fair value information is useful to investors. For example, when it was deliberating SFAS no 107, the FASB was concerned with policy questions relating to the relevance and reliability of disclosed amounts. Regarding relevance, the FASB was interested in whether SFAS no 107 disclosures would be incrementally useful to financial statement users relative to items already in financial statements, including recognized book values and disclosed amounts. Regarding reliability, the FASB was concerned with whether fair values estimates, especially those relating to loans, would be too noisy to disclose.

As Barth, Beaver, and Landsman (2001) note, policy-based accounting research cannot directly address these questions, but can provide evidence that helps standard setters assess relevance and reliability questions. A common way to assess the so-called value relevance of a recognized or disclosed accounting amount is to assess its incremental association with share prices or share returns after controlling for other accounting or market information. Several studies address the value relevance of banks' disclosed investment securities fair values before issuance of SFAS no 115, mandating recognition of investment securities' fair values and effects of their changes on the balance sheet and the income statement. For a sample of US banks with data from 1971–90, Barth (1994) finds that investment securities' fair values are incrementally associated with bank share prices after controlling for in-

vestment securities' book values. When examined in an annual returns context, the study finds mixed results for whether unrecognized securities' gains and losses provide incremental explanatory power relative to other components of income. One leading candidate for the ambiguous finding is that securities' gains and losses estimates contain too much measurement error relative to the true underlying changes in their market values. Using essentially the same data base, Barth, Landsman, and Wahlen (1995) confirm the Barth's (1994) findings and lend support to the measurement error explanation by showing that fair value-based measures of net income are more volatile than historical cost-based measures, but that the incremental volatility is not reflected in bank share prices. Of particular interest to bank regulators, Barth, Landsman, and Wahlen (1995) also find that banks violate regulatory capital requirements more frequently under fair value than historical cost accounting, and that fair value regulatory capital violations help predict future historical cost regulatory capital violations, but share prices fail to reflect this increased regulatory risk.

Because Australian and UK GAAP permit upward asset revaluations but, as with US GAAP, require downward revaluations in the case of asset impairments, several studies examine the dimensions of value relevance of revaluations in these countries. Most studies, including Easton, Edey, and Harris (1993), Barth and Clinch (1996), Barth and Clinch (1998), and Peasnell and Lin (2000), focus on tangible fixed asset revaluations. However, Aboody, Barth and Kasznik (1999) examine the association between asset revaluations for financial, tangible, and intangible assets for a sample of Australian firms in



1991–95. Focusing on the financial assets, Aboody, Barth and Kasznik (1999) find that revalued investments for financial firms as well as non-financial firms are consistently significantly associated with share prices.

One interesting study of Danish banks, Bernard, Merton and Palepu (1995), focuses on the impact of mark-to-market accounting on regulatory capital as opposed to the value relevance of fair values for investors. Denmark is an interesting research setting because Danish bank regulators have used mark-to-market accounting to measure regulatory capital for a long period. Bernard, Merton and Palepu (1995) find that although there is evidence of earnings management, there is no reliable evidence that mark-to-market numbers are managed to avoid regulatory capital constraints. Moreover, Danish banks' mark-to-market net equity book values are more reliable estimates of their equity market values when compared to those of US banks, thereby providing indirect evidence that fair value accounting could be beneficial to US investors and depositors.

Summarizing the existing empirical literature, the relevance of fair value measurement can only be supported for securities traded on highly liquid markets, while the evidence reinforces the significance of the reliability objection.

Theoretical research so far has been relatively silent on the properties and desirability of fair value measurement. While the informational quality of market values is unassailable under conditions of complete and perfect markets, the contribution of fair value measurement to valuation or contracting purposes is unclear in a realistic setting (Beaver, 1998).

Our paper contributes to the literature on fair value accounting for finan-

cial instruments on a theoretically level by approaching the decision usefulness from the measurement and the information perspective (Hitz, 2007) emphasizing the evaluation of the paradigmatic foundations underlying regulators' endorsement of fair value measurement and the comparative analysis of fair value accounting versus historical cost accounting. Moreover, this paper proceeds to contribute to the standard setting literature on the choice of measurement basis. The initiation of a common FASB/IASB conceptual framework project and the recent publication of the IASB's Discussion Paper on "Measurement Bases for Financial Accounting" indicate that there is demand for such research.

## 2.2 Fair Value Accounting – a Shift in Standard Setting Paradigms

### 2.2.1. Fair Value – Definition and Estimation

Despite different wording, the definitions and meanings of the term "fair value" are basically equivalent in FASB and IASB pronouncements. The FASB defines "fair value" as "the price at which an asset or liability could be exchanged in a current transaction between knowledgeable, unrelated willing parties" (FASB, 2004a). As the FASB notes, "the objective of a fair value measurement is to estimate an exchange price for the asset or liability being measured in the absence of an actual transaction for that asset or liability." Implicit in this objective is the notion that fair value is well defined so that an asset or liability's exchange price fully captures its value. That is, the price at which an asset can be exchanged between two entities does not depend on the entities engaged in the exchange

and this price equals the value-in-use to any entity. For example, the value of a swap derivative to a bank equals the price at which it can purchase or sell that derivative, and the swap's value does not depend on the existing assets and liabilities on the bank's balance sheet. In a current convergence project, the IASB develops an International Financial Reporting Standard on fair value measurement, which is based on SFAS 157. The sharp distinction of fair value and value in use clarifies that fair value measurement is not to include entity-specific competitive advantages, that is, no private skills and no private information.

The estimation of fair value follows, in principle, a three-tier hierarchy. In its Exposure Draft "Fair value measurements", the FASB describes a hierarchy of preferences for measurement of fair value. The preferred level (1) fair value estimates are those based on quoted prices for identical assets and liabilities, and are most applicable to those assets or liabilities that are actively traded (e.g. trading investment securities). Level 2 estimates are those based on quoted market prices of similar or related assets and liabilities. Level 3 estimates, the least preferred, are those based on company estimates, and should only be used if level 1 or 2 estimates are not available. With the emphasis on market prices, the FASB emphasizes that firms should base their estimates on market prices as model inputs wherever possible (e.g. use of equity market volatility estimates when employing the Black-Scholes valuation model to estimate the fair value of employee stock options). If other models employing market inputs are not available fair value estimates can be constructed using entity-supplied inputs (e.g. discounted cash flow estimates).

The governing principle is primacy of market-based measures – the refutable notion that market prices or market data are more informative and reliable than internal estimates. Not to forget that market prices represent the best estimate for fair value, if market conditions satisfy the fair value definition. The relevant "quality" of market prices is assessed because of the active market criterion, that is, regular trading of the item on a liquid market is required for the market price to qualify as an estimate of fair value. The second level of estimation hierarchy requires considering (modified) market prices of comparable items, where comparability naturally refers to the cash flow profile. Only when such prices cannot be used either, marking-to-market fails and fair value is mandated to be estimated using internal estimates and calculations. This marking-to-model, the use of accepted, theoretically sound pricing methods, represents a technique of last resort. Ample guidance exists on valuation models for financial instruments, and accepted methods can be found in the marketplace.

To summarize, fair value represents a specific current value, that is, exit value under idealized conditions. Estimation follows a three-tier process, with a strict preference for market-based measures.

### 2.2.2 Paradigmatic Foundation

The move towards fair value measurement is frequently characterized as a shift in paradigms (e.g. Barlev and Haddad, 2003). We start our analysis by considering that this process is based on firm beliefs and assumption and thus deserves specific attention, with evaluation addressing the theoretical underpinnings. Therefore, the para-

digmatic foundation of fair value measurement will be briefly elaborated.

A paradigm can be defined as a set of values and beliefs shared by a specific community. Accordingly, where financial reporting is concerned, a paradigm represents a set of shared beliefs on the objectives of financial reporting and on the accounting principles by which these can be achieved. It is grounded in elaborated assumptions, and characteristically requires a theoretical foundation or vindication. Moreover, a measurement paradigm represents a consensus on the measurement attributes required to achieve the reporting objectives in question. Once regulatory bodies adopt a financial reporting paradigm, it becomes the guiding principle for accounting regulation, that is, standard setting.

The fair value paradigm rests on the decision usefulness paradigm, which was established as an official standard setting objective only with the information of the FASB and the conceptual framework project. Thus, while the historical cost model emanated from a variety of influences, among them also aspects of contracting and stewardship (Holthausen and Watts, 2001), fair value measurement has been introduced with explicit reference to a clearly stated reporting objectives: the provision of information to investors to enable them to assess the amounts, timing and uncertainty of future cash flows from an investment in a firm's shares or debt securities. Analysis of the relevant pronouncements identifies one theoretical assumption that appears to constitute a fundamental pillar of the fair value paradigm. According to this information aggregation hypothesis, the market price aggregates in an efficient and virtually unbiased manner the consensus expectation of investors in the market

concerning the cash flow pattern of the asset or liability.

Standard setting bodies thus in an elaborate manner establish the conceptual case for fair value measurement with reference to theoretical economic reasoning. We can identify a wide range of arguments for the promotion of fair value measurement, such as the comparability of market values, the reliability of market price information; the conceptual merits of market valuation for financial instruments and the accounting for risk Management policies. Since information aggregation refers to the relevance of fair value, that is, the correspondence of reported information and required information, reliability concerns appear to be the prime argument capable of restricting the implementation of fair value measurement in future standard setting projects, especially where balance sheet recognition is concerned.

### 2.2.3. Evolution and Implementation of the Fair Value Paradigm

Over the years, there has been considerable debate on whether the asset-liability approach requires measurement based on current values rather than historical cost, which resulted in notably controversies. In any event, the approach stresses the role of the balance sheet as a source of decision useful information and therefore provides a conceptual underpinning for the initiation of the fair value paradigm, which was stimulated by the specific problems involved in accounting for financial instruments.

A critical event triggering the shift towards the fair value paradigm was the Savings-and-Loans (S&L) Crisis in the USA during the 1980's, which laid open the deficiencies of the prevalent

reporting system based on the historical cost. It resulted in regulatory action by SEC, which among other things advised the FASB to develop a standard on accounting for certain debt securities at their market value instead of amortized cost. Despite its limited scope, this initiative represented a major evolution in accounting though on the regulatory level (Arthur Wyatt refers to it as “possibly the most significant initiative in accounting principles developed in over 50 years” (Wyatt, 1991), a notion emphasized by the testimony of SEC General Counsel James Doty to the US Senate, who made it clear that ‘the time has run out on “once-upon-a-time accounting”’.

Starting out as a special regulation for certain securities, fair value measurement was soon identified as the most relevant attribute for financial instruments.

#### 2.2.4 Fair Value in Contemporary Accounting Standards

Given the gradual evolution of the fair value paradigm, its impact on current standards shall be summarized briefly. Currently, both US GAAP and IFRS require the disclosure of fair values for virtually all financial instruments (IFRS 7, SFAS 107). Guidance on fair value accounting for financial instruments is also identical in principle. IAS 39 and SFAS 115, 133 require trading securities and derivatives held for trading or as part of a fair value hedge to be measured at fair value with revaluation gains and losses taken directly to income. Available-for-sale securities are also carried at fair value, but gains beyond the historical cost ceiling are recognized as other comprehensive income until realization. This recycling approach is also applied in accounting for derivatives that are part of a cash flow hedge. In both regimes, securities

classified as held-to-maturity, non-securitized financial assets and obligations, except derivatives, are in principle accounted for at cost. This mixed model approach reflects standard setters’ reluctance and affected parties’ resistance to implementation of full fair value accounting, despite the tentative consensus on its conceptual merits especially on the relevance dimension. The IASB has taken a big step in this direction with the 2003 revision of IAS 39, which has introduced the “fair value option” to designate any financial instrument as “measured at fair value through profit and loss” at inception. Objections especially from bank regulators, notably the European Central Bank, resulted in a partial endorsement by the EU only (“carve out”) and prompted the IASB to restrict the fair value option to areas where an accounting mismatch is eliminated. With the recent publication of SFAS 159 in February 2007, the FASB follows suit and implements a similar, yet less restrictive fair value option.

### 3. RESEARCH METHODOLOGY AND RESULTS

Our paper takes issue with the notion of decision usefulness of a fair-value-based reporting system from a theoretical perspective by emphasizing the evaluation of the theoretical soundness of the arguments put forward by regulators and standard setting bodies. We have conducted an economic (a priori) analysis and adopted two approaches to decision usefulness: the measurement or valuation perspective and the information perspective. Findings indicate that the decision relevance of fair value measurement can be justified from both perspectives, yet the conceptual case is not strong. The information aggregation notion that un-

derlies standard setters' endorsement of fair value measurement turns out to be theoretically restricted in its validity and applicability. Also comparative analysis of fair value accounting versus historical cost accounting yields mixed results. One immediate implication of the research – a condition for the further implementation of fair value accounting- is the need to clarify standard setters' notion of accounting income, its presumed contribution to decision relevance and its desegregation.

### 3.1 Economic Foundations of Accounting for Financial Instruments

A historical observation reveals several distinct lines in the overall lineage of what can generally be termed "value-based accounting". The first such variant was "price-change accounting," a form of value-based accounting that was hotly debated in the 1970s in connection with differing concepts of capital maintenance. This form of accounting addressed non-monetary assets, whose market price changes could be characterized as one of constant increase in individual asset prices. A second variant is "fair value accounting", another form of value-based accounting, which arose in the mid-1980s and has culminated in its present-day prominence, dealing primarily with financial instruments/derivatives. Its focus has been on financial assets and liabilities, instead of non-monetary assets, and fluctuations in the value of those assets and liabilities have typically involved both upward and downward movements. A third variant, "impairment accounting," is characterized by significant declines in individual asset value stemming from declining profitability. A full-fledged discussion of impairment accounting in Japan is now under way.

If the price-change accounting of 1970s vintage involved issues of accounting for real assets in highly inflationary economies, then the present-day fair value accounting focusing on financial instruments would involve accounting problems in financial markets exposed to the risk of fluctuating securities prices and interest rates. While sharing a common strain of addressing market value changes, each of the three variants thus deals with changes that are mutually distinct in their patterns of price change and economic foundations. In all three cases, however, what mattered was not only the question of financial transparency or disclosure of economic substance and financial risk but also one of capital/income determination. It is important here to note that the varying forms of "value-based accounting," each with differing characteristics, have historically emerged under differing economic and social conditions. A fourth variant of value-based accounting, now apparently coming to the fore, could well involve intangible assets. As distinguished from monetary assets, fixed assets and other tangible assets, intangibles such as goodwill, patents, brands, and knowledge are to be measured by their market value (present value) at the end of each financial year. In this case, assets defined literally as the ability to generate future cash flows ("future assets" instead of "past assets") would be measured by their present value. Evolving against the backdrop of a structural economic shift toward knowledge-intensive industries, this process will feature market valuation of goodwill (including self-established goodwill) and the corporate value as a whole.

Therefore, a proper understanding of what can commonly be called "value-based accounting" would entail not only

a discussion of accounting recognition, measurement and presentation, but a consideration of its economic foundations as well.

The value-based accounting of today is fundamentally different in nature from its 1970s counterpart, price-change accounting, although both purport to employ “market values” of one kind or another. Identifying their difference would serve to highlight the defining characteristics of the present-day form of value-based accounting or fair value accounting.

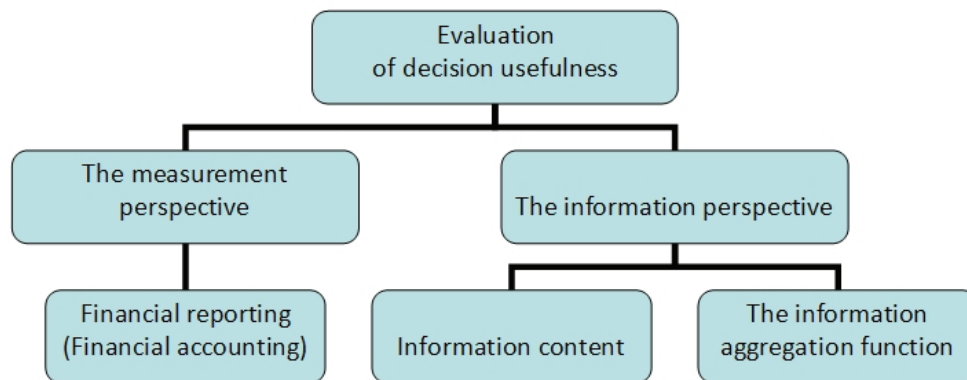
In short, the essential distinction has to do with the difference in the underlying economic foundations of the two types of accounting. What, then, are the economic foundations of today’s fair value accounting focused primarily on financial instruments? Moreover, how do they differ from those of price-change accounting? For a genuine understanding of the roots of contemporary fair value accounting, it would be important to place current accounting issues in historical perspective to appreciate the relativity of accounting concepts such as cost allocation, realization, and matching based on economic theory, including a reference to the economic nature of securities and the form of social development of credit systems.

First of all, we must note that the type of capital closely bound with the current problems of fair value accounting for financial instruments/derivatives is fictitious capital, and that its circulation is fundamentally different from that of real capital (functioning capital: industrial capital, commercial

capital). In other words, the nature of fictitious capital lies in its pricing through capitalization: it is completely different from the pricing of commodities. Fictitious capital has *its own circulation* by the conversion of the capital itself into a commodity. This circulation completely differs from as the metamorphosis of commodities.

### 3.2. Measurement and Information Perspectives and the Economic Analysis of Financial Reporting Concepts

Methodologically, the approach pursued in this paper represents a priori economic analysis, supplemented by standard setting inferences. Economic analysis aims at identifying the contribution of financial reporting alternatives to societal welfare or economic efficiency. One property of economic analysis is that it constitutes a priori research and therefore produces results on hypothetical reporting alternatives prior to implementation. Empirical research, on the contrary, characteristically represents a posteriori research. Its applicability to questions of accounting regulations thus limited, especially with respect to predicting capital market reactions to new accounting standards. Since the FASB’s and the IASB’s frameworks identify decision usefulness as the primary objective of financial reporting, the findings of our analysis lend themselves to inferences for accounting regulation and therefore also contribute to the standard setting literature and the related debate on fair value accounting.



Measurement and information perspective provide the framework for evaluation of decision usefulness. As abstract notions, these perspectives must be further refined in order to arrive at evaluative criteria for the comparative analysis of fair value income versus historical cost income. Aspects of reliability are not addressed.

From an information perspective, financial reporting represents but one information system competing with others. Since information is only relevant in its capability to induce revisions of expectations, the presentation format does not matter. Thus, in contrast to the measurement perspective, specific accounting representations such as balance sheets, captions and categories such as assets, liabilities etc. are irrelevant.

### 3.2.1. Measurement Perspective

The so-called measurement perspective represents the traditional view on the information objective of financial reporting, especially of financial accounting. It is rooted in the neoclassical theory of value and income developed by economists such as Hicks, Fisher and Lindahl. The fundamental notion underlying the measurement perspective is that accounting should directly measure and report the basic information required by investors, which is the value of the firm, or at least a fraction of

it. Thus, firm valuation is delegated to the reporting entity. Under the measurement perspective, stocks measures like assets, liabilities and equity and flows measures like income are well defined and exhibit an economic character. In an ideal world of complete and perfect markets, disclosure of the market values for all firm's assets and liabilities directly reports firm value and thus the desired investor information. Earnings equal economic income. Obviously, the measurement perspective is embedded into such a scenario, decision useful information being information on the contribution of assets and liabilities to enterprise value. Thus, the benchmark measurement attribute is value in use. The usefulness of reported cash flow information depends on its descriptiveness, that is, its "quality" and cost-benefit considerations, both of which are dependent on the decision situation assumed for the typical investor. To summarize, the conceptual case for value measurement from a rigid measurement perspective can only be made for an idealized scenario of complete and perfect markets, which has no demand for financial reporting. For a real-world setting, even if well-developed markets are assumed, fair value measurement leads to systematic undervaluation of a firm since market values do not incorporate competitive advantages.

### 3.2.2. Information Perspective

The measurement perspective represents one foundation of the earlier a priori research. While the measurement perspective regards financial accounting numbers as numerical inputs to security valuation models, the information perspective takes a broader view. In information economics, useful information is defined in an abstract manner as signals capable of transforming a priori expectations (beliefs) into a posteriori expectations, which induces revisions and therefore improvements of decisions. The rise of the information perspective is conventionally associated with the increasing focus on empirical accounting research (Beattie, 2002). Yet, information perspective criteria can also be extracted and used for the purpose of conceptual evaluation. Moreover, two concepts of decision usefulness from an information perspective can be distinguished:

- Information content refers to the “newness” of accounting information, and
- Capital-markets-based research also recognizes a less rigid form of decision usefulness: the function of financial statements to aggregate in efficient manner valuation-relevant information regardless of its timeliness, thus providing cost-efficient capital markets information (Barth, 2000; Beaver, 2002). The information aggregation function will therefore be considered as the second as the second variant of decision useful information production under the information perspective.

### 3.2.3. Informational Properties of Fair Value

The ultimate evaluation of fair value rests on its informational properties –

the question of what kind of information it conveys and whether this information is of valuation relevance /potential information content. Two sources of fair value estimates can be differentiated within the literature: marking-to-market and marking-to-model.

*Marking-to-market* financial instruments are relatively easy if they are actively traded in liquid markets. The problem becomes more complicated if active markets do not exist, particularly if the financial instrument is a compound instrument comprising several embedded option-like features, values for which depend on inter-related default and price risk characteristics. Moreover, Barth and Landsman (1995) makes the observation that in the absence of active, liquid markets, fair value is not well defined in the sense that an instrument’s acquisition price, selling price, and value-in-use to the entity can differ from each other. Stated another way, even if an instrument’s acquisition or selling prices are observable, these prices can only, at best, provide upper or lower bounds on its “fair value”. The FASB’s stated preference for using an instrument’s selling price as its measure of fair value is appropriate when fair value is well defined, but is somewhat arbitrary when it is not.

*Marking to model* arises with the move from market price valuation to the modeling of a synthetic market value, fair value becoming a hypothetical market price under ideal rather than idealized conditions. This is doing to the neoclassical basis, the strict assumption underlying contemporary pricing models. The Capital Asset Pricing Model (CAPM) is representative of these models and illustrates the ideal character of resulting estimates. It constitutes the foundation of present value calculations



and is explicitly suggested by FASB and IASB as valuation method.

As a conclusion, the decision usefulness of disaggregated fair value information can be justified from both the information and the measurement perspective, yet only under specific conditions. Notably, the paradigmatic foundation of fair value measurement appears theoretically valid only for prices taken from organized, liquid markets. Where market prices are used, additional concerns arise because such measurement of assets and liabilities is based on publicly available information not specific to the entity.

#### 4. FAIR VALUE DEBATE AND RESEARCH QUESTIONS

The implementation of the fair value paradigm has ever since been a contentious issue. While most parties appear to agree on the benefits of fair value disclosures, opinions differ substantially with regard to fair value measurement of recognized items and the treatment of revaluation gains and losses. The fundamental questions surrounding the fair value debate can be summarized as follows:

- Does fair value represent decision useful information? Is there a valid theoretical background to standard setters' promotion of fair value measurement?
- Do revaluation gains from fair valuation represent components of income or should they be recognized outside earnings?
- What are the basic properties of fair value income and its contribution to the decision usefulness objective?
- Should fair values be merely disclosed, or is there a conceptual case for recognition in basic financial statements?

Our paper therefore takes issue with the decision usefulness of reporting fair value measures for financial instruments by emphasizing the validity of its paradigmatic foundations. The analysis is carried out as economic analysis based on the two conceptual viewpoints, the measurement and the information perspective, which are both associated with the increasing role of fair value measurements (the move towards fair value measurement being often perceived as a renaissance of the measurement perspective).

#### 5. CONCLUSIONS

Because loans and deposits are not as actively traded in well-established markets as investment securities, estimating fair value of these financial instruments involves more subjectivity in identifying the methods and in making assumptions. In contrast, fair value of available-for-sale securities, which are more actively traded in well-established markets, explains equity values more than historical cost. Taken together, our findings are consistent with the notion that fair value is more value relevant when objective market-determined fair value measures are available. Alternatively, fair value is less value relevant when objective fair value measures are not available. Overall, we must conclude that simply requiring fair value as the reported measure may not improve the quality of information, unless appropriate estimation methods (or guidance) for the financial instruments that are not traded in active markets, are used by firms with less sophisticated information systems. The efficacy of fair value accounting system is closely related to the measurement of fair value estimates.

In the financial reporting arena, the FASB and IASB have issued several dis-

closure and measurement and recognition standards for financial instruments and all indications are that it is only a matter of time before both standard setters will mandate recognition of all financial instruments at fair value.

After briefly reviewing capital market studies that examine the usefulness of fair value accounting to investors, and discussing marking-to-market implementation issues of determining financial instruments' fair values we have identified several key issues. First, regulators need to consider how to let managers reveal private information in their fair value estimates while minimizing strategic manipulation of model inputs to manage income and regulatory capital. Second, they need to consider more broadly how best to minimize measurement error in fair values so as to maximize their usefulness to investors and creditors as they make their investment decisions, and how best to ensure bank managers have incentives to select those investments that maximize economic efficiency of the banking system. Cross-country institutional differences are likely to play an important role in determining the effectiveness of using mark-to-market ac-

counting for financial reporting and bank regulation.

The analysis of the fair value measurement attribute supports the decision usefulness for fair value as a price taken from liquid markets. Since IASB and FASB paid attention to these views, we can therefore identify the tentative standard setting implications. There is a theoretical case for the disclosure of prices taken from organized, sufficiently liquid markets, since these allow for the inference of the aggregated market consensus expectations concerning amounts, timing and uncertainty of future cash flows. The relevance of fair value disclosures for traded financial instruments thus receives support. Given its conceptual merits for financial income determination and recognition of hedging activities, full fair value accounting for financial instruments also appears to be the recommendable path, despite reliability concerns for non-publicly traded instruments and distortions vis-à-vis the economic income model. We can therefore conclude that there is a consensus on the conceptual merits of a full fair value accounting model for financial instruments shared by both IASB and FASB.

## REFERENCES

1. American Institute of Certified Public Accountants (AICPA) (2001). - *Special Report—Financial Instruments: Joint Working Group (JWG). Recommendations on Accounting for Financial Instruments and Similar Items*. Available online at <http://www.aicpa.org/members/div/acctstd/comltrs/jwgcom01.htm>; accessed 24 September 2002.
2. Barlev, B. and Haddad, J.R. (2003). – “Fair value accounting and the management of the firm”, *Critical Perspectives on Accounting*, VOL. 14, NO 4: pp. 383-415
3. Barth, M. (1994). - “Fair value accounting: evidence from investment securities and market valuation”. *The Accounting Review*. VOL. 69, NO 1: pp. 1–25
4. Barth, M.E. (2000). – “Valuation-based research: implications for financial reporting and opportunities for future research”. *Accounting and Finance*. VOL. 40: pp.7-31
5. Barth, M.E., Beaver, W. H. and Landsman, W.R. (2001). – “The relevance of the value relevance literature for financial accounting standard setting: another view”. *Journal of Accounting and Economics*. VOL. 31: pp. 77-104
6. Beaver, W.H. (2002). – “Perspectives on recent capital markets research”. *Ac-*

- counting Review*. VOL. 77, NO 2: pp. 453-474.
7. Beaver, W., Eger, C., Ryan, S. and Wolfson, M. (1989). – “Financial reporting, supplemental disclosures, and bank share prices”. *Journal of Accounting Research*. VOL. 27, NO 2: 157–178
  8. Biddle, G., Seow, G. and Siegel, A. (1995). „Relative versus incremental information content”. *Contemporary Accounting Research*. VOL. 12, NO 1, 1–23
  9. Brown, S., Lo, K. and Lys, T. (1999). “Use of R2 in accounting research: measuring changes in value relevance over the last four decades”. *Journal of Accounting and Economics*. VOL. 28, NO 2: pp. 83–115
  10. Cairns, D. (2006). – “The use of fair value in IFRS”. *Accounting in Europe*. VOL. 3: pp. 5-22
  11. Dechow, P., Sloan, R. and Sweeney, A. (1996). - “Causes and consequences of earnings manipulation: An analysis of firms subject to enforcement actions by the SEC”. *Contemporary Accounting Research*. VOL. 13, NO 1: pp. 1–47
  12. Eccher, E., Ramesh, K. and Thiagarajan, R. (1996). – “Fair value disclosures by BHCs”. *Journal of Accounting and Economics*. VOL. 22, NO 1–3: pp. 79–117
  13. Enria, A et al (2004). - “Fair value accounting and financial stability”. *European Central Bank*. Occasional Paper Series. NO 13
  14. Eom, Y, Helwege, J. and Huang, J.Z. (2004). - “Structural models of corporate pricing: an empirical analysis”. *Review of Financial Studies*. VOL. 17, NO 2: pp 499–544
  15. European Commission. (2001). – “Comments on the Joint Working Group Draft Standard: Financial Instruments and Similar Items”. Available online at <http://www.iasb.org.uk/docs/fijwg/in59.pdf>; accessed 25 June 2002.
  16. IASB (2005). – *Measurement bases for financial accounting – measurement on initial recognition*, Discussion Paper prepared by the staff of the Canadian Accounting Standards Board, London.
  17. IASB (2006). – *Fair value measurements. Part 1: Invitation to comment and relevant IFRS guidance*, Discussion Paper, London.
  18. Khurana, I. K. and Kim, M. (2003). – “Relative value relevance of historical cost vs. fair value: Evidence from bank holding companies”. *Journal of Accounting and Public Policy*. VOL. 22, NO 1: pp. 19–42
  19. Nelson, K. (1996). – “Fair value accounting for commercial banks: an empirical analysis of SFAS No. 107”. *The Accounting Review*. VOL. 71, NO 2: pp. 161–182
  20. Neter, J., Wasserman, W. and Kutner, M. (1985). – *Applied Linear Statistical Models*. Irwin, Chicago, United States.
  21. Park, M. and Park, T. R. B. (1999). – “Fair value disclosures for investment securities and bank equity: evidence from SFAS No. 115”. *Journal of Accounting, Auditing, and Finance*. VOL. 14, NO 3: pp. 347–370
  22. Petroni, K. and Wahlen, J. (1995). – „Fair values of equity and debt securities and share prices of property liability insurers”. *Journal of Risk and Insurance*. VOL. 62, NO 4: pp. 719–737
  23. Ryan, S. (1999). – “Discussion: Fair value disclosures for investment securities and bank equity: evidence from SFAS No. 115”. *Journal of Accounting, Auditing, and Finance*. VOL. 14, NO 1: pp. 371–377
  24. Simko, P. (1999). – “Financial instruments fair values and nonfinancial firms”. *Journal of Accounting, Auditing, and Finance*. VOL. 14, NO 1: 247–274
  25. Swaminathan, S. (1991). – “The impact of SEC mandated segment data on price variability and divergence of beliefs”. *The Accounting Review*. VOL. 66, NO 1: pp 23–41
  26. Vuong, Q. (1989). – “Likelihood ratios tests for model selection and non-nested hypotheses”. *Econometrica*. VOL. 57, NO 2: pp. 307–333
  27. Willis, D. (1998). – “Financial assets and liabilities-fair value or historical cost”. In *FASB Status Report 188*. VOL. 1: pp. 5–10.