

FAIR VALUE VERSUS HISTORICAL COST IN FORECAST OF INCOME FOR BANKING COMPANIES

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Abstract *The financial crisis began on 2008 has led to a debate about the pluses and minuses of fair-value accounting (FVA). This debate presents a new start for fair-value accounting going forward and standard setters' push to extend fair-value accounting into other areas. In our research, we found four important issues as an attempt to make sense of the controversies. First, much of the controversies results from confusions about the issues of fair-value accounting . Second, while there are legitimate concerns about implementations of fair-value accounting , it is less clear that these problems apply to the stipulations of fair-value accounting in the accounting regulations. Third, historical cost accounting (HCA) is not the remedy. Fourth, although it is difficult to avoid the fair-value accounting standards per se, implementation issues are a potential concern, especially with respect to litigations. Fair value accounting is used when reliable fair value estimates are available at a low cost and when they convey information about operating performance. The costs of constructing reliable fair value estimates are expected to be a key cross-sectional determinant of the choice between the two accounting practices - HCA and FVA . By shining a bright light into dark corners of a firm's accounts, fair value accounting precludes the dubious practices of managers in hiding the reality of accounts. Proponents of fair-value accounting argue that the market value of an asset or liability is more relevant than the historical cost at which it was purchased or incurred because the market value reflects the amount at which that asset or liability could be bought or sold in a current transaction between willing parties. A measurement system that reflects the transactions prices would therefore lead to better insights into the risk profile of firms currently in place so that investors could exercise better market In conclusion, we highlight several ways for future researches.*

Keywords : *Fair value accounting, Banks, IFRS, Earnings, Financial reporting.*

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Introduction

We realized this paper by being challenged by the communications of banking system in Romania about the registration of financial losses in the financial year 2012.

The recent financial crisis has turned the spotlight on fair-value accounting (FVA) and led to a major policy debate involving among others the European Commission as well banking and accounting regulators around the world. Critics argue that fair-value accounting has significantly contributed to the financial crisis and exacerbated its severity for financial institutions around the world. On the other extreme, proponents of fair-value accounting argue that it merely played the role of the proverbial messenger that is now being shot (Tuner, 2008). In our view, there are problems with both positions. Fair-value accounting is neither responsible for the crisis nor is it merely a measurement system that reports asset and liabilities values without having economic effects of its own.

In this article, we attempt to make sense of the current fair-value debate and discuss whether many of the arguments in this debate hold up to further scrutiny. We come to the following four conclusions. First, much of the controversy about fair-value accounting results from confusion about what is new and different about fair-value accounting as well as different views about the purpose of fair-value accounting. In our view, the debate about fair-value accounting takes us back to several old accounting issues, like the tradeoff between relevance and reliability, which have been debated for decades. Second, there are legitimate concerns about marking asset values to market prices in times of financial crisis once we recognize that there are ties to contracts and regulation or that managers and investors may care about market reactions over the short term.

However, as our third conclusion highlights, there could be implementation problems in practice. It is important to recognize that accounting rules interact with other elements of the institutional framework, which could give rise to unintended consequences.

Fourth, we emphasize that a return to historical cost accounting (HCA) is unlikely to be a remedy to the problems with fair-value accounting. HCA has a set of problems as well and it is possible that for certain assets they are as severe, or even worse, than the problems with fair-value accounting. For instance, HCA likely provides incentives engage in so called "gains trading" or to securitize and sell assets.

We conclude our article with several suggestions for future research. Based on extant empirical evidence, it is difficult to evaluate the role of fair-value accounting in the current crisis.

In the following we take a closer look at the banks' positions on fair-value accounting and conclude with suggestions for future research.

1. Fair-value accounting: What is it and what are the key arguments?

Fair-value accounting is a way to measure assets and liabilities that appear on a company's statement of financial position. Paragraph 9 of IFRS 13 defines fair value (IASB 2011) as "*the price that would be received to sell an asset or paid to transfer a liability in an orderly transaction between market participants at the measurement date*" - that is, an *exit price*. When quoted prices in active markets for identical assets or liabilities are available, they have to be used as the measurement for fair value (Level 1 inputs). If not, Level 2 or Level 3 inputs should be used. Level 2 applies to

cases for which there are observable inputs, which includes quoted prices for similar assets or liabilities in active markets, quoted prices from identical or similar assets in inactive markets, and other relevant market data. Level 3 inputs are unobservable inputs (e.g., model assumptions).

Fair value is defined similarly under US GAAP as the amount for which an asset could be exchanged, or a liability settled, between knowledgeable, willing parties, in an arm's length transaction. In determining fair value, IFRS make similar distinctions among inputs as FAS 157 "Fair Value Measurements" : Quoted prices in active markets must be used as fair value when available.

Under IFRS, fair values are most frequently used for financial assets and liabilities. But even for financial assets and liabilities, there is a mixed attribute model with a multitude of rules stipulating that some items are reported at fair value and others are reported at historical cost. Moreover, unrealized gains and losses of items that are reported at fair value may or may not affect net income, depending on their classification. Few dispute that transparency is important. Proponents argue that fair values for assets or liabilities reflect current market conditions and hence provide timely information, thereby increasing transparency and encouraging prompt corrective actions. But the controversy rests on whether fair-value accounting is indeed helpful in providing transparency and whether it leads undesirable actions on the part of banks and firms. Opponents claim that fair value is not relevant and potentially misleading for assets that are held for a long period and, in particular, to maturity. That prices could be distorted by market inefficiencies, investor irrationality or liquidity problems and fair values based on models that often are not reliable.

In the accounting literature the choice between fair value and historical cost accounting is one of the most widely debated issues. While the debate dates back to the 1990s it is still unsettled (Laux and Leuz 2009). Our approach follows that private markets often differ from regulators in their accounting method choice.

We consider that our work has a number of advantages. First, unlike most other accounting standards, IFRS provides a free choice between fair value and historical cost accounting for non-financial assets. The second and more important advantage of the current setting is that IFRS requires ex ante commitment to one of the two accounting policies. Therefore, managers have stronger incentives to respond to market demands and commit to the accounting treatment that maximizes the value of the firm, i.e., is more efficient.

In our research we contribute to the debate over fair-value accounting by adding benefits of fair value accounting for non-financial assets such as increased value relevance and information content, reduced information asymmetry, and increased comparability. Our findings suggest that the choice to use fair value is not random and occurs when benefits outweigh the costs. Yet, our evidence suggests that the vast majority of managers find the net benefits from fair value accounting to be rather limited.

The choice between historical cost and fair value must be stated in the accounting policy section of the annual report following the IFRS adoption and must be applied consistently going forward. A switch between historical cost and fair value is considered a voluntary change in accounting principles and needs to be justified to auditors, lenders, equity investors, and potentially to regulators. Therefore, the choice between fair value and historical cost in our setting effectively represents an

ex ante commitment, and as such is unlikely to be driven by earnings management considerations.

2.Regulatory developments in the application of IFRS in the banking system in Romania

Banking system through money market regulatory authority of Romania (BNR) and the Romanian accounting system stood for a long period of time on different positions on accounting regulation on financial reporting. Romania's EU accession brought here some alignment. Thus, since the financial statements for year 2007, IFRS became mandatory for the consolidated financial statements of the entities listed on the capital market, together with a set of financial statements prepared according to national accounting rules. Provisions of Order Ministry of Finance No. 907/2005 requires banks to prepare a set of consolidated financial statements in accordance with IFRS for 2006, a provision which was confirmed by the Ministry of Finance Order No. 1.121/2006 for subsequent periods. In addition, the Ministry of Finance Order No. 1.121/2006 established also that *EIFRS* (IFRS accepted by the European Union) to be used as mandatory financial reporting standards for consolidated accounts of listed companies since 2007.

The financial crisis has led to the generation of significant differences between bank profits determined in accordance with IFRS and profits arising after the Romanian regulations. This was caused mainly by different accounting policies used for calculating loan provisions under IFRS compared to the amount of provisions according to national accounting regulations. In accordance with regulations issued by the National Bank, bank loans are classified as standard, in observation, substandard, doubtful and loss and are based on financial performance and debt service. Of these, for the first four categories, the provision is calculated by applying a rate to the outstanding loan balance and accrued interest, after deducting the fair value of any collateral obtained by the bank from its debtors. This is different from the procedure described by IAS 39 for impairment of financial assets.

World Bank and International Monetary Fund urged the National Bank who issued Order No. 9/2010 which provides that *EIFRS* to be applied to the individual financial statements of credit institutions and for recording transactions since 2012. The IFRS affected areas related to currency positions, solvability, provisions and own funds. In order to avoid the impact of IFRS application on the solvability of Romanian banks new prudential rules were introduced. Before 1 January 2012 IFRS financial statements were obtained by restating financial statements in compliance with Romanian regulations. The restatements were done by a limited number of specialists only for reporting purposes and didn't affect the evidence systems. The use of IFRS as basis of accounting involves the application of IFRSs when each transaction is recognized.

IFRS disclosure requirements might lead to increased volatility in financial results, as compared to results that would have been reported under national standards, for reasons such as the recognition of more financial assets and liabilities (including derivatives) at fair value, more rigorous asset impairment reviews. The impact of IFRS application as basis of accounting on banks is expected to be more significant. Because there is no empirical evidence on the perceptions of preparers from banks on each IFRS application strategy we conducted an exploratory study to gain insight into the process of applying IFRS for Romanian banks.

3. Methodology

The sample was comprised of 39 banks from 41 acting in Romania in 2011 followed by financial analysts according to RBI (Romanian Banking Institute) data base. We followed monthly predictions made in 2009 - 2011.

We focused our research in order to gather informations about the perception of preparers on the costs, difficulties encountered and potential benefits to be gained from the use of IFRS. Because the Romanian banks were using IFRS as a reporting standards before 1st January 2012, being required to fill audited IFRS financial statements to the National Bank, we included separate questions on the costs and benefits for each IFRS application alternative to see if there is any change in preparers' perception. We asked the auditors involved in auditing banks IFRS financial statements and a member of the accounting working group of the Romanian Banking Association to comment on the instrument before it was administered. Our study has involved working on the survey according to commentaries received and sent it to project managers responsible for the implementation of IFRS in banks members of the Romanian Banking Association (39 banks from 41 acting in Romania in 2011). Responses were received by e-mail. We will not disclose the names of banks and the identity of respondents, according to a confidentiality policy communicated in advance to respondents. We have discussed with the auditors in order to achieve a deeper understanding of the process.

Our research included questions related to the application of IFRS in the credit institution, questions on respondents' profile (professional experience and experience in IFRS), questions on the benefits and costs of IFRS use as reporting system and questions on the use of IFRS as basis of accounting. Respondents were given feedback about IFRS accounting treatments according to their difficulty.

Another plan of our research was to determine fair value for banks' revenues through a variety of evaluation methods . Discounted cash flow (DCF) valuation method and all derived from DCF valuation methods are used normally for banking financial entity type related and for other financial assets . Thus, we developed a definition of possible evaluation methods used for this type of values that can be assimilated to the fair value of financial assets .

TABLE 1
Definitions for the Valuation Scoring Convention

Major Valuation Models		Definition
Single-Period Comparative	Earnings multiples (E)	price to earnings (PE), enterprise value to earnings before interest, taxes, depreciation and amortization (EV/EBITDA), discounted future earnings multiple (DFE multiple).
	Sales multiples (S)	price to sales (P/S) and enterprise value to sales (EV/S) multiples.
	Price-to-book (BV)	stock price to book value per share
	Price-to-assets (Assets)	stock price to asset value multiple.
	Price to cash flow (CF)	price to cash flow multiple.
	Dividend yield (DY)	the dividend yield method.

Major Valuation Models		Definition
	Enterprise value to R&D (R&D)	Enterprise Value divided by R&D expenses.
	Rating to economic profit (REP)	ratio of the market-to-book value of the enterprise to the return on invested capital.
Hybrid	Accounting rates of return (ARR)	the return on equity (ROE) and return on invested capital (ROIC)
	Cash recovery rates (CRR)	the standard cash recovery rate (CRR) and the cash flow return on investment (CFROI™).
	Economic value added (EVA™)	the return spread times the book value of a firm's assets.
	Continuing value (Cont.V.)	the capitalized value of a firm's net operating profit minus its current debt.
	Technology value (Tech.V.)	market value minus cash plus debt, compared to similar firms.
	Options-Pr	real option style and simple probability weighted net present value models.
Multiperiod	Discounted cash flow (DCF)	the present value of a firm's cash flows over multiple future periods,
	Residual income valuation (RIV)	current book value of equity plus the present value of residual earnings .

Note 1

DISCOUNTED FUTURE EARNINGS (DFE)

When analysts value a firm based on a PE multiple, they control for the effects on earnings of nonrecurring events, transitory components, and accounting conservatism. Where a firm has negative, very low, or very high earnings that are unlikely to continue, financial analysts try to normalize earnings. The DFE approach to valuation, given by the following equation, is one such technique:

$$V_t = \left[\frac{EBITDA_{t+\tau}}{(1+wacc)^\tau} \right] \times (EV/EBITDA)_t$$

where V_t , is the fundamental value of the firm at date t, $EBITDA_{t+\tau}$ is earnings before interest, taxes, depreciation, and amortization in period t+t, $wacc$ is the firm's weighted average cost of capital, and $(EV/EBITDA)_t$ is (enterprise value)/(earnings before interest, taxes, depreciation and amortization) for comparable firms at date t. Financial analysts project forward to the period when the firm is expected to reach a sustainable level of performance and discount the relevant future earnings to the present using the firm's weighted average cost of capital. Multiplying by a current benchmark value of $EV/EBITDA$ for a set of comparable firms yields the fundamental value of the firm.

We mentioned earlier that almost all the equity research reports include some form of single- period comparative valuation analysis. Investment companies might differ in their preferences for DCF and accounting-based economic profitability models. Panel A of Table 2 reports the frequency of employing DCF analysis at each house; BCR (69.2 %), BRD Societe Generale (68.4 %), and Transilvania (45.5 %) use DCF the most. Table 2, Panel B offers a sell-side analysts' ranking based on the use of

accounting-based economic profitability models (rating to economic profit, accounting rates of return, economic value added, and residual income valuation model). BCR uses some form of economic profitability analysis for valuation purposes in 72.7 % of its reports, followed by BRD Societe Generale (42.9 %), Transilvania (36.8 %), and CEC (36.4 %).

TABLE 2

Differences in the Choice of Valuation Model across Brokerage Houses

Panel A: Rankings of Sell-Side Analysts Based on the Use of the Discounted Cash Flow (DCF) Model

1	BCR	69.2
2	BRD Societe Generale	68.4
3	Transilvania	45.5
4	CEC	42.9
5	Raifaissen	30.0
6	UniCredit	22.2
7	Volksbank	16.7
8	Alpha Bank	16.7
9	ING	9.1

Panel B: Rankings of Sell-Side Analysts Based on the Use of Accounting-Based Economic Profitability Models (EPM)

No. Sell-Side Analysts %

1	BCR	72.7
2	BRD Societe Generale	42.9
3	Transilvania	36.8
4	CEC	36.4
5	Raifaissen	25.0
6	UniCredit	11.1
7	Volksbank	10.0
8	Alpha Bank	8.3
9	ING	7.7

Accounting-based economic profitability models refer to REP, ARR, EVA, and RIV. In emerging economies macroeconomic variables could be difficult to predict, as the business environment can be easily upset by sudden changes in the economic or taxation policies, for instance. In such circumstances, forecasts accuracy may be stronger associated with this kind of events, disclosure related factors becoming irrelevant.

We hypothesize that, on the emergent market of Romania, macroeconomic factors are perceived as more important drivers of forecast accuracy than accounting related variables.

The literature investigating the role plaid by IFRS in reducing forecasts errors do not focus on the actual characteristics of the IFRS that could drive such an outcome. Accordingly, it would be useful to explore the perception of financial analysts on such characteristics, in order to support further conclusive research. The Romanian financial analysts will welcome fair value measurements promoted by IFRS as the most important driver of their forecasts accuracy. We have found from our research

that the views of users depend on previous use of international financial reporting standards for forecasting .

Conclusions

In accordance with the results of our research the fair value introduce a relatively high degree of volatility in forecasting of the revenues for banking companies . High volatility is not convenient for banking system, in this respect banks showing reluctance to widely use fair value accounting . Under conditions of low predictability of revenues for banking companies generated by financial instability, banks tend to take a conservative approach on the application of fair value accounting.

Another example is that fair-value accounting recognizes losses early thereby forcing banks to take appropriate measures early and making it more difficult to hide potential problems that only grow larger and would make crises more severe. But this benefit gives rise to another set of tradeoffs. Fair-value accounting introduces volatility in the financial statement in “normal times” (when prompt action is not needed). Full fair-value accounting can give rise to contagion effects in times of crisis, which need to be addressed – be it in the accounting system or with prudential regulation. In our view, it may be better to design prudential regulation that accepts fair-value accounting as a starting point but sets explicit counter-cyclical capital requirements than to implicitly address the issue of financial stability in the accounting system by using historical costs. It is an illusion to believe that ignoring market prices or current information provides a foundation for a more solid banking system.

We need to make more progress on the question of whether fair-value accounting did in fact contribute to the financial crisis through contagion effects. At present, there is little research that would answer or even directly speak to this question. Fair-value accounting did not cause bank failures because the fraction of assets reported at fair value was small in most cases, and in those cases where the fraction of fair- value assets was larger, the share price reflected even higher losses than were reported by the bank. While this argument and the accompanying evidence point to real losses as the source of bank failures, they do not provide convincing evidence that there was no contagion. The failure of some banks could have increased market illiquidity, which in turn may have spilled over to other banks via fair-value accounting . Moreover, it is tricky to use banks’ share prices as evidence that fair-value accounting did not have any negative effects for banks with a large fraction of fair-value assets since the share price may already reflect the negative real effects of fair-value accounting (e.g., asset fire sales in illiquid market).

The models that show contagion effects in pure mark-to-market settings are not sufficient to explain the role of fair-value accounting in practice. However, the main challenge in finding evidence on contagion effects related to or caused by fair-value accounting likely lies in isolating accounting effects and separating them from contagion effects due to correlated (real) risks. This is not a trivial exercise. One important step would be to show that prices were indeed distorted and deviated substantially from fundamental values, which is not an easy task either. Similarly, we do not have evidence that banks’ write-downs on securities were indeed excessive relative to their fundamentals. Interestingly, banks have also not put forward such evidence even though they should have strong incentives to do. Banks are not constrained by the accounting standards to provide additional disclosures about the

fundamental values of their assets. But it is possible that litigation risks or concerns about investor rationality inhibit such disclosures.

This brings us to a new direction for future researches. Our analysis suggests that implementation problems and, in particular, litigation risks could have played a role for the performance of fair-value accounting standards and banks' reporting practices in the crisis.

There is more and more evidence suggesting that banks' loan losses exceeded fair-value losses on securities (IMF 2008). It is conceivable that the opacity of banks' loan books and the lack of strict impairment rules have considerably contributed to the current crisis and investor uncertainty. Along similar lines, it would be worthwhile to analyze the role of off-balance sheet vehicles and retained positions in asset securitizations in the crisis. The disclosures for these positions are often difficult to understand and may have been insufficient.

The current crisis provides an interesting setting to further explore these issues further. The analysis of European banks' annual reports suggests that, in 2007, banks increased their disclosures related to financial instruments, in part due to the beginning of the crisis. It would be interesting to study what determines disclosure (or non-disclosure), how investors reacted to these disclosures and whether there are signs that investors overreact to such disclosures.

Finally, it is important to recognize that the debate on the role and place of fair value in the forecast of the revenues of the banks are far from over. The role of the political forces further complicates the analysis. For instance, it is possible that changing the accounting rules in a crisis as a result of political pressures leads to worse outcomes than sticking to a particular regime. In this regard, the intense lobbying and political interference with the standard setting process during the current crisis provide a fertile ground for further study.

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