INTERNATIONAL ACCOUNTING STANDARD 41 (IAS 41) – IMPLICATION FOR REPORTING CROP ASSETS

NIŢĂ CORNEL GABRIEL1, PETRU ŞTEFEA1
1 West University of Timișoara, Romania, cornelgabriel.nita@gmail.com, petru.stefea@rectorat.uvt.ro

Abstract: A series of articles were written regarding International Accounting Standard 41 (IAS 41) – Agriculture in order to outpost the implication of this standard over valuating the different biological assets. Valuation of crop assets are also a part of the IAS 41 objective. Anyway, this paper investigates the implications of International Accounting Standard 41 for European Union (EU) entities reporting on holdings of crop asset from three points of view: implications of production forecast over the accurate accounting, the impact over cash flows and the possibility like companies to use accounting methodology in their interests.

Key words: agricultural accounting, crop accounting, fair value, production forecast, international accounting standard

INTRODUCTION

Agricultural activity is different from other activities and, unlike other business activities, agriculture shows a powerful dependence on natural climatic conditions. In addition, production process is different from all other sectors, especially due to the special characteristics of biological assets. In these conditions, agriculture needs a special attention concerning the accounting principle and practices. Despite this fact, agricultural accounting has not represented a priority for researchers, as recent studies shows (Hopper et al., 2009; Dumitru et al., 2011).

Anyway, in December 2000 was approved International Accounting Standard 41 – Agriculture dedicated exclusively to the agricultural sector. As the IAS 41 himself says, the objective of this standard “is to establish standards of accounting for agricultural activity”, respectively for “the management of the biological transformation of biological assets (living plants and animals) into agricultural produce (harvested product of the entity's biological assets)”. In the same time, IAS 41 is introducing the fair value evaluation model for biological assets.

In support of fair value valuation model, the International Accounting Standards Board (2008) explains that the nature of agricultural activity creates uncertainty or conflicts when applying traditional accounting models, particularly because the critical event associated with biological transformation that alter the substance of biological assets are difficult to deal with in an accounting model based on historical cost and realization principle.

The fair value valuation model, and with it IAS 41, has represented the subject for a high number of studies and, also, was heavily criticized along the time. Studies regarding benefits of fair value valuation of the biological assets along the time points out that the generalization of this model is good for small family farms that do not have the resources and skills to calculate their costs (Argilés and Slof, 2001). Also, Barlev and Haddad (2003) argues that fair value accounting also provides a complete full disclosure and it is compatible with transparency. The fair value entails a more consistent valuation method, as...
well as a more reliable and comparable source of information (Argilés et al., 2009; Argilés et al., 2011).

An important number of studies regarding this accounting standard tried to evaluate the impact of implementing the IAS 41 in different countries (Burnside, 2005; Koiv et al., Herbohn 2006; Argiles et al., 2009, PriceWaterhouseCoopers, 2009). Other studies was focused on different branches of the agricultural sector (Svensson et al., 2008; Visberg and Parts, 2002; Bushova, H. and Svoboda, P., 2013; Aldea, D., 2009). Moreover, some studies are about the implications of IAS 41 over entirely agricultural sector (Mateș, D., and Grosu, V., 2008; Feleagă et al, 2011).

Also, IAS 41 was intense criticized along time, especially because the valuation model gives the opportunity to the agricultural entities to manipulate earnings, giving them a subjective form (Pettinen et al., 2004; Dowling and Goffrey, 2001). Other authors say this standard do not take into consideration special character of individual activities. Outputting two main groups of special assets connected with agriculture: consumable biological assets, which are harvested as agricultural production (for example: livestock for the production of meat, livestock held for sale, crops as maize or wheat, trees grown for timber) and bearer biological assets which are biological assets other than consumable biological assets (for example: livestock for milk production, grape vines, fruit trees) (Bushova, H. and Svoboda, P., 2013). As a conclusion, in the literature is a lack of agreement concerning the advantages and drawbacks of fair value valuation method for biological assets.

According our point of view, IAS 41 must be analyzed, in addition, from three points of view: (i) implications of production forecast over the accurate accounting, (ii) the impact of fair value valuation model over cash flows and (iii) the possibility for companies to use accounting methodology in their interests. The purpose of this paper is to improve the understanding regarding the implication of fair value valuation method for biological assets, respectively crops assets. Also, aims to show the need to step up on a higher level, in order to improve the fair value valuation methods in order to minimize the negative aspects and to maximize his strengths.

MATERIALS AND METHODS

Following a literature review and over the regulatory process, the paper takes a conceptual approach of the subject, analyzing the implications of fair value valuation method, described by IAS 41, in case of reporting crop assets. Also, regarding the subject for this study, author’s field experience has been a strength.

RESULTS AND DISCUTIONS

As earlier was shown, the fair value valuation model, and with it IAS 41, has represented the subject for a high number of studies along the time. Studies regarding benefits of fair value valuation for biological assets along the time points out that the generalization of this model is good for small family farms that do not have the resources and skills to calculate their costs Argilés & Slof (2001). Also, Barlev and Haddad (2003) argues that fair value accounting also provides a complete full disclosure and it is compatible with transparency. The fair value entails a more consistent valuation method, as well as a more reliable and comparable source of information (Argilés et al., 2009, p. 16). Also, in a recent study, Argilés et al. (2011), is revealing that farm cash flows are not less
predictable with fair valuation than with historical costs. Consequently, there is no difference in the relevance of accounting information. On the contrary, most tests reveal a higher predictive power of future earnings under fair value. In the other hand, most authors are criticizing fair value method, considering that will cause important drawbacks of the agricultural sector. Anyway, until now in the literature is a lack of agreement concerning the advantages and drawbacks of fair value valuation method for biological assets.

Also, we consider that IAS 41 must be analyzed, in addition, from three points of view: (i) implications of production forecast over the accurate accounting, (ii) the impact of fair value valuation model over cash flows and (iii) the possibility for companies to use accounting methodology in their interests.

Implication of production forecast over the accurate accounting. We have to mention that agricultural vegetable production is divided in two major categories. One in which comprise annual crops (for example: crops as corn, wheat or sunflower) and second, which comprise multiannual plants (for example: grape vines, fruit trees). In both cases, crops production shows a powerful dependence on natural climatic conditions. For example, corn production per unit of land is strongly influenced by the amount of precipitations and other climatic conditions during their living time. In the same case, wheat production is influenced by climatic conditions during their living time and also by weather conditions at their harvesting period.

In order to evaluate a biological asset as those described above, IAS 41 is recommending using the prices from an active market of the biological assets in cause. For crops producing does not exist an active market, because it is unusual like agricultural entities to sell their crops assets as ones. It is usual like agricultural entities to sell harvested products from crop assets, instead the crop asset himself. In consequence agricultural companies will have to use other methods in order to determine the fair value of their own biological assets. In these conditions, according IAS 41, an entity uses the present value of expected net cash flows from the asset discounted at a current market-determined pre-tax rate in determining fair value. Also in addition provides: the present condition of a biological asset excludes any increases in value from additional biological transformation and future activities of the entity, such as those related to enhancing the future biological transformation, harvesting, and selling. But must be considered that, market-determined value and fair value of a crop asset, during biological transformations, is highly liked to the production at the harvesting time. Even if exists an active market for crops assets, the prices on the market and fair value himself are highly influenced by the future production of crop assets. Considering that crops production shows a powerful dependence on natural climatic conditions, it may be possible like, in short time after determining the fair value of a crop assets, the results of these work to not be relevant anymore. In conclusion, even if fair value valuation method shows the value of biological assets at the moment of valuation, for crop assets is possible like information retrieved in financial statement to be accurate just for a short time. This thing puts in question the findings of Argilés et al. (2011), and the accurate accounting principles as well.

The impact of fair value valuation model over cash flows. Fair value valuation model has not a direct impact over cash flows. But fair value valuation method affects indirectly cash flows trough profit tax. IAS 41 allows recording a gain or a loss coming from initial recognition and from changes in fair value of a biological asset. Also, considering those written in first section of results and discussions, it may be possible like an agricultural entity to pay profit for gains derived from changes in fair value of crop assets, and ultimately, at harvesting time, these assets to determine overall a loss. This will
be a major difference between cash flows and accruals of an agricultural entity, and being in this situation represents a drawback for agricultural companies, and also, causing managers to manipulate gross profit through gains or losses from fair value valuation of biological assets, leading us to the third aspect analyzed in this paper.

**The possibility like companies to use accounting methodology in their interests.** Fair value valuation model, described by IAS 41 is presenting multiple valuation methods for biological assets. As consequence, the subjectivist character of fair value valuation model was most criticized aspect until present (Dowling and Godfrey, 2001; Penttinen et al., 2004; Elad, 2007; Herbohn 2011). Anyway, looking over provisions of IAS 41, valuation model is covering all possible situations, supplying frameworks for each one. This fact leads to conclusion that, if IAS 41 is applied on his essence, the information obtained through this valuation model are objective and relevant. In the other hand, is difficult to demonstrate if the valuation process and fair value is objective and relevant, or not. This fact derive from the pluralism of valuation methods presented by the models and the capacity of managers to choose among determinant factors of fair value (as market prices when are available multiple active markets) and giving them opportunity to build the fair value (the present value of expected net cash flows for the crop assets, when does not exist an active market). Considering the impact of fair value model over the entity cash flows is possible, if not probable, like agricultural companies to use fair value valuation model for crop assets on their interest.

We conclude that if IAS 41 is applied on his essence, the information obtained through this valuation model are objective and relevant, but considering the impact of fair value model over the entity cash flows, is possible like agricultural companies to use fair value valuation model for crop assets on their interest, due to the subjective approach of the valuation model.

**CONCLUSIONS**

Trough this paper we aim to improve the understanding regarding the implication of fair value valuation method for crops assets. Also, aims to show the need to step up on a higher level, in order to improve the fair value valuation methods and to minimize the negative aspects, regarding management subjectivism and production forecast, and to maximize his strengths.

In conclusion, we say that the fair valuation method benefits are unquestionable, being the most appropriate for valuation of the biological assets, respectively crops assets, and the benefits was highlighted along the time, as earlier was shown. In the same time, the value contribution of this paper comes from a critical review of the fair value method for crop production, outpointing three aspects which from our point of view are difficulties and weakness of the method. We think to these three aspects as the ones which have to be improved in order eliminate the weakness and to make it easier to apply.

First, even if fair value valuation method shows the value of biological assets at the moment of valuation, this value is influenced by the future capacity to generate cash, through crops producing capacity. As the climatic conditions are influencing crop productions, and the relevance of fair value of crop assets, putting in question the accuracy of information’s presented in financial reports.

Second, considering these above written, it may be possible like an agricultural entity to pay profit for gains derived from changes in fair value of crop assets, and
ultimately, at harvesting time, these assets to determine overall a loss. This can be a major
drawback for agricultural companies.

Third, if IAS 41 is applied on his essence, the information’s obtained through this
valuation model are objective and relevant, but considering the impact of fair value model
over the entity cash flows, is possible like agricultural companies to use fair value
valuation model for crop assets on their interest, due to the subjective approach of the
valuation model. Therefore, is hard to prove these facts trough empirical researches, and
the only solution comes from International Accounting Standards Board, by finding
measures for this particular issue.

Anyway, the paper stops at conceptual level, describing a successful fair value
valuation method crops assets needs an empirical research in order to identify all systemic
aspects of it. Also, this paper is opening up a field of empirical research in accounting, in
order to identify solutions at the questions regarding IAS 41, raised by other studies and
also by the present one.

REFERENCES

1. ALDEA, DIANA. 2009, Inability credibly evaluation of just value in animal husbandry.
Limits and developments, Scientific Papers Management, Economic Engineering in
Agriculture and Rural Development, 9(2), pp: 5-6
2. ARGILÉS, J.M., SLOF, E.J.. 2001, New opportunities for farm accounting, European
Accounting Review 10(2), pp: 361-383
cost Valuation for Biological assets: Implications for the quality of financial information,
Working Papers in Economics 215, Universitat de Barcelona. Espai de Recerca en
Economia
4.ARGILÉS, J.M., GARCIA-BLANDON, J., MONLLAU, TERESA, 2011, Fair value
versus historical cost-Based valuation for biological assets: Predictability of financial
informations, Revista de Contabilidad-Spanish Accounting Review Vol. 14 - Nº 2, pp: 87-
113
5. BARLEV, B., HADDAD, J.R., 2003, Fair value accounting and the management of the
6. BURNSIDE, A., SCHILLER, S., 2005, IAS 41 and the forest industry – A study of the
forest products companies' perception of the IAS 41 today, Bachelor Thesis, Department of
Business Administration, Göteborg University
7.BUSHOVA, H., SVOBODA, P., 2013, What does the Implementation of IFRS for SME
Num. 2, pp: 326-335
8.DUMITRU, MĂDĂLINA, CALU, DANIELA ARTEMISA, GORGAN,
CĂTĂLINA, CALU, ADRIANA, 2011, A historical approach of change in management
accounting topics published in Romania, Accounting and Management Information
9. DOWLING, C., GODFREY, J.,. 2001, AASB 1037 sows the seeds of change: a survey
10. ELAD C., 2007, Fair value accounting and fair trade: an analysis of the role of
International Accounting Standard No. 41 in social conflict, Socio-Economic Review, 5(4),
pp: 755-777
13. HERBOHN, KATHY., ELAD, C., 2011, Implementing fair value accounting in the agricultural sector, The Institute of Chartered Accountants of Scotland
17. MATEŞ, D., GROSU, V., 2008, Evaluating and recognizing biological assets and agricultural activities according to IAS 41, Lucrări Științifice, seria Agronomie no. 51, pp: 457-462
18. PENTTINEN, M., LATUKKA, A., MERILAINEN, H., SALMINEN, O., UOTILA, E., 2004, IAS fair value and forest evaluation on farm forestry, Proceedings of Human dimension of family, farm and community forestry international symposiumS