IMPLEMENTATION OF FAIR VALUE ACCOUNTING IN SERBIA: EMPIRICAL RESEARCH

Primena računovodstva fer vrednosti u Srbiji – empirijsko istraživanje

Abstract

The results of the research presented in this paper suggest a high tendency of the companies in the Republic of Serbia to apply fair value accounting. In large companies, as much as over a half of the total assets were measured at fair value. As expected, the item of financial statements most subject to fair value measurement turned out to be that of property, plant and equipment. Although fair value application is not mandatory for this item or for investment property, a large portion of property, plant and equipment in companies was measured at fair value, as well as all of the investment property. The income approach was most frequently used in the fair value measurement, performed by valuation agencies in the majority of cases.

Accountants quite firmly believe that fair value provides the most valuable and relevant information to investors, while the complexity and high costs of fair value accounting seem to be of little concern to them. Nearly three quarters of accountants view fair value as a tool for earnings management, whereas two thirds of them perceive fair value as a tool for manipulation and frauds in financial reporting. Almost a half of companies do not provide ongoing training in proper application of fair value accounting, while about two thirds of them do not perform periodic reviews of the selected models and fair value application procedures.

Keywords: financial reporting, fair value accounting, fair value measurement, hybrid financial reporting model, relevance.

Sažetak

Rezultati istraživanja prezentovanog u ovom radu pokazali su da je sklonost preduzeća u Republici Srbiji ka primeni fer vrednosti visoka. U velikim preduzećima čak više od polovine ukupne imovine bilo je mereno po fer vrednosti. Očekivano, pojedinačno najčešća stavka finansijskih izveštaja na koju je primenjivan koncept fer vrednosti su nekretnine, postrojenja i oprema. Iako kod ove pozicije, kao i kod pozicije investicijskih nekretnina, primena fer vrednosti nije bila obaveznja, zastupljenost vrednovanja po fer vrednosti je izuzetno visoka, dok su sve investicione nekretnine kod preduzeća u uzorku bile iskazane po fer vrednosti. Prinosni pristup je najzastupljeniji, a u dominantnom redu slučajeva odmeravanje fer vrednosti vršile su agencije za procenu.

Računovađe dosta čvrsto veruju da fer vrednost obezbjeđuje najvrednije i najrelevantnije informacije za investitore, dok ih kompleksnost i visoki troškovi primene računovodstva fer vrednosti, reklo bi se, ne brinu. Skoro tri četvrtine računovađa vidi fer vrednost kao podestvo sredstvo za štimovanje rezultata, a skoro dve trećine kao zajedno tio za manipulacije i prevarne radnje u finansijskom izveštavanju. Skoro polovina preduzeća ne sprovodi kontinuirane obuke računovađa za primenu računovodstva fer vrednosti, a skoro dve trećine preduzeća ne vrši periodično preispitivanje izabranih modela i procedura procene.

Ključne reči: finansijsko izveštavanje, računovodstvo fer vrednosti, merenje fer vrednosti, hibridni model finansijskog izveštavanja, relevantnost.
Introduction

Financial statements represent an information base necessary for their users to make business decisions. The fair value concept appeared in financial reporting as a result of the remark that substantial changes in the conditions in which businesses operate and the manifest weaknesses and deficiencies of the historical cost concept usage had severely compromised the relevance of the information presented in companies’ financial statements. This gave rise to the so-called hybrid financial reporting model, which integrates both the historical cost and fair value elements, making the financial reporting process considerably more complex. Moreover, such duality in financial reporting imposed additional requirements on the users of financial statements with regard to understanding the rules for recognition and measurement of the elements of financial statements [10].

Fair value accounting is fundamentally different from historical cost accounting [12]. Fair value accounting requires that assets and liabilities be measured based on the market prices (mark-to-market) or, if in instances of inactive markets such market prices do not exist or are not representative, based on the valuation models (mark-to-model) [6]. It is believed that fair value accounting thus provides more relevant information, enabling investors to evaluate efficiency of a company’s management, assess the value of a company and make investment decisions, in relation to the information resulting from historical cost accounting. However, it must be noted that the data on fair value is not equally informative for or useful to investors – due to reliability issue their utility value is significantly lower when mark-to-model measurement is used [8], [19].

Another common belief is that in crises, by reflecting the economic reality and recording adverse changes in the values of assets and liabilities, fair value accounting “sends” early warning signals and stimulates companies to proactively undertake necessary actions [9]. However, the ongoing financial crisis has reflected serious issues resulting from its implementation [2], [3], [4]. For instance, fair value accounting gives rise to greater changes in the values of assets and liabilities reported in the balance sheet and to higher volatility of the profit or loss in relation to those resulting from historical cost accounting. Such increased volatility of financial statements is caused by market instability, errors in fair value determination, and feedback effects of the fair value procyclicality [1], [11, pp. 319-321], [20, p. 29]. Fair value accounting produces the so-called procyclical effects by promoting growth of market prices and indebtedness in the conditions of financial market growth and by causing market prices to fall in the conditions of financial market decline, which in turn leads to increased financial instability [13], [18].

In addition, fair value accounting may compromise a company’s capital maintenance and continuation as a going concern due to recognition of unrealized gains. Furthermore, management’s performance is assessed based on the profit reported in the statement of profit or loss (income statement), which may have a distorted influence on the behavior of the management since, in order to achieve rewards (bonuses and other privileges), managerial personnel could be prompted to actively manage the assets so as to take advantage of the opportunities (events) in the financial market by means of fair value appraisals rather than by focusing on the management of the operating activities.

Fair value accounting appeared in the financial reporting in Serbia upon adoption of the Law on Accounting and Auditing in 2002 [21, Article 19]. Yet the main problem in the implementation of fair value accounting in the financial reporting in Serbia is the absence of active and liquid markets for a number of assets and, hence, lack of the “actual” market prices as fair value indicators [5]. For instance, with regard to financial assets, trade in numerous corporate shares in Serbia is rather low in volume and rare, in as much as some shares are not even traded once a year. For example, in late August 2011 there were over 1,800 “nominally” listed companies (listed by the force of law) on the so-called off-stock exchange market, while in 2019 there have been only four companies’ shares within the Prime listing and three companies’ shares within the Standard listing. Excluding corporate shares of those seven companies, higher quality and more relevant mark-to-market measurement cannot be applied to any other financial assets. Over the past few years Serbian real estate market has featured dramatic changes in the market
aggregates, plummeting turnover and prices (including rentals), numerous transactions motivated by other than market factors, etc. Therefore, preparers of financial statements must focus more on the unobservable inputs and less reliable fair value measurement.

This paper presents the results of the research in fair value accounting implementation in Serbia, focusing on the identification of fair value accounting usage and views of accountants on the significance of this financial reporting concept.

Research method

The research in fair value accounting implementation in the Republic of Serbia was conducted in the second half of 2011, in the form of a survey research based on a stratified sample of 53 companies. According to the data of the Statistical Office of the Republic of Serbia [14, p. 6], and pursuant to the provisions of the Law on Accounting and Auditing that define the criteria and limits for classification of business companies by size [22], in 2010 the predominant share in the total number of companies in Serbia was that of small-sized entities (77%), while the shares of medium-sized and large companies were 18% and 4%, respectively. Due to the fact that small-sized entities are not required to use the fair value concept in the Republic of Serbia, upon sampling we had to depart from the aforesaid percentages of shares and include a larger number of large entities in the sample. Our sample had the following structure:

- Large companies: 42%,
- Medium-sized companies: 52%,
- Small-sized companies: 6%.

We collected data using a questionnaire that was filled in by heads of accounting. The questionnaire was structured in such a way that after the introductory part, which was used for classification of entities per size, it consisted of three major segments. Segment 1 of the questionnaire examined the optional fair value implementation. In Segment 2 companies opted for or against the fair value usage and Segment 3 enabled us to examine other important matters related to the possibilities for adequate implementation of fair value accounting.

Research results

We will first present breakdown of the total assets of the observed companies.

Figure 1: Breakdown of total corporate assets

The above-presented chart clearly shows that fair value accounting could not be applied to 42.70% of total assets of the sampled companies. The largest share of assets measured at fair value was that of property, plant and equipment (42.32%), followed by the shares of equity investments in other entities (6.10%) and intangible assets (3.33%). Total financial assets, both non-current and current, had a share of 8.17% of which almost three quarters pertained to equity investments in other entities, while the remaining 1.67% and 0.40% referred to securities available for sale and investment units purchased from investment funds, respectively. As for the other assets that could be subject to fair value measurement according to effective regulations, the sampled companies did not possess trading securities and inventories of agricultural produce at the point of harvest. Within the aggregate fair value amount measured at the time of the research, the largest portion was accounted for by large entities (77.40%),
whereas the share of the medium-sized entities in the overall fair value equaled 22.09%. The share of small-sized entities of 0.51% was insignificant.

What follows is the analysis of the implementation of fair value measurement in relation to individual items within total assets. Out of total items that could be subject to fair value measurements, 72.70% was actually measured at fair value. The chart below presents implementation of fair value measurement with regard to items for which it was not mandatory, but optional.

All the investment property included in our sample, as well as 76.24% of the total property, plant and equipment sampled, were measured at fair value. Both equity investments held in other entities and intangible assets displayed a large extent of fair value measurement use, with the shares of 56.22% and 59.18%, respectively.

In order to evaluate the tendency and aptitude to use the fair value concept, we measured the share of items measured at fair value in total assets. The results revealed a relatively high aptitude of companies to use fair value, since the share of items measured at fair value equaled 40%, and the aptitude increased commensurately to the size of entities, as the share was the highest in large companies (55%), gradually decreasing to 37% in medium-sized entities in order to finally drop to mere 20% in small-sized entities.

1 Moreover, the share of the fair value measurement regarding these items would have been even higher had the four largest companies in the sample not opted for measuring those at historical cost.

The EU-based companies which prepare financial statements in accordance with the International Financial Reporting Standards (IFRS) were much less prone to using fair value in financial reporting. In fact, there was much resistance to the fair value concept across the EU. A study conducted by the Institute of Certified Accountants of England and Wales (ICAEW) [7, pp. 119-122] revealed the following: (1) about 97% of companies measured their property, plant and equipment at historical cost, while the remaining 3% measured only property at fair value and adhered to historical cost in measurement of their plant and equipment; and (2) among companies in possession of investment properties, there were three times as many of those not using fair value for their measurement as the ones using it.

In the following passages we shall present the results of the research regarding the aptitude of the observed companies to use certain valuation techniques. Within the aggregate fair value amount measured at the time of the research, the largest portion was that of the items measured using the income approach (83%)2, whereas the shares of market approach and cost approach equaled 9% and 8%, respectively.

In as many as 91% of cases, the fair value assessment was performed by professional, qualified appraisers, while in 9% of the cases observed, the fair value was assessed

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Figure 2: Usage of fair value measurement vs. historical cost measurement

![Figure 2: Usage of fair value measurement vs. historical cost measurement](image-url)
by the entity’s own staff. In respect of the fair value assessments performed by professionals, 72% was performed by valuation agencies and 23% by audit firms. Appraisal expert witnesses were rarely engaged, only in 6% of cases. Here, it is interesting to point out that employees or expert witnesses did not perform the fair value assessments in any of the small or medium-sized entities.

We were also interested in the views of accountants regarding the reasons that had significantly influenced their decision to choose the fair value model in financial reporting [17]. We investigated those by offering the examinees three possible responses to choose from:

a) It provides the most valuable information to investors;

b) Financial statements are more relevant as they reflect the economic substance; and

c) It provides a better and clearer view of the entity’s financial position and assets.

The examinees’ responses to each of the above-listed questions are analyzed hereunder.

a) Close to 90% of accountants believe that fair value model is a good choice as it provides information of the utmost significance for most investors, while merely 10% of examinees think that the informational value of this reporting concept is insignificant or almost insignificant. The results indicate that 27% of all the examined accountants hold that the fair value’s informational value is extremely significant for most investors, 36% believe that it is rather significant and 27% say that it is moderately significant.

There were no significant differences between the views of the large company accountants and of those in medium-sized companies. Due to a small number of small-sized entities in our sample, the views of their accountants will not be included in the comparisons presented herein.

b) In respect of the thesis that financial statements are more relevant if the fair value concept is used in preparation thereof, because they reflect the economic substance better, all the examinees were of the opinion that it was true. A more detailed review of their responses revealed that 18% of them considered this reason for opting for the use of the fair value model moderately significant, 45% viewed it as rather significant and 36% as extremely significant.

c) Concerning the last question, all the examined accountants agreed that the fair value provided a better and clearer view of the entity’s financial position and assets. In contrast to the responses to the previous two questions, the highest percentage (49%) of all the examinees perceived this reason as extremely significant for selection of the fair value model, whereas as many as 58% of the accountants in large companies assessed this statement as extremely significant.

Responses to all three questions suggest that the accountants in the country have accepted the rationale most commonly used in promoting this concept of reporting putting the highest weight to the thesis that the fair value concept provides a better and clearer view of the entity’s financial position and assets than the historical cost concept.

Given the above-presented view of European accountants on the implementation of the fair value measurement of property, plant and equipment, we asked the accountants...
in Serbia the following question: “What are the reasons for not stating property, plant and equipment at fair value?” We offered them the following responses with the same scale for evaluation of the relative significance of each response offered:

a) It is common practice in the EU not to measure property, plant and equipment at fair value;

b) Depreciation charge is higher and profit reported in the income statement is lower;

c) It is not recognized for tax purposes – preparation of the tax statement (i.e., it is not possible to increase the depreciation charge when preparing the tax return and, thus, decrease the amount of the income tax payable);

d) It gives rise to an increased risk of errors and irregularities in determining the fair value (reduced reliability of the financial statements);

e) Fair value may be used as a means for fine-tuning of profit or loss;

f) Fair value may be used as an instrument of fraud;

g) The implementation of fair value accounting is an expensive procedure; and

h) The implementation of fair value accounting is rather complex.

The examinees’ responses to each of the above-listed questions are analyzed hereunder.

a) 36% of accountants saw the disinclination of the European companies to use the fair value concept for measurement of their property, plant and equipment as an almost or completely insignificant reason for them not to use it in their practice of property, plant and equipment measurement. However, 64% of the examined accountants in Serbia believed that such an attitude of the European companies was not insignificant, with the largest number (45%) of them assigning it moderate significance.

The responses given to questions b) and c) suggest that accountants may be more disinclined to apply the accounting policies that will result in lower interim profits than the alternative policies or the policies that will not lead to tax benefits or savings.

b) The fact that fair value accounting generally results in higher depreciation charge and lower interim profits was assessed by nearly one third (36%) of examinees as extremely significant for not implementing it in the valuation of property, plant and equipment. Somewhat below one figure:

Figure 4: Minimal use of fair value in the EU as a reason for nonacceptance of the fair value concept

Figure 5: Nonrecognition of full depreciation charge amounts calculated at fair value for tax purposes as a reason for nonacceptance of the fair value concept
third of examinees (27%) found this reason to be completely insignificant and the remaining 27% perceived it as either moderately or rather significant (9% and 18%, respectively).

c) Due to the fact that the depreciation charge exceeding the one calculated at historical cost is not a deductible expense for taxation purposes, as many as 72% of accountants/companies saw this as a significant reason to refrain from using fair value for measurement of property, plant and equipment.

An increased risk of errors and irregularities in financial reporting, more opportunities for shaping (adjusting or fine-tuning) of profit or loss to be reported and potential fraud are commonly associated with fair value accounting [15], [16]. It was interesting for us to investigate the attitudes of Serbian accountants relating to these issues.

d) One of the reasons for resisting fair value implementation may be the increased risk of errors and irregularities in financial reporting. Interestingly, as few as 3% of the examined accountants saw this issue as extremely significant, while as many as 46% considered it insignificant (27% said it was almost insignificant, while for the remaining 19% it was completely insignificant). Virtually no differences were identified between the medium-sized and large company accountants in respect of this issue.

e) An overwhelming majority of accountants/companies sampled and examined believe that fair value should not be used because of greater opportunities for fine-tuning of profit or loss (72% in total, of which 18% saw this as an extremely significant reason, 27% said it was rather significant, while for another 27% it was moderately significant).

f) Finally, 63% of accountants perceived making mistakes and irregularities deliberately to enable manipulations in the financial reporting process as a significant reason to disallow the use of fair value, 36% of which recognized it as an extremely significant reason, 3% as rather significant, and 24% as moderately significant. However, slightly over one third of examinees (36%) did not see the fair value concept as a suitable means for fraudulent action.

We then went on to examine whether the complexity and relatively high costs of fair value implementation...
could be potential reasons for accountants’ disinclination to use this concept.

g) Only 4% of examinees perceived the complexity of implementation as an extremely significant reason for rejection of the fair value concept. Another 23% of accountants thought this reason was significant. Surprisingly enough, as many as 72% did not see any significant complexity in implementation of the fair value concept. This view was particularly expressed by the accountants in medium-sized entities (82% of all examinees).

h) High costs of fair value assessment were ranked as a moderately significant reason for abandoning the use of fair value by most examinees (36%).

An interesting finding we identified is the fact that, even though companies perceived the fair value assessment as not overly complicated and expensive, an inconsequential number of the companies in the Republic of Serbia had the fair value of their assets appraised each year (0.5%), a small number every two years (24.9%), whereas the largest number had the fair value assessed every 3 to 5 years (74.7%). The only explanation for such a contradiction might be the fact that, in the opinion of accountants, the fair values of property, plant and equipment items did not undergo any significant changes in the prior period.

Eventually, we wanted to investigate whether business companies in the Republic of Serbia complied with certain good practices. We asked the examinees the following yes/no questions:

a) Is your company committed to ongoing education and training of all employees involved in implementation of fair value accounting in order to ensure a high level of their technical competences?

b) Are the responsibilities for identification and assessment of risks inherent in fair value accounting appropriately assigned?

c) Have the external factors affecting the fair value measurement (such as decline of quoted prices in the relevant markets, emergence of new competitors, new competitor products and changes in technology) been identified and assessed?

d) Is there a proper segregation of duties in place, such as separation and segregation of the functions determining the fair values from the functions accounting for the fair value adjustment and those reviewing the financial statements?

e) Are the selected valuation methods (techniques) used in the fair value assessment and application thereof regularly reviewed?

f) Has the independence of expert valuers/appraisers been verified?

g) Have the Board of Directors/Managing Board and Audit Committee been adequately informed of and explained all the issues and procedures in fair value assessment?

h) Are there appropriate levels of interaction among the management, employees and valuers/appraisers regarding the issues related to the fair value assessment?

i) Does the internal audit function periodically review the financial statements focusing on the implementation of fair value accounting?

The chart below illustrates the results of this survey. The results show that in 54% of companies there was commitment to ongoing education and trainings, as opposed to the remaining 46%, which is a rather

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**Figure 8: Expensive procedure as a reason for nonacceptance of the fair value concept**

![Chart illustrating the results of the survey on the expensive procedure as a reason for nonacceptance of the fair value concept.](chart)
unsatisfactory finding given the complexity of the issues at hand and continuous amendments to and revisions of IFRS. Negative implications regarding the implementation may result from inadequate assignment of responsibilities for identification and assessment of risks inherent in this financial reporting concept – only 32% of examinees claimed that they had adequate and proper assignment of responsibilities. The gravest problem was observed with identification and assessment of external factors affecting the fair value measurement (question c), since the identification and assessment of such factors was performed in merely 19% of the examined companies, while the remaining 81% did not undertake such activities. The situation in respect of the segregation of duties, such as separation and segregation of the functions determining the fair values from the functions accounting for the fair value adjustment and those reviewing the financial statements (question d), was sound as 66% of the examined companies had such segregation in place. Most of the companies in the Republic of Serbia (63%) did not perform periodic reviews of the selected methods. On the other hand, a promising finding of the present study is that a vast majority of the companies in the Republic of Serbia (86%) did verify the independence of the experts hired for fair value assessment (question f), although, at the same time, we were concerned by the fact that 14% of companies failed to do so. As was the case with the previous question, the largest number of companies (83%) claimed that their Board of Directors and Audit Committee had been adequately informed of and explained all the issues and procedures in fair value assessment (question g), which is certainly a positive finding. Not as overwhelming majority of the sampled companies (61%) confirmed that there were adequate levels of interaction among the management, employees and valuers/appraisers regarding the issues related to fair value assessment, whereas in 39% there was no such interaction. Finally, a relatively small number of employees, some 36%, confirmed that their internal audit function carried out periodic reviews of the procedures in the area of fair value accounting implementation (question i). There are two possible explanations for this finding: (i) the companies had no internal audit function in place or (ii) the companies did not realize the significance of additional confirmation of appropriateness in fair value implementation that this function can provide.

A more detailed analysis of the results performed according to the company size clearly showed that problems relating to proper implementation of fair value accounting were more apparent in medium-sized entities. Such situation probably arose from the limited number of employees for adequate education and training (43% in medium-sized against 68% in large companies), poor assignment of responsibilities for risk identification and assessment (21% in medium-sized against 41% in large companies), and ineffective functioning of the internal control system (29% in medium-sized against 50% in large companies).

Figure 9: Compliance with good practices across Serbian companies
Conclusion

The results of the conducted research suggest a relatively high inclination of companies in Serbia to implement the fair value concept. Within total corporate assets, the largest share of assets measured at fair value is that of property, plant and equipment, followed by equity investments in other entities and intangible assets. It is interesting to note, however, that all the investment property is measured at fair value and that the fair value model is largely used for property, plant and equipment, although it is not mandatory. Fair value accounting would probably be used to a greater extent if there were no limitations to its application to financial assets; the underdeveloped financial market in the Republic of Serbia provides little opportunity for the use of mark-to-market fair value measurement of financial assets. The main problem relating to the Level 1 fair value measurement is the absence of active and liquid markets for a number of assets and, hence, lack of the “actual” market prices as fair value indicators. Trade in numerous corporate shares in Serbia is rather low in volume and rare, inasmuch as some shares are not even traded once a year. Therefore, the application of the mark-to-market measurement is in most cases impossible, excluding the four companies’ shares within the Prime listing and three companies’ shares within the Standard listing.

Fair value accounting is mostly used by large companies, where more than a half of the total assets are measured at fair value. The predominantly applied approach is the income approach. Fair value assessment using valuation models is most commonly performed by agencies, sometimes by audit firms and very rarely by appraisal court witnesses or the entity’s own staff.

The fact that it is uncommon for European companies to use fair value for their property, plant and equipment is viewed by Serbian accountants as not too important, yet not quite unimportant when deciding whether to apply the fair value concept to their own property, plant and equipment. In contrast to the foregoing, the accountants in Serbia quite firmly believe in arguments used in promoting this valuation concept – that fair value provides the most useful and relevant information to investors. The complexity and high costs of fair value accounting seem to be of little concern to them, which may result from their insufficient understanding of IFRS. Nevertheless, in the opinion of the vast majority of Serbian accountants, the reasons that make the fair value concept unattractive are the fact that it may result in lower interim profits and the fact that companies could not get tax savings from higher depreciation charge.

Although almost a half of examinees find that the problem of increased errors and irregularities occurring upon fair value application is not really significant, nearly three quarters of accountants view fair value as a tool for management of earnings, whereas for two thirds of them the fair value concept is a tool for manipulation and fraud in financial reporting.

A finding that causes concern is the fact that about a half of the examined companies do not conduct ongoing trainings for accountants in fair value accounting and that close to two thirds of them do not carry out periodic reviews of the selected valuation models and procedures which are performed by companies’ accountants or internal auditors.

In order to prevent potential abuses in fair value implementation, the financial reporting regulators must devote considerable efforts to precisely define the qualifications for accountants, including requirements that they pass additional exams to obtain the relevant certificates and requirements regarding their continuous education. The regulators have to define the professional standards for field work, standards for quality control of the work accountants perform, sanctions for inadequate practices and criteria for granting and withdrawal of licenses. In addition, the regulators have to review the current position of the accounting profession, given that the recent legislative solutions have cast serious doubts as to its credibility.

References


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